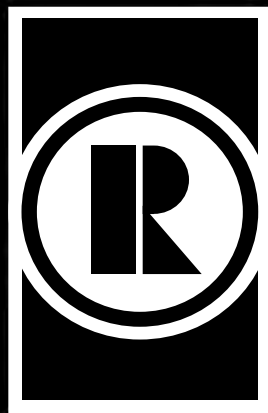


Prices Effective July 5, 2010

# ROMAC INDUSTRIES, INC.

Repair Clamps • Couplings • Service Saddles • Sewer Products  
Tapping Sleeves • Restraint Systems • HDPE Pipe Products  
Drilling & Tapping Tools • Valve Insertion



21919 20th Avenue SE • Suite 100 • Bothell, WA 98021  
425.951.6200 • 1.800.426.9341 Fax: 425.951.6201  
[www.romac.com](http://www.romac.com)

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**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341

# Pipe O.D. Chart

PIPE SIZE	STEEL & PLASTIC		CAST IRON			ASBESTOS-CEMENT				SIMPLEX-A/C			COPPER	PIPE SIZE
	TYPE	TYPE	CURRENT D.I. PIPE SIZE	AWWA 1908	O.D.	TYPE	M.E. O.D.	R.B. O.D. Min. Max.		TYPE	M.E. O.D.	R.B. O.D.	O.D.	
1/2"	STD.	.840											.625	1/2"
5/8"													.750	5/8"
3/4"	STD.	1.05											.875	3/4"
1"	STD.	1.315											1.125	1"
1 1/4"	STD.	1.66											1.375	1 1/4"
1 1/2"	STD.	1.90											1.625	1 1/2"
2"	STD.	2.375			2.50								2.125	2"
2 1/2"	STD.	2.875											2.625	2 1/2"
3"	O.D.	3.00	3.96	A B, C, D	3.80	cl 100	3.74	4.00		cl 100	3.70	3.95	3.125	3"
	STD.	3.50				cl 150	3.84	4.10	cl 150	3.88	4.13			
						cl 200	3.84	4.29	cl 200	4.20	4.45			
3 1/2"	STD.	4.00											3.625	3 1/2"
4"	O.D.	4.00	4.80	A B, C, D	4.80	cl 100	4.64	4.79	5.14	cl 100	4.70	4.95	4.125	4"
	STD.	4.50				cl 150	4.81	4.97	5.27	cl 150	4.85	5.10		
						cl 200	4.81	5.22	5.57	cl 200	5.20	5.45		
4 1/2"	STD.	5.00												4 1/2"
5"	STD.	5.563											5.125	5"
6"	O.D.	6.00	6.90	A B, C, D E, F G, H	6.90	cl 100	6.91	7.05	7.40	cl 100	6.76	7.01	6.125	6"
	RIV.	6.25				cl 150	6.91	7.07	7.37	cl 150	6.95	7.20		
	STD.	6.625				cl 200	6.91	7.26	7.56	cl 200	7.50	7.75		
7"	RIV. STD.	7.25 7.625												7"
8"	O.D.	8.00	9.05	A, B C, D E, F G, H	9.05	cl 100	9.11	9.22	9.57	cl 100	8.88	9.13		8"
	RIV.	8.25				cl 150	9.11	9.27	9.57	cl 150	9.15	9.40		
	STD.	8.625				cl 200	9.11	9.39	9.74	cl 200	9.76	10.01		
9"	STD.	9.625												9"
10"	O.D.	10.00	11.10	A, B C, D E, F G, H	11.10	cl 100	11.24	11.42	11.77	cl 100	11.18	11.43		10"
	RIV.	10.25				cl 150	11.66	11.82	12.12	cl 150	11.70	11.95		
	STD.	10.75				cl 200	11.66	11.77	12.12	cl 200	12.20	12.45		
12"	O.D.	12.00	13.20	A, B C, D E, F G, H	13.20	cl 100	13.44	13.69	14.04	cl 100	13.36	13.61		12"
	RIV.	12.25				cl 150	13.92	14.08	14.38	cl 150	13.96	14.21		
	STD.	12.75				cl 200	13.92	14.03	14.38	cl 200	14.46	14.72		
14"	STD.	14.00	15.30	A, B C, D E, F G, H	15.30	cl 100	15.07	15.40	15.80	cl 100	15.56	15.94		14"
						cl 150	16.22	16.38	16.73	cl 150	16.26	16.64		
						cl 200	16.22	16.48	16.88	cl 200	16.88	17.26		
16"	STD.	16.00	17.40	A, B C, D E, F G, H	17.40	cl 100	17.15	17.54	17.94	cl 100	17.76	18.14		16"
						cl 150	18.46	18.62	18.97	cl 150	18.50	18.88		
						cl 200	18.46	18.79	19.19	cl 200	19.30	19.68		
18"	STD.	18.00	19.50	A, B C, D	19.50	cl 100	19.90	20.44						18"
						cl 150	20.94	21.20						
20"	STD.	20.00	21.60	A, B C, D G, H	21.60	cl 100	22.12	22.50						20"
						cl 150	23.28	23.54						
							23.02							
22"	STD.	22.00												22"
24"	STD.	24.00	25.80	A, B C, D	25.80	cl 100	26.48	27.17						24"
						cl 150	27.96	28.22						

**Note:** Due to variation in outside diameters and specifications, dimensions listed above are approximate. For this reason, the O.D. of pipe being used should be determined before ordering Romac products.



Romac Industries, Inc. • 1 800 426 9341

**When you dial our 800# during business hours, our phones will route your call according to your choice.**

**Press 1** for Customer Service (order entry, order status, price & availability of products, and return authorization).

**Press 2** for Quotations (bids & special products)

Note: When choosing option 1 or 2, your call will be answered by the first available representative.

**Press 4** for all other business – this choice will be answered by our receptionist and routed accordingly.

To bypass the message, you may enter the extension number and your call will be directed immediately. (If you choose this option, you may get voice mail if that extension is in use).

#### **CUSTOMER SERVICE DEPARTMENT**

5:30 AM – 5:00 PM Monday through Friday PST.

Andy Hope ..... 425.951.6228 ..... andy.hope@romac.com  
 Jessica (JR) Resler ..... 425.951.6223 ..... jessica.resler@romac.com  
 Katrina Meyers ..... 425.951.6225 ..... katrina.meyers@romac.com  
 Keri Scott ..... 425.951.6261 ..... keri.scott@romac.com  
 Les Clement ..... 425.951.6219 ..... les.clement@romac.com  
 Shanon Havens ..... 425.951.6220 ..... shanon.havens@romac.com  
 Stacie Young ..... 425.951.6222 ..... stacie.young@romac.com

#### **QUOTATIONS DEPARTMENT**

6:30 AM – 5:00 PM Monday through Friday PST.

Bryan Sanguinet ..... 425.951.6250 ..... bryan.sanguinet@romac.com  
 Cecil Spencer ..... 425.951.6224 ..... cecil.spencer@romac.com  
 Mark Reese ..... 425.951.6221 ..... mark.reese@romac.com  
 Mitch Brown ..... 425.951.6263 ..... mitch.brown@romac.com

#### **ENGINEERING DEPARTMENT**

7:00 AM – 5:00 PM Monday through Friday PST.

Brad Prescott ..... 425.951.6276 ..... brad.prescott@romac.com  
 Peter Nielsen ..... 425.951.6205 ..... peter.nielsen@romac.com  
 Lee Getzewich ..... 425.951.6328 ..... lee.getzewich@romac.com  
 Sam Hill ..... 425.951.6374 ..... sam.hill@romac.com  
 Niels Thogersen ..... 425.951.6279 ..... niels.thogersen@romac.com  
 Andy Lemke ..... 425.951.6270 ..... andy.lemke@romac.com

#### **ACCOUNTS RECEIVABLES**

7:00 AM – 3:30 PM Monday through Friday PST.

Mora Lockwood ..... 425.951.6301 ..... mora.lockwood@romac.com

#### **RETURNS**

6:00 AM – 2:30 PM Monday through Friday PST.

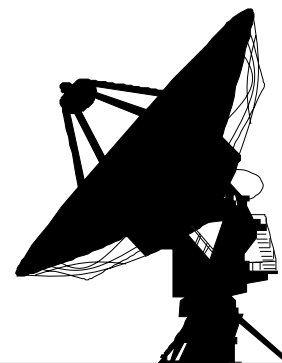
Melanie Murray ..... 425.951.6258 ..... melanie.murray@romac.com

# SOS

## Service 1.425.417.4755

**In the event of an emergency, after our regular business hours, we have someone available and ready to help you, 24 hours a day, seven days a week.**

*Certain restrictions apply. Please contact your Romac Sales Representative for details.*





# Terms and Conditions

21919 20th Avenue SE, Suite 100, Bothell, WA 98021 • 1 800 426 9341 • 425 951 6200 • FAX: 425 951 6201

**Acceptance of Orders:** All orders are subject to the acceptance of Romac Industries, Inc. at the general office, 21919 20th Avenue SE, Suite 100, Bothell, WA 98021. **Additions to orders must be added within two days of the original order, provided the original order has not shipped. Approximate ship date of the original order will be extended appropriate to the addition.**

**Conditions of Sale:** Changes in the price of items sold by Romac Industries, Inc. may be executed without notice. The minimum amount of any sale will be \$50.00 (fifty) list billing.

**Terms of Payment:** Net 30 days. A service charge of 1 1/2% per month will be charged on all past due accounts (equivalent to 18% annually). Purchaser is liable for all legal costs if the account is placed for collection.

**Freight Allowance:** All sales are F.O.B. manufacturer's point of shipment. Full freight will be prepaid and allowed on all sales shipments of **\$2,000 net price** with the freight carrier to be determined by Romac Industries. For shipments to Anchorage (AK), Fairbanks (AK) and Hawaii FFA is **\$2,500 net price**. Freight allowance does not apply to air freight. Freight on all shipments under FFA will be billed directly to the distributor by the freight company. Freight on material that is pulled for rush shipment from a freight allowed order will be the responsibility of the distributor. The balance of the order remains full freight allowed.

**Carriers:** Romac reserves the right to determine freight carriers for all shipments.

**Damaged Merchandise:** The responsibility for items lost or damaged in transit is that of the buyer. These claims should be filed with the transportation company.

**Shortages:** Shortages on shipments must be reported to Romac within 30 (thirty) calendar days after shipment of material. Failure to report shortages within the 30 calendar days will result in denial of credit.

**Special Order Items:** Products not inventoried, and/or specifically manufactured at customer's request are not subject to any change after work has been started in factory. Confirmation (in the form of an order acknowledgment) will be sent by Romac and constitute the acceptance of the parameters of the product requested. Special order items may not be cancelled or returned.

**Cancellations:** Material may be cancelled only with the express consent of Romac Industries, Inc. and could be subject to a cancellation fee. This charge will be determined by how far production has progressed and if the material can be utilized by Romac Industries.

**Returns:** No returns will be accepted without the written consent of the factory. UNAUTHORIZED RETURNS WILL BE REFUSED AND RETURNED TO THE SHIPPER AT THEIR EXPENSE. Authorized returns are subject to a 25% restocking charge and must be returned freight prepaid. Approved items may be returned within a period of 60 days after the issuance of an RMA. Material must be received in the same condition as originally manufactured. Return approval for any catalog item will be based upon age of material, on-hand inventory and demand for those items at the time of request. Material must be free of rust and/or any other imperfections which would prevent immediate return to inventory. Any returned material requiring reconditioning will be subject to the following additional charges:

**Bolts:** If bolts are rusty and require rework/replacement, an additional 10% charge will be incurred.

**Gaskets:** If replacement is required, an additional 10% charge will be incurred.

**Finish:** If the finish is damaged and requires sandblasting and recoating, an additional 15% charge will be incurred.

Merchandise returned because of defects in material or workmanship will be at the seller's expense.

Romac Industries reserves the right to decline any return request.

*Terms and Conditions continued on next page*





## Terms and Conditions (cont'd)

**Obsolescence:** No returns will be accepted because of design changes or new products in the company line. Romac Industries, Inc. retains the right to change design without prior notice. No credit will be issued for goods returned after one year from the date of purchase.

**Specifications:** Specifications, as set forth in all printed matter, are subject to change without notice.

**Suitability:** Since conditions and applications vary to such a large extent throughout the world, the purchaser must determine the suitability of Romac products for each application.

ANY DRAWINGS SUPPLIED FOR SUBMITTAL CONTAIN CONFIDENTIAL PROPRIETARY INFORMATION AND ARE THE PROPERTY OF ROMAC INDUSTRIES, INC. A DRAWING IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IT IS SUBMITTED AND SHALL NOT HAVE ITS INFORMATION DISCLOSED OR REPRODUCED IN WHOLE OR PUT IN PART FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF ROMAC INDUSTRIES, INC.

**Special Testing:** The purchaser shall pay the cost of any special inspection or testing, over and above the standard factory procedure.

**High Density Polyethylene Pipe (HDPE):** HDPE pipe expands and contracts from changes in temperature and/or pressure much more than other piping materials. If you have an application not covered in the HDPE section of this catalog, please contact the Romac engineering department.

**Warranty and Limitation of Liability:** All products manufactured by Romac are warranted to be free from defects in materials and workmanship for a period of two years, unless otherwise noted, provided such products are installed in accordance with the best practices accepted in the trade.

Transmate, and Valve Insertion products are warranted to be free from defects in materials and workmanship for a period of one year, provided such products are installed, and operated in accordance with the best practices accepted in the trade.

Romac's warranty extends only to parts and products manufactured by Romac; it does not extend to products or parts manufactured by others and incorporated in Romac products (except where otherwise noted).

In the event of any breach of Romac's warranty, Romac's only obligations shall be to deliver to the purchaser, without charge, a suitable replacement product, or part, or substitute therefore, or at Romac's option, to issue a credit for the full price of the defective product.

IN NO EVENT SHALL THE PURCHASER HAVE ANY OTHER REMEDY FOR BREACH OF WARRANTY OR FOR BREACH OF ANY OTHER TERM OR CONDITION OF SALE, TORT OR OTHERWISE. NOR SHALL ROMAC BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGE, INCURRED BY THE BUYER, ITS CUSTOMERS OR OTHERS AS A RESULT OF THE PURCHASE, RESALE, OR USE OF ANY PRODUCT MANUFACTURED OR SOLD BY ROMAC.

All claims for breach of warranty must be made in writing immediately upon discovery, and sent by registered mail to Romac Industries, Inc. at its home office in Bothell, Washington. Any defective products must be held for Romac's inspection, and returned to Romac promptly upon request.

Any suit on Romac's warranty must be commenced within one (1) year after the cause of the action arises.

ROMAC DOES NOT MAKE ANY WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR PRODUCTS AND/OR PARTS MANUFACTURED OR SOLD BY IT, NOR ANY OTHER WARRANTIES OF ANY KIND, OTHER THAN THE EXPRESSED WARRANTY SET FORTH ABOVE. ANY REFERENCES BY ROMAC TO BUYER'S SPECIFICATIONS OR REQUIREMENTS ARE FOR IDENTIFICATION PURPOSES ONLY AND ARE NOT TO BE CONSTRUED AS A WARRANTY, EXPRESSED OR IMPLIED, OR ANY OTHER UNDERTAKING ON ROMAC'S BEHALF EXCEPT TO THE EXTENT SPECIFICALLY STATED AND IDENTIFIED BY ROMAC AS SUCH IN WRITING.



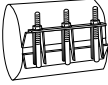
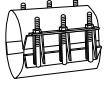


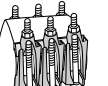


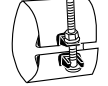
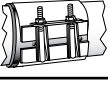
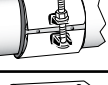
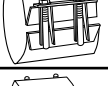
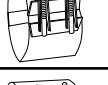
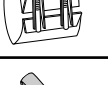
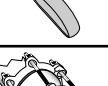
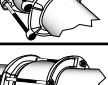
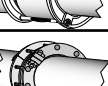

# Torque Recommendations

	Product	Description	Torque (ft-lbs.)	
<b>Repair Clamps</b>	All Stainless & Cast Lug	2" to 5" Nominal Pipe 6" Nominal Pipe & Above	30-35 75-80	
	416 Bell Joint Leak Clamp	With $\frac{5}{8}$ " Bolts With $\frac{3}{4}$ " Bolts	60-70 85-95	
	516 Bell Joint Leak Clamp	4" & 6" 8" to 14"	40-50 75-85	
		5" Long Adjusting Bolts	35-40	
	517 Bell Joint Leak Clamp	All	30-45	
<b>Couplings</b>	400	With $\frac{5}{8}$ " Bolts With $\frac{3}{4}$ " Bolts	60-70 85-95	
	501	2" to 12" Nominal Pipe 14" Nominal Pipe & Above	40-50 60-70	
	XR501	4" to 12" Nominal Pipe	75-90	
	MACRO	4" to 12" Nominal Pipe	65	
	511	$\frac{1}{2}$ " to 8" Nominal Pipe 10" and 12" Nominal Pipe	35-45 50-60	
<b>Service Saddles</b>	Ductile Iron (101, 101N, 101S, 202, 202N, 202S)	Hard Pipe (Steel, CI, AC) $\frac{1}{2}$ " - 8" 10" - 30"	40-50 60-75	
		PVC Pipe $\frac{1}{2}$ " - 22" 24" - 30"	30-40 50-60	
	Brass (101B, 101BS, 202B, 202BS)	Hard Pipe (Steel, CI, AC) - with SS strap PVC Pipe Bronze Strap	35-45 30-35 35 max.	
	Stainless (304 & 306) 305	2" to 5" Nominal Pipe 6" Nominal Pipe & Above All	30-35 50-60 75-80	
	CB Sewer Saddle	6" to 12" Nominal Pipe 14" to 48" Nominal Pipe	15-20 20-30	
	<b>Tapping Sleeves</b>	FTS 419	All	45-50
		FTS 420	All	90-100
SST		With $\frac{1}{2}$ " Bolts With $\frac{5}{8}$ " Bolts	65-75 75-95	
<b>Restraint Systems</b>	GripRing	4", 6" & 8" 10" & 12"	75-90 90-110	
	600 Series	4" & 6" 8" 10" 12"	90 150 175 190	
	Field Flange	All $\frac{5}{8}$ " Set Screws	80-85	
	RomaGrip T-Bolts	3" 4-24" 30-36" 42-48"	45-65 75-90 100-120 120-150	
	470	14- 24" Clamping Bolts MJ-Bolts	150 75-90	

**Note:** 75 ft-lbs. is approximately a 65 lb. pull on a 16" wrench.

# REPAIR CLAMPS

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341






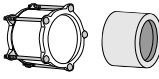
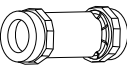



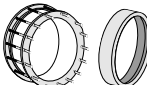
PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <b>Style SS1</b> Stainless Steel Repair Clamp (pg. 1-4)	Full circumferential repair of splits and holes	Steel, cast iron, asbestos cement, plastic, other	2" to 12"	Up to 150 psi
 <b>Style SS2</b> Stainless Steel Repair Clamp (pg. 1-5)			4" to 14"	
 <b>Style SS3</b> Stainless Steel Repair Clamp (pg. 1-6)			10" and larger	
 <b>Style CL1</b> Stainless Steel Repair Clamp with Cast Iron Lugs (pg. 1-10)	Full circumferential repair of splits and holes	Steel, cast iron, asbestos cement, plastic, other	2" to 12"	Up to 150 psi
 <b>Style CL2</b> Stainless Steel Repair Clamp with Cast Iron Lugs (pg. 1-11)			4" to 14"	
 <b>Style CL3</b> Stainless Steel Repair Clamp with Cast Iron Lugs (pg. 1-12)			10" and larger	
 <b>Tapped SS1, SS2, SS3, CL1, CL2 &amp; CL3</b> Repair Clamp Taps (pg. 1-13)	Outlet sizes 1/2" through 3"	Steel, cast iron, asbestos cement, plastic, other	2" and larger	Up to 150 psi
 <b>Style SC</b> Stainless Steel Repair Clamp (pg. 1-14)	Repair of splits and holes	Steel, cast iron, asbestos cement, plastic, other	1/2" to 8"	Up to 150 psi
 <b>Style SCS</b> Stainless Steel Repair Clamp w/ Stainless Steel Lugs (pg. 1-15)	Full circumferential repair of splits and holes	Steel, and copper	1/2" to 2"	Up to 150 psi
 <b>Style SCC</b> Stainless Steel Repair Clamp w/ Cast Iron Lugs (pg. 1-15)	Full circumferential repair of splits, holes and breaks	Steel and copper	1/2" to 2"	Up to 150 psi
 <b>Style C</b> Stainless Steel Repair Clamp (pg. 1-16)	Repair of splits and holes.	Steel, cast iron and asbestos cement	1/2" to 12"	Up to 150 psi
 <b>Style CC</b> Stainless Steel Repair Clamp (pg. 1-17)	Repair of splits and holes	Steel, cast iron, asbestos cement, plastic, other	10" to 30"	Up to 150 psi
 <b>Style CLC</b> Stainless Steel Collar Leak Clamp (pg. 1-18)	Repair of leaking solvent welds	Plastic	2" to 4"	Up to 150 psi
 <b>A/CME Band</b> Rubber Repair Strap (pg. 1-19)	Used with repair clamps to repair broken or leaking A/C couplings	Asbestos cement	4" to 16"	Up to 100 psi
 <b>Style 516</b> Bell Joint Leak Clamp (pg. 1-20)	Repair or prevention of leaks in bells, caulked or rubber ring joints	Cast iron, ductile iron, C-900 PVC	4" to 14"	Up to 150 psi
 <b>Style 517</b> Bell Joint Leak Clamp (pg. 1-21)	Repair or prevention of leaks in bells or rubber ring joints	IPS PVC	4" to 12"	Up to 150 psi
 <b>Style 416 &amp; 418</b> Bell Joint Leak Clamps (pg. 1-22)	Repair or prevention of leaks in caulked or rubber gasketed joints	416: Ductile iron 418: Cast iron	12" to 48"	Up to 150 psi



**Repair clamps are not to be used for joining plain pipe ends.**



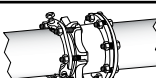
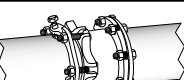
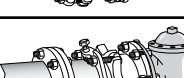
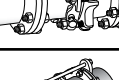

# COUPLINGS

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <b>MACRO™</b> Two-Bolt Extended Range Coupling (pg. 2-6)	Flexibly couple two pipes of same or different diameters	Steel, cast iron, asbestos cement, plastic, other	4" to 12"	Up to 260 psi
 <b>Style 501 &amp; RC501</b> Straight, Transition and Reducing Couplings (pg. 2-2 & 2-10)	Flexibly couple pipe of same or different diameters	Steel, cast iron, asbestos cement, plastic, other	2" to 24"	Up to 260 psi
 <b>Style XR501</b> Extended Range Couplings (pg. 2--8)	Flexibly couple pipe of same or different diameters	Steel, cast iron, asbestos cement, plastic, other	4" to 12"	Up to 260 psi
 <b>Style 511</b> Pipe Coupling (pg. 2-9)	Flexibly couple pipe of same or different diameters	Steel, copper and PVC	1/2" to 12"	Up to 200 psi
 <b>Style EC501</b> End Cap Coupling (pg. 2-14)	Testing or capping of pipeline	Steel, cast iron, asbestos cement, plastic, other	4" to 16"	Up to 260 psi
 <b>Style IC501</b> Coupling with Insulating Boot (pg. 2-15)	Stop electrolytic action by isolating one pipe from the other with insulating boot	Cast iron, steel or other types of pipe.	4" to 14"	Up to 150 psi
 <b>Style 702</b> Compression Coupling (pg. 2-15)	Flexibly couple pipe of same diameters	Steel or plastic	1/2" to 2"	Up to 150 psi
 <b>Style 400</b> Fabricated Steel Coupling (pg. 2-16)	Flexibly couple pipe of same diameters	Steel, cast iron, asbestos cement, plastic, other	12" to 96"	Up to 500 psi
 <b>Style RC400</b> Fabricated Steel Reducing Coupling (pg. 2-20)	Flexibly couple two pipes of different nominal diameters	Steel, cast iron, asbestos cement, plastic, other	12" to 96"	Up to 500 psi
 <b>Style TC400</b> Fabricated Steel Transition Coupling (pg. 2-21)	Connect pipes of different known outside diameters in same nominal size	Steel, cast iron, asbestos cement, plastic, other	12" to 96"	Up to 300 psi
 <b>Style IC400</b> Fabricated Steel Insulating Coupling (pg. 2-22)	Stop electrolytic action by isolating one pipe from the other with insulating boot	Steel and cast iron pipe.	12" to 96"	Up to 300 psi

# FLANGED COUPLINGS


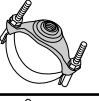
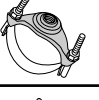

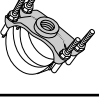

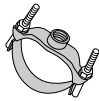
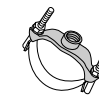
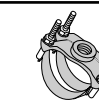
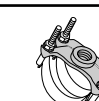

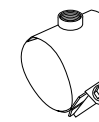

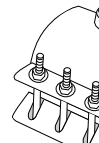
For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

 <b>Style FCA501</b> Flanged Coupling Adapter (pg. 3-2)	Provide flexible flanged-to-plain-end connection	Steel, cast iron, asbestos cement, plastic, other	3" to 16"	Up to 260 psi
 <b>Style FC400</b> Fabricated Steel Flanged Coupling Adapter (pg.3-5)	Flexibly couple plain end pipe to flange	Steel, cast iron, asbestos cement, plastic, other	12" to 96"	See flange rating
 <b>Style RFCA for PVC</b> Restrained Flanged Coupling Adapter (pg. 3-7)	Provide a restrained flexible flanged-to-plain-end connection	PVC (see catalog page for additional information)	4" to 24"	Up to the pressure rating of the pipe
 <b>Style RFCA</b> Restrained Flanged Coupling Adapter (pg. 3-6)	Provide a restrained flexible flanged-to-plain-end connection	Steel and ductile iron	3" to 24"	Up to 275 psi
 <b>Style DJ400 &amp; DJ405</b> Dismantling Joints (pg. 3-8 & 3-9)	Adjustable flanged fittings for maintenance & removal of valves and other fittings.	Flanged pipe	DJ400: 3" to 72" DJ405: 3" to 24"	See flange rating
 <b>Style ECF400</b> Equipment Connection Fitting (pg. 3-11)	For restraint of misaligned flanged fittings on field connections and other equipment	Flanged pipe	3" to 72"	See flange rating
 <b>Style EJ401 &amp; EJ403</b> Expansion Joints (pg. 3-13)	For use in pipelines where longitudinal movements are concentrated	Flanged, beveled for welding or grooved pipe.	3" to 150"	Up to 500 psi



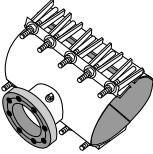
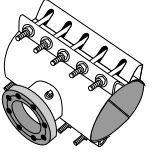
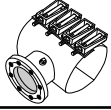
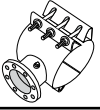
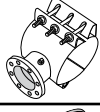
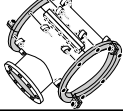
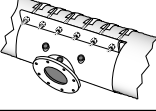

# SERVICE SADDLES

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <p><b>Style 101U &amp; 101NU</b> Painted (101U), or Nylon Coated (101NU) Saddle with single U-bolt (pg. 4-3)</p>	Outlet sizes 1/2" through 2 1/2"	Steel and cast iron	1 1/2" to 12"	Up to 350 psi
 <p><b>Style 101S</b> Painted saddle with single stainless steel strap (pg. 4-3)</p>	Outlet sizes 1/2" through 2 1/2"	Steel, cast iron, asbestos cement, plastic, other	1 1/2" to 12"	Up to 350 psi
 <p><b>Style 101NS</b> Nylon saddle with single stainless steel strap (pg. 4-3)</p>	Outlet sizes 1/2" through 2 1/2"	Steel, cast iron, asbestos cement, plastic, other	1 1/2" to 12"	Up to 350 psi
 <p><b>Style 202U &amp; 202NU</b> Painted (202U) or Nylon Coated (202NU) Saddle with double U-bolts (pg. 4-4)</p>	Outlet sizes 1/2" through 2 1/2"	Steel and cast iron	2" to 24"	Up to 350 psi
			26" to 30"	Up to 150 psi
 <p><b>Style 202S</b> Painted saddle with double stainless steel straps (pg. 4-4)</p>	Outlet sizes 1/2" through 2 1/2"	Steel, cast iron, asbestos cement, plastic, other	2" to 24"	Up to 350 psi
			26" to 30"	Up to 150 psi
 <p><b>Style 202NS</b> Nylon saddle with double stainless steel straps (pg. 4-4)</p>	Outlet sizes 1/2" through 2 1/2"	Steel, cast iron, asbestos cement, plastic, other	2" to 24"	Up to 350 psi
			26" to 30"	Up to 150 psi
 <p><b>Style 101B</b> Bronze saddle with single bronze strap (pg. 4-5)</p>	Outlet sizes 1/2" through 1"	Steel, cast iron, asbestos cement, C900, other	4" to 12"	Up to 200 psi
 <p><b>Style 101BS</b> Bronze saddle with single stainless steel strap (pg. 4-5)</p>	Outlet sizes 1/2" through 1"	Steel, cast iron, asbestos cement, plastic, other	4" to 12"	Up to 200 psi
 <p><b>Style 202B</b> Bronze saddle with double bronze straps (pg. 4-5)</p>	Outlet sizes 1/2" through 2"	Steel, cast iron, asbestos cement, C900, other	4" to 16"	Up to 200 psi
 <p><b>Style 202BS</b> Bronze saddle with double stainless steel straps (pg. 4-5)</p>	Outlet sizes 1/2" through 2"	Steel, cast iron, asbestos cement, plastic, other	4" to 16"	Up to 200 psi
 <p><b>Style 304</b> Single bolt stainless steel service saddle (pg. 4-6)</p>	Outlet sizes 1/2" through 1"	Steel, cast iron, plastic, other	2" to 8"	Up to 150 psi
 <p><b>Style 306</b> Double bolt stainless steel service saddle (pg. 4-6)</p>	Outlet sizes 1/2" through 2"	Steel, cast iron, plastic, other	2" to 8"	Up to 200 psi
			10" to 12"	Up to 150 psi
 <p><b>Style 305</b> Stainless steel service saddle (pg. 4-7)</p>	Outlet sizes 3/4" through 3"	Steel, cast iron, asbestos cement, plastic, other	10" to 24"	Up to 150 psi
 <p><b>Style FTS420T</b> Fabricated steel service saddle (pg. 4-8)</p>	Outlet sizes 3/4" through 4"	Steel, cast iron, asbestos cement, plastic, other	6" to 24"	250 psi
			30" to 42"	150 psi
			Larger than 42"	100 psi

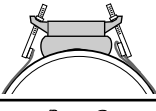
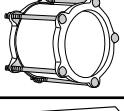
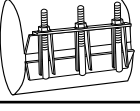
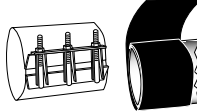

# TAPPING SLEEVES

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <p><b>Style SST</b> Stainless steel tapping sleeve with side lifter bars (pg. 5-4)</p>	Make branch outlet using full circumferential seal	Steel, cast iron, asbestos cement, plastic, other	4" to 8"	250 psi
			10" - 24"	200 psi
 <p><b>Style SST III</b> Stainless steel tapping sleeve with triangular side bars (pg. 5-6)</p>	Make branch outlet using full circumferential seal	Steel, cast iron, asbestos cement, plastic, other	4" to 8"	250 psi
			10" - 24"	200 psi
			26" - 30"	150 psi
 <p><b>Style FTS419</b> Fabricated steel tapping sleeve with drop-in bolts (pg. 5-8)</p>	Make a branch outlet from main supply line	Steel, ductile iron, plastic	4" to 24"	See flange rating
 <p><b>Style FTS420</b> Fabricated steel tapping sleeve with triangular side bars (pg. 5-10)</p>	Make a branch outlet from main supply line	Steel, cast iron, other	6" to 42"	See flange rating
 <p><b>Style STS420</b> Stainless steel tapping sleeve with triangular side bars (pg. 5-13)</p>	Make a branch outlet from main supply line	Steel, cast iron, other	6" to 42"	See flange rating
 <p><b>Style FTS425</b> Fabricated steel tapping sleeve (pg. 5-16)</p>	Make a branch outlet from main supply line with extra protection for lines subject to excessive beam loads	Steel, cast iron, plastic, other	12" to 96"	See flange rating
 <p><b>Style FTS435</b> Fabricated steel tapping sleeve (pg. 5-18)</p>	Make a branch outlet from concrete steel cylinder pipe with effective seal prior to tapping	Concrete steel cylinder	6" to 96"	See flange rating
 <p><b>Style FTS445</b> Fabricated steel tapping sleeve for weld-on outlets (pg. 5-19)</p>	Weld a branch outlet onto steel main supply line	Steel	6" to 96"	See flange rating

# SEWER PRODUCTS

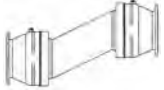
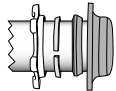



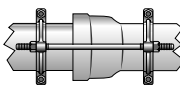
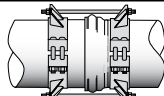




For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <p><b>Style CB</b> Sewer saddle (pg. 6-3)</p>	Outlet sizes 4" and 6"	Steel, cast iron, asbestos cement, plastic, others	6" to 54"	Up to 7 psi
 <p><b>Style 501</b> Straight and transition couplings for sewer (pg. 6-6)</p>	Flexibly couple two pipes of the same or different diameters	Steel, cast iron, asbestos cement, plastic, others	4" to 12"	Up to 25 psi
 <p><b>Style LSS1, LSS2 &amp; LSS3</b> Stainless steel clamp for sewer (pg. 6-7 &amp; 6-8)</p>	Repair of splits and holes	Steel, cast iron, asbestos cement, plastic, others	4" to 24"	Up to 25 psi
 <p><b>Style SS1, SS2 &amp; SS3</b> Transition clamp couplings with bushing (pg. 6-8)</p>	Joining sewer pipe of different O.D.s	Steel, cast iron, asbestos cement, plastic, others	4" to 20"	Up to 10 psi
 <p><b>Sewer Gaskets</b> (pg. 6-9 and 6-10)</p>	Transition gaskets for A/C x PVC and MJ x SDR35; also manhole adapter gaskets	Plastic and others	4" to 27"	Up to 10 psi





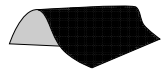

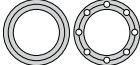
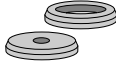
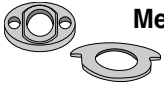
# RESTRAINT SYSTEMS

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <b>FJ Restraint</b> Flexible Expansion Joint (pg. 7-14)	Accommodates expansion, contraction, rotation, bending and settlement	Flanged and MJ Pipe	3" - 24"	Up to 350 psi
 <b>GripRing™</b> Pipe restrainer (pg. 7-2)	Full circumferential restraint of mechanical joints	Ductile iron, C-900 and IPS size PVC (see catalog for additional information)	4" to 12"	Up to 350 psi
 <b>RomaGrip™</b> Pipe restrainer (pg. 7-6)	Restraint of mechanical joints	Ductile iron and Steel (3" - 12")	4" to 48"	Up to 350 psi
 <b>PVC-RomaGrip™</b> Pipe restrainer (pg. 7-7)	Restraint of mechanical joints	PVC (see catalog for additional information)	4" to 24"	Up to the pressure rating of the pipe
 <b>400RG</b> Restrained Coupling (pg. 7-9)	Restrained Pipe Coupling	Ductile iron	12" to 48"	Up to 350 psi
 <b>600 Series</b> Pipe restraining system (pg. 7-4)	Restraint for bell & spigot joints, transitions, couplings and mechanical joints	Ductile iron, C-900 and IPS size PVC	4" to 12"	<b>PVC</b> up to 200 psi <b>DI</b> up to 150 psi
 <b>470</b> Pipe restraining system (pg. 7-5)	Restraint of mechanical joint fittings, bell & spigot joints and bolted sleeve type couplings	AWWA C905	14" to 30"	Up to the pressure rating of the pipe
 <b>Field Flange</b> Pipe restrainer (pg. 7-17)	Join plain end pipe to flanged fittings with no threading or welding	Steel, ductile iron	4" to 12"	Up to 300 psi
 <b>Ductile Lug</b> Pipe restrainer (pg. 7-18)	Restraint of mechanical joints to prevent pull-out for 3/4" rod	Steel, cast iron, plastic, other	—	—
 <b>90° Eye Bolt</b> Pipe restrainer (pg. 7-18)	Restraint of mechanical joints to prevent pull-out for 3/4" rod	Steel, cast iron, plastic, other	—	—
 <b>Harness Lugs</b> Pipe restrainer (pg. 7-19)	Attaches to flange to prevent pull-out of pipe joint	Steel, cast iron, other	3" to 72"	Up to 275 psi

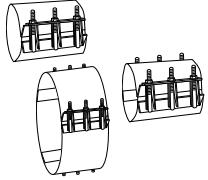
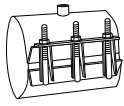
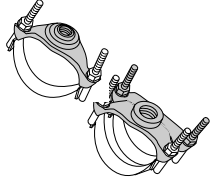

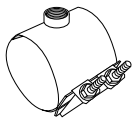

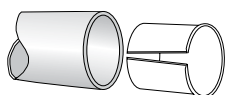
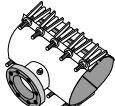
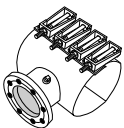
# MISCELLANEOUS

For larger sizes and higher working pressures, contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <b>Mechanical Joint Accessory Pack</b> (pg. 9-2)	Sealing mechanical joints	Ductile iron or plastic	3" to 12"	Up to 350 psi
 <b>A/C Common Groove Transition Gaskets for CI &amp; IPS Pipe</b> (pg. 9-4)	Transition to DI or IPS size pipe	Ductile iron, PVC or steel	4" to 12"	MJ x CI: 350psi MJ x IPS: 275psi AC x CI: 150psi AC x IPS: 150psi
 <b>Rubber Gasket Mat</b> (pg. 9-5)	—	—	6" x 24" to 34" x 24"	—
 <b>OD Tape Measure</b> (pg. 9-5)	—	—	up to 38"	—
 <b>Flange Gaskets</b> (pg. 9-6)	Sealing flanged joints	—	3" to 16"	3": 350 psi 4-16": 275 psi
 <b>Fire Hydrant Valve Gaskets</b> (pg. 9-8)	Sealing hydrant main valves	—	5"	Up to 150 psi
 <b>Meter Companion Flange &amp; Flange Gasket</b> (pg. 9-7)	1 1/2" and 2" water meters or pipe	—	1 1/2" to 2"	Up to 175 psi

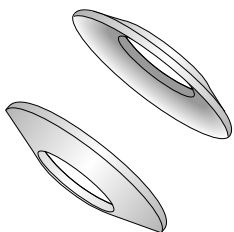
# HDPE PRODUCTS

For larger sizes contact Romac at 1-800-426-9341

PRODUCT	APPLICATION	TYPE OF PIPE	FOR PIPE SIZES	WORKING PRESSURE
 <p><b>Style SS1-H, SS2-H &amp; SS3-H</b> Stainless steel repair clamps (pg. 8-3)</p>	Full circumferential repair of splits and holes	HDPE pipe with a minimum pipe thickness of SDR 26	2" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Tapped Style SS1-H, SS2-H &amp; SS3-H</b> Stainless steel repair clamps (pg. 8-4)</p>	Outlet sizes 1/2" through 2"	HDPE pipe with a minimum pipe thickness of SDR 26	2" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style 101N-H &amp; 202N-H</b> Nylon saddle with single or double stainless steel strap (pg. 8-5)</p>	Outlet sizes 1/2" through 2 1/2"	HDPE pipe with a minimum pipe thickness of SDR 26	2" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style 305-H</b> Stainless steel service saddle (pg. 8-6)</p>	Outlet sizes 3/4" through 3"	HDPE pipe with a minimum pipe thickness of SDR 26	10" & 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style 306-H</b> Stainless steel service saddle (pg. 8-6)</p>	Outlet sizes 1/2" through 2"	HDPE pipe with a minimum pipe thickness of SDR 26	2" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style BP</b> Stainless steel sewer saddle (pg. 8-7)</p>	Outlet sizes 4" and 6"	HDPE pipe with a minimum pipe thickness of SDR 32.5	6" to 12"	10 psi
 <p><b>Pipe Stiffening Inserts</b> (pg. 8-8)</p>	For use with Romac 501 couplings and flanged coupling adapters.	HDPE pipe with a minimum pipe thickness of SDR 32.5	6" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style SST-H</b> Stainless steel tapping sleeve (pg. 8-11)</p>	Make branch outlet using full circumferential seal	HDPE pipe with a minimum pipe thickness of SDR 17	4" to 12"	Pressure rating of pipe or 150 psi, whichever is less
 <p><b>Style FTS423-H</b> Fabricated steel tapping sleeve (pg. 8-12)</p>	Make branch outlet from main supply line	HDPE pipe with a minimum pipe thickness of SDR 17	4" to 12"	Pressure rating of pipe or 150 psi, whichever is less



- Only products listed in the "HDPE Products" section are suitable for use with HDPE pipe.
- Pipeline must be pressurized when testing HDPE products.

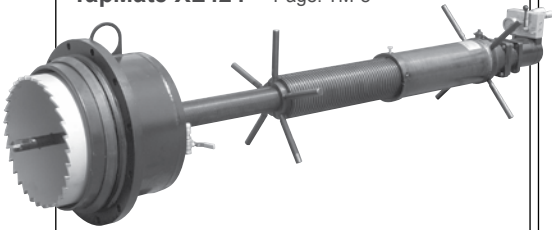


Romac products for high density polyethylene (HDPE) applications use spring washers to help counteract the problem of pipe contraction during temperature and pressure changes. They are made of a special "spring" grade of stainless steel.

For important technical information on HDPE pipe, refer to Page 8-1 and Page 8-2 in the Romac Catalog, or contact Romac's Engineering Department at 1-800-426-9341.

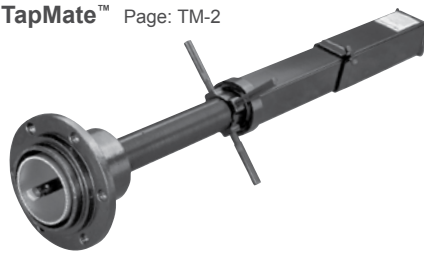


## TapMate XL424™ Page: TM-8



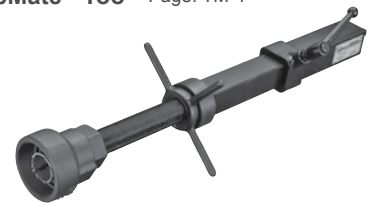
- 4" - 24" taps.
- 300 psi pressure rating.
- Over 39 inches of travel.
- Simple construction allows in-house maintenance and repair.
- Can be used with existing TapMate and Quik Valve equipment.
- For use on PVC, A/C, Ductile Iron, Cast Iron, Steel and HDPE pipe.

## TapMate™ Page: TM-2



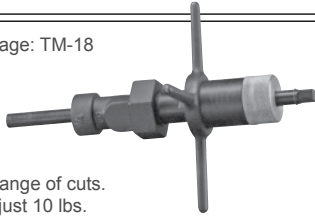
- 3" - 12" taps.
- Weighs just 65 lbs.
- 150 psi pressure rating.
- More than 27 inches of boring bar travel.
- Simple construction allows in-house maintenance and repair.
- For use on PVC, A/C, Ductile Iron, Cast Iron, Steel and HDPE pipe.

## TapMate™ Too Page: TM-4



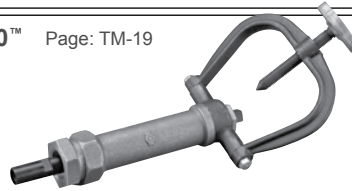
- 3/4" - 2" taps.
- Weighs just 10 lbs.
- 150 psi pressure rating.
- More than 12 inches of boring bar travel.
- Simple construction allows in-house maintenance and repair.
- For use on PVC, A/C, Ductile Iron, Cast Iron, Steel and HDPE pipe.

## M-1™ Page: TM-18



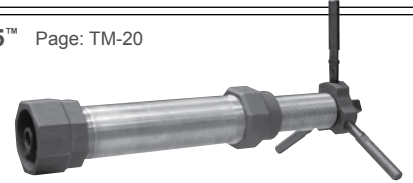
- 3/4" - 1" range of cuts.
- Weighs just 10 lbs.
- Good for wet and dry cuts.
- Uses TapMate Too adapters, arbor and ratchet.
- For use on PVC, A/C, Ductile Iron, Cast Iron, Steel and HDPE pipe.

## 5930™ Page: TM-19



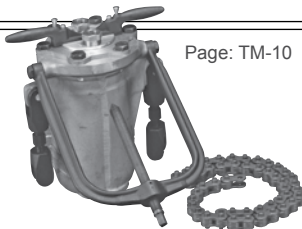
- 3/4" - 1" range of cuts.
- Good for wet and dry cuts.
- Easy to set-up and use.
- For use on PVC, A/C, Ductile Iron, Cast Iron, Steel and HDPE pipe.

## 5935™ Page: TM-20



- 3/4" - 2" range of cuts.
- Weighs approximately 40 lbs.
- Easy to set-up and use.
- For use on PVC, A/C, Ductile Iron, Cast Iron and Steel pipe.

## B-1™ Page: TM-10



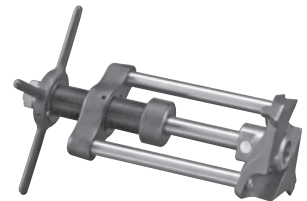
- Inserts any 3/4" - 1" corporation stop under pressure.
- Fast - no disassembly and assembly during installation.
- Simple and easy to operate manually or under power.
- For use on PVC, Ductile Iron and Cast Iron pipe.

## B-Too™ Page: TM-14

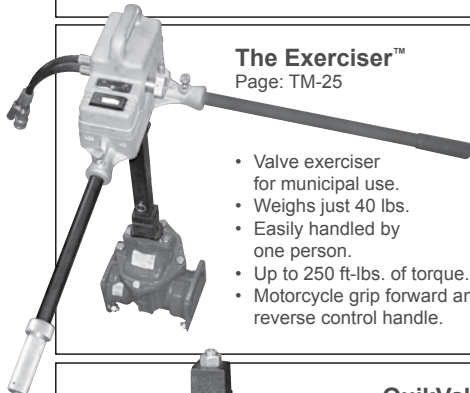


- Inserts any 3/4" - 1" corporation stop under pressure, up to 250 psi.
- Provides greater stability when cutting with the drill-tap and easier alignment when inserting the corporation stop.
- Uses common saddles, drill-taps and screw plugs.
- For use on PVC, Ductile Iron and Cast Iron pipe.

## TapMate Dry Tap™ Page: TM-21



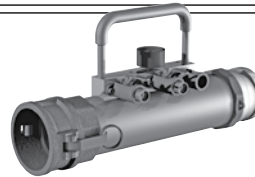
- 3/4" - 1" dry taps.
- Drilling shaft is supported at two points.
- Conforms to pipe sizes 3" - 48".
- For use on PVC, Ductile Iron and Cast Iron pipe.



## The Exerciser™ Page: TM-25

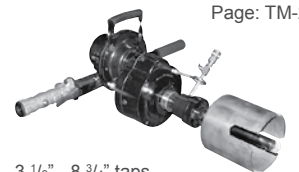
- Valve exerciser for municipal use.
- Weighs just 40 lbs.
- Easily handled by one person.
- Up to 250 ft-lbs. of torque.
- Motorcycle grip forward and reverse control handle.

## DeChlorinator™ Page: TM-22



- Quickly dechlorinates and flushes highly concentrated chlorinated water in new construction situations.
- Allows water utilities to meet regulations for residual chlorine concentration in released water.
- Helps meet EPA, CWA, and SDWA legislation for released water entering receiving streams.

## Sewer Pipe Tapping Machine Page: TM-24

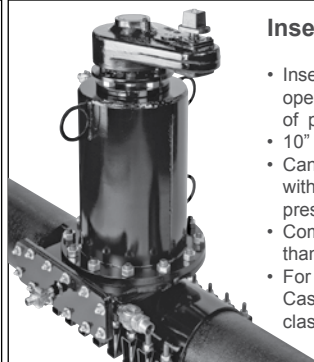


- 3 1/2" - 8 3/4" taps.
- Powered by an air motor.
- Weighs just 39 lbs.
- For use on PVC, Vitrifired Clay, Concrete and HDPE pipe.



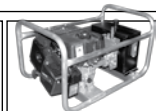
## QuikValve™ Page: QV-1

- Inserts a valve in an operating line without loss of pressure.
- 4" - 8" installations.
- Completion time is less than two hours.
- Can be used in water lines with up to 150 psi ambient pressure.
- For use on Ductile Iron, Cast Iron, A/C and some classes of PVC pipe.



## InsertaValve™ Page: QV-7

- Inserts a valve in an operating line without loss of pressure.
- 10" - 12" installations.
- Can be used in water lines with up to 150 psi ambient pressure.
- Completion time is less than two hours.
- For use on Ductile Iron, Cast Iron, A/C and some classes of PVC pipe.



TM-26 - TM-29

Hydraulic, electric, and pneumatic drives to power your tapping and drilling machines.



TM-30 - TM-31

Tools and accessories designed specifically for use on tapping sleeves, valves & other fittings.



# Index, Product Guide and Comparison Sheet

ROMAC DESCRIPTION	PAGE NO.	ROMAC #	SMITH BLAIR #	DRESSER #	JCM #	FORD #
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## Specifications Referenced in the Romac Catalog

### ANSI • ASTM • AWWA • MSS

#### **ANSI / AWWA C111/A21.11**

Rubber-gasket joints for ductile iron pressure pipe and fittings (nut and bolt composition specification)

#### **ANSI / AWWA C115/A21.15**

Flanged ductile-iron pipe with threaded flanges

#### **ANSI / AWWA C207**

Steel pipe flanges for waterworks service - sizes 4 in. through 144 in

#### **ANSI / AWWA C210**

Liquid-epoxy coating systems for the interior and exterior of steel water pipelines

#### **ANSI / AWWA C213**

Fusion-bonded epoxy coating systems for the interior and exterior of steel water pipelines

#### **ANSI / AWWA C219**

Bolted, sleeve-type couplings for plain-end pipe

#### **ANSI / AWWA C221**

Mechanical Expansion Joints

#### **ANSI / AWWA C223**

Fabricated steel and stainless steel tapping sleeves

#### **ANSI / AWWA C228**

Stainless steel pipe flanges for water service, sizes 2" - 72".

#### **ANSI / AWWA C230**

Stainless Steel Full-Encirclement Repair and Service Connection Clamps

#### **ANSI / AWWA C800**

Underground service line valves and fittings

#### **ASTM A 36**

Standard specification for structural steel

#### **ASTM A 47**

Standard specification for malleable iron castings

#### **ASTM A 240**

Standard specification for heat-resisting chromium and chromium-nickel stainless steel plate, sheet, and strip for pressure vessels

#### **ASTM A 536**

Standard specification for ductile iron castings

#### **ASTM D 2000**

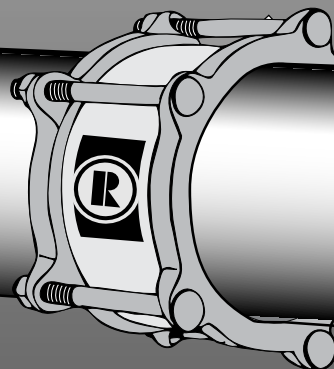
Standard classification system for rubber products

#### **MSS SP-60**

Standard classification system for connecting flange joints between tapping sleeve and tapping valve

#### **MSS SP-124**

Fabricated Tapping Sleeves





# Repair Clamps



**SS1**  
One Section Stainless Steel Repair Clamp

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**SS2**  
Two Section Stainless Steel Repair Clamp

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**SS3**  
Three Section Stainless Steel Repair Clamp

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**CL1**  
Stainless Steel Repair Clamp w/ Cast Lugs

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**CL2**  
Stainless Steel Repair Clamp w/ Cast Lugs

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**CL3**  
Stainless Steel Repair Clamp w/ Cast Lugs

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**SL1**  
Stainless Steel Repair Clamp w/ Removeable Bolts

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Stainless Steel Repair Clamp w/ Removeable Bolts

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**C**  
Stainless Steel Repair Clamp

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**SC**  
Stainless Steel Repair Clamp

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**SCC & SCS**  
Stainless Steel Repair Clamps

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**CC**  
Stainless Steel Repair Clamp

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**CLC**  
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**A/CME BAND**  
Rubber Repair Strap

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**516**  
Bell Joint Leak Clamp

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**517**  
Bell Joint Leak Clamp

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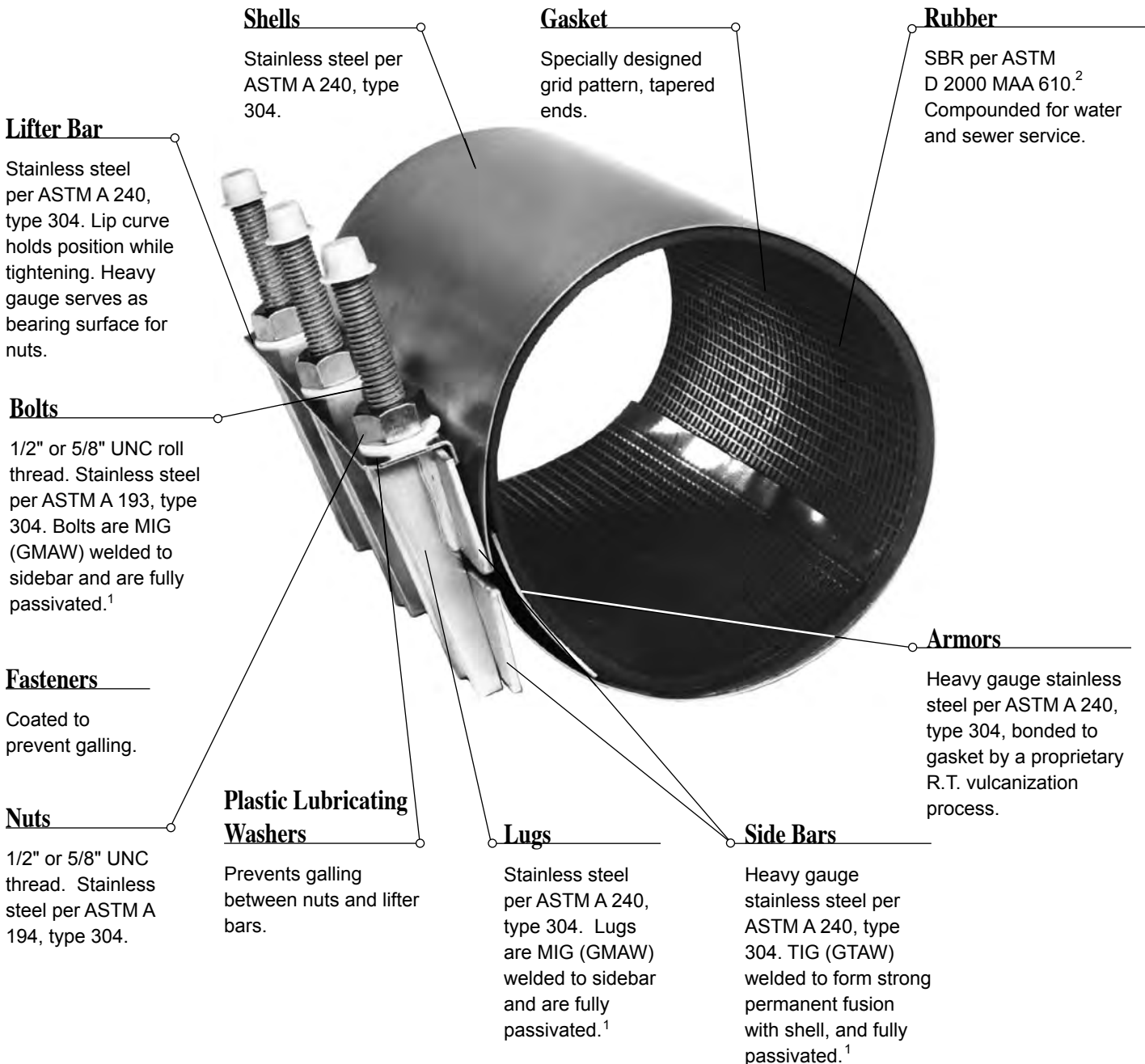
**416 & 418**  
Bell Joint Leak Clamp

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# Detail Specifications for Stainless-Seal™ Repair Clamps

**A ROMAC ORIGINAL**  
1969 - The First All Stainless Steel Repair Clamp  
Extended life, easy to install  
U.S. Pat. No. 3,189,970.



<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.

<sup>2</sup> Standard gaskets are specially formulated with antioxidant/antiozonant agents to increase shelf life. Elastomers compounded for special service, including NBR and EPDM, are available on request.



# Passive vs. Active 304 Stainless Steel (18-8)

## Galvanic Series in Sea Water

### Corroded End • Least Noble

Magnesium  
Magnesium Alloys  
Zinc  
Aluminum 1100  
Cadmium  
Aluminum 2024  
Steel or Iron  
Grey Cast Iron  
Ductile Cast Iron  
Chromium-Iron (active)  
Ni-Resist

### 304 Stainless Steel (18-8) (active)

Lead-Tin Solders  
Lead  
Tin  
Nickel (active)  
Inconel (active)  
Brasses  
Copper  
Bronzes  
Copper-Nickel Alloys  
Monel  
Silver Solder  
Nickel (passive)  
Chromium-Iron (passive)

### 304 Stainless Steel (18-8) (passive)

Silver  
Graphite  
Gold  
Platinum

### Protected End • Most Noble

Source: LaQue and Cox, Proc. Amer. Soc.  
for Testing and Materials, 40, 17, (40).

The galvanic chart at the left shows the high corrosion-resistant quality of fully passivated 304 stainless steel (18-8).

### Dissimilar Metals

Corrosion created by two or more dissimilar metals (less noble) is eliminated by the use of one hundred per cent (100%) stainless steel.

### Environmental (Soil) Corrosion

Stainless steel's natural resistance to corrosion is due to the chromium and nickel oxides that form on the surface of the metal.

### Welding

Carbon residue from the welding process prevents oxygen from contacting the surface and thus prevents the formation of the passive oxide film. The metal without the benefit of a fresh oxide film in the heated area becomes active, as shown on the chart. All Romac stainless steel products are constructed from 304 stainless steel (18-8), and are fully passivated. Chemical treatment breaks down the carbon residue which is then removed with an extremely high-pressure water-jet. This action cleans the burned area and allows a fresh new oxide film to form and protect your investment.

### Investment

Corrosion resistance is one of the best reasons for investing in stainless steel clamps. Romac Stainless-Seal™ Repair Clamps assure you of the highest degree of corrosion resistance.





# Style SS1 (one section) • Normal Range .40"

**Material Specifications**

- Shells and Lugs:** Stainless steel per ASTM A 240, type 304.
- Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.
- Nuts:** Stainless steel per ASTM A 194, type 304.
- Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.
- Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.

Meets  
**AWWA C230**



**SS1-7.00 x 10" Repair Clamp**

Number of Bolts per Clamp Length								
OD Range	6"	8"	10"	12"	16"	20"	24"	30"
2.35 - 9.99	2	2	3	3	4	5	6	8
10.00 - 14.50	2	3	3	4	5	7	8	10

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT							
			6"	8"	10"	12"	16"	20"	24"	30"
2" to 2 1/4"	2.35 - 2.63	SS1 - 2.63 x length	\$75.45	\$102.87	\$143.15	\$171.14	\$184.27	\$208.05	N/A	N/A
	2.62 - 2.87	SS1 - 2.87 x length <sup>1</sup>	4 #	4 #	5 #	5 #	8 #	11 #	N/A	N/A
2 1/2"	2.75 - 3.00	SS1 - 3.00 x length <sup>1</sup>	78.43	106.94	148.32	175.14	189.76	229.77	N/A	N/A
	2.87 - 3.12	SS1 - 3.12 x length <sup>1</sup>	4 #	4 #	5 #	6 #	8 #	11 #	N/A	N/A
3"	3.45 - 3.70	SS1 - 3.70 x length <sup>1</sup>	90.82	112.24	155.11	181.77	205.23	263.31	N/A	N/A
	3.75 - 4.00	SS1 - 4.00 x length <sup>1</sup>	4 #	5 #	5 #	6 #	9 #	12 #	N/A	N/A
3 1/2"	3.95 - 4.20	SS1 - 4.20 x length <sup>1</sup>	95.40	120.82	164.13	191.06	213.84	278.21	\$349.41	N/A
			5 #	5 #	6 #	7 #	9 #	13 #	15 #	N/A
4"	4.45 - 4.85	SS1 - 4.85 x length	101.45	126.59	172.49	201.09	223.58	339.09	454.88	\$554.92
	4.74 - 5.14	SS1 - 5.14 x length	5 #	5 #	7 #	8 #	10 #	14 #	16 #	21 #
	4.95 - 5.35	SS1 - 5.35 x length								
	5.20 - 5.60	SS1 - 5.60 x length								
6"	5.95 - 6.35	SS1 - 6.35 x length	126.28	151.49	205.23	241.88	266.77	402.41	506.39	659.30
	6.60 - 7.00	SS1 - 7.00 x length	6 #	7 #	9 #	10 #	14 #	17 #	21 #	26 #
	6.84 - 7.24	SS1 - 7.24 x length								
	7.06 - 7.46	SS1 - 7.46 x length								
7.40 - 7.80	SS1 - 7.80 x length									
8"	7.95 - 8.35	SS1 - 8.35 x length	148.35	177.50	235.12	284.88	325.54	461.18	574.20	757.03
	8.60 - 9.00	SS1 - 9.00 x length	7 #	8 #	11 #	12 #	15 #	19 #	24 #	30 #
	9.00 - 9.40	SS1 - 9.40 x length								
	9.30 - 9.70	SS1 - 9.70 x length								
10"	9.95 - 10.35	SS1-10.35 x length	194.60	236.53	311.17	371.12	426.42	569.38	707.62	968.06
	10.70 - 11.10	SS1-11.10 x length	9 #	11 #	14 #	16 #	24 #	28 #	32 #	42 #
	11.04 - 11.44	SS1-11.44 x length								
	11.40 - 11.80	SS1-11.80 x length								
	11.60 - 12.00	SS1-12.00 x length								
11.85 - 12.25	SS1-12.25 x length									
12"	12.10 - 12.50	SS1-12.50 x length	227.15	268.55	356.13	430.10	486.35	675.41	802.16	1,144.94
	12.70 - 13.10	SS1-13.10 x length	11 #	13 #	16 #	18 #	27 #	30 #	36 #	46 #
	13.15 - 13.55	SS1-13.55 x length								
	13.60 - 14.00	SS1-14.00 x length								
	14.10 - 14.50	SS1-14.50 x length								

<sup>1</sup> .25" range **For Tapped SS1 see Page 1-13. For Sewer O.D.s see Page 6-7.**

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a one-section clamp for pipe with an O.D. between 6.60 and 7.00 and clamp length of 10", order **SS1 - 7.00 x 10"**





# Style SS2 (two section) • Wider Range .80"

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.

Meets  
AWWA C230



**SS2-7.64 x 10" Repair Clamp**

Number of Bolts per Clamp Length							
OD Range	8"	10"	12"	16"	20"	24"	30"
4.47 - 9.99	4	6	6	8	10	12	16
10.00 - 16.75	6	6	8	10	14	16	20

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT						
			8"	10"	12"	16"	20"	24"	30"
<b>4"</b>	4.47 - 5.27	SS2 - 5.27 x length	\$199.74	\$262.35	\$310.68	\$371.42	\$497.39	\$636.14	NA
	4.77 - 5.57	SS2 - 5.57 x length	9 #	12 #	13 #	17 #	25 #	30 #	
	5.20 - 6.00	SS2 - 6.00 x length							
<b>6"</b>	6.57 - 7.37	SS2 - 7.37 x length	229.62	295.40	336.47	434.43	592.99	779.66	\$839.31
	6.84 - 7.64	SS2 - 7.64 x length	11 #	15 #	17 #	22 #	28 #	34 #	43 #
	7.20 - 8.00	SS2 - 8.00 x length							
<b>8"</b>	8.59 - 9.39	SS2 - 9.39 x length	262.82	327.98	382.26	497.39	673.35	890.50	946.69
	8.99 - 9.79	SS2 - 9.79 x length	12 #	17 #	19 #	24 #	30 #	36 #	47 #
	9.20 - 10.00	SS2-10.00 x length							
<b>10"</b>	10.70 - 11.50	SS2-11.50 x length	265.70	430.08	590.30	619.03	825.38	1,097.28	1,236.77
	11.04 - 11.84	SS2-11.84 x length	15 #	18 #	23 #	32 #	41 #	47 #	59 #
	11.40 - 12.20	SS2-12.20 x length							
<b>12"</b>	12.70 - 13.50	SS2-13.50 x length	340.54	493.06	670.19	708.09	955.71	1,218.97	1,392.78
	13.15 - 13.95	SS2-13.95 x length	16 #	19 #	25 #	33 #	41 #	50 #	61 #
	13.50 - 14.30	SS2-14.30 x length							
	13.71 - 14.51	SS2-14.51 x length							
<b>14"</b>	15.00 - 15.80	SS2-15.80 x length	488.23	659.30	851.75	949.40	1,285.56	1,520.78	1,601.19
	15.95 - 16.75	SS2-16.75 x length	18 #	21 #	27 #	33 #	43 #	50 #	64 #

<sup>1</sup> Recommended for use on CL200 ACRB

**For Tapped SS2 see Page 1-13. For Sewer O.D.s see Page 6-8.**

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a two-section clamp for pipe with an O.D. between 6.84 and 7.64 and clamp length of 10" order **SS2 - 7.64 x 10"**



# Style SS3 (three section) • Widest Range 1.20"

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.

Meets  
AWWA C230



SS3-14.65 x 12" Repair Clamp

Number of Bolts per Clamp Length								
OD Range	8"	10"	12"	16"	20"	24"	30"	36"
All Ranges	9	9	12	15	21	24	30	36

O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT							
		8"	10"	12"	16"	20"	24"	30"	36"
11.04-12.24	SS3-12.24 x length	\$406.40	\$544.15	\$682.91	\$920.85	\$1,323.12	\$1,345.43	\$1,544.30	\$2,244.12
12.40-13.60	SS3-13.60 x length	22 #	27 #	31 #	41 #	53 #	61 #	80 #	94 #
13.14-14.34	SS3-14.34 x length	465.63	604.55	775.29	983.41	1,361.13	1,493.14	1,738.97	2,344.54
13.45-14.65	SS3-14.65 x length	24 #	29 #	33 #	43 #	56 #	65 #	85 #	99 #
15.30-16.50	SS3-16.50 x length	615.06	926.57	954.69	1,238.21	1,645.00	1,721.66	2,532.05	2,883.16
17.10-18.30	SS3-18.30 x length	25 #	30 #	35 #	45 #	59 #	72 #	89 #	103 #
18.00-19.20	SS3-19.20 x length	694.44	948.56	1,008.34	1,262.76	1,712.01	2,116.67	2,680.86	2,974.99
19.50-20.70	SS3-20.70 x length	26 #	32 #	36 #	49 #	63 #	76 #	95 #	112 #
21.60-22.80	SS3-22.80 x length	768.71	1,027.48	1,115.65	1,430.44	1,899.77	2,164.51	2,904.92	3,330.39
		30 #	35 #	40 #	53 #	67 #	80 #	102 #	120 #
23.25-24.45	SS3-24.45 x length	1,020.38	1,132.56	1,258.49	1,832.84	2,469.82	2,832.47	3,576.40	4,302.68
		33 #	38 #	43 #	56 #	71 #	84 #	109 #	129 #
25.80-27.00	SS3-27.00 x length	1,271.90	1,347.30	1,405.41	2,235.05	3,039.63	3,500.06	3,956.27	5,274.99
		35 #	40 #	45 #	60 #	75 #	88 #	115 #	135 #

For Tapped SS3 see Page 1-13. For Sewer O.D.s see Page 6-8.

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a three-section clamp for pipe with an O.D. between 13.45 and 14.65 and clamp length of 12", order **SS3 - 14.65 x 12"**



# Style SL1 (one section) • Normal Range .40"

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread trackhead, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.

**With Removeable Bolts**

Meets  
AWWA C230



**SL1-7.24 x 10" Repair Clamp**

Number of Bolts per Clamp Length						
OD Range	6"	8"	10"	12"	16"	20"
4.45 - 9.99	2	2	3	3	4	5
10.00 - 14.50	2	-	3	4	5	7

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH					
			6"	8"	10"	12"	16"	20"
<b>4"</b>	4.45 - 4.85	SL1 - 4.85 x length	\$177.62	\$193.59	\$269.52	\$282.63	\$375.81	\$473.77
	4.74 - 5.14	SL1 - 5.14 x length						
	4.95 - 5.35	SL1 - 5.35 x length						
	5.20 - 5.60	SL1 - 5.60 x length						
<b>6"</b>	5.95 - 6.35	SL1 - 6.35 x length	185.45	203.61	281.41	296.44	392.75	499.53
	6.60 - 7.00	SL1 - 7.00 x length						
	6.84 - 7.24	SL1 - 7.24 x length						
	7.06 - 7.46	SL1 - 7.46 x length						
	7.40 - 7.80	SL1 - 7.80 x length						
<b>8"</b>	7.95 - 8.35	SL1 - 8.35 x length	193.28	213.62	293.30	310.24	409.68	525.28
	8.60 - 9.00	SL1 - 9.00 x length						
	9.00 - 9.40	SL1 - 9.40 x length						
	9.30 - 9.70	SL1 - 9.70 x length						
<b>10"</b>	9.95 - 10.35	SL1-10.35 x length	213.42	NA	328.76	403.94	514.73	598.05
	10.70 - 11.10	SL1-11.10 x length						
	11.04 - 11.44	SL1-11.44 x length						
	11.40 - 11.80	SL1-11.80 x length						
	11.60 - 12.00	SL1-12.00 x length						
11.85 - 12.25	SL1-12.25 x length							
<b>12"</b>	12.10 - 12.50	SL1-12.50 x length	231.02	NA	347.92	424.89	542.24	635.20
	12.70 - 13.10	SL1-13.10 x length						
	13.15 - 13.55	SL1-13.55 x length						
	13.60 - 14.00	SL1-14.00 x length						
	14.10 - 14.50	SL1-14.50 x length						

**For Tapped SL1 see Page 1-13.**

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a one-section clamp for pipe with an O.D. between 6.60 and 7.00 and clamp length of 10", order **SL1 - 7.00 x 10"**



# Style SL2 (two section) • Wider Range .80"

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread trackhead, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.

**With Removeable Bolts**

Meets  
AWWA C230



**SL2-7.64 x 12" Repair Clamp**

Number of Bolts per Clamp Length					
OD Range	8"	10"	12"	16"	20"
4.47 - 10.00	4	6	6	8	10
10.01 - 16.75	—	6	8	10	14

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH				
			8"	10"	12"	16"	20"
<b>4"</b>	4.47 - 5.27	SL2 - 5.27 x length	\$359.77	\$507.47	\$533.10	\$707.62	\$897.06
	4.77 - 5.57	SL2 - 5.57 x length					
	5.20 - 6.00	SL2 - 6.00 x length <sup>1</sup>					
<b>6"</b>	6.57 - 7.37	SL2 - 7.37 x length	380.82	530.21	558.40	740.19	943.61
	6.84 - 7.64	SL2 - 7.64 x length					
	7.20 - 8.00	SL2 - 8.00 x length <sup>1</sup>					
<b>8"</b>	8.59 - 9.39	SL2 - 9.39 x length	410.01	545.30	687.27	783.34	1,001.23
	8.99 - 9.79	SL2 - 9.79 x length					
	9.20 - 10.00	SL2-10.00 x length <sup>1</sup>					
<b>10"</b>	10.70 - 11.50	SL2-11.50 x length	N/A	582.99	728.10	930.32	1,067.25
	11.04 - 11.84	SL2-11.84 x length					
	11.40 - 12.20	SL2-12.20 x length					
<b>12"</b>	12.70 - 13.50	SL2-13.50 x length	N/A	604.90	753.27	963.48	1,109.92
	13.15 - 13.95	SL2-13.95 x length					
	13.50 - 14.30	SL2-14.30 x length					
	13.71 - 14.51	SL2-14.51 x length					

<sup>1</sup> Recommended for use on CL200 ACRB

**For Tapped SL2 see Page 1-13.**

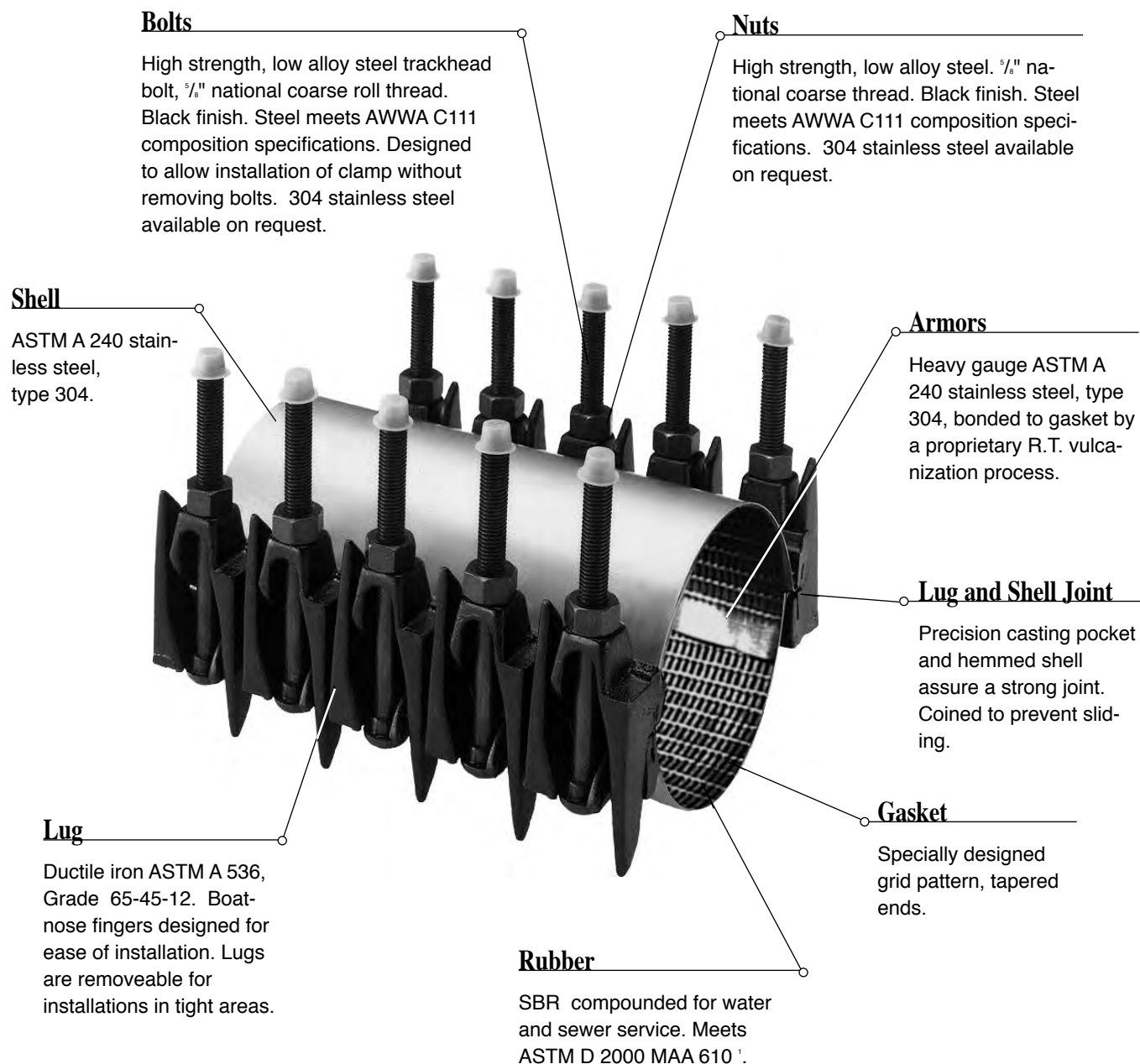
For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a two-section clamp for pipe with an O.D. between 6.84 and 7.64 and clamp length of 12" order **SL2 - 7.64 x 12"**



# The "CL" Repair Clamp



<sup>1</sup> Standard gaskets are specially formulated with antioxidant/antiozonant agents to increase shelf life. Elastomers compounded for special service are available on request.



# Style CL1 (one section) • Normal Range .40"

**Material Specifications**

**Shells:** Stainless steel per ASTM A 240, type 304.

**Lugs:** Ductile iron per ASTM A 536, Grade 65-45-12. Boat-nose fingers designed for ease of installation. Lugs are removeable.

**Bolts and Nuts:** Trackhead, 5/8" UNC rolled thread, high strength, low alloy, corrosion resistant steel per AWWA 111. Stainless steel nuts and bolts available on request.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service.  
Other compounds available on request.

**With Removeable Lugs**

**Meets AWWA C230**



**CL1-9.40 x 12" Repair Clamp**

Number of Bolts per Clamp Length							
OD Range	7 1/2"	10"	12"	15"	20"	25"	30"
All Ranges	3	4	5	6	8	10	12

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT						
			7 1/2"	10"	12"	15"	20"	25"	30"
2" to 2 1/4"	2.35 - 2.63	CL1 - 2.63 x length	\$84.81	\$126.44	\$142.38	\$171.86	N/A	N/A	N/A
	2.62 - 2.87	CL1 - 2.87 x length	10 #	14 #	17 #	20 #			
2 1/2"	2.75 - 3.00	CL1 - 3.00 x length	92.01	136.14	158.31	185.23	N/A	N/A	N/A
	2.87 - 3.12	CL1 - 3.12 x length	10 #	14 #	18 #	21 #			
3"	3.45 - 3.70	CL1 - 3.70 x length	103.04	147.31	171.76	204.61	N/A	N/A	N/A
	3.75 - 4.00	CL1 - 4.00 x length	11 #	15 #	18 #	21 #			
3 1/2"	3.95 - 4.20	CL1 - 4.20 x length	106.71	152.16	181.36	211.07	N/A	N/A	N/A
			11 #	14 #	18 #	22 #			
4"	4.45 - 4.85	CL1 - 4.85 x length	111.12	153.47	187.36	219.67	295.05	370.47	445.85
	4.74 - 5.14	CL1 - 5.14 x length							
	4.95 - 5.35	CL1 - 5.35 x length							
	5.20 - 5.60	CL1 - 5.60 x length							
6"	5.95 - 6.35	CL1 - 6.35 x length	131.18	177.88	209.78	249.78	353.22	430.80	514.60
	6.60 - 7.00	CL1 - 7.00 x length							
	6.84 - 7.24	CL1 - 7.24 x length							
	7.05 - 7.46	CL1 - 7.46 x length							
	7.40 - 7.80	CL1 - 7.80 x length							
8"	7.95 - 8.35	CL1 - 8.35 x length	153.98	203.77	246.60	299.26	407.02	486.76	572.89
	8.60 - 9.00	CL1 - 9.00 x length							
	9.00 - 9.40	CL1 - 9.40 x length							
	9.30 - 9.70	CL1 - 9.70 x length							
10"	9.95 - 10.35	CL1-10.35 x length	202.45	273.53	314.45	396.27	529.80	594.50	805.51
	10.70 - 11.10	CL1-11.10 x length							
	11.04 - 11.44	CL1-11.44 x length							
	11.40 - 11.80	CL1-11.80 x length							
	11.60 - 12.00	CL1-12.00 x length							
	11.85 - 12.25	CL1-12.25 x length							
12"	12.10 - 12.50	CL1-12.50 x length	228.29	303.69	366.16	456.60	603.04	704.35	913.17
	12.70 - 13.10	CL1-13.10 x length							
	13.15 - 13.55	CL1-13.55 x length							
	13.60 - 14.00	CL1-14.00 x length							
	14.10 - 14.50	CL1-14.50 x length							
Add on for 304 stainless steel bolts & nuts			26.91	37.79	48.40	56.72	75.62	94.49	113.40

.25" range **For Tapped CL1 see Page 1-13.**

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a one-section clamp for pipe with an O.D. between 9.00 and 9.40 and clamp length of 12", order **CL1 - 9.40 x 12"**

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes not listed are available on request. Clamps are not to be used for joining plain end pipe.





# Style CL2 (two section) • Wider Range .80"

Meets  
AWWA C230

**Material Specifications**

**Shells:** Stainless steel per ASTM A 240, type 304.  
**Lugs:** Ductile iron per ASTM A 536, Grade 65-45-12. Boat-nose fingers designed for ease of installation. Lugs are removeable.  
**Bolts and Nuts:** Trackhead, 5/8" UNC rolled thread, high strength, low alloy, corrosion-resistant steel per AWWA 111. Stainless steel nuts and bolts available on request.  
**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

With  
Removeable  
Lugs



CL2-9.39 x 12" Repair Clamp

Number of Bolts per Clamp Length							
OD Range	7 1/2"	10"	12"	15"	20"	25"	30"
All Ranges	6	8	10	12	16	20	24

NOM. PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT						
			7 1/2"	10"	12"	15"	20"	25"	30"
4"	4.47 - 5.27	CL2 - 5.27 x length	\$154.52 21 #	\$204.24 28 #	\$241.12 34 #	\$307.27 41 #	\$458.79 55 #	\$536.68 68 #	\$614.57 70 #
	4.77 - 5.57	CL2 - 5.57 x length							
	5.20 - 6.00	CL2 - 6.00 x length							
6"	6.57 - 7.37	CL2 - 7.37 x length	179.24 22 #	230.44 29 #	268.92 37 #	358.50 44 #	478.00 58 #	596.49 73 #	714.85 88 #
	6.84 - 7.64	CL2 - 7.64 x length							
	7.20 - 8.00	CL2 - 8.00 x length							
8"	8.59 - 9.39	CL2 - 9.39 x length	202.72 23 #	256.07 31 #	298.76 39 #	407.59 46 #	529.19 62 #	673.29 77 #	817.28 93 #
	8.99 - 9.79	CL2 - 9.79 x length							
	9.20 - 10.00	CL2-10.00 x length							
10"	10.70 - 11.50	CL2-11.50 x length	212.64 24 #	341.43 33 #	472.42 41 #	514.26 49 #	682.86 65 #	853.61 80 #	1,024.29 98 #
	11.04 - 11.84	CL2-11.84 x length							
	11.40 - 12.20	CL2-12.20 x length							
12"	12.70 - 13.50	CL2-13.50 x length	272.50 26 #	379.81 34 #	536.33 43 #	563.34 52 #	753.28 69 #	940.06 86 #	1,126.70 103 #
	13.15 - 13.95	CL2-13.95 x length							
	13.50 - 14.30	CL2-14.30 x length							
	13.71 - 14.51	CL2-14.51 x length							
14"	15.00 - 15.80	CL2-15.80 x length	398.52 28 #	635.93 36 #	681.63 45 #	915.45 54 #	1,237.66 72 #	1,555.73 90 #	1,873.59 108 #
	15.95 - 16.75	CL2-16.75 x length							
Add on for 304 stainless steel bolts & nuts			53.83	75.58	96.80	113.44	151.25	188.98	226.80

<sup>1</sup> Recommended for use on CL200 ACRB.

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes not listed are available on request. Clamps are not to be used for joining plain end pipe.

For Tapped CL2 see Page 1-13.

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a two-section clamp for pipe with an O.D. between 8.59 and 9.39 and clamp length of 12", order **CL2 - 9.39 x 12"**



# Style CL3 (three section) • Widest Range 1.20"

**Material Specifications**

**Shells:** Stainless steel per ASTM A 240, type 304.

**Lugs:** Ductile iron per ASTM A 536, Grade 65-45-12. Boat-nose fingers designed for ease of installation. Lugs are removeable.

**Bolts and Nuts:** Trackhead, 5/8" UNC rolled thread, high strength, low alloy, corrosion-resistant steel per AWWA 111. Stainless steel nuts and bolts available on request.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

**With Removeable Lugs**

**Meets AWWA C230**



**CL3-18.30 x 12" Repair Clamp**

Number of Bolts per Clamp Length							
OD Range	7 1/2"	10"	12"	15"	20"	25"	30"
All Ranges	9	12	15	18	24	30	36

O.D. SIZE RANGE	CATALOG NUMBER	LENGTH / WEIGHT						
		7 1/2"	10"	12"	15"	20"	25"	30"
11.04 - 12.24 12.40 - 13.60	CL3-12.24 x length CL3-13.60 x length	\$312.95 30 #	\$366.15 39 #	\$456.06 48 #	\$545.92 58 #	\$723.49 77 #	\$907.69 96 #	\$1,091.92 115 #
13.14 - 14.34 13.45 - 14.65	CL3-14.34 x length CL3-14.65 x length	358.61 34 #	397.26 45 #	493.78 56 #	590.34 68 #	785.61 90 #	980.96 112 #	1,176.23 130 #
15.30 - 16.50 17.10 - 18.30	CL3-16.50 x length CL3-18.30 x length	521.11 36 #	713.58 48 #	735.23 60 #	872.13 72 #	1,180.91 96 #	1,565.45 120 #	1,949.92 144 #
18.00 - 19.20 19.50 - 20.70	CL3-19.20 x length CL3-20.70 x length	534.82 37 #	721.39 50 #	776.55 62 #	940.43 75 #	1,273.42 99 #	1,669.05 124 #	2,063.85 149 #
21.60 - 22.80	CL3-22.80 x length	592.01 38#	791.27 51 #	859.19 64 #	973.52 77 #	1,318.18 102 #	1,777.72 128 #	2,236.99 153 #
23.25 - 24.45	CL3-24.45 x length	785.83 40 #	1,024.88 52 #	1,073.54 66 #	1,693.88 79 #	2,294.76 105 #	2,883.14 132 #	3,471.49 158 #
25.80 - 27.00	CL3-27.00 x length	979.57 41 #	1,258.31 54 #	1,287.83 68 #	1,810.93 81 #	2,456.71 108 #	3,087.20 136 #	3,714.99 163 #
Add on for 304 stainless steel bolts & nuts		80.74	113.38	145.20	170.16	226.88	283.48	340.20

For higher working pressures, clamp length should equal or exceed diameter of pipe. Some sizes not listed are available on request. Clamps are not to be used for joining plain end pipe.

**For Tapped CL3 see Page 1-13.**

**To Order:** Specify catalog number x length of clamp desired.

**Example:** For a three-section clamp for pipe with an O.D. between 17.10 and 18.30 and clamp length of 12", order **CL3 - 18.30 x 12"**





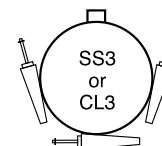
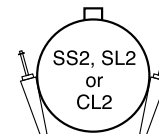
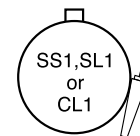
# Taps for Repair Clamps

## SS1, SS2, SS3, SL1, SL2, CL1, CL2, and CL3



SS1-7.00 x 12 x 3/4" IP Tapped Repair Clamp

### Available in All Styles



The same design, construction, and installation features as Styles 1, 2, and 3. Tapped outlet is 304 stainless steel, permanently "fused" by GTAW, and fully passivated<sup>1</sup>.

#### To Order:

1. Select size, length, and style of clamp.
2. Select size and type of tapped thread desired from the table below.
3. Add list price for tap to the list price of clamp selected from separate price sheet.
4. **Tapped outlet products are NO CANCEL/NO RETURN items**, please be specific when ordering.

**Example:** SS1-7.00 x 12 x 3/4" IP would be a one-section clamp for pipe with an O.D. between 6.60 and 7.00, a length of 12" and a 3/4" iron pipe tap size.

#### ADD-ON LIST PRICES FOR TAPPED CLAMPS

TAP SIZE	TYPE OF THREAD	MINIMUM PIPE O.D.	MINIMUM CLAMP LENGTH	ADD ON LIST PRICE
3/4" or 1"	CC or IP	2.38"	6" for 2.38" through 14.65" pipe O.D. 8" for 14.66" through 19.50" pipe O.D.	54.18
1 1/4"	CC	3.50"	8" for 3.50" through 8.00" pipe O.D. 10" for 8.01" through 14.65" pipe O.D. 12" for 14.66" through 19.50" pipe O.D.	84.93
1 1/4"	IP	2.88"	8" for 2.88" through 8.00" pipe O.D. 10" for 8.01" through 14.65" pipe O.D. 12" for 14.66" through 19.50" pipe O.D.	84.93
1 1/2"	CC or IP	3.50"	8" for 3.50" through 8.00" pipe O.D. 10" for 8.01" through 14.65" pipe O.D. 12" for 14.66" through 19.50" pipe O.D.	84.93
2"	IP	3.50"	8" for 3.50" through 8.00" pipe O.D. 10" for 8.01" through 14.65" pipe O.D. 12" for 14.66" through 19.50" pipe O.D.	84.93
2"	CC	4.50"	8" for 4.50" through 8.00" pipe O.D. 10" for 8.01" through 14.65" pipe O.D. 12" for 14.66" through 19.50" pipe O.D.	103.98
2 1/2" <sup>2</sup>	IP or MIP	6.63"	12" for 6.63" through 14.65" pipe O.D. 16" for 14.66" through 19.50" pipe O.D.	240.16
3" <sup>2,3</sup>	IP or MIP	6.63"	12" for 6.63" through 14.65" pipe O.D. 16" for 14.66" through 19.50" pipe O.D.	240.16

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.

<sup>2</sup> Requires SS2 or SS3

<sup>3</sup> 6.63 - 9.99 Taps must be MIP

Tapped CL1 clamps are available in sizes 3.70 and larger.



# Style SC Repair Clamps

## Material Specifications

**Shells:** Stainless steel per ASTM 240, type 304.

**Lugs:** Ductile iron per ASTM A 536, Grade 65-45-12.

**Bolts, Washers and Nuts:** UNC rolled thread, mild steel electrogalvanized with dichromate seal.

**Gaskets:** NBR (Buna-N) gasket compounded for water and gas services.



SC 24 X 3" Repair  
Clamp

Number of Bolts per Clamp Length		
OD Range	3"	6"
All Ranges	1	2

NOMINAL PIPE SIZE	CATALOG NUMBER	3"			6"		
		PRICE	QTY/CTN	WT/CTN	PRICE	QTY/CTN	WT/CTN
1/2" Std. Stl.	SC- 8 x length	\$13.14	24	16 #	\$23.92	12	16 #
3/4" Std. Stl.	SC-12 x length	13.58	24	16 #	25.60	12	16 #
1" Std. Stl.	SC-13 x length	14.35	24	17 #	26.30	12	17 #
1 1/4" Std. Stl.	SC-17 x length	15.14	24	17 #	27.84	12	17 #
1 1/2" Std. Stl.	SC-19 x length	15.86	24	18 #	31.14	12	18 #
2" Std. Stl.	SC-24 x length	17.36	16	20 #	31.51	8	20 #
2 1/2" Std. Stl.	SC-29 x length	18.63	16	20 #	35.85	8	20 #
3" Std. Stl.	SC-35 x length	20.47	6	8 #	37.81	4	11 #
3 1/2" Std. Stl.	SC-40 x length	21.54	6	10 #	40.47	4	13 #
4" O.D. Stl.	SC-40 x length	21.54	6	10 #	40.47	4	13 #
4" Std. Stl.	SC-45 x length	21.54	4	7 #	43.96	4	13 #
6" O.D. Stl.	SC-60 x length	29.47	4	9 #	54.29	2	9 #
6" Std. Stl.	SC-66 x length	29.47	4	9 #	54.29	2	9 #
8" O.D. Stl.	SC-80 x length	35.01	1	4 #	64.88	2	10 #

**To Order:** Specify catalog number x length of clamp.

**Example:** For an "SC" style clamp for 2" Std. Stl. pipe with clamp length of 3", order **SC-24 x 3"**

# Style SCC and SCS Repair Clamps

Meets  
AWWA C230

**Material Specifications**

**Shells and Armors:** Stainless steel per ASTM 240, type 304.  
**Lugs:** SCC - ductile iron per ASTM A197, Cupola Malleable Iron. ASTM A153 Zinc Plating; SCS - Stainless steel per ASTM 240, type 304.  
**Bolts, Washers and Nuts:** SCC - UNC rolled thread, Carbon Steel ElectroGalvanized with Dichromate Finish; SCS - stainless steel.  
**Gaskets:** NBR (Buna-N) gasket compounded for water and gas services.

**Full Circumferential Repair Clamps**



**SCC-088 x 3" Iron Lug Repair Clamp**



**SCS-088 x 3" All Stainless Steel Repair Clamp**

## Style "SCC" Clamp with Cast Iron Lugs

NOMINAL PIPE SIZE	CATALOG NUMBER	3"			6"		
		PRICE	QTY/CTN	WT/CTN	PRICE	QTY/CTN	WT/CTN
1/2" Copper 1/2" I.P.	SCC-063 x length	\$38.59	24	17 #	\$82.71	12	16 #
	SCC-084 x length	38.85	24	17 #	82.78	12	16 #
3/4" Copper 3/4" I.P.	SCC-088 x length	39.01	18	14 #	83.03	9	14 #
	SCC-105 x length	39.29	18	13 #	83.19	9	13 #
1" Copper 1" I.P.	SCC-113 x length	40.94	18	14 #	83.54	9	14 #
	SCC-132 x length	41.77	18	13 #	83.87	9	13 #
1 1/4" Copper 1 1/4" I.P.	SCC-138 x length	42.62	16	14 #	84.52	8	14 #
	SCC-166 x length	43.04	16	13 #	85.38	8	12 #
1 1/2" Copper 1 1/2" I.P.	SCC-163 x length	43.43	16	14 #	85.88	8	14 #
	SCC-190 x length	43.78	16	13 #	86.48	8	12 #
2" Copper 2" I.P.	SCC-213 x length	47.54	12	13 #	87.96	6	13.2#
	SCC-238 x length	48.04	12	12 #	88.88	6	11 #

**To Order:** Specify catalog number x length of clamp.  
**Example:** For an "SCC" style clamp for 2" Copper pipe with clamp length of 3", order **SCC - 213 x 3"**

Number of Bolts per Clamp Length		
OD Range	3"	6"
All Ranges	1	2

## Style "SCS" Clamp with Stainless Steel Lugs

NOMINAL PIPE SIZE	CATALOG NUMBER	3"			6"		
		PRICE	QTY/CTN	WT/CTN	PRICE	QTY/CTN	WT/CTN
1/2" Copper 1/2" I.P.	SCS-063 x length	\$47.84	24	16 #	\$66.12	12	22 #
	SCS-084 x length		24	16 #		12	20 #
3/4" Copper 3/4" I.P.	SCS-088 x length	48.77	18	14 #	67.00	9	17 #
	SCS-105 x length		18	13 #		9	16 #
1" Copper 1" I.P.	SCS-113 x length	48.94	18	14 #	67.16	9	17 #
	SCS-132 x length		18	13 #		9	16 #
1 1/4" Copper 1 1/4" I.P.	SCS-138 x length	50.50	16	14 #	70.55	8	17 #
	SCS-166 x length		16	12 #		8	15 #
1 1/2" Copper 1 1/2" I.P.	SCS-163 x length	52.90	16	14 #	73.41	8	18 #
	SCS-190 x length		16	12 #		8	16 #
2" Copper 2" I.P.	SCS-213 x length	53.78	12	13 #	82.25	6	16 #
	SCS-238 x length		12	11 #		6	14 #



# Style C Repair Clamp

**Material Specifications**

**All Stainless Steel** • For Steel, Cast Iron, Copper or Asbestos Cement Pipe

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** NBR (Buna-N) per ASTM D 2000 MBK 610, compounded for water and sewer services. Other compounds available on request.



**C-35 x 4" Repair Clamp**

PIPE SIZE	CATALOG NUMBER	LIST PRICE / WEIGHT		
		4"	8"	12"
1/2" Std. Stl., 3/4" Copper 3/4" Std. Stl., 1" Copper 1" Std. Stl., 1 1/4" Copper	C- 8 x length C-12 x length C-13 x length	\$33.91 1#	\$59.00 2.3#	\$85.42 3.5#
1 1/4" Std. Stl., 1 1/2" Copper 1 1/2" Std. Stl., 2" Copper 2" Std. Stl.	C-17 x length C-19 x length C-24 x length	36.03 1.2#	63.48 2.5#	94.90 4#
2 1/2" Copper 2 1/2" Std. Stl. 3" O.D. Stl., 3" Copper 3" Std. Stl., 3 1/2" Copper	C-26 x length Special C-29 x length C-30 x length C-35 x length	38.22 1.3#	76.07 3#	113.88 4.5#
3" C.I. 3" A.C. Cl. 100 3" A.C. Cl. 150, 4" Copper	C-38 x length C-39 x length C-41 x length	39.61 1.7#	77.03 3.6#	116.18 5.5#
3 1/2" Std. Stl. 4" O.D. Stl. 4" Std. Stl.	C-40 x length C-40 x length C-45 x length	39.61 1.7#	77.03 3.8#	116.18 5.7#
4" C.I. 4" A.C. Cl. 100 4" A.C. Cl. 150	C-48 x length C-50 x length C-51 x length	43.87 2.4#	81.35 5#	121.69 7.4#
5" Std. Stl. 6" O.D. Stl. 6" Std. Stl.	C-56 x length C-60 x length C-66 x length	47.38 2.8#	87.83 6#	132.37 8.6#
6" Copper 6" C.I. 6" A.C. Cl. 100 6" A.C. Cl. 150	C-61 x length Special C-69 x length C-72 x length C-72 x length	49.40 2.9#	90.11 6#	135.64 9#
8" O.D. Stl. 8" Std. Stl. 8" Cl.	C-80 x length C-86 x length C-90 x length	57.20 3.5#	101.25 7.1#	144.35 10.4#
8" A.C. Cl. 100 8" A.C. Cl. 150	C-94 x length C-94 x length	57.49 3.5#	101.90 7.2#	145.41 10.5#
10" O.D. Stl. 10" Std. Stl.	C-100 x length C-107 x length	62.34 4.2#	111.60 8.6#	212.35 12.3#
12" O.D. Stl. 12" Std. Stl.	C-120 x length C-127 x length	66.06 4.6#	119.01 9.3#	216.55 13.4#

Number of Bolts per Clamp Length			
OD Range	4"	8"	12"
All Ranges	1	2	3

**To Order:** Specify catalog number x length of clamp.

**Example:** For a "C" style clamp for 3" Std. Stl. pipe with clamp length of 4", order **C-35 x 4"**



# Style CC Double Section Repair Clamps

## Material Specifications

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** NBR (Buna-N) per ASTM D 2000 MBK 610, compounded for water and sewer services. Other compounds available on request.

Number of Bolts per Clamp Length		
OD Range	6"	12"
All Ranges	4	6



CC-1275 x 6" Repair Clamp

NOMINAL PIPE SIZE	PIPE O.D. (INCHES)	CATALOG NUMBER	LIST PRICE / APPROX. WEIGHT (lbs.)	
			6"	12"
10"	10.00	CC-1000 x length	\$188.61 8.3 #	\$384.95 14.0 #
10"	10.75	CC-1075 x length	194.42 8.5 #	396.59 14.4 #
12"	12.00	CC-1200 x length	198.30 8.8 #	413.47 15.0 #
12"	12.75	CC-1275 x length	207.96 9.0 #	420.72 15.4 #
14"	14.00	CC-1400 x length	217.63 9.3 #	435.23 16.0 #
16"	16.00	CC-1600 x length	234.57 9.8 #	469.13 17.0 #
18"	18.00	CC-1800 x length	246.63 10.3 #	493.28 18.0 #
20"	20.00	CC-2000 x length	261.13 10.9 #	522.31 19.3 #
22"	22.00	CC-2200 x length	278.09 11.4 #	556.15 20.3 #
24"	24.00	CC-2400 x length	290.15 11.9 #	580.34 21.3 #
30"	30.00	CC-3000 x length	340.92 13.5 #	681.91 24.3 #

**To Order:** Specify catalog number x length of clamp.

**Example:** For a "CC" style clamp for 12" Std. Stl. pipe with clamp length of 6", order **CC-1275 x 6"**



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## Style CLC Collar Leak Clamps

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

Meets  
AWWA C230



CLC-2.38

For quick, simple repairs of leaking solvent  
welds on PVC pipe joints

NOMINAL PIPE SIZE	PIPE O.D. INCHES	CATALOG NUMBER	PRICE EACH	APPROX. WEIGHT (lbs.)	OVERALL LENGTH
2"	2.375	CLC-2.38	\$117.52	4 #	6"
2 1/2"	2.875	CLC-2.88	128.85	4 #	6"
3"	3.50	CLC-3.50	137.32	4 #	6"
4"	4.50	CLC-4.50	166.11	5 #	6"

Standard clamp designed for Class 160 and SDR 26 PVC solvent weld bells.

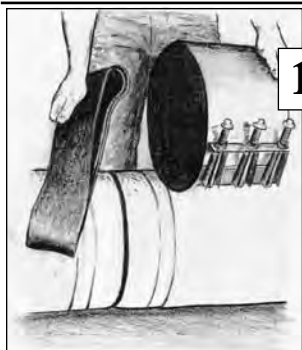
**To Order:** Specify catalog number. Provide O.D. of bell & spigot when ordering.





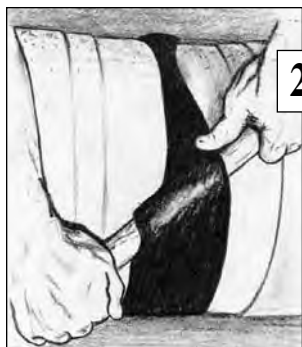
# The Romac A/CME Band

## For Repairing Broken or Leaking A/C Couplings



1

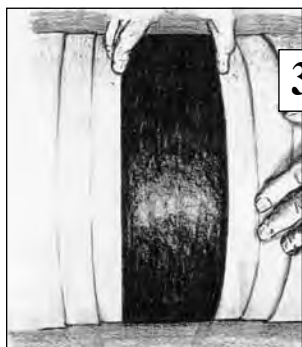
The **Romac A/CME Band** is a sturdy, ribbed rubber strap, 4" wide and 1/4" thick (adding 1/2" to the diameter of the machined end of the pipe). It is made of SBR rubber, compounded for water service.



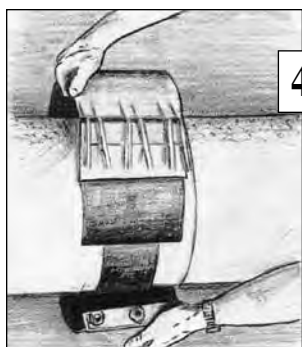
2

With a stock Stainless-Seal™ Repair Clamp and the A/CME Band, a leaking or broken A/C coupling can be replaced, with the repair good for pressures up to and including 150 psi.

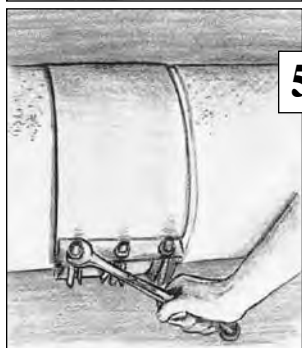
The Stainless-Seal™ Repair Clamp is 100% stainless steel. **You've made no compromise of quality in the asbestos cement coupling replacement.**



3



4



5

PIPE SIZE	PIPE M.E.O.D	1st CHOICE CLAMP	2nd CHOICE CLAMP	BAND CAT. NO.	LIST PRICES BAND ONLY <sup>1</sup>	APPROX. WEIGHT (lbs.)
4"	4.64	SS1 - 5.14 x 8	—	A/CME - 4.64	\$22.85	.50 #
	4.81	SS1 - 5.35 x 8	SS2-5.57 x 8	A/CME - 4.81		
6"	6.91	SS1 - 7.46 x 8	SS2-7.64 x 8	A/CME - 6.91	32.85	.75 #
8"	9.11	SS1 - 9.70 x 8	SS2-9.79 x 8	A/CME - 9.11	43.31	1.00 #
10"	11.24	SS1-11.80 x 8	SS2-11.84 x 8	A/CME-11.24	55.44	1.25 #
	11.66	SS1-12.25 x 8	SS2-12.20 x 8	A/CME-11.66		
12"	13.44	SS1-14.00 x 8	SS2-13.95 x 8	A/CME-13.44	66.05	1.50 #
14"	13.92	SS1-14.50 x 8	SS2-14.51 x 8	A/CME-13.92	77.10	1.70 #
	15.07	SS2-15.80 x 8	—	A/CME-15.07		
16"	16.22	SS2-16.75 x 8	—	A/CME-16.22	87.70	2.00 #
	17.15	SS3-18.30 x 8	—	A/CME-17.15		
16"	18.46	SS3-19.20 x 8	—	A/CME-18.46		

<sup>1</sup> See page 1-4, 1-5 or 1-6 for Repair Clamp prices.

**To Order:** Select the catalog number from the chart above based on the size of pipe and O.D. of machined end. Check your stock for the correct size of clamp required.

The 1st and 2nd choices are listed for convenience in determining which clamps work best with each Romac A/CME Band size.



# Style 516 Bell Joint Leak Clamps

(For use on Cast Iron, Ductile Iron & AWWA C-900 PVC Pipe)

**Material Specifications**

**Bell and Spigot Ring:** Ductile iron per ASTM A 536, Grade 65-45-12.

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts:** Trackhead, UNC rolled thread, high strength, low alloy steel per AWWA C111.

**Nuts:** UNC rolled thread, heavy hex, high strength, low alloy steel per AWWA C111.

**Use:** Romac's 516 Bell Joint Leak Clamps provide a fast, economical means of repairing or preventing leaks in cast iron bells, caulked or rubber ring joints. Our unique gasket and ring design enables a single clamp to fit both caulked and rubber ring joints for most classes of cast iron and ductile iron pipe within a nominal size. They also can be used on AWWA C900 PVC pipe.



**6" Bell Joint Leak Clamp**  
Ductile iron poured in U.S.A.

NOMINAL PIPE SIZE	O.D. SIZES (inches)	CATALOG NUMBER	BOLTS		APPROX. WEIGHT (lbs.)	LIST PRICE
			NUMBER	DIA. x LENGTH		
4"	4.80 & 5.00	516 - 5.00	4	5/8" x 10 1/2"	18 #	\$218.88
6"	6.90 & 7.10	516 - 7.10	4	5/8" x 10 1/2"	22 #	250.75
8"	9.05 & 9.30	516 - 9.30	6	5/8" x 10 1/2"	43 #	346.49
10"	11.10 & 11.40	516 - 11.40	8	5/8" x 15"	58 #	435.32
12"	13.20, 13.50 & 13.65	516 - 13.65	8	5/8" x 17"	86 #	470.88
14"	15.30 & 15.65	516 - 15.65	8	5/8" x 17"	110 #	1,330.05

**To Order:** Specify catalog number.

**Note:** BJLC can be provided with double gasket and spigot halves for repairs on in-line couplings. Please provide coupling O.D. and length. All prices on application.

**Note:** Special length bolts are available for D.I. sized PVC pipe with extended bells. Please provide bell length when ordering. Larger sizes of fabricated steel BJLC available P.O.A.

' The 10", 12" and 14" sizes have stainless steel armors molded into the gasket to bridge the gap between castings.







## Style 517 Bell Joint Leak Clamps

(For use on IPS PVC Pipe only)

### Material Specifications

**Bell and Spigot Ring:** Ductile iron per ASTM A 536, Grade 65-45-12.

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service.

**Bolts:** 1/2", mild steel all thread rod, zinc plated.

**Nuts:** Zinc plated, mild steel

**Use:** Romac's 517 Bell Joint Leak Clamps provide a fast, economical means of repairing or preventing leaks on Iron Pipe Size (IPS) PVC pipe. Can also be adapted for use on SDR 35 pipe (contact Romac's Engineering Department).



8" Bell Joint Leak Clamp  
Ductile Iron poured in U.S.A.

NOMINAL PIPE SIZE	O.D. SIZE (inches)	CATALOG NUMBER	BOLTS <sup>1</sup>		APPROX. WEIGHT (lbs.)	LIST PRICE
			NUMBER	DIA. x LENGTH		
4"	4.50	517 - 4.50	4	1/2" x 12"	13 #	\$217.07
6"	6.63	517 - 6.63	4	1/2" x 12"	15 #	239.05
8"	8.63	517 - 8.63	4	1/2" x 14"	20 #	330.75
10"	10.75	517 - 10.75	6	1/2" x 14"	28 #	414.59
10" SDR 21 & thicker	10.75 <sup>2</sup>	517 - 10.75 - 2	6	1/2" x 14"	28 #	414.59
12"	12.75	517 - 12.75	6	1/2" x 14"	31 #	449.68
12" SDR 21 & thicker	12.75 <sup>2</sup>	517 - 12.75 - 2	6	1/2" x 18"	31 #	449.68

<sup>1</sup> Uses twice as many nuts as bolts.

<sup>2</sup> NBR gaskets are standard. For Class 200 (SDR21) or thicker wall pipe, longer bolts may be required.

**To Order:** Specify catalog number. Please provide bell OD and length.

**Note:** BJLC can be provided with double gasket and spigot halves for repairs on in-line couplings. Please provide coupling O.D. and length. All prices on application.





# Style 416 Bell Joint Leak Clamp

Material Specifications

**Bell and Spigot Ring:** Mild steel per ASTM A 36 or equal.

**Gasket:** Compounded for water and sewer service. Meets the requirements of AWWA C219 and ASTM D2000. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC 5/8" rolled thread, high strength low alloy, corrosion resistant steel per AWWA C111. Other materials or special coatings available upon request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Other coatings available upon request.

**Uses:** Romac's 416 Bell Joint Leak Clamps provide fast, economical means of repairing or preventing leaks in ductile iron and/or rubber gasketed joints. For use on ductile iron and cast iron pipe.

**Pressure Rating:** 150 psi.



416 Bell Joint Leak Clamp

## Bell Joint Clamp (for use on Ductile Iron Pipe)

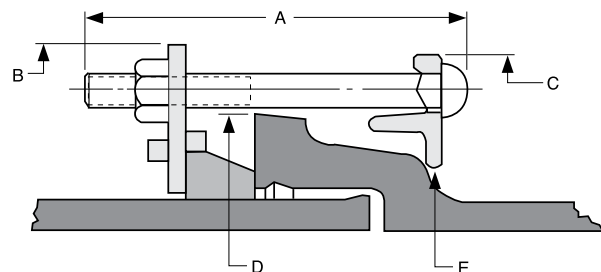
PIPE O.D.	CATALOG NUMBER	BOLTS NO: DIA. x LGTH.	SPIGOT RING O.D.	BELL RING O.D.	MAX. BELL O.D.	BELL RING I.D.	LIST PRICE	APROX. WEIGHT (lbs.)
		A	B	C	D	E		
13.20	416 - 13.20	8: 5/8" x 11.5"	18.93	18.68	16.45	14.46	\$2,433.67	89 #
15.30	416 - 15.30	10: 5/8" x 11.5"	21.03	20.78	19.00	16.56	2,587.21	104 #
17.40	416 - 17.40	10: 5/8" x 11.5"	23.15	22.90	21.15	18.68	2,642.86	114 #
19.50	416 - 19.50	12: 5/8" x 11.5"	25.41	25.54	23.25	20.80	2,749.54	127 #
21.60	416 - 21.60	12: 5/8" x 11.5"	27.64	27.77	25.50	23.03	3,020.70	145 #
25.80	416 - 25.80	14: 5/8" x 11.5"	32.02	32.15	29.85	27.41	3,191.23	170

## Bell Joint Leak Clamp (for use on Cast Iron Pipe)

13.50	416 - 13.50	8: 5/8" x 11.5"	20.28	20.03	17.90	15.81	\$2,461.61	93 #
15.65	416 - 15.65	10: 5/8" x 11.5"	22.63	22.38	20.25	18.16	2,607.50	109 #
17.80	416 - 17.80	10: 5/8" x 11.5"	25.32	25.45	22.90	20.71	2,677.30	120 #
19.92	416 - 19.92	12: 5/8" x 11.5"	27.84	27.97	25.45	23.23	2,777.02	135 #
22.06	416 - 22.06	12: 5/8" x 11.5"	30.38	30.51	28.00	25.77	3,085.96	158 #
26.32	416 - 26.32	14: 5/8" x 11.5"	35.04	35.17	32.65	30.43	3,264.03	185 #

**To Order:** Specify catalog number.

For sizes not shown above, indicate Style 418 and specify Pipe OD, Bell OD, Bell Length and maximum pressure rating. POA.





# Style 416 Bell Joint Leak Clamp

## Material Specifications

**Bell and Spigot Ring:** Mild steel per ASTM A 36 or equal.

**Gasket:** Compounded for water and sewer service. Meets the requirements of AWWA C219 and ASTM D2000. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC 5/8" rolled thread, high strength low alloy, corrosion resistant steel per AWWA C111. Other materials or special coatings available upon request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Other coatings available upon request.

**Uses:** Romac's 416 Bell Joint Leak Clamps provide fast, economical means of repairing or preventing leaks in ductile iron and/or rubber gasketed joints. For use on ductile iron and cast iron pipe.

**Pressure Rating:** 150 psi.



416 Bell Joint Leak Clamp

## Bell Joint Clamp (for use on Ductile Iron Pipe)

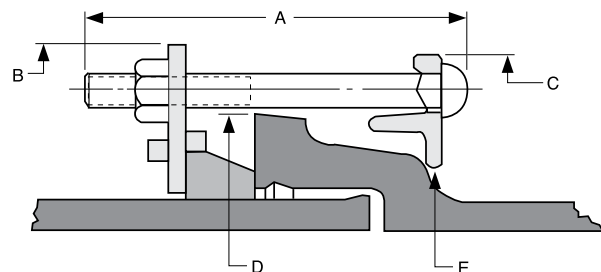
PIPE O.D.	CATALOG NUMBER	BOLTS	SPIGOT RING	BELL RING	MAX. BELL	BELL RING	LIST PRICE	APROX. WEIGHT (lbs.)
		NO: DIA. x LGTH.	O.D.	O.D.	O.D.	I.D.		
		A	B	C	D	E		
13.20	416 - 13.20	6: 5/8" x 11.5"	18.94	18.68	16.43	14.46	\$2,433.67	89 #
15.30	416 - 15.30	8: 5/8" x 11.5"	21.04	20.78	18.53	16.56	2,587.21	104 #
17.40	416 - 17.40	8: 5/8" x 11.5"	23.16	22.90	20.65	18.68	2,642.86	114 #
19.50	416 - 19.50	10: 5/8" x 11.5"	25.42	25.54	22.91	20.80	2,749.54	127 #
21.60	416 - 21.60	10: 5/8" x 11.5"	27.65	27.77	25.14	23.03	3,020.70	145 #
25.80	416 - 25.80	12: 5/8" x 11.5"	32.03	32.15	29.52	27.41	3,191.23	170 #

## Bell Joint Leak Clamp (for use on Cast Iron Pipe)

13.50	416 - 13.50	6: 5/8" x 11.5"	20.29	20.03	17.78	15.81	\$2,461.61	93 #
15.65	416 - 15.65	8: 5/8" x 11.5"	22.64	22.38	20.13	18.16	2,607.50	109 #
17.80	416 - 17.80	8: 5/8" x 11.5"	25.33	25.45	22.82	20.71	2,677.30	120 #
19.92	416 - 19.92	10: 5/8" x 11.5"	27.85	27.97	25.34	23.23	2,777.02	135 #
22.06	416 - 22.06	10: 5/8" x 11.5"	30.39	30.51	27.88	25.77	3,085.96	158 #
26.32	416 - 26.32	12: 5/8" x 11.5"	35.05	35.17	32.54	30.43	3,264.03	185 #

**To Order:** Specify catalog number.

For sizes not shown above, indicate Style 418 and specify Pipe OD, Bell OD, Bell Length and maximum pressure rating. POA.





# Style "501" Straight, Transition and Long Barrel Couplings

**Material Specifications**

**Center Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Yellow shopcoat. Epoxy and special coatings available on request.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl., BLACK for cast iron and YELLOW for A/C.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC 5/8" rolled thread, high strength, low alloy, corrosion resistant steel per AWWA C111. Other materials or special coatings available on request.

**Options:** For other options and specifications, see Page 2-23.

**Pressure:** When properly installed on a pipe that is within the correct OD range, the Romac 501 can be used at working pressures up to 260 psi.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions. See Page 7-4 for appropriate restraint system.



**CAUTION:** Couplings with a step in the center ring have the potential for migrating along the pipe, therefore some form of restraint should be used.

**Meets AWWA C219**

NOM. PIPE SIZE	ONE END			BY	OTHER END			BY	CR LGTH	LIST PRICE							
	COLOR CODE	GASKET RANGE	APPROX. USE		X	COLOR CODE	GASKET RANGE			APPROX. USE	X	SHOPCOAT			FUSION EPOXY		
												w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N
2"	RED	2.00 - 2.14	O.D. Stl., Copper	X	RED	2.00 - 2.14	O.D. Stl., Copper	X	5" <sup>1</sup>		\$61.51	\$80.23	\$114.20	\$75.72	\$94.43	\$128.42	
		2.12 - 2.38	Std. Stl, Copper, PVC			2.12 - 2.38	Std. Stl, Copper, PVC										
		2.35 - 2.65	Std. Stl, Copper, PVC			2.35 - 2.65	Std. Stl, Copper, PVC										
		2.50 - 3.00	C.I., Copper, PVC			2.50 - 3.00	C.I., Copper, PVC										
3"	RED	3.00 - 3.29	Copper, OD Steel	X	RED	3.00 - 3.29	Copper, OD Steel	X	5" <sup>1</sup>		97.97	141.41	203.36	121.07	164.50	226.46	
		3.30 - 3.51	Std. Stl & PVC			3.30 - 3.51	Std. Steel & PVC										
		3.50 - 4.00	Std. Stl, CI/DI & PVC			3.50 - 4.00	Std. Stl, CI/DI & PVC										
4"	RED	3.80 - 4.05	O.D. Stl., 3" D.I.	X	RED	3.80 - 4.05	O.D. Stl.	X	5" <sup>1</sup>		116.15	153.59	221.54	143.52	180.96	248.91	
		4.06 - 4.31	Riv. Stl.			4.06 - 4.31	Riv. Stl.										
		4.50 - 4.70	Std. Stl, PVC			4.50 - 4.70	Std. Stl, PVC										
		4.50 - 4.81	Std. Stl., D.I. & PVC			4.50 - 4.81	Std. Stl., D.I. & PVC										
	BLACK	4.80 - 5.00	Cast Iron & PVC	X	BLACK	4.80 - 5.00	Cast Iron & PVC	X	10"		166.84	220.21	311.47	206.15	259.51	350.78	
		4.74 - 5.10	C.I. & A/CME			4.74 - 5.10	C.I. & A/CME										
		5.11 - 5.30	A/C R.B.			5.11 - 5.30	A/C R.B.										
		5.11 - 5.40	A/C R.B. CL. 200			5.11 - 5.40	A/C R.B. CL. 200										
6"	RED	5.40 - 5.60 <sup>2</sup>	Std. Stl. & PVC	X	RED	5.40 - 5.60 <sup>2</sup>	Std. Stl. & PVC	X	5" <sup>1</sup>		158.09	204.89	268.12	195.35	242.14	327.09	
		5.60 - 5.79 <sup>2</sup>	Std. Stl. & PVC			5.60 - 5.79 <sup>2</sup>	Std. Stl. & PVC										
		5.80 - 5.98 <sup>2</sup>	Std. Stl. & PVC			5.80 - 5.98 <sup>2</sup>	Std. Stl. & PVC										
		5.80 - 6.10	O.D. Stl.			5.80 - 6.10	O.D. Stl.										
	BLACK	6.05 - 6.30	Riv. Stl.	X	BLACK	6.05 - 6.30	Riv. Stl.	X	7"		187.81	242.11	340.94	232.08	286.36	385.21	
		6.55 - 6.76	Std. Stl. & PVC			6.55 - 6.76	Std. Stl. & PVC										
		6.60 - 6.91	Std. Stl., D.I. & PVC			6.60 - 6.91	Std. Stl., D.I. & PVC										
		6.90 - 7.10	Cast Iron & PVC			6.90 - 7.10	Cast Iron & PVC										
YELLOW	6.86 - 7.20	C.I. & A/CME	X	YELLOW	6.86 - 7.20	C.I. & A/CME	X	10"		249.88	316.60	430.67	308.79	375.49	489.58		
	7.15 - 7.35	A/C R.B.			7.15 - 7.35	A/C R.B.											
	7.26 - 7.60	A/C R.B. CL. 200			7.26 - 7.60	A/C R.B. CL. 200											
	7.26 - 7.60	A/C R.B. CL. 200			7.26 - 7.60	A/C R.B. CL. 200											
8"	RED	7.80 - 8.10	O.D. Stl.	X	RED	7.80 - 8.10	O.D. Stl.	X	5" <sup>1</sup>		200.28	256.44	358.36	247.48	303.64	405.56	
		8.05 - 8.30	Riv. Stl.			8.05 - 8.30	Riv. Stl.										
		8.30 - 8.55	C.I-Soil, PVC Sewer			8.30 - 8.55	C.I-Soil, PVC Sewer										
		8.55 - 8.75	Std. Stl, PVC			8.55 - 8.75	Std. Stl. & PVC										
	BLACK	8.60 - 9.06	Std. Stl., D.I. & PVC	X	BLACK	8.60 - 9.06	Std. Stl., D.I. & PVC	X	7"		235.74	300.88	419.48	291.28	356.44	475.03	
		9.05 - 9.30	Cast Iron & PVC			9.05 - 9.30	Cast Iron & PVC										
		8.99 - 9.40	C.I. & A/CME			8.99 - 9.40	C.I. & A/CME										
		9.31 - 9.50	A/C R.B.			9.31 - 9.50	A/C R.B.										
YELLOW	9.39 - 9.79	A/C R.B. CL. 200	X	YELLOW	9.39 - 9.79	A/C R.B. CL. 200	X	10"		306.43	386.47	523.38	378.64	458.68	595.60		
	9.39 - 9.79	A/C R.B. CL. 200			9.39 - 9.79	A/C R.B. CL. 200											
YELLOW	YELLOW	9.39 - 9.79	A/C R.B. CL. 200	X	YELLOW	9.39 - 9.79	A/C R.B. CL. 200	X	14"		445.55	541.65	788.70	550.54	646.64	893.70	
		9.39 - 9.79	A/C R.B. CL. 200			9.39 - 9.79	A/C R.B. CL. 200										
		9.39 - 9.79	A/C R.B. CL. 200			9.39 - 9.79	A/C R.B. CL. 200										
		9.39 - 9.79	A/C R.B. CL. 200			9.39 - 9.79	A/C R.B. CL. 200										

<sup>1</sup> Standard Center Ring length.  
<sup>2</sup> Requires special 5" end ring.

**To Order:** Determine O.D. of pipes to be coupled. Select proper gasket range for each pipe from above table. Insert high range of each gasket into catalog number as follows: 501 - one end x other end.

**Example:** To couple 4" A/C rough barrel and 4" O.D. steel with 5" Center Ring, order **501-5.30 x 4.05 X 5**



# Style "501" Straight, Transition and Long Barrel Couplings

NOM. PIPE SIZE	ONE END				BY	OTHER END				BY	CR LGTH	LIST PRICE					
	COLOR CODE	GASKET RANGE	APPROX. USE	X		COLOR CODE	GASKET RANGE	APPROX. USE	X			SHOPCOAT			FUSION EPOXY		
												w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N
10"	RED	9.80 - 10.10A 10.20 - 10.55A 10.70 - 11.00A	O.D. Stl. CI Soil, PVC Sewer Std. Stl. & PVC	X	RED	9.80 - 10.10A 10.20 - 10.55A 10.70 - 11.00A	O.D. Stl. CI Soil, PVC Sewer Riv. Stl.	X	6" 1,2 A, B & AB	\$276.34	\$352.34	\$490.71	\$341.45	\$417.46	\$555.83		
	BLACK	10.70 - 10.80B 10.89 - 11.40B	Std. Stl. & PVC Cast Iron & PVC		BLACK	10.70 - 10.80B 10.89 - 11.40B	Std. Stl. & PVC Cast Iron & PVC		7" 2 B Only	368.36	444.37	582.73	455.17	531.17	669.54		
	YELLOW	11.55 - 11.75B 11.76 - 12.12B	A/CME A/C R.B.		YELLOW	11.55 - 11.75B 11.76 - 12.12B	A/CME A/C R.B.		12" 2 A&B, AB	575.10	687.21	975.45	710.63	822.74	1,110.40		
12"	RED	11.81 - 12.10A 11.95 - 12.25A 12.24 - 12.50A 12.65 - 12.95A	O.D. Stl. PVC SDR 41 CI Soil, PVC Sewer Std. Stl. & PVC	X	RED	11.81 - 12.10A 11.95 - 12.25A 12.24 - 12.50A 12.65 - 12.95A	O.D. Stl. PVC SDR 41 CI Soil, PVC Sewer Std. Stl. & PVC	X	6" 1,2 A, B & AB	332.35	419.22	577.35	410.66	497.53	655.67		
	BLACK	12.70 - 12.80B 13.15 - 13.55B	Std. Stl. & PVC Cast Iron & PVC		BLACK	12.70 - 12.80B 13.15 - 13.55B	Std. Stl. & PVC Cast Iron & PVC		7" 2 B Only	412.62	499.47	657.61	509.85	596.71	754.84		
	YELLOW	13.85 - 14.10B 14.03 - 14.40B	A/CME A/C R.B.		YELLOW	13.85 - 14.10B 14.03 - 14.40B	A/CME A/C R.B.		12" 2 A & B, AB	675.53	803.66	1,133.07	834.71	962.84	1,292.25		
14"	14.00 O.D. (please refer to 12" nominal pipe size)				X	14.00 O.D. (please refer to 12" nominal pipe size)				X	7" 1,3	575.85	677.09	876.47	708.97	810.21	1,009.59
	BLACK	14.60 - 15.00 15.30 - 15.70	DI, CI & Simplex AC D.I, A/C R.B. & PVC	BLACK		14.60 - 15.00 15.30 - 15.70	DI, CI & Simplex AC D.I, A/C R.B. & PVC	14"	956.54		1,109.08	1,510.36	1,177.65	1,330.19	1,731.48		
	RED	16.00 - 16.40	O.D. Stl.	RED		16.00 - 16.40	O.D. Stl.										
16"	16.00 O.D. (please refer to 14" nominal pipe size)				X	16.00 O.D. (please refer to 14" nominal pipe size)				X	7" 1,3	693.76	807.61	1,027.79	854.13	967.97	1,188.16
	BLACK	17.05 - 17.40 17.40 - 17.80	D.I., Cast Iron & PVC D.I. and A/C R.B, PVC	BLACK		17.05 - 17.40 17.40 - 17.80	D.I., Cast Iron & PVC D.I. and A/C R.B, PVC	14"	1,151.25		1,320.73	1,766.61	1,417.36	1,586.85	2,032.72		
	RED	17.80 - 18.10 18.10 - 18.40	Cast Iron, O.D. Stl & PVC Cast Iron & A/C	RED		17.80 - 18.10 18.10 - 18.40	Cast Iron, O.D. Stl & PVC Cast iron & A/C										
18"	18.00 O.D. (please refer to 16" nominal pipe size)				X	18.00 O.D. (please refer to 16" nominal pipe size)				X	7" 1,3	1,010.94	1,147.56	1,411.78	1,249.18	1,385.78	1,650.00
	RED	18.70 - 19.10		RED		18.70 - 19.10		14"	1,544.08		1,747.46	2,282.51	1,907.94	2,111.31	2,646.37		
	BLACK	19.10 - 19.70		BLACK		19.10 - 19.70											
20"	20.00 O.D. (please refer to 18" nominal pipe size)				X	20.00 O.D. (please refer to 18" nominal pipe size)				X	7" 1,3	1,212.43	1,349.04	1,613.26	1,498.13	1,634.73	1,898.96
	RED	20.80 - 21.35		RED		20.80 - 21.35		14"	1,753.39		1,956.76	2,491.82	2,166.57	2,369.94	2,905.00		
	BLACK	21.35 - 21.75		BLACK		21.35 - 21.75											
22"	22.00 O.D. (please refer to 20" nominal pipe size)				X	22.00 O.D. (please refer to 20" nominal pipe size)				X	7" 1,3	1,316.10	1,464.10	1,750.34	1,626.23	1,774.23	2,060.46
	RED	22.95 - 23.35		RED		22.95 - 23.35		14"	1,989.51		2,209.83	2,789.48	2,458.33	2,678.66	3,258.30		
	BLACK	23.45 - 23.85		BLACK		23.45 - 23.85											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52
	RED	24.75 - 25.30		RED		24.75 - 25.30		20"	3,188.07		3,498.31	4,304.68	3,939.32	4,249.58	5,062.56		
	BLACK	25.30 - 25.80		BLACK		25.30 - 25.80											
24"	24.00 O.D. (please refer to 22 " nominal pipe size)				X	24.00 O.D. (please refer to 22 " nominal pipe size)				X	10" 1	2,062.32	2,249.10	2,568.54	2,548.30	2,735.09	3,054.52

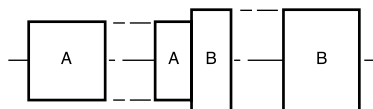




# Style "501" Parts List

NOM. PIPE SIZE	APPROX. COMPLETE COUPLING WEIGHT (lbs.)	CENTER RING LENGTH	CENTER RING	END RING	GASKET	5/8" BOLTS		TRACKHEAD BOLT w/NUT		
						NUMBER: LENGTH	CORTEN	304 S.S.	316 S.S.	
2"	9 #	5"	\$21.43	\$8.40	\$3.64	2: 5/8" x 8"	\$8.00	\$18.01	\$35.64	
3"	13 #	5"	29.57	10.75	4.75	4: 5/8" X 10 1/2"	9.35	20.98	41.49	
	17 #	10"	41.18			4: 5/8" X 13"	11.59	25.88	49.56	
4"	16 #	5"	41.41	15.13	6.24	4: 5/8" x 8"	8.00	18.01	35.64	
	22 #	7"	68.01			4: 5/8" x 10 1/2"	9.35	20.98	41.49	
	27 #	10"	77.74			4: 5/8" x 13"	11.59	25.88	49.56	
	28 #	12"	175.47			4: 5/8" x 15"	11.59	25.88	49.56	
	36 #	14"	208.10			4: 5/8" x 17"	12.06	29.14	71.87	
6"	26 #	5"	48.03	26.15	8.88	5: 5/8" x 8"	8.00	18.01	35.64	
	34 #	7"	71.00			5: 5/8" x 10 1/2"	9.35	20.98	41.49	
	39 #	10"	121.87			5: 5/8" x 13"	11.59	25.88	49.56	
	47 #	12"	197.94			5: 5/8" x 15"	11.59	25.88	49.56	
	55 #	14"	224.54			5: 5/8" x 17"	12.06	29.14	71.87	
8"	32 #	5"	61.54	32.10	13.27	6: 5/8" x 8"	8.00	18.01	35.64	
	41 #	7"	88.90			6: 5/8" x 10 1/2"	9.35	20.98	41.49	
	55 #	10"	146.15			6: 5/8" x 13"	11.59	25.88	49.56	
	58 #	12"	256.42			6: 5/8" x 15"	11.59	25.88	49.56	
	68 #	14"	282.45			6: 5/8" x 17"	12.06	29.14	71.87	
10"	49 # (A)	6"	81.85	36.97	27.55	7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	55 # (B)	6"	81.85			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	57 # (AB)	6"	81.85			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	64 # (B only)	7"	173.87			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	78 # (A)	12"	361.64			7: 5/8" x 17"	12.06	29.14	71.87	
	83 # (B)	12"	361.64			7: 5/8" x 17"	12.06	29.14	71.87	
	100 # (B only)	14"	442.56			7: 5/8" x 18"	12.79	30.86	77.14	
12"	65 # (A)	6"	98.25	44.43	35.22	8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	68 # (B)	6"	98.25			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	73 # (AB)	6"	98.25			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	72 # (B only)	7"	178.52			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	102 # (A)	12"	419.75			8: 5/8" x 17"	12.06	29.14	71.87	
	108 # (B)	12"	419.75			8: 5/8" x 17"	12.06	29.14	71.87	
	115 # (B only)	14"	470.96			8: 5/8" x 18"	12.79	30.86	77.14	
14"	92 #	7"	252.37	71.25	46.75	9: 5/8" x 11 1/2"	9.72	21.91	44.76	
	136 #	14"	605.43			9: 5/8" x 18"	12.79	30.86	77.14	
16"	102 #	7"	308.68	95.30	48.64	10: 5/8" x 11 1/2"	9.72	21.91	44.76	
	153 #	14"	735.47			10: 5/8" x 18"	12.79	30.86	77.14	
18"	123 #	7"	380.60	199.85	57.00	12: 5/8" x 11 1/2"	9.72	21.91	44.76	
	194 #	14"	876.90			12: 5/8" x 18"	12.79	30.86	77.14	
20"	125 #	7"	440.97	268.59	58.82	12: 5/8" x 11 1/2"	9.72	21.91	44.76	
	200 #	14"	945.09			12: 5/8" x 18"	12.79	30.86	77.14	
22"	154 #	7"	501.08	284.08	60.25	13: 5/8" x 11 1/2"	9.72	21.91	44.76	
	222 #	14"	1,134.58			13: 5/8" x 18"	12.79	30.86	77.14	
24"	214 #	10"	877.82	431.54	79.58	14: 5/8" x 15"	11.59	25.88	49.56	
	363 #	20"	1,915.65			14: 5/8" x 24"	17.87	41.55	101.32	

To accommodate the wider range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in three sizes: A, AB, and B (see drawing right).



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions. See Page 7-4 for appropriate restraint system.





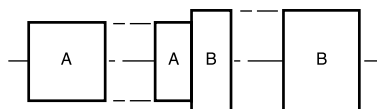
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# Fusion Epoxy Style "501" Parts List

NOM. PIPE SIZE	APPROX. CENTER RING WEIGHT (lbs.)	CENTER RING LENGTH	CENTER RING	END RING	GASKET N: NBR E: EPDM	5/8" BOLTS		TRACKHEAD BOLT w/NUT		
						NUMBER:	LENGTH	CORTEN	304 SS	316 SS
2"	4 #	5"	\$28.32	\$12.06	N 20.72	2: 5/8" x 8"	\$8.00	\$18.01	\$35.64	
					E 21.44					
3"	6 #	5"	40.78	16.69	N 21.61	4: 5/8" X 10 1/2"	9.35	20.98	41.49	
	13.5 #	10"	57.22		E 21.96	4: 5/8" X 13"	11.59	25.88	49.56	
4"	8 #	5"	54.66	22.19	N 21.94	4: 5/8" x 8"	8.00	18.01	35.64	
	13 #	7"	88.80			4: 5/8" x 10 1/2"	9.35	20.98	41.49	
	17 #	10"	102.92		E 22.52	4: 5/8" x 13"	11.59	25.88	49.56	
	19 #	12"	223.68			4: 5/8" x 15"	11.59	25.88	49.56	
	25 #	14"	264.45			4: 5/8" x 17"	12.06	29.14	71.87	
6"	12 #	5"	66.15	35.72	N 25.86	5: 5/8" x 8"	8.00	18.01	35.64	
	19 #	7"	96.12			5: 5/8" x 10 1/2"	9.35	20.98	41.49	
	23 #	10"	161.63		E 27.05	5: 5/8" x 13"	11.59	25.88	49.56	
	30 #	12"	255.59			5: 5/8" x 15"	11.59	25.88	49.56	
	31 #	14"	289.02			5: 5/8" x 17"	12.06	29.14	71.87	
8"	15 #	5"	84.43	44.25	N 31.15	6: 5/8" x 8"	8.00	18.01	35.64	
	24 #	7"	120.14			6: 5/8" x 10 1/2"	9.35	20.98	41.49	
	36 #	10"	194.06		E 35.01	6: 5/8" x 13"	11.59	25.88	49.56	
	39 #	12"	330.30			6: 5/8" x 15"	11.59	25.88	49.56	
	48 #	14"	363.14			6: 5/8" x 17"	12.06	29.14	71.87	
10"	25 # (A)	6"	113.36	53.77	N 43.39	7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	28 # (B)	6"	113.36			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	31 # (AB)	6"	113.36			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	37 # (B only)	7"	227.07			7: 5/8" x 10 1/2"	9.35	20.98	41.49	
	51 # (A)	12"	463.57		E 50.64	7: 5/8" x 17"	12.06	29.14	71.87	
	56 # (B)	12"	463.57			7: 5/8" x 17"	12.06	29.14	71.87	
	74 # (B only)	14"	564.76			7: 5/8" x 18"	12.79	30.86	77.14	
12"	34 # (A)	6"	141.62	61.90	N 54.34	8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	36 # (B)	6"	141.62			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	42 # (AB)	6"	141.62			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	40 # (B only)	7"	240.80			8: 5/8" x 10 1/2"	9.35	20.98	41.49	
	68 # (A)	12"	543.99		E 63.06	8: 5/8" x 17"	12.06	29.14	71.87	
	72 # (B)	12"	543.99			8: 5/8" x 17"	12.06	29.14	71.87	
	80 # (B only)	14"	608.64			8: 5/8" x 18"	12.79	30.86	77.14	
14"	49 #	7"	348.64	89.67	N 77.71	9: 5/8" x 11 1/2"	9.72	21.91	44.76	
	98 #	14"	789.70		E 92.52	9: 5/8" x 18"	12.79	30.86	77.14	
16"	55 #	7"	417.09	121.28	N 85.99	10: 5/8" x 11 1/2"	9.72	21.91	44.76	
	110 #	14"	949.62		E 103.54	10: 5/8" x 18"	12.79	30.86	77.14	
18"	71 #	7"	527.71	245.41	N 112.78	12: 5/8" x 11 1/2"	9.72	21.91	44.76	
	142 #	14"	1,149.64		E 139.27	12: 5/8" x 18"	12.79	30.86	77.14	
20"	67 #	7"	641.01	311.42	N 125.25	12: 5/8" x 11 1/2"	9.72	21.91	44.76	
	134 #	14"	1,272.6		E 157.03	12: 5/8" x 18"	12.79	30.86	77.14	
22"	76 #	7"	706.6	336.38	N 132.17	13: 5/8" x 11 1/2"	9.72	21.91	44.76	
	152 #	14"	1,498.8		E 166.67	13: 5/8" x 18"	12.79	30.86	77.14	
24"	133 #	10"	1,113.52	556.68	N 191.57	14: 5/8" x 15"	11.59	25.88	49.56	
	266 #	20"	2,416.62		E 245.62	14: 5/8" x 24"	17.87	41.55	101.32	

To accommodate the wider range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in three sizes: A, AB, and B (see drawing right).



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions. See Page 7-4 for appropriate restraint system.



# MACRO™

## Two-Bolt Wide Range Ductile Iron Coupling

# MACRO™

## ROMAC'S SECOND GENERATION TWO-BOLT EXTENDED RANGE COUPLING



**A ROMAC ORIGINAL**  
**2009 - MACRO™**  
Patents Pending

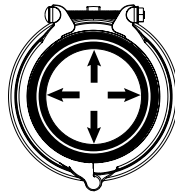
The Macro™ meets the specifications set forth in the AWWA Standard C219 coupling standard.

- **DUCTILE IRON**  
Long-life ductile iron end-rings and center-ring.
- **EXTENDED RANGE**  
With a range of up to 1.25 inches, the Macro™ can accommodate IPS through Class 200 A/C pipe.

Insert an LR (Low-Range) Gasket and the Macro™ possesses a range of up to 2.10 inches and can cover smaller pipe diameters such as those for OD Steel and Sewer.

- **EASY TO HANDLE**  
The built-in handle makes the Macro™ simple to carry and maneuver.
- **SIMPLE TWO-BOLT INSTALLATION**  
There is no need to disassemble the Macro™ during installation. Each end of the Macro™ tightens independently with a single bolt.
- **CATHODIC PROTECTION**  
The Macro™ can be ordered with an adapter/connection for cathodic protection if desired.
- **ALLOWS DEFLECTION**  
When properly installed the Macro™ can accommodate pipe deflection of up to 8 degrees (4 degrees on each end).
- **MANUFACTURED IN THE U.S.A. BY ROMAC INDUSTRIES, INC.**  
From the stainless steel armor, and NBR gaskets, to the ductile iron end-rings and center-ring, Romac manufactures the Macro™ in the U.S.A.

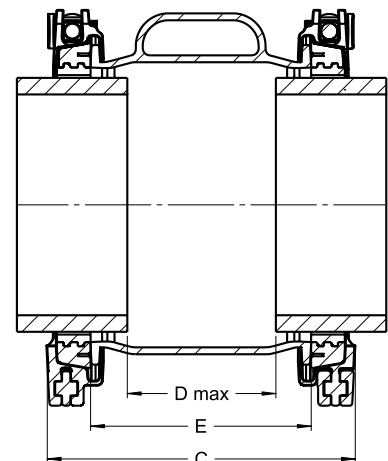
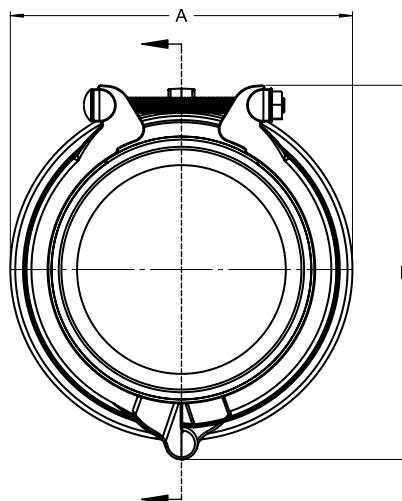
### NESTING DUAL GASKET SYSTEM



The inner gasket is used when coupling small pipe diameters.



The inner gasket can be removed to couple larger pipe diameters.



Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



**Two-Bolt Wide Range Ductile Iron Coupling**

**Material Specifications**

**Castings:** All cast components (end rings, center ring, and bolt guides) are ductile iron, meeting or exceeding the requirements of ASTM A 536, grade 65-45-12. End rings are segmented and joined with an integrated hinge.

**Gaskets:** Gaskets formed from virgin Nitrile Butadiene Rubber (NBR) compounded for water and sewer service in accordance with ASTM D2000. NSF 61 certified gaskets and other compounds available on request.

**Bolts & Nuts:** 5/8-11 UNC carriage head bolts with heavy hex nuts, 304 stainless steel. 316 stainless steel available upon request. Fasteners provided with anti-galling protection.

**Armor:** Heavy gauge 304 stainless steel.

**Coatings:** Center ring fusion bonded epoxy in accordance with AWWA C213 and NSF 61 Certified. End rings are E-Coated epoxy.

**Pressure:** When properly installed, the Romac MACRO coupling can be used at working pressures up to 260 psi.

For material specifications of Macro with cathodic protection adapter, see product submittals.



**PATENTS PENDING**

NOM. PIPE SIZE	OVERALL COUPLING RANGE		DIMENSIONS					LIST PRICE	APPROX. WT. (LBS.)
	NESTING DUAL GASKETS		DIM. A (WIDTH)	DIM. B (HEIGHT)	DIM. C (LENGTH)	DIM. D (GAP BETWEEN PIPE ENDS)	DIM. E (CENTER RING LENGTH)		
4"	4.40 - 5.05 INNER GASKET RANGE	5.60 - 4.95 OUTER GASKET RANGE	8.96	10.18	11.19	6.00	8.00	\$269.00	28
6"	6.60 - 7.15 INNER GASKET RANGE	7.60 - 7.10 OUTER GASKET RANGE	10.96	12.18	11.19	6.00	8.00	355.00	34
8"	8.60 - 8.90 INNER GASKET RANGE	9.75 - 9.10 OUTER GASKET RANGE	13.11	14.33	11.19	6.00	8.00	402.00	36
10"	10.70 - 10.70 INNER GASKET RANGE	11.90 - 11.25 OUTER GASKET RANGE	15.26	16.48	11.19	6.00	8.00	520.00	57
10" XL	11.00 - 11.00 INNER GASKET RANGE	12.20 - 11.55 OUTER GASKET RANGE	15.56	16.78	11.19	6.00	8.00	556.00	59
12"	12.70 - 12.70 INNER GASKET RANGE	13.80 - 13.15 OUTER GASKET RANGE	17.16	18.38	11.19	6.00	8.00	612.00	62
12" XL	13.15 - 13.15 INNER GASKET RANGE	14.40 - 13.75 OUTER GASKET RANGE	17.76	18.98	11.19	6.00	8.00	732.00	64

**LR (Low-Range) GASKET ADD-ON**

Interchangeable inner-gasket for smaller pipe diameters. Maximum working pressure for MACRO with LR gasket is 200 psi. List price does not include MACRO coupling. Not compatible with 10XL & 12" XL MACRO

NOM. PIPE SIZE	RANGE	CATALOG NUMBER	APPROX. WEIGHT (LBS.)	LIST PRICE EA.
4"	3.50 - 4.30	8R26104LR	.68	\$39.50
6"	6.00 - 6.30	8R26106LR	.96	42.50
8"	8.00 - 8.40	8R26108LR	1.25	49.50
10"	10.00 - 10.50	8R26110LR	1.67	55.50
12"	12.00 - 12.50	8R26112LR	1.80	58.50



**ADAPTED FOR CATHODIC PROTECTION ADD-ON**

Mechanical Connection for adding cathodic protection such as an anode (Romac does not supply anode). List prices do not include MACRO coupling.

**ADD-ON LIST PRICE \$155.00**

**To Order MACRO Coupling:** Determine the O.D. of the pipes to be coupled, and select coupling size which covers the pipe diameters of both pipe ends. Use the high range [shaded number in table above] of the overall coupling range to identify which coupling you're ordering

**Example:** To couple 8" DI and 8" std. steel, order **MACRO 9.75**.

**To Order "Adapted for Cathodic Protection" Add-On:** Add the designation "C" to the end of the coupling order.

**Example:** To order an 8" MACRO Adapted for Cathodic Protection, order: **MACRO 9.75 - C**.

**To Order LR Gasket:** Specify which sized LR gasket by indicating the corresponding Catalog Number [shaded number in LR Gasket Add-On Table].

**!** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



**ROMAC INDUSTRIES, INC.**  
1-800-426-9341



# Style "XR501" Extended Range Coupling

**Material Specifications**

**Center Rings:** The center rings are cast from ductile (nodular) iron meeting or exceeding ASTM A 536, Grade 65-45-12.

**End Rings:** The end rings are cast from ductile (nodular) iron meeting or exceeding ASTM A 536, Grade 65-45-12.

**Gaskets:** Gaskets are made from Styrene Butadiene Rubber (SBR) compounded for water and sewer service in accordance with ASTM D2000 MBA 810. Other compounds available for petroleum, chemical, or high temperature service.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit.

**Bolts and Nuts:** 5/8 inch, High strength low alloy steel trackhead bolts. National coarse rolled thread and heavy hex nuts. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Options:** Fusion bonded epoxy. Liquid epoxy and other coatings available on request. Stainless steel bolts and nuts available on request.

**Pressure:** When properly installed on a pipe that is within the correct OD range, the Romac XR501 can be used at working pressures up to 260 psi.



Also available with removable end-cap.

NOM. PIPE SIZE	ONE END		BY	OTHER END		BY	CR LENGTH	LIST PRICE						APPROX. WT. (lbs.)		
	GASKET RANGE	APPROXIMATE USE		X	GASKET RANGE			APPROXIMATE USE	X	SHOPCOAT			FUSION EPOXY			
										w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N		w/304 SS B&N	w/316 SS B&N
4"	4.215 <sup>1</sup> - 5.00 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	4.215 <sup>1</sup> - 5.00 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	7"	\$157.80	\$204.28	\$290.15	\$192.38	\$238.87	\$324.73	27#		
	4.215 <sup>1</sup> - 5.60	SDR 35, Std. Stl, DI, CI & AC		4.215 <sup>1</sup> - 5.60	SDR 35, Std. Stl, DI, CI & AC		12"	237.07	297.51	452.99	260.35	320.80	476.17	40#		
6"	6.275 <sup>1</sup> - 7.20 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	6.275 <sup>1</sup> - 7.20 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	7"	224.37	282.51	389.80	268.21	326.33	433.65	34#		
	6.275 <sup>1</sup> - 7.60	SDR 35, Std. Stl, DI, CI & AC		6.275 <sup>1</sup> - 7.60	SDR 35, Std. Stl, DI, CI & AC		12"	311.74	387.30	581.52	335.39	410.95	605.17	47#		
8"	8.40 <sup>1</sup> - 9.30 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	8.40 <sup>1</sup> - 9.30 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	7"	263.45	333.20	461.98	318.49	388.23	517.24	50#		
	8.40 <sup>1</sup> - 9.75	SDR 35, Std. Stl, DI, CI & AC		8.40 <sup>1</sup> - 9.75	SDR 35, Std. Stl, DI, CI & AC		12"	365.59	456.26	689.32	389.04	479.71	712.77	64#		
10"	10.50 <sup>1</sup> - 11.41 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	10.50 <sup>1</sup> - 11.41 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	8"	334.22	415.58	549.13	420.21	501.57	557.94	72#		
	10.50 <sup>1</sup> - 12.15	SDR 35, Std. Stl, DI, CI & AC		10.50 <sup>1</sup> - 12.15	SDR 35, Std. Stl, DI, CI & AC		12"	442.42	533.08	766.15	483.41	574.08	800.90	79#		
12"	12.50 <sup>1</sup> - 13.56 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	12.50 <sup>1</sup> - 13.56 <sup>2</sup>	SDR 35, Std. Stl, DI & CI	X	8"	395.58	488.57	682.13	491.90	584.89	688.10	87#		
	12.50 <sup>1</sup> - 14.41	SDR 35, Std. Stl, DI, CI & AC		12.50 <sup>1</sup> - 14.41	SDR 35, Std. Stl, DI, CI & AC		13"	515.30	643.18	979.72	566.30	694.18	1,030.72	106#		

1. Pipe ODs smaller than Standard Steel Size, NOT TO EXCEED 20 PSI.

2. Optional Gasket for SDR 35 through CI D Cast Iron Pipe

**To Order:** Determine O.D. of pipes to be coupled. Select proper gasket range for each pipe from above table. Insert high range of each gasket into catalog number as follows:

XR501 - one end x other end.

**Example:** To couple 8" DI and 8" std. steel, order **XR501-9.75 x 9.75 X 7**

**XR501 PARTS LIST**

NOM. PIPE SIZE	CENTER RING		EXTRA-LONG CENTER RING		END RING		GASKET	TRACKHEAD BOLT w/NUT				
	SHOPCOAT	EPOXY	SHOPCOAT	EPOXY	SHOPCOAT	EPOXY		PRICE EACH				
								NUMBER:	LENGTH	CORTEN	304 S.S.	316 S.S.
4"	\$69.12	\$105.99	141.43	189.99	\$14.65	\$19.48	\$10.41	Std. Length:	4: 5/8 x 11 1/2	\$9.72	\$21.91	\$44.76
								Extra Long:	4: 5/8 x 17	12.06	29.14	71.87
6"	78.99	118.99	157.86	211.99	26.18	35.22	22.32	Std. Length:	5: 5/8 x 11 1/2	9.72	21.91	44.76
								Extra Long:	5: 5/8 x 17	12.06	29.14	71.87
8"	91.99	132.99	184.01	241.99	30.84	45.31	25.82	Std. Length:	6: 5/8 x 11 1/2	9.72	21.91	44.76
								Extra Long:	6: 5/8 x 17	12.06	29.20	71.87
10"	110.99	151.50	220.25	265.99	39.06	59.51	37.89	Std. Length:	6: 5/8 x 13	11.59	25.88	49.56
								Extra Long:	6: 5/8 x 17	12.06	29.14	71.87
12"	118.99	171.99	234.87	316.99	46.19	66.55	45.77	Std. Length:	8: 5/8 x 13	11.59	25.88	49.56
								Extra Long:	8: 5/8 x 18	12.79	30.86	77.14

XR501 End-Caps are also available. Contact your Romac representative for more information.



Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



1-800-426-9341



# Style "511" Coupling (For Steel, Copper, & PVC Pipe)

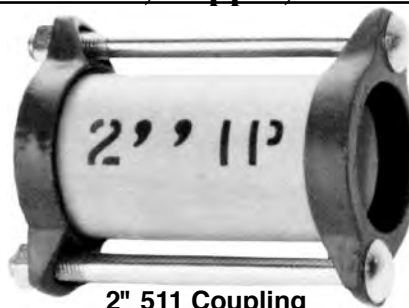
Material Specifications

**Center Rings:** Steel per ASTM A 120; or ductile iron per ASTM A 536, Grade 65-45-12 (see separate charts for steel and ductile iron below). Yellow shopcoat.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts and Nuts:** UNC rolled thread, mild steel, zinc plated (1/2" thru 8" sizes). 5/8" high strength, low alloy steel per AWWA C111 (10" & 12" sizes).



2" 511 Coupling

Meets AWWA  
C219

Style "511" Coupling with STEEL Center Rings											
NOM. PIPE SIZE	ONE END		BY X	OTHER END		BY X	CTR. RING LGTH.	CARRIAGE BOLT NUMBER: SIZE	QTY. PER CTN	APPROX. WEIGHT EA. (lbs.)	LIST PRICE
	O.D. (inches)	APPROX. USE		O.D. (inches)	APPROX. USE						
1/2"	.84 - .88	Std. Stl.	X	.84 - .88	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	12	2 #	\$37.95
3/4"	1.05-1.13	Std. Stl.	X	1.05-1.13	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	12	3 #	43.36
1"	1.32-1.38	Std. Stl.	X	1.32-1.38	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	12	3 #	44.89
1 1/4"	1.66	Std. Stl.	X	1.66	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	6	4 #	46.90
1 1/2"	1.90	Std. Stl.	X	1.90	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	6	4 #	56.08
1 1/2" x 1 1/4"	1.90	Std. Stl.	X	1.66	Std. Stl.	X	5"	2: 1/2" x 6 1/2"	6	4 #	56.08
2"	2.00	O.D. Stl.	X	2.00	O.D. Stl.	X	5"	2: 1/2" x 6 1/2"	6	5 #	68.43
	2.13	Copper		2.13	Copper		7"	2: 1/2" x 9"	6	5 #	91.67
	2.38	Std. Stl.		2.38	Std. Stl.						
2 1/2"	2.88	Std. Stl.	X	2.88	Std. Stl.	X	5"	3: 1/2" x 6 1/2"	4	6 #	102.96
							7"	3: 1/2" x 9"	4	8 #	152.21

Style "511" Coupling with DUCTILE IRON Center Rings											
NOM. PIPE SIZE	ONE END		BY X	OTHER END		BY X	CTR. RING LGTH.	CARRIAGE BOLT NUMBER: SIZE	APPROX. WEIGHT EA. (lbs.)	LIST PRICE	
	O.D. (inches)	APPROX. USE		O.D. (inches)	APPROX. USE						
3"	3.00	O.D. Stl.	X	3.00	O.D. Stl.	X	4"	4: 1/2" x 6"	8 #	\$92.78	
	3.13	Copper		3.13	Copper		7"	4: 1/2" x 9"	12 #	129.93	
	3.50	Std. Stl.		3.50	Std. Stl.						
4"	4.00	O.D. Stl.	X	4.00	O.D. Stl.	X	4"	4: 1/2" x 6"	9 #	108.75	
	4.50	Std. Stl.		4.50	Std. Stl.		7"	4: 1/2" x 9"	14 #	145.83	
5"	5.56	Std. Stl.	X	5.56	Std. Stl.	X	4"	4: 1/2" x 6 1/2"	11 #	171.65	
6"	6.00	O.D. Stl.	X	6.00	O.D. Stl.	X	4"	4: 1/2" x 6"	12 #	151.24	
	6.63	Std. Stl.		6.63	Std. Stl.		7"	4: 1/2" x 9"	20 #	187.18	
8"	8.00	O.D. Stl.	X	8.00	O.D. Stl.	X	5"	5: 1/2" x 7"	20 #	206.94	
	8.63	Std. Stl.		8.63	Std. Stl.		7"	5: 1/2" x 9"	28 #	223.39	
10"	10.00	O.D. Stl.	X	10.00	O.D. Stl.	X	5"	6: 5/8" x 8" <sup>1</sup>	27 #	253.95	
	10.75	Std. Stl.		10.75	Std. Stl.		7"	6: 5/8" x 10 1/2" <sup>1</sup>	35 #	293.97	
12"	12.00	O.D. Stl.	X	12.00	O.D. Stl.	X	5"	8: 5/8" x 8" <sup>1</sup>	33 #	300.99	
	12.75	Std. Stl.		12.75	Std. Stl.		7"	8: 5/8" x 10 1/2" <sup>1</sup>	41 #	319.79	

<sup>1</sup> Trackhead Bolts

**To Order:** Determine O.D. of pipe to couple and length of center ring.

**Example:** For a 6" coupling to fit 6.625 O.D. with a 4" long center ring, order **511-6.63 x 6.63 x 4**

**Options Available:**

Center rings of other lengths may be ordered - P.O.A.



WARNING: Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions. See Page 7-4 for appropriate restraint system for larger sized 511s.





**ROMAC INDUSTRIES, INC.**  
1-800-426-9341



# Style "RC501" Reducing Couplings

**Material Specifications**

**Center Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Yellow shopcoat. Epoxy and special coatings available on request.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl., BLACK for cast iron and YELLOW for A/C.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC 5/8" rolled thread, high strength, low alloy, corrosion-resistant steel per AWWA C111. Other materials or special coatings available on request.

**Options:** For other options and specifications, see Page 2-21.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

**CAUTION:** Couplings with a step in the center ring have the potential for migrating along the pipe, therefore some sort of restraint should be used.

**Meets AWWA C219**

NOM. PIPE SIZE	ONE END			BY	OTHER END			LIST PRICE																							
	COLOR CODE	GASKET RANGE	APPROX. USE		X	COLOR CODE	GASKET RANGE	APPROX. USE	SHOPCOAT			FUSION EPOXY																			
									w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N																	
4" x 3"	RED	3.80 - 4.05	O.D. Stl.	X	RED	3.00 - 3.13	O.D. Stl., Copper																								
		4.06 - 4.31	Riv. Stl.																	3.50	Std. Stl.										
		4.50 - 4.70	Std. Stl. & PVC																												
	4.50 - 4.81	Std. Stl., D.I. & PVC																													
BLACK	4.80 - 5.00	Cast Iron & PVC																													
	4.74 - 5.10	C.I. & A/CME																													
	5.11 - 5.30	A/C R.B.																													
YELLOW	5.11 - 5.40	A/C R.B. CL. 200																													
6" x 4"	RED	5.40 - 5.60 <sup>2</sup>	Std. Stl. & PVC	X	RED	3.80 - 4.05	O.D. Stl.																								
		5.60 - 5.79 <sup>2</sup>	Std. Stl. & PVC																			4.06 - 4.31	Riv. Stl.								
		5.80 - 5.98 <sup>2</sup>	Std. Stl. & PVC																					4.50 - 4.70	Std. Stl. & PVC						
		5.80 - 6.10	O.D. Stl.																							4.50 - 4.81	Std. Stl., D.I. & PVC				
		6.05 - 6.30	Riv. Stl.																												
		6.55 - 6.76	Std. Stl. & PVC																												
	6.60 - 6.91	Std. Stl., D.I. & PVC																													
	BLACK	6.90 - 7.10	Cast Iron & PVC		BLACK	4.80 - 5.00	Cast Iron & PVC																								
		6.86 - 7.20	C.I. & A/CME																			4.74 - 5.10	C.I. & A/CME								
		7.15 - 7.35	A/C R.B.																					5.11 - 5.30	A/C R.B.						
YELLOW	7.26 - 7.60	A/C R.B. CL. 200	YELLOW	5.11 - 5.40	A/C R.B. CL. 200																										
8" x 6"	RED	7.80 - 8.10	O.D. Stl.	X	RED	5.80 - 6.10	O.D. Stl.																								
		8.05 - 8.30	Riv. Stl.																			6.05 - 6.30	Riv. Stl.								
		8.30 - 8.55	C.I. Soil, PVC Sewer																					6.55 - 6.76	Std. Stl. & PVC						
		8.55 - 8.75	Std. Stl. & PVC																							6.60 - 6.91	Std. Stl., D.I. & PVC				
		8.60 - 9.06	Std. Stl., D.I. & PVC																												
		BLACK	9.05 - 9.30																									Cast Iron & PVC	BLACK	6.90 - 7.10	Cast Iron & PVC
	8.99 - 9.40		C.I. & A/CME		6.86 - 7.20	C.I. & A/CME																									
	9.31 - 9.50		A/C R.B.				7.15 - 7.35															A/C R.B.									
	YELLOW	9.39 - 9.79	A/C R.B. CL. 200																				YELLOW	7.26 - 7.60	A/C R.B. CL. 200						
	10" x 8"	RED	9.80 - 10.10A <sup>1</sup>		O.D. Stl.	X																	RED	7.80 - 8.10	O.D. Stl.						
10.20 - 10.55A <sup>1</sup>			C.I. Soil, PVC Sewer	8.05 - 8.30	Riv. Stl.																										
10.70 - 11.00A <sup>1</sup>			Std. Stl. & PVC				8.30 - 8.55	CI Soil, PVC Sewer																							
BLACK			10.70 - 10.80B <sup>1</sup>						Cast Iron	BLACK	9.05 - 9.30	Cast Iron & PVC																			
			10.89 - 11.40B <sup>1</sup>						C.I. & A/CME				8.55 - 8.75	Std. Stl. & PVC																	
			YELLOW						11.55 - 11.75B <sup>1</sup>						A/CME	YELLOW	9.31 - 9.50	A/C R.B.													
11.76 - 12.12B <sup>1</sup>		A/C R.B.							9.39 - 9.79	A/C R.B. CL. 200																					

<sup>1</sup> See Footnote 1 on next page.

<sup>2</sup> Requires special 5" end ring.





NOM. PIPE SIZE	ONE END			X	OTHER END			LIST PRICE					
	COLOR CODE	GASKET RANGE	APPROX. USE		COLOR CODE	GASKET RANGE	APPROX. USE	SHOPCOAT			FUSION EPOXY		
								w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N
12" x 10"	RED	11.81 - 12.10A <sup>1</sup> 12.24 - 12.50A 12.65 - 12.95A <sup>1</sup>	O.D. Stl Cl Soil, PVC Sewer Std. Stl. & PVC	RED	9.80 - 10.10A <sup>1</sup> 10.20 - 10.55A <sup>1</sup> 10.70 - 11.00A <sup>1</sup>	O.D. Stl. C.I. - Soil, PVC Sewer Std. Stl. & PVC	653.95	745.09	898.96	851.40	942.54	1,096.39	
	BLACK	12.70 - 12.80B <sup>1</sup> 13.15 - 13.55B <sup>1</sup>	Std. Stl. & PVC Cast Iron & PVC	BLACK	10.70 - 10.80B <sup>1</sup> 10.89 - 11.40B <sup>1</sup>	Cast Iron & PVC C.I. & A/CME							
14" x 12"	BLACK	14.00 (please refer to 12") 14.60 - 15.00 15.30 - 15.70	- Cast Iron & PVC	RED	11.81 - 12.10A <sup>1</sup> 12.24 - 12.50A <sup>1</sup> 12.65 - 12.95A <sup>1</sup>	OD Stl Cl Soil PVC Sewer Std. Stl. & PVC	926.89	1,039.71	1,227.51	1,154.24	1,261.67	1,454.87	
	RED	16.00 - 16.40	A/CME & O.D. Stl.	BLACK	12.70 - 12.80B <sup>1</sup> 13.15 - 13.55B <sup>1</sup>	Std. Stl. & PVC Cast Iron & PVC							
16" x 14"	BLACK	16.00 (please refer to 14") 17.05 - 17.40 17.40 - 17.80	- D.I. & PVC D.I., A/C R.B. & PVC	BLACK	14.60 - 15.00 15.30 - 15.70	- Cast Iron & PVC	1,683.04	1,802.38	2,017.07	1,992.36	2,111.69	2,326.39	
	RED	17.80 - 18.10 18.10 - 18.40	Cast Iron, O.D. Stl. & PVC Cast Iron & A/C	RED	16.00 - 16.40	A/CME & O.D. Stl.							
18" x 16"	RED	18.70 - 19.10		BLACK	17.05 - 17.40 17.40 - 17.80		1,734.49	1,877.71	2,135.33	2,043.81	2,087.81	2,444.63	
	BLACK	19.10 - 19.70		RED	17.80 - 18.10 18.10 - 18.40								
20" x 18"	RED	20.80 - 21.35		RED	18.70 - 19.10		1,791.39	1,934.60	2,192.23	2,121.89	2,265.10	2,522.72	
	BLACK	21.35 - 21.75		BLACK	19.10 - 19.70								
22" x 20"	RED	22.95 - 23.35		RED	20.80 - 21.35		1,843.87	1,999.02	2,278.10	2,174.37	2,329.53	2,608.61	
	BLACK	23.45 - 23.85		BLACK	21.35 - 21.75								
24" x 22"	RED	24.75 - 25.30		RED	22.95 - 23.35		2,883.63	3,079.72	3,389.85	3,323.80	3,519.90	3,830.03	
	BLACK	25.30 - 25.80		BLACK	23.45 - 23.85								
	YELLOW	26.10 - 26.32		YELLOW	23.75 - 24.25								

**To Order:** Determine O.D. of pipes to be coupled. Select proper gasket range for each pipe from above table. Insert top range of each gasket, as indicated in gray column, into catalog number as follows: RC501 (one end x other end)

**Example:** To couple 6" O.D. steel and 4" A/C rough barrel, order **RC501-6.10 x 5.30**

**For "RC501" parts list, see page 2-12.**



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

**CAUTION:** Couplings with a step in the center ring have the potential for migrating along the pipe, therefore some sort of restraint should be used.

<sup>1</sup> To accommodate the wider range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in different sizes: A x A, A x B, B x A and B x B. For example, 12" riveted steel x 10" ductile iron requires a 12A x 10B center ring.



# Style "RC501" Parts List

NOMINAL PIPE SIZE	APPROX. WEIGHT (lbs.)	CENTER RING LENGTH	REDUCING CTR. RINGS RING ONLY	END RINGS		GASKETS		BOLTS & NUTS			BOLTS
				(STD.) LG. END	(RC) SM. END	LG. END	SM. END	CORTEN	304 S.S.	316 S.S.	NO: SIZE
4" <sup>1</sup> x 3"	17 #	5"	\$41.41	15.13	46.81	6.24	13.71	8.00	18.01	35.64	4: 5/8" x 8"
6" x 4"	24 #	5"	141.02	26.15	44.61	8.88	6.24	8.00	18.01	35.64	5: 5/8" x 8"
8" x 6"	35 #	5"	178.32	32.10	60.13	13.27	8.88	8.00	18.01	35.64	6: 5/8" x 8"
10" x 8"	58 #	6"	269.01	36.97	68.14	27.55	13.27	9.35	20.98	41.49	7: 5/8" x 10 1/2"
12" x 10"	84 #	7"	375.98	44.43	95.97	35.22	27.55	9.35	20.98	41.49	8: 5/8" x 10 1/2"
14" x 12"	95 #	7"	576.90	71.25	109.28	46.75	35.22	9.72	30.86	44.76	9: 5/8" x 11 1/2"
16" x 14"	111 #	7"	961.35	95.30	433.80	48.64	46.75	9.72	21.91	44.76	10: 5/8" x 11 1/2"
18" x 16"	128 #	7"	912.86	199.85	399.50	57.00	48.64	9.72	21.91	44.76	12: 5/8" x 11 1/2"
20" x 18"	164 #	7"	865.55	268.59	424.78	58.82	57.00	9.72	21.91	44.76	12: 5/8" x 11 1/2"
22" x 20"	166 #	7"	875.96	284.08	438.39	60.25	58.82	9.72	21.91	44.76	13: 5/8" x 11 1/2"
24" x 22"	212 #	8 1/2"	1,467.01	431.54	682.98	79.58	60.25	11.59	25.88	49.56	14: 5/8" x 15"

<sup>1</sup> Uses 4" 501 Center Ring.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

To accommodate the wider range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in different sizes: A x A, A x B, B x A and B x B. For example, 12" riveted steel x 10" ductile iron requires a 12A x 10B center ring.



# Fusion Epoxy Style "RC501" Parts List

NOMINAL PIPE SIZE	APPROX. WEIGHT (lbs.)	CENTER RING LENGTH	REDUCING CTR. RINGS RING ONLY	END RINGS		GASKETS <sup>2</sup>		BOLT & NUT			BOLTS
				(STD.) LRG. END	(RC) SM. END	LRG. END	SM. END	CORTEN	304 S.S.	316 S.S.	NO: SIZE
4" <sup>1</sup> x 3"	17 #	5"	\$54.66	21.34	75.12	N 21.94	N 15.06	8.00	18.01	35.64	4: 5/8" x 8"
						E 22.52	E 15.75				
6" x 4"	24 #	5"	201.04	35.72	79.08	N 25.86	N 21.94	8.00	18.01	35.64	5: 5/8" x 8"
						E 27.05	E 22.52				
8" x 6"	35 #	5"	254.09	44.25	106.40	N 31.15	N 25.86	8.00	18.01	35.64	6: 5/8" x 8"
						E 35.01	E 27.05				
10" x 8"	58 #	6"	361.03	53.73	125.54	N 43.39	N 31.15	9.35	20.98	41.49	7: 5/8" x 10 1/2"
						E 50.64	E 35.01				
12" x 10"	84 #	7"	487.64	61.90	164.28	N 54.34	N 43.39	9.35	20.98	41.49	8: 5/8" x 10 1/2"
						E 63.06	E 50.64				
14" x 12"	95 #	7"	706.42	89.66	188.71	N 77.71	N 54.34	9.72	30.86	44.76	9: 5/8" x 11 1/2"
						E 92.52	E 63.06				
16" x 14"	111 #	7"	1,138.13	121.28	540.35	N 85.99	N 77.71	9.72	21.91	44.76	10: 5/8" x 11 1/2"
						E 103.54	E 92.52				
18" x 16"	128 #	7"	1,071.18	245.40	504.94	N 112.78	N 85.99	9.72	21.91	44.76	12: 5/8" x 11 1/2"
						E 139.27	E 103.54				
20" x 18"	164 #	7"	1,063.67	311.41	514.35	N 125.25	N 112.78	9.72	21.91	44.76	12: 5/8" x 11 1/2"
						E 157.03	E 139.27				
22" x 20"	166 #	7"	1,069.71	336.37	522.85	N 132.17	N 125.25	9.72	21.91	44.76	13: 5/8" x 11 1/2"
						E 166.67	E 157.03				
24" x 22"	212 #	8 1/2"	1,669.34	556.68	795.67	N 191.57	N 132.17	11.59	25.88	49.56	14: 5/8" x 15"
						E 245.62	E 166.67				

<sup>1</sup> Uses 4" 501 Center Ring

<sup>2</sup> "N" denotes NBR gasket. "E" denotes EPDM gasket.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

To accommodate the wider range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in different sizes: A x A, A x B, B x A and B x B. For example, 12" riveted steel x 10" ductile iron requires a 12A x 10B center ring.



# Style "EC501" End Cap Coupling

**Material Specifications**

**Center Ring:** Ductile iron per ASTM A 536, Grade 65-45-12. Yellow shopcoat. Epoxy and special coatings available on request.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl., BLACK for cast iron and YELLOW for A/C. End cap end requires BLACK end ring on 4" - 8" sizes.

**End Cap:** Ductile iron per ASTM A536, Grade 65-45-12. Color coded BLACK to be used with cast iron size 501 gasket. The end caps are furnished with 2" IPT female threads with plug. End caps on sizes 4" - 8" are two pieces (end ring and cap). Sizes 10" and above have one-piece end caps.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC 5/8" rolled thread, high strength, low alloy steel per AWWA C111. Threads protected with plastic caps on each bolt end. Other materials or special coatings available on request.



**8" EC501 Complete**  
for testing or capping  
a pipeline



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

NOM. PIPE SIZE	COLOR CODE	GASKET RANGE	APPROXIMATE USE	END CAP COUPLING COMPLETE			END CAP and GASKET ONLY <sup>3</sup>		
				CATALOG NUMBER	WEIGHT (lbs.)	LIST PRICE	CATALOG NUMBER	WEIGHT (lbs.)	LIST PRICE
4"	RED	3.80 - 4.05 4.06 - 4.31 4.50 - 4.70 4.50 - 4.81	O.D. Riv. Stl. Std. Stl. & PVC Std. Stl., D.I. & PVC	EC501 - 4.05 EC501 - 4.31 EC501 - 4.70 EC501 - 4.81	21 #	\$163.27	4" EC501 <sup>3</sup>	3 #	\$68.50
	BLACK	4.80 - 5.00 <sup>1</sup> 4.74 - 5.10 5.11 - 5.30	Cast Iron & PVC C.I. & A/C M.E. A/C R.B.	EC501 - 5.00 EC501 - 5.10 EC501 - 5.30					
	YELLOW	5.11 - 5.40	A/C R.B. CL. 200	EC501 - 5.40					
6"	RED	5.80 - 6.10 6.05 - 6.30 6.55 - 6.76 6.60 - 6.91	O.D. Riv. Stl. Std. Stl. & PVC Std. Stl., D.I. & PVC	EC501 - 6.10 EC501 - 6.30 EC501 - 6.76 EC501 - 6.91	30 #	215.01	6" EC501 <sup>3</sup>	5 #	91.95
	BLACK	6.90 - 7.10 <sup>1</sup> 6.86 - 7.20 7.15 - 7.35	Cast Iron & PVC C.I. & A/C M.E. A/C R.B.	EC501 - 7.10 EC501 - 7.20 EC501 - 7.35					
	YELLOW	7.26 - 7.60	A/C R.B. CL. 200	EC501 - 7.60					
8"	RED	7.80 - 8.10 8.05 - 8.30 8.55 - 8.75 8.60 - 9.06	O.D. Riv. Stl. Std. Stl. & PVC Std. Stl., D.I. & PVC	EC501 - 8.10 EC501 - 8.30 EC501 - 8.75 EC501 - 9.06	39 #	291.09	8" EC501 <sup>3</sup>	7 #	136.18
	BLACK	9.05 - 9.30 <sup>1</sup> 8.99 - 9.40 9.31 - 9.50	Cast Iron & PVC C.I. & A/C M.E. A/C R.B.	EC501 - 9.30 EC501 - 9.40 EC501 - 9.50					
	YELLOW	9.39 - 9.79	A/C R.B. CL. 200	EC501 - 9.79					
10"	RED	9.80 - 10.10 AB <sup>2</sup> 10.70 - 11.00 AB <sup>2</sup>	O.D. Stl. Std. Stl. & PVC	EC501 - 10.10 EC501 - 11.00	AB-79 # B-68 #	532.90	10" EC501 <sup>3</sup>	20 #	321.10
	BLACK	10.70 - 10.80 B <sup>2</sup> 10.89 - 11.40 B <sup>1,2</sup>	Std. Stl. & PVC Cast Iron & PVC	EC501 - 10.80 EC501 - 11.40					
	YELLOW	11.55 - 11.75 B <sup>2</sup> 11.76 - 12.12 B <sup>2</sup>	A/C M.E. A/C R.B.	EC501 - 11.75 EC501 - 12.12					
12"	RED	11.81 - 12.10 AB <sup>2</sup> 12.65 - 12.95 AB <sup>2</sup>	O.D. Stl. Std. Stl. & PVC	EC501 - 12.10 EC501 - 12.95	AB-102 # B-93 #	679.05	12" EC501 <sup>3</sup>	32 #	426.33
	BLACK	12.70 - 12.80 B <sup>2</sup> 13.15 - 13.55 B <sup>1,2</sup>	Std. Stl. & PVC Cast Iron & PVC	EC501 - 12.80 EC501 - 13.55					
	YELLOW	13.85 - 14.10 B <sup>2</sup> 14.03 - 14.40 B <sup>2</sup>	A/C M.E. A/C R.B.	EC501 - 14.10 EC501 - 14.40					
16"	BLACK	17.05 - 17.40 17.40 - 17.80	D.I. & Cast Iron & PVC D.I. & A/C R.B.	EC501 - 17.40 EC501 - 17.80	157 #	1,367.74	16" EC501 <sup>3</sup>	67 #	918.61
	RED	17.80 - 18.10	Cast Iron, OD Stl & PVC	EC501 - 18.10					
	YELLOW	18.10 - 18.40 18.45 - 18.97	Cast Iron & A/C A/C M.E. & R.B.	EC501 - 18.40 EC501 - 18.97					

**To Order:** Specify catalog number.

**Optional Features:** 14" and larger nominal pipe size fabricated steel available. Contact factory for prices and availability.

<sup>1</sup> "End Cap and Gasket Only" comes with this gasket.

<sup>2</sup> Refer to Page 2-3 for 10" & 12" center rings.

<sup>3</sup> End Caps are designed to be used with 501 cast iron size gaskets. "End Cap and Gasket Only" price **does include gasket.**





# Style "IC501" Coupling with Insulating Boot

**Material Specifications**

**Center Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Yellow shopcoat. Epoxy and special coatings available on request.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. Std. and Std. Std., BLACK for cast iron and YELLOW for A/C.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

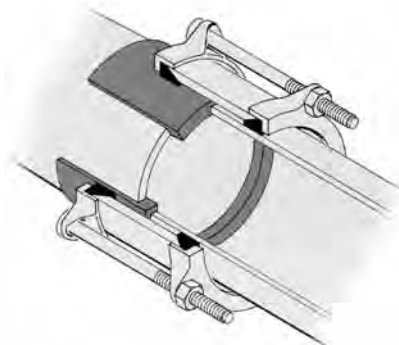
**Bolts and Nuts:** 5/8" high strength, low alloy steel trackhead bolts. N.C. roll thread and heavy hex nuts, corrosion-resistant steel. Steel meets AWWA C-111-80 composition specifications. Other materials or special coatings available on request.

**Insulating Boot:** Ethylene Propylene Diene Methylene (EPDM) compounded for water and sewer service.

**Options:** For 14" and larger, see Page 2-22. For other options and specifications, see Page 2-23.

**Use:** Romac insulating couplings effectively stop electrolytic action by isolating one pipe from the other by means of an insulating boot.

**Meets AWWA C219**



NOMINAL PIPE SIZE	O.D. (inches)	GASKET TO USE FOR IRON PIPE SIZE	GASKET TO USE FOR DUCTILE PIPE SIZE	BOOT ONLY		COMPLETE	
				LIST PRICE	APPROX. WT.	LIST PRICE	APPROX. WT.
4"	4.50	4.80 - 5.00	—	\$26.45	.75 #	\$142.60	17.75 #
	4.80	—	4.74 - 5.10				
6"	6.625	6.90 - 7.10	—	33.71	1.10 #	191.80	26.10 #
	6.90	—	7.15 - 7.35				
8"	8.625	8.60 - 9.06	—	42.93	1.20 #	243.21	33.20 #
	9.05	—	8.99 - 9.40				
10"	10.75	Special <sup>1</sup>	—	67.96	1.75 #	344.30	63.75 #
	11.10	—	10.89 - 11.40				
12"	12.75	Special <sup>1</sup>	—	76.66	2.10 #	409.01	73.10 #
	13.20	—	13.15 - 13.55				
14"	14.00	14.03 - 14.40	—	84.21	2.25 #	660.06	100.25 #

<sup>1</sup> Special, not common stock gaskets. Price on application.

**IMPORTANT: Insulating boots add .3" to the O.D. of the pipe, and must be considered when ordering IC501 couplings.**

Note: Romac recommends 7 inch long center when booting both pipe ends, contact Romac for price and availability. Contact Romac for other available sizes and applications.

**Example:** For an insulating coupling to fit 6" D.I., order **IC501-7.35 x 7.10, with boot to fit 6.90** If ordering insulating boot only, specify O.D.



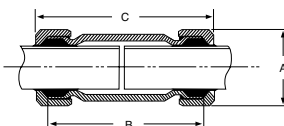
**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

# Style "702" Compression Coupling

**Material Specifications**

**Body:** 69000 PSI steel tubing  
**Gasket:** NBR  
**Nut:** Malleable iron, ASTM A47  
**Finish:** Galvanized

**To Order:** Specify catalog number.



NOM. PIPE SIZE	O.D. (inches)	CATALOG NUMBER	LIST PRICE	CARTON QTY.	APPROX. WEIGHT (lbs.)	OVERALL DIMENSIONS		
						A	B	C
1/2"	0.84	702 - 084	\$25.72	25	.80 #	1.625"	3.75"	4.375"
3/4"	1.05	702 - 105	27.53	25	1 #	1.875"	3.75"	4.375"
1"	1.32	702 - 132	31.74	25	1 #	2.188"	4.125"	4.75"
1 1/4"	1.66	702 - 166	38.95	12	2 #	2.563"	4.50"	5.125"
1 1/2"	1.90	702 - 190	44.21	12	3 #	2.813"	4.688"	5.375"
2"	2.38	702 - 238	55.79	12	3 #	3.313"	5.063"	5.75"



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



# Style "400" Steel Coupling (For 12" and Larger Pipe)

**Material Specifications**

**Center Rings:** Beveled, flared or formed carbon steel with minimum yield of 30,000 PSI.

**End Rings:** Contoured rolled mill section carbon steel. End-ring thickness determined by pipe O.D. and pressure rating.

**Gaskets:** Compounded for water and sewer service. Meets the requirements of AWWA C219 and ASTM D2000. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion-resistant steel per AWWA C111. Threads protected with plastic caps on each bolt end.

**Paint:** Romac shopcoat for corrosion protection in transit.

**Specials:** Center ring length and thickness not shown, special linings and coatings desired, diameters and pressure ratings not shown. Prices and availability on request.

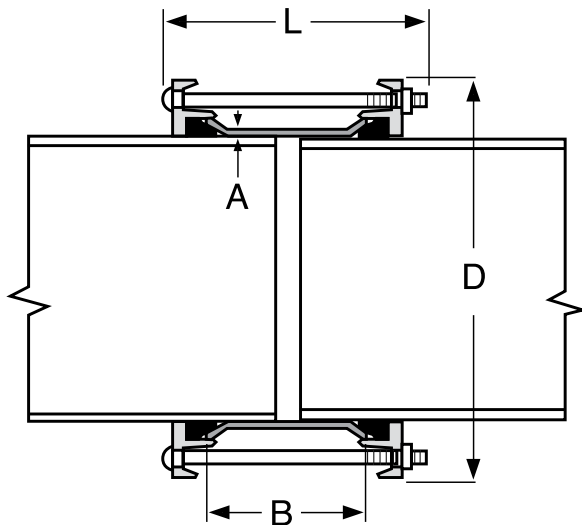
**Options:** Available for pipe sizes 12" - 200". For other options and specifications, see page 2-23.

**Use:** To flexibly couple pipe of the same diameters. See Style TC400 on Page 2-21 for limited range if O.D. is not known.

Style 400 Couplings comply with the requirement of AWWA C219.



**For restrained "400" steel couplings, see page 7-9**



**DIMENSIONS**  
Refer to chart on following page  
**A** Center ring thickness  
**B** Center ring length  
**D** Overall coupling diameter  
**L** Overall coupling length.

**To Order:** Determine pipe size, center ring thickness and length. Any special gaskets, linings and coatings, or nuts and bolts should be described in full.

**Example:** To couple 16" O.D. steel pipe with a coupling wall thickness of .250 and 7" long, order **400-16.00-1**



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.





# General Information for "400" Series Couplings

Engineering data, such as end ring design and gasket size, may differ according to specific need and pressures. The table below is for general submittal information only for the diameters listed and the working pressures indicated. Requirements not shown in the following table will be engineered specifically for your needs upon request.

NOM. PIPE SIZE	OUTSIDE DIAMETER O.D.	CENTER RING (A) x (B)	MAX PSI WORK PRESS.	OVERALL DIAMETER (D)	LENGTH OVERALL (L)	APPROX WEIGHT (lbs)
<b>12"</b>	13.20	1/4" x 7"	390	17.5	12"	65 #
	13.20	1/4" x 10"	390		15 1/2"	77 #
	13.20	3/8" x 7"	390		12"	76 #
	13.20	3/8" x 10"	390		15 1/2"	92 #
<b>14"</b>	14.00	1/4" x 7"	368	18.3	12"	68 #
	14.00	1/4" x 10"	368		15 1/2"	80 #
	14.00	3/8" x 7"	368		12"	79 #
	14.00	3/8" x 10"	368		15 1/2"	96 #
	15.30	1/4" x 7"	423	19.6	12"	75 #
		1/4" x 10"	423		15 1/2"	88 #
		3/8" x 7"	423		12"	87 #
		3/8" x 10"	423		15 1/2"	106 #
<b>16"</b>	16.00	1/4" x 7"	405	20.3	12"	77 #
	16.00	1/4" x 10"	405		15 1/2"	91 #
	16.00	3/8" x 7"	405		12"	90 #
	16.00	3/8" x 10"	405		15 1/2"	110 #
	17.40	1/4" x 7"	374	21.7	12"	82 #
		1/4" x 10"	374		15 1/2"	97 #
		3/8" x 7"	374		12"	96 #
		3/8" x 10"	374		15 1/2"	117 #
<b>18"</b>	18.00	1/4" x 7"	362	22.3	12"	84 #
	18.00	1/4" x 10"	362		15 1/2"	100 #
	18.00	3/8" x 7"	362		12"	99 #
	18.00	3/8" x 10"	362		15 1/2"	121 #
	19.50	1/4" x 7"	402	23.8	12"	92 #
		1/4" x 10"	402		15 1/2"	109 #
		3/8" x 7"	402		12"	108 #
		3/8" x 10"	402		15 1/2"	131 #
<b>20"</b>	20.00	1/4" x 7"	392	24.3	12"	94 #
	20.00	1/4" x 10"	392		15 1/2"	111 #
	20.00	3/8" x 7"	392		12"	110 #
	20.00	3/8" x 10"	392		15 1/2"	134 #
	21.60	1/4" x 7"	364	25.9	12"	99 #
		1/4" x 10"	364		15 1/2"	118 #
		3/8" x 7"	364		12"	117 #
		3/8" x 10"	364		15 1/2"	143 #
<b>22"</b>	22.00	1/4" x 7"	357	26.3	12"	101 #
	22.00	1/4" x 10"	357		15 1/2"	120 #
	22.00	3/8" x 7"	357		12"	118 #
	22.00	3/8" x 10"	357		15 1/2"	145 #
<b>24"</b>	24.00	1/4" x 7"	333	28.3	12"	110 #
	24.00	1/4" x 10"	333		15 1/2"	131 #
	24.00	3/8" x 7"	386		12"	129 #
	24.00	3/8" x 10"	386		15 1/2"	158 #
	25.80	1/4" x 7"	310	30.1	12"	117 #
		1/4" x 10"	310		15 1/2"	138 #
		3/8" x 7"	360		12"	137 #
		3/8" x 10"	360		15 1/2"	168 #

Note: See page 2-23 for options and application data.

NOM. PIPE SIZE	OUTSIDE DIAMETER O.D.	CENTER RING (A) x (B)	MAX PSI WORK PRESS.	OVERALL DIAMETER (D)	LENGTH OVERALL (L)	APPROX WEIGHT (lbs)	
<b>26"</b>	26.00	1/4" x 7"	307	30.40	12"	117 #	
	26.00	1/4" x 10"	307		15 1/2"	139 #	
	26.00	3/8" x 7"	357		12"	138 #	
	26.00	3/8" x 10"	357		15 1/2"	169 #	
<b>28"</b>	28.00	1/4" x 7"	285	32.40	12"	127 #	
	28.00	1/4" x 10"	285		15 1/2"	151 #	
	28.00	3/8" x 7"	380		12"	149 #	
	28.00	3/8" x 10"	380		15 1/2"	182 #	
<b>30"</b>	30.00	1/4" x 7"	266	34.40	12"	134 #	
	30.00	1/4" x 10"	266		15 1/2"	159 #	
	30.00	3/8" x 7"	354		12"	158 #	
	30.00	3/8" x 10"	354		15 1/2"	193 #	
	32.00	1/4" x 7"	250	36.40	12"	141 #	
		1/4" x 10"	250		15 1/2"	168 #	
		3/8" x 7"	333		12"	166 #	
		3/8" x 10"	333		15 1/2"	204 #	
<b>34"</b>	34.00	1/4" x 7"	235	38.40	12"	148 #	
	34.00	1/4" x 10"	235		15 1/2"	176 #	
	34.00	3/8" x 7"	311		12"	175 #	
	34.00	3/8" x 10"	311		15 1/2"	215 #	
<b>36"</b>	36.00	1/4" x 7"	222	40.40	12"	158 #	
	36.00	1/4" x 10"	222		15 1/2"	187 #	
	36.00	3/8" x 7"	333		12"	186 #	
	36.00	3/8" x 10"	333		15 1/2"	228 #	
	38.30	1/4" x 7"	208	42.70	12"	166 #	
		1/4" x 10"	208		15 1/2"	197 #	
		3/8" x 7"	313		12"	196 #	
		3/8" x 10"	313		15 1/2"	240 #	
<b>42"</b>	42.00	1/4" x 7"	190	46.90	12"	223 #	
	42.00	1/4" x 10"	190		15 1/2"	257 #	
	42.00	3/8" x 7"	288		12"	256 #	
	42.00	3/8" x 10"	288		15 1/2"	305 #	
	44.50	3/8" x 7"	269	49.40	12"	269 #	
		3/8" x 10"	269		15 1/2"	320 #	
	<b>48"</b>	48.00	3/8" x 7"	250	52.90	12"	290 #
		48.00	3/8" x 10"	250		15 1/2"	345 #
50.80		3/8" x 7"	236	55.70	12"	304 #	
		3/8" x 10"	236		15 1/2"	362 #	
<b>54"</b>	54.00	3/8" x 10"	222	58.90	15 1/2"	385 #	
	54.00	1/2" x 10"	270		15 1/2"	446 #	
<b>60"</b>	60.00	3/8" x 10"	200	64.90	15 1/2"	428 #	
	60.00	1/2" x 10"	266		15 1/2"	495 #	
<b>66"</b>	66.00	3/8" x 10"	181	70.90	15 1/2"	468 #	
	66.00	1/2" x 10"	242		15 1/2"	542 #	
<b>72"</b>	72.00	3/8" x 10"	167	77.0	15 1/2"	508 #	
	72.00	1/2" x 10"	222		15 1/2"	588 #	
<b>96"</b>	96.00	1/2" x 10"	166	101.0	15 1/2"	954 #	

Other sizes available. Price on application.



**ROMAC  
INDUSTRIES,  
INC.**  
1-800-426-9341



# Style "400" Steel Coupling

STYLE "400" STEEL COUPLINGS FOR JOINING PLAIN-END PIPE TO PLAIN-END PIPE											
NOM. PIPE SIZE	OUTSIDE DIAMETER O.D.	CENTER RING (A) x (B)	CATALOG NUMBER	LIST PRICE						BOLT NUMBER: SIZE	LENGTH OVERALL (L)
				SHOPCOAT			FUSION EPOXY				
				w/STD B&N	w/304 SS B&N	w/316 B&N	w/STD B&N	w/304 SS B&N	w/316 B&N		
12"	13.20	1/4" x 7"	400-13.20-1	\$497.61	\$597.27	\$774.91	\$716.80	\$816.47	\$994.10	8:5/8" x 11 1/2"	12"
	13.20	1/4" x 10"	400-13.20-1A	750.15	870.77	1,050.34	991.05	1,111.66	1,291.69	8:5/8" x 15"	15 1/2"
	13.20	3/8" x 7"	400-13.20-2	651.49	751.16	928.79	870.69	970.35	1,147.98	8:5/8" x 11 1/2"	12"
	13.20	3/8" x 10"	400-13.20-3	848.39	969.00	1,148.58	1,089.74	1,209.88	1,389.93	8:5/8" x 15"	15 1/2"
14"	14.00	1/4" x 7"	400-14.00-1	497.61	597.27	774.91	716.80	816.47	993.99	8:5/8" x 11 1/2"	12"
	14.00	1/4" x 10"	400-14.00-1A	774.59	895.20	1,074.78	1,015.94	1,136.10	1,316.13	8:5/8" x 15"	15 1/2"
	14.00	3/8" x 7"	400-14.00-2	651.49	751.16	928.79	870.69	970.35	1,147.98	8:5/8" x 11 1/2"	12"
	14.00	3/8" x 10"	400-14.00-3	859.25	979.85	1,159.43	1,100.60	1,220.74	1,400.79	8:5/8" x 15"	15 1/2"
	15.30	1/4" x 7"	400-15.30-1	607.85	732.45	954.48	864.74	989.33	1,211.37	10:5/8" x 11 1/2"	12"
	15.30	1/4" x 10"	400-15.30-1A	849.48	1,006.22	1,224.71	1,143.06	1,299.80	1,518.30	10:5/8" x 15"	15 1/2"
	15.30	3/8" x 7"	400-15.30-2	696.45	821.04	1,043.08	953.33	1,077.92	1,299.96	10:5/8" x 11 1/2"	12"
	15.30	3/8" x 10"	400-15.30-3	947.96	1,104.71	1,323.19	1,241.55	1,398.29	1,616.78	10:5/8" x 15"	15 1/2"
16"	16.00	1/4" x 7"	400-16.00-1	607.85	732.45	980.18	864.74	989.33	1,211.37	10:5/8" x 11 1/2"	12"
	16.00	1/4" x 10"	400-16.00-1A	849.48	1,006.22	1,252.34	1,143.06	1,299.80	1,518.30	10:5/8" x 15"	15 1/2"
	16.00	3/8" x 7"	400-16.00-2	696.45	821.04	1,238.14	953.33	1,077.92	1,299.96	10:5/8" x 11 1/2"	12"
	16.00	3/8" x 10"	400-16.00-3	947.96	1,104.71	1,334.48	1,241.55	1,398.29	1,616.78	10:5/8" x 15"	15 1/2"
	17.40	1/4" x 7"	400-17.40-1	633.55	758.14	980.18	922.24	1,047.26	1,268.87	10:5/8" x 11 1/2"	12"
	17.40	1/4" x 10"	400-17.40-1A	876.99	1,033.74	1,280.09	1,206.94	1,363.68	1,582.17	10:5/8" x 15"	15 1/2"
	17.40	3/8" x 7"	400-17.40-2	766.92	891.51	1,128.94	1,180.19	1,305.22	1,526.82	10:5/8" x 11 1/2"	12"
	17.40	3/8" x 10"	400-17.40-3	959.24	1,115.98	1,379.16	1,289.19	1,445.93	1,664.31	10:5/8" x 15"	15 1/2"
18"	18.00	1/4" x 7"	400-18.00-1	633.55	758.14	1,188.01	922.24	1,046.83	1,268.87	10:5/8" x 11 1/2"	12"
	18.00	1/4" x 10"	400-18.00-1A	904.86	1,061.60	1,398.49	1,234.70	1,391.55	1,609.93	10:5/8" x 15"	15 1/2"
	18.00	3/8" x 7"	400-18.00-2	782.31	906.91	1,405.60	1,071.00	1,195.59	1,417.63	10:5/8" x 11 1/2"	12"
	18.00	3/8" x 10"	400-18.00-3	1,003.93	1,160.67	1,504.43	1,333.77	1,490.62	1,709.00	10:5/8" x 15"	15 1/2"
	19.50	1/4" x 7"	400-19.50-1	772.05	921.62	1,188.01	1,083.57	1,233.13	1,499.52	12:5/8" x 11 1/2"	12"
	19.50	1/4" x 10"	400-19.50-1A	948.21	1,136.34	1,398.49	1,304.22	1,492.35	1,754.50	12:5/8" x 15"	15 1/2"
	19.50	3/8" x 7"	400-19.50-2	840.07	989.64	1,405.60	1,450.72	1,301.15	1,717.00	12:5/8" x 11 1/2"	12"
	19.50	3/8" x 10"	400-19.50-3	1,054.15	1,242.28	1,504.43	1,410.17	1,598.29	1,860.45	12:5/8" x 15"	15 1/2"
20"	20.00	1/4" x 7"	400-20.00-1	772.05	921.62	1,188.01	1,083.57	1,233.13	1,499.52	12:5/8" x 11 1/2"	12"
	20.00	1/4" x 10"	400-20.00-1A	976.10	1,164.25	1,426.38	1,332.14	1,520.26	1,782.39	12:5/8" x 15"	15 1/2"
	20.00	3/8" x 7"	400-20.00-2	859.25	1,008.80	1,275.21	1,170.76	1,320.31	1,586.72	12:5/8" x 11 1/2"	12"
	20.00	3/8" x 10"	400-20.00-3	1,075.59	1,263.72	1,525.87	1,431.60	1,619.74	1,881.88	12:5/8" x 15"	15 1/2"
	21.60	1/4" x 7"	400-21.60-1	828.45	978.01	1,244.41	1,156.23	1,305.78	1,572.19	12:5/8" x 11 1/2"	12"
	21.60	1/4" x 10"	400-21.60-1A	999.77	1,187.91	1,450.05	1,374.39	1,562.52	1,824.67	12:5/8" x 15"	15 1/2"
	21.60	3/8" x 7"	400-21.60-2	1,136.23	1,285.80	1,552.19	1,464.01	1,613.58	1,879.97	12:5/8" x 11 1/2"	12"
	21.60	3/8" x 10"	400-21.60-3	1,420.93	1,609.06	1,871.21	1,795.54	1,983.68	2,245.82	12:5/8" x 15"	15 1/2"
22"	22.00	1/4" x 7"	400-22.00-1	828.45	978.01	1,244.41	1,156.23	1,305.78	1,572.19	12:5/8" x 11 1/2"	12"
	22.00	1/4" x 10"	400-22.00-1A	999.77	1,187.91	1,450.05	1,374.39	1,562.52	1,824.67	12:5/8" x 15"	15 1/2"
	22.00	3/8" x 7"	400-22.00-2	1,136.23	1,285.80	1,552.19	1,464.01	1,613.58	1,879.97	12:5/8" x 11 1/2"	12"
	22.00	3/8" x 10"	400-22.00-3	1,420.93	1,609.06	1,871.21	1,795.54	1,983.68	2,245.82	12:5/8" x 15"	15 1/2"
24"	24.00	1/4" x 7"	400-24.00-1	964.38	1,138.85	1,449.67	1,314.57	1,497.60	1,799.86	14:5/8" x 11 1/2"	12"
	24.00	1/4" x 10"	400-24.00-1A	1,088.36	1,307.82	1,613.68	1,488.55	1,708.01	2,013.88	14:5/8" x 15"	15 1/2"
	24.00	3/8" x 7"	400-24.00-2	1,223.44	1,397.92	1,708.72	1,573.63	1,748.09	2,058.92	14:5/8" x 11 1/2"	12"
	24.00	3/8" x 10"	400-24.00-3	1,423.32	1,642.78	1,948.65	1,823.52	2,042.97	2,348.84	14:5/8" x 15"	15 1/2"

**Other sizes available.  
Price on application.**



Large Size Style 400 Couplings are No Cancel, No Return Items.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



1-800-426-9341



# Style "400" Steel Coupling

NOM. PIPE SIZE	OUTSIDE DIAMETER O.D.	CENTER RING (A) x (B)	CATALOG NUMBER	LIST PRICE						BOLT NUMBER: SIZE	LENGTH OVERALL (L)
				SHOPCOAT			FUSION EPOXY				
				w/STD B&N	w/304 SS B&N	w/316 B&N	w/STD B&N	w/304 SS B&N	w/316 B&N		
24"	25.80	1/4" x 7"	400-25.80-1	\$1,005.75	\$1,180.21	\$1,491.04	\$1,472.19	\$1,646.65	\$1,957.48	14: 5/8" x 11 1/2"	12"
	25.80	1/4" x 10"	400-25.80-1A	1,112.14	1,331.62	1,637.47	1,645.20	1,864.67	2,170.52	14: 5/8" x 15"	15 1/2"
	25.80	3/8" x 7"	400-25.80-2	1,315.79	1,490.26	1,801.07	1,782.23	1,956.70	2,267.51	14: 5/8" x 11 1/2"	12"
	25.80	3/8" x 10"	400-25.80-3	1,646.65	1,866.11	2,171.98	2,179.69	2,399.17	2,705.03	14: 5/8" x 15"	15 1/2"
26"	26.00	1/4" x 7"	400-26.00-1	1,047.29	1,221.76	1,532.58	1,513.73	1,688.20	1,999.02	14: 5/8" x 11 1/2"	12"
	26.00	1/4" x 10"	400-26.00-1A	1,135.21	1,354.68	1,660.54	1,668.26	1,887.72	2,193.59	14: 5/8" x 15"	15 1/2"
	26.00	3/8" x 7"	400-26.00-2	1,318.13	1,492.60	1,803.41	1,784.57	1,959.03	2,269.85	14: 5/8" x 11 1/2"	12"
	26.00	3/8" x 10"	400-26.00-3	1,646.65	1,866.11	2,171.98	2,179.69	2,399.17	2,705.03	14: 5/8" x 15"	15 1/2"
28"	28.00	1/4" x 7"	400-28.00-1	1,079.08	1,278.49	1,633.69	1,552.54	1,751.94	2,107.15	16: 5/8" x 11 1/2"	12"
	28.00	1/4" x 10"	400-28.00-1A	1,199.33	1,450.17	1,799.70	1,740.36	1,991.20	2,340.73	16: 5/8" x 15"	15 1/2"
	28.00	3/8" x 7"	400-28.00-2	1,320.53	1,519.93	1,875.14	1,794.00	1,993.40	2,348.61	16: 5/8" x 11 1/2"	12"
	28.00	3/8" x 10"	400-28.00-3	1,649.06	1,899.90	2,249.43	2,190.08	2,440.93	2,790.46	16: 5/8" x 15"	15 1/2"
30"	30.00	1/4" x 7"	400-30.00-1	1,126.54	1,325.94	1,681.15	1,607.09	1,806.49	2,161.70	16: 5/8" x 11 1/2"	12"
	30.00	1/4" x 10"	400-30.00-1A	1,257.83	1,508.68	1,858.20	1,807.01	2,057.85	2,407.38	16: 5/8" x 15"	15 1/2"
	30.00	3/8" x 7"	400-30.00-2	1,322.89	1,522.29	1,877.50	1,803.43	2,002.83	2,358.04	16: 5/8" x 11 1/2"	12"
	30.00	3/8" x 10"	400-30.00-3	1,651.38	1,902.23	2,251.76	2,200.57	2,451.40	2,800.94	16: 5/8" x 15"	15 1/2"
	32.00	1/4" x 7"	400-32.00-1	1,165.27	1,364.68	1,719.88	1,652.34	1,851.74	2,206.95	16: 5/8" x 11 1/2"	12"
	32.00	1/4" x 10"	400-32.00-1A	1,301.27	1,552.11	1,901.64	1,865.60	2,116.44	2,465.98	16: 5/8" x 15"	15 1/2"
	32.00	3/8" x 7"	400-32.00-2	1,325.25	1,524.65	1,877.50	1,812.31	2,011.72	2,364.56	16: 5/8" x 11 1/2"	12"
	32.00	3/8" x 10"	400-32.00-3	1,653.77	1,904.61	2,254.14	2,218.10	2,468.95	2,818.47	16: 5/8" x 15"	15 1/2"
34"	34.00	1/4" x 7"	400-34.00-1	1,218.59	1,442.89	1,842.53	1,713.64	1,937.94	2,337.58	18: 5/8" x 11 1/2"	12"
	34.00	1/4" x 10"	400-34.00-1A	1,361.12	1,643.32	2,036.54	1,926.88	2,209.10	2,602.30	18: 5/8" x 15"	15 1/2"
	34.00	3/8" x 7"	400-34.00-2	1,341.41	1,565.70	1,965.35	1,836.47	2,060.77	2,460.41	18: 5/8" x 11 1/2"	12"
	34.00	3/8" x 10"	400-34.00-3	1,656.10	1,938.31	2,331.51	2,221.88	2,504.08	2,897.29	18: 5/8" x 15"	15 1/2"
36"	36.00	1/4" x 7"	400-36.00-1	1,257.35	1,481.64	1,881.29	1,759.82	1,984.11	2,383.41	18: 5/8" x 11 1/2"	12"
	36.00	1/4" x 10"	400-36.00-1A	1,406.15	1,688.35	2,081.57	1,980.39	2,262.59	2,655.81	18: 5/8" x 15"	15 1/2"
	36.00	3/8" x 7"	400-36.00-2	1,388.03	1,612.32	2,011.96	1,890.49	2,114.79	2,514.43	18: 5/8" x 11 1/2"	12"
	36.00	3/8" x 10"	400-36.00-3	1,658.50	1,940.71	2,333.92	2,232.74	2,514.95	2,908.16	18: 5/8" x 15"	15 1/2"
	38.30	1/4" x 7"	400-38.30-1	1,296.44	1,520.73	1,920.38	1,806.45	2,030.74	2,430.39	18: 5/8" x 11 1/2"	12"
	38.30	1/4" x 10"	400-38.30-1A	1,452.73	1,734.95	2,128.15	2,035.60	2,317.81	2,711.02	18: 5/8" x 15"	15 1/2"
	38.30	3/8" x 7"	400-38.30-2	1,434.33	1,658.61	2,058.26	1,944.35	2,168.65	2,568.27	18: 5/8" x 11 1/2"	12"
	38.30	3/8" x 10"	400-38.30-3	1,660.90	1,943.10	2,336.32	2,243.77	2,525.97	2,919.19	18: 5/8" x 15"	15 1/2"
42"	42.00	1/4" x 7"	400-42.00-1	1,668.53	1,941.45	2,361.80	2,186.16	2,459.09	2,879.43	20: 5/8" x 11 1/2"	12"
	42.00	1/4" x 10"	400-42.00-1A	1,863.70	2,182.87	2,614.16	2,455.26	2,774.43	3,205.73	20: 5/8" x 15"	15 1/2"
	42.00	3/8" x 7"	400-42.00-2	1,816.96	2,089.88	2,510.23	2,335.02	2,607.51	3,028.28	20: 5/8" x 11 1/2"	12"
	42.00	3/8" x 10"	400-42.00-3	2,062.35	2,381.51	2,812.82	2,653.91	2,973.07	3,404.38	20: 5/8" x 15"	15 1/2"
	44.50	3/8" x 7"	400-44.50-2	1,875.92	2,148.85	2,569.18	2,401.38	2,674.31	3,094.64	20: 5/8" x 11 1/2"	12"
	44.50	3/8" x 10"	400-44.50-3	2,130.99	2,450.15	2,881.46	2,731.42	3,050.60	3,481.89	20: 5/8" x 15"	15 1/2"
48"	48.00	3/8" x 7"	400-48.00-2	2,009.05	2,309.27	2,771.64	2,542.35	2,842.58	3,605.17	22: 5/8" x 11 1/2"	12"
	48.00	3/8" x 10"	400-48.00-3	2,287.45	2,638.50	3,112.96	2,896.87	3,247.92	3,722.38	22: 5/8" x 15"	15 1/2"
	50.80	3/8" x 7"	400-50.80-2	2,560.36	2,860.57	3,322.95	3,101.62	3,401.84	3,864.21	22: 5/8" x 11 1/2"	12"
	50.80	3/8" x 10"	400-50.80-3	2,881.49	3,232.53	3,707.00	3,500.10	3,851.15	4,325.61	22: 5/8" x 15"	15 1/2"

Other sizes available. Price on application.

Large Size Style 400 Couplings are No Cancel, No Return Items.

WARNING: Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



**ROMAC  
INDUSTRIES,  
INC.**  
1-800-426-9341



# Style "RC400" Steel Reducing Coupling

**Material Specifications**

**Center Rings:** Beveled, flared or formed carbon steel with minimum yield of 30,000 PSI.

**End Rings:** Contoured rolled mill section carbon steel. End ring thickness determined by pipe O.D. and pressure rating.

**Paint:** Romac shopcoat for corrosion protection in transit.

**Gaskets:** Compounded for water and sewer service. Meets the requirements for AWWA C219 and ASTM D2000. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion-resistant steel per AWWA C111. Threads protected with plastic caps on each bolt end.

Meets AWWA C219

**Specials:** Center ring lengths, thicknesses not shown, linings and coatings desired, diameters and pressure ratings not shown. Prices and availability on request (exact O.D. needed).

**Options:** For other options and specifications, see page 2-23.

**Use:** To flexibly couple two pipes of different nominal size. When the specific O.D.s are not known, limited ranges can be accommodated; contact factory for assistance.



**Note:** The RC400 steel reducing coupling is available in a wide variety of sizes. The couplings listed below are only a sample of popular sizes. If your requirement is not shown, please contact Romac Industries for price and availability.

**STYLE "RC400" STEEL COUPLING FOR STEEL PIPE O.D.S AND DUCTILE IRON O.D.S  
(150 PSI MAXIMUM WORKING PRESSURE)**

NOM. PIPE SIZE	NOMINAL DIAM. x O.D. (inches)	CENTER RING (A) x (B)	CATALOG NUMBER	LIST PRICE						APPROX. WEIGHT (lbs.)
				SHOPCOAT			FUSION EPOXY			
				w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N	
14"	15.30 x 14.00	1/4" x 10"	RC400-15.30 x 14.00	\$1,342.63	\$1,508.43	\$1,717.86	\$1,636.23	\$1,802.01	\$2,011.46	80 #
	15.65 x 14.00	1/4" x 12"	RC400-15.65 x 14.00	1,572.73	1,779.30	1,950.18	1,866.32	2,072.91	1,934.89	88 #
16"	17.40 x 16.00	1/4" x 10"	RC400-17.40 x 16.00	1,387.64	1,547.23	1,762.87	1,717.59	1,877.17	2,092.82	89 #
	17.80 x 16.00	1/4" x 12"	RC400-17.80 x 16.00	1,715.23	1,944.63	2,134.62	2,045.19	2,274.72	2,464.58	97 #
18" x 16"	18.00 x 17.40	1/4" x 10"	RC400-18.00 x 17.40	1,409.32	1,568.91	1,619.02	1,739.29	1,898.87	2,114.52	91 #
18"	19.50 x 18.00	1/4" x 10"	RC400-19.50 x 18.00	1,873.80	2,065.30	2,324.08	2,229.81	2,421.32	2,680.09	107 #
	19.92 x 18.00	1/4" x 12"	RC400-19.92 x 18.00	1,901.52	2,154.00	2,362.84	2,257.53	2,510.01	2,718.85	110 #
20" x 18"	20.00 x 19.50	1/4" x 10"	RC400-20.00 x 19.50	1,482.86	1,674.37	1,933.14	1,838.88	2,030.38	2,289.15	102 #
20"	21.60 x 20.00	1/4" x 12"	RC400-21.60 x 20.00	2,054.57	2,329.98	2,557.84	2,429.17	2,704.60	2,932.44	118 #
	22.06 x 20.00	1/4" x 12"	RC400-22.06 x 20.00	2,078.97	2,354.39	2,582.24	2,453.58	2,729.00	2,956.86	121 #
24"	25.80 x 24.00	1/4" x 12"	RC400-25.80 x 24.00	2,395.97	2,717.32	2,983.12	2,929.01	3,250.36	3,516.17	140 #
	26.32 x 24.00	1/4" x 12"	RC400-26.32 x 24.00	2,430.23	2,751.58	3,017.38	2,963.28	3,284.63	3,550.42	147 #
30"	32.00 x 30.00	1/4" x 12"	RC400-32.00 x 30.00	2,896.52	3,263.76	3,567.55	3,460.83	3,828.06	4,131.86	174 #
36"	38.30 x 36.00	1/4" x 12"	RC400-38.30 x 36.00	3,376.10	3,789.26	4,131.00	3,961.26	4,374.42	4,716.16	211 #
42"	44.50 x 42.00	1/4" x 12"	RC400-44.50 x 42.00	4,118.30	4,577.35	4,957.08	4,745.85	5,204.90	5,584.63	288 #
48"	50.80 x 48.00	3/8" x 12"	RC400-50.80 x 48.00	4,737.96	5,242.91	5,618.67	5,454.34	5,959.29	6,335.06	354 #

Other sizes available. Price on application.



No Cancel, No Return Item.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



**CAUTION:** Couplings with a step in the center ring have the potential for migrating along the pipe, therefore some sort of restraint should be used.



1-800-426-9341



# Style "TC400" Steel Transition Coupling

**Material Specifications**

**Center Rings:** Beveled, flared or formed carbon steel with minimum yield of 30,000 PSI.

**End Rings:** Contoured rolled mill section carbon steel. End ring thickness determined by pipe O.D. and pressure rating.

**Gaskets:** Compounded for water and sewer service. Meets the requirements of AWWA C219 and ASTM D2000. Other compounds available on request.

**Coating:** Romac shopcoat for corrosion protection in transit.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion-resistant steel per AWWA C111. Threads protected with plastic caps on bolt ends.

**Specials:** Additional center ring lengths and thicknesses, linings, coatings, and diameters available. Prices and availability on request.

**Option:** For other options and specifications, see page 2-23.

Meets AWWA C219

**Use:** To connect pipes of different known outside diameters within the same nominal size. When the specific O.D.s are not known, limited ranges can be accommodated. The maximum pipe O.D. difference is 1.00".

Romac offers three transition gaskets. Each gasket will accommodate a specific range below the maximum pipe diameter for which the coupling was designed.



GASKET STYLE	PIPE O.D. RANGE	GASKET RANGE
TC I	0.00" - 0.22"	0.22"
TC II	0.23" - 0.60"	0.37"
TC III	0.61" - 1.00"	0.39"

Each gasket is marked with its portion of the range. You measure the pipe and use the gasket that has the pipe OD within its range and discard the other TC gaskets. Note: TC gaskets can be used in most Romac's 400 series couplings.

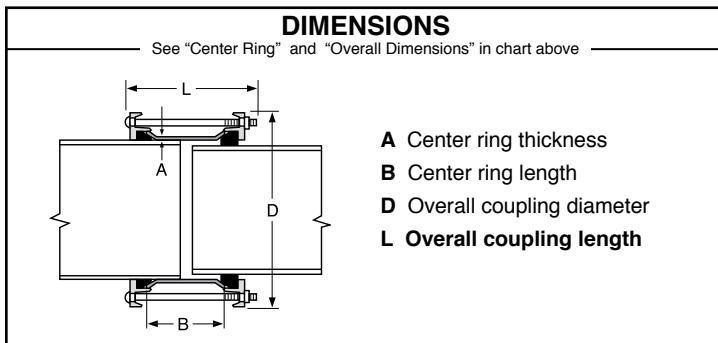
**Example:** 14" AC x 14" DIP - TC400 (15.30 - 16.30) x (15.30 - 15.69).

## STYLE "TC400" STEEL TRANSITION COUPLINGS for COMMON APPLICATIONS

TC400 COUPLINGS CAN BE MANUFACTURED WITH RANGES ON BOTH ENDS.  
FOR SIZES AND RANGES NOT SHOWN, CONTACT ROMAC CUSTOMER SERVICE.

NOM. PIPE SIZE	PIPE SIZES (INCHES)			CENTER RING (A) x (B)	OVERALL DIMENSIONS (D) x (L)	BOLTS NUMBER: SIZE	LIST PRICE	APPROX. WEIGHT (lbs.)
	ONE END	BY	OTHER END (RANGE)					
12"	TC400 - 13.20	x	12.60 - 12.97	1/4" x 7" 1	17.60" x 12"	8: 5/8" x 11 1/2"	POA	67 #
	TC400 - 13.50	x	13.06 - 13.50	1/4" x 7" 1	17.90" x 12"	8: 5/8" x 11 1/2"		67 #
14"	TC400 - 15.65	x	15.05 - 15.42	1/4" x 7" 1	20.05" x 12"	10: 5/8" x 11 1/2"		77 #
16"	TC400 - 17.80	x	17.20 - 17.57	1/4" x 7" 1	22.20" x 12"	10: 5/8" x 11 1/2"		84 #
18"	TC400 - 18.50	x	17.90 - 18.27	1/4" x 7" 1	22.90" x 12"	10: 5/8" x 11 1/2"		92 #
	TC400 - 19.92	x	19.32 - 19.69	1/4" x 7" 1	24.32" x 12"	12: 5/8" x 11 1/2"		100 #
20"	TC400 - 22.05	x	21.45 - 21.82	1/4" x 7" 1	26.46" x 12"	12: 5/8" x 11 1/2"		104 #
24"	TC400 - 26.32	x	25.62 - 26.09	1/4" x 7" 1	30.72" x 12"	14: 5/8" x 11 1/2"	122 #	

<sup>1</sup> 10" center ring also available.



Other sizes available. Price on application.

For pipes smaller than 12", please refer to Romac Style "501" straight and transition couplings, page 2-2 in the catalog. For sizes larger than 24", consult your Romac representative.

**To Order:** Sizes shown above are for common connections only. Give exact pipe O.D.s when ordering.

**Example:**

One end: 17.80 O.D. Other end: 17.40 O.D.  
Order **TC400 - 17.80 x 17.40**

**Note:** Example is for specific pipe O.D.s. Where a range is required, contact your Romac representative for assistance.

**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

**No Cancel, No Return Item.**





# Style "IC400" Steel Insulating Coupling

**Material Specifications**

**Center Rings:** Beveled, flared or formed carbon steel with minimum yield of 30,000 PSI.

**End Rings:** Contoured rolled mill section carbon steel. End ring thickness determined by pipe O.D. and pressure rating.

**Gaskets and Insulating Boot:** Compounded for water and sewer service. Meets the requirements for AWWA C219 and ASTM D2000. Other compounds available on request.

**Paint:** Romac shopcoat for corrosion protection in transit.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion resistant steel per AWWA C111. Threads protected with plastic caps on each bolt end.

**Note:** One boot provided as standard.

**Specials:** Center ring lengths, thicknesses not shown, linings and coatings desired, diameters and pressure ratings not shown. Prices

and availability on request.

**Options:** For other options and specifications, see page 2-23.

**Use:** Romac insulating couplings effectively stop electrolytic action by isolating one pipe from the other by means of an insulating boot.



Meets AWWA C219

NOM. PIPE SIZE	O.D.	CATALOG NUMBER	C. RING THICKNESS & LENGTH	7 1/2" BOOT ONLY LIST PRICE	COMPLETE LIST PRICE						APPROX. WEIGHT (lbs.)
					SHOPCOAT			FUSION EPOXY			
					w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N	
14"	14.00	IC400-14.00-1	1/4" x 7" 1	\$145.02 2	\$642.63	\$742.29	\$919.93	\$861.82	\$961.49	\$1,139.01	75 #
		IC400-14.00-2	3/8" x 7" 1	145.02 2	796.51	896.18	1,073.81	1,015.71	1,115.37	1,293.00	87 #
	15.30	IC400-15.30-1	1/4" x 7" 1	148.83 2	756.68	881.28	1,103.31	1,013.57	1,138.16	1,360.20	83 #
		IC400-15.30-2	3/8" x 7" 1	148.83 2	845.28	969.87	1,191.91	1,102.16	1,226.75	1,448.79	95 #
16"	16.00	IC400-16.00-1	1/4" x 7" 1	155.65 2	763.50	888.10	1,135.83	1,020.39	1,144.98	1,367.02	85 #
		IC400-16.00-2	3/8" x 7" 1	155.65 2	852.10	976.69	1,393.79	1,108.98	1,233.57	1,455.61	98 #
	17.40	IC400-17.40-1	1/4" x 7" 1	160.75 2	794.30	918.89	1,140.93	1,082.99	1,208.01	1,429.62	92 #
		IC400-17.40-2	3/8" x 7" 1	160.75 2	927.67	1,052.26	1,289.69	1,340.94	1,465.97	1,687.57	107 #
18"	18.00	IC400-18.00-1	1/4" x 7" 1	166.30 2	799.85	924.44	1,354.31	1,088.54	1,213.13	1,435.17	96 #
		IC400-18.00-2	3/8" x 7" 1	166.30 2	948.61	1,073.21	1,571.90	1,237.30	1,361.89	1,583.93	111 #
	19.50	IC400-19.50-1	1/4" x 7" 1	172.53 2	944.58	1,094.15	1,360.54	1,256.10	1,405.66	1,672.05	105 #
		IC400-19.50-2	3/8" x 7" 1	172.53 2	1,012.60	1,162.17	1,578.13	1,623.25	1,473.68	1,889.53	122 #
20"	20.00	IC400-20.00-1	1/4" x 7" 1	176.94 2	948.99	1,098.56	1,364.95	1,260.51	1,410.07	1,676.46	110 #
		IC400-20.00-2	3/8" x 7" 1	176.94 2	1,036.19	1,185.74	1,452.15	1,347.70	1,497.25	1,763.66	127 #
	21.60	IC400-21.60-1	1/4" x 7" 1	215.64 2	1,044.09	1,193.65	1,460.05	1,371.87	1,521.42	1,787.83	118 #
		IC400-21.60-2	3/8" x 7" 1	215.64 2	1,351.87	1,501.44	1,767.83	1,679.65	1,829.22	2,095.61	135 #
24"	24.00	IC400-24.00-1	1/4" x 7" 1	239.57 2	1,203.95	1,378.42	1,689.24	1,554.14	1,737.17	2,039.43	130 #
		IC400-24.00-2	3/8" x 7" 1	239.57 2	1,463.01	1,637.49	1,948.29	1,813.20	1,987.66	2,298.49	149 #
	25.80	IC400-25.80-1	1/4" x 7" 1	257.52 2	1,263.27	1,437.73	1,748.56	1,729.71	1,904.17	2,215.00	140 #
		IC400-25.80-2	3/8" x 7" 1	257.52 2	1,573.31	1,747.78	2,058.59	2,039.75	2,214.22	2,525.03	160 #

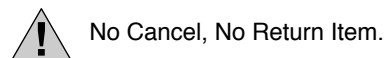
<sup>1</sup> Style "IC400" also available with 10" long center rings – POA.

<sup>2</sup> IC Boots can only be used with IC Couplings. IC Couplings have been sized to accommodate IC Boot.

10" center ring = 12" insulating boot

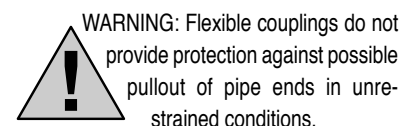
**Other sizes available. Price on application.**

Note: For insulating requirements in O.D.s not shown above, please refer to Romac's IC501 (see Page 2-15) or contact factory.



**To Order:** Determine pipe O.D. to be coupled.

**Example:** To couple 24" O.D. steel pipe with center ring dimensions of 1/4" x 7" and insulating boot, order **IC400 - 24.00 - 1**







1-800-426-9341



## Options for Romac Style "400" Fabricated Steel and "501" Products

Note the applicable options as they might apply to the desired coupling(s) when required.

### Fasteners

**Standard:** High strength low alloy steel.  
All nuts are heavy hex.

**Optional:**

- Zinc plated steel
- Hot dip galvanized steel <sup>1</sup>
- Type 316 stainless steel <sup>2</sup>
- Other \_\_\_\_\_
- Type 304 stainless steel

### Miscellaneous Options

- Insulating Boots (please specify if one or two boots are required)
- Manufacture per AWWA C219
- Other \_\_\_\_\_

<sup>1</sup> Hot dip galvanizing is not recommended because of thread interference.

<sup>2</sup> Threaded rod and nuts may be supplied for this item.

### Coatings and Linings <sup>3</sup>

**Standard:** Romac shopcoat will be applied to entire product unless specified.

**Optional:** Unless specified, entire product will be lined and coated with optional coating. Please note if lining and coating materials will be different.

- ROMACOTE Fusion Bonded Epoxy
- Fusion Bonded Epoxy per AWWA C213
- Liquid Epoxy per AWWA C210
- Other (Please supply all required specifications, such as material type and dry film thickness) \_\_\_\_\_

Note: Material to which any lining or coating is applied will be prepared per the manufacturer's instructions, as specified by the engineer, or per the applicable AWWA Standard.

<sup>3</sup> Coatings are applied to O.D. of product, linings are applied to parts of product that will be in contact with line content.

### Special Epoxy and Fusion Bonded Epoxy Information: AWWA Standards for . . .

**Linings/Coatings:** ROMACOTE **Fusion Bonded Epoxy** may be applied to most products Romac manufactures. The epoxy powder used will be compatible with potable water use and applied following the powder manufacturer's instructions. Unless otherwise specified, the thickness will be approximately 8-12 mils.

**Fusion Bonded Process:** Fusion bonded epoxy coatings are heat activated, chemically cured coating systems. The application method may be **Fluidized Bed, Electrostatic Spray** or **Air Spray** to preheated metal surfaces. The coating may be applied to non-heated metal using the **Electrostatic Spray** method, and post-cured or heated to achieve the fusion bonded coating.

**AWWA-C213-01:** This standard covers the specification and application of **Fusion Bonded Epoxy** systems to mechanical couplings, as well as steel water pipe (includes holiday testing). Sec. 4 of this standard applies to mechanical couplings. Minimum thickness is 12 mils on the exterior and 12 mils on the interior. Romac Customer Service must be informed if your specification is for adherence to this standard.

**AWWA-C210-97:** This standard covers the specifications and application of cold applied **Liquid Epoxy** linings and coatings. Minimum thickness is 16 mils, maximum is 25 mils. Special primers are required in most instances. Romac Customer Service must be informed if your specification is for adherence to this standard.

**AWWA-C-219-01, STANDARD FOR BOLTED, SLEEVE-TYPE COUPLINGS FOR PLAIN END PIPE:** This standard covers bolted sleeve type couplings, reducing or transition couplings, and flanged coupling adapters used to join plain end pipe.

**Indents for Coatings:** 8" to 10" indent for each pipe end covers most diameters. Special circumstances may require allowing for more "hold back" on the coatings.

Note: Romac reserves the right to refuse to apply a lining or coating that may be inconsistent with our product or good environmental practices. Extraordinary field conditions may arise where the above restrictions are not realistic. Contact your Romac representative to obtain an engineering evaluation of the specific condition.

### Recommended laying/angular deflection when using flexible couplings (in degrees)

NOMINAL PIPE SIZE	SLEEVE LENGTH		
	5"	7"	10"
2" to 14"	4°	4 1/2°	4 1/2°
16" to 24"	2°	4°	4 1/2°
26" to 36"	1 1/2°	3 1/2°	3 1/2°
38" to 42"	X	3°	3 1/2°
44" to 60"	X	2 1/2°	3°
60" to 100"	X	X	2 1/2°

Deflection (in degrees) is PER COUPLING. Use one half of these values for FC400 and FCA501.

In actual field conditions, slightly more deflection may be obtained, depending upon pressures, etc. Caution should be exercised when designing any deflection greater than this table shows.

**Expansion and Contraction:**

400 & 501 couplings will safely accommodate 3/8" in longitudinal movement. FC 400 & FCA 501 couplings will safely accommodate 3/16" in longitudinal movement.

### Recommended Gap Between Pipe Ends

Center Ring Length	Optimum Gap	Max. Gap W/Pipe Stops & No Pipe Movement
5"	1/4" - 1/2"	1"
7"	1/2" - 3/4"	2"
10"	1/2" - 1 1/4"	3 1/2"

### PIPE END TOLERANCE SPECIFICATIONS

NOMINAL PIPE SIZE	OD TOLERANCE		ROUNDNESS
	+	-	MIN / MAX <sup>1</sup>
14" to 22"	1/8"	1/16"	1/8"
24" to 36"	1/8"	1/16"	1/8"
38" to 72"	3/16"	1/16"	1/8"
73" to 96"	1/4"	1/16"	3/16"
120" plus	1/4"	1/16"	1/4"

<sup>1</sup> Out-of-roundness conditions are required to be correctable so that the difference between the minimum and maximum diameters is not greater than this dimension.



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.





# Flanged Couplings



**FCA501**  
Flange Coupling Adapter

Page 3-2 to Page 3-4



**FC400**  
Fabricated Steel Flange  
Coupling Adapter

Page 3-5



**FCG**  
Flange Coupling Adapter

Page 3-10



**RFCA**  
Restrained Flange Coupling  
Adapter for Steel and DI Pipe

Page 3-6



**RFCA - PVC**  
Restrained Flange Coupling  
Adapter for PVC Pipe

Page 3-7



**ECF400**  
Equipment Connection Fitting

Page 3-11



**DJ400**  
Dismantling Joint with Tie-Rods

Page 3-9



**DJ405**  
Dismantling Joint with RomaGrip

Page 3-9



**EJ400**  
Expansion Joint

Page 3-13



# Style "FCA501" Flanged Coupling Adapter

**Material Specifications**

**Flanged Body:** Ductile iron per ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles. Yellow shopcoat. Other flange coatings available on request.

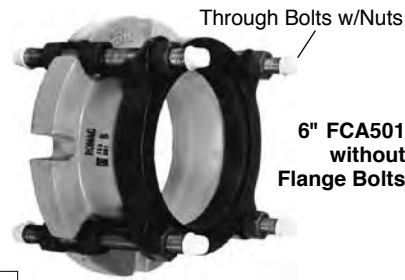
**End Ring:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl., BLACK for cast iron and YELLOW for A/C.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Flange O-ring gasket is NBR rubber. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC high strength, low alloy, corrosion-resistant steel per AWWA C111. The 10" and 12" flange bolts and nuts are mild steel, electro-galvanized with a hex head. Other materials or special coatings available on request.

**Anchor Pins:** AISI 12L14 low carbon steel, minimum of 60,000 psi yield strength. The number of pins shown is rated for 200 psi. Stainless steel pins (316 only) are available on request. Stainless steel pins require double the quantity.

**Options:** For other options and specifications, see page 2-23. For 14" and above, see FC400 on Page 3-5.



**Meets AWWA C219**

NOM. PIPE SIZE	COLOR CODE	GASKET RANGE	APPROXIMATE USE	CATALOG NUMBER	LIST PRICE				Add-On Epoxy L&C	APPROX. WEIGHT (LBS.)
					Complete	Complete w/Anchor Pins <sup>3</sup>	Complete with 304 SS Bolts & Nuts	Complete with 316 SS Bolts & Nuts		
3"	RED	3.00 - 3.29	Copper, OD Steel	FCA501 - 3.29	\$176.37 ②	239.20 Pins: 1/2"	\$201.89	\$237.01	\$27.92	16 #
		3.30 - 3.51	Std. Stl. & PVC	FCA501 - 3.51						
		3.50 - 4.00	Std. Stl, CI/DI & PVC	FCA501 - 4.00						
4" x 3" Flange	RED	3.80 - 4.05	O.D. Stl. C.I. & O.D. Stl.	FCA501 - 4.05-3	219.79	NA	286.11	305.71	34.91	19#
		4.06 - 4.31	Riv. Stl.	FCA501 - 4.31-3						
		4.50 - 4.70	Std. Stl. & PVC	FCA501 - 4.70-3						
	BLACK	4.50 - 4.81	Std. Stl., D.I. & PVC	FCA501 - 4.81-3						
4.80 - 5.00		Cast Iron & PVC	FCA501 - 5.00-3							
4.74 - 5.10		C.I. & A/C M.E.	FCA501 - 5.10-3							
		5.11 - 5.30	A/C R.B.	FCA501 - 5.30-3						
4"	RED	3.80 - 4.05	O.D.	FCA501 - 4.05	232.39	298.00	292.42	335.98	34.91	18 #
		4.06 - 4.31	Riv. Stl.	FCA501 - 4.31						
		4.50 - 4.70	Std. Stl. & PVC	FCA501 - 4.70						
	BLACK	4.50 - 4.81	Std. Stl., D.I. & PVC	FCA501 - 4.81						
4.80 - 5.00		Cast Iron & PVC	FCA501 - 5.00							
4.74 - 5.10		C.I. & A/C M.E.	FCA501 - 5.10							
		5.11 - 5.30	A/C R.B.	FCA501 - 5.30		Pins: 1/2" ③				
	YELLOW	5.11 - 5.40	A/C R.B. CL. 200	FCA501 - 5.40						
6"	RED	5.80 - 6.10	O.D.	FCA501 - 6.10	296.44	369.18	390.32	436.72	47.27	28 #
		6.05 - 6.30	Riv. Stl.	FCA501 - 6.30						
		6.55 - 6.76	Std. Stl. & PVC	FCA501 - 6.76						
	BLACK	6.60 - 6.91	Std. Stl., D.I. & PVC	FCA501 - 6.91						
6.90 - 7.10		Cast Iron & PVC	FCA501 - 7.10							
6.86 - 7.20		C.I. & A/C M.E.	FCA501 - 7.20							
		7.15 - 7.35	A/C R.B.	FCA501 - 7.35		Pins: 5/8" ③				
	YELLOW	7.15 - 7.45	A/C R.B. CL. 200	FCA501 - 7.45						
8"	RED	7.80 - 8.10	O.D.	FCA501 - 8.10	407.47	473.72	501.35	547.75	57.19	34 #
		8.10 - 8.30	Riv. Stl.	FCA501 - 8.30						
		8.30 - 8.55	C.I. Soil, PVC Sewer	FCA501 - 8.55						
	BLACK	8.55 - 8.75	Std. Stl. & PVC	FCA501 - 8.75						
8.60 - 9.06		Std. Stl., D.I. & PVC	FCA501 - 9.06							
9.05 - 9.30		Cast Iron & PVC	FCA501 - 9.30							
		8.99 - 9.40	C.I. & A/C M.E.	FCA501 - 9.40		Pins: 7/8" ③				
		9.31 - 9.50	A/C R.B.	FCA501 - 9.50						
	YELLOW	9.51 - 9.70	A/C R.B. CL. 200	FCA501 - 9.70						
10"	RED	9.80 - 10.10 A	O.D.	FCA501 - 10.10	737.73	825.03	1,009.92	1,197.54	124.72	58 #
		10.20 - 10.55 A	C.I. Soil, PVC Sewer	FCA501 - 10.55						
		10.70 - 11.00 A	Std. Stl. & PVC	FCA501 - 11.00						
	BLACK	10.70 - 10.80 B <sup>⊙</sup>	Std. Stl. & PVC	FCA501 - 10.80						
10.89 - 11.40 B <sup>⊙</sup>		Cast Iron & PVC	FCA501 - 11.40							
11.55 - 11.75 B <sup>⊙</sup>		A/C M.E.	FCA501 - 11.75							
		11.76 - 12.12 B <sup>⊙</sup>	A/C R.B.	FCA501 - 12.12		Use 10A for Std. Stl. ③				
12"	RED	11.81 - 12.10 A	O.D. Stl.	FCA501 - 12.10	816.16	951.86	1,421.08	1,578.16	153.15	70 #
		12.65 - 12.95 A	Std. Stl. & PVC	FCA501 - 12.95						
		12.70 - 12.80 B	Std. Stl. & PVC	FCA501 - 12.80						
	BLACK	13.15 - 13.55 B	Cast Iron & PVC	FCA501 - 13.55						
13.85 - 14.10 B		A/C M.E.	FCA501 - 14.10							
14.05 - 14.40 B		A/C R.B.	FCA501 - 14.40							
						Use 12A for Std. Stl. ③				
16"	RED	16.00	O.D. Stl.	FCA501 - 16.00	1,148.49 ②	NA	1,288.05	1,534.17	261.99	137 #
	BLACK	17.40	Ductile Iron & PVC	FCA501 - 17.40						

**To Order:** Add the letter "P" to end of catalog number for FCA501 with anchor pins and "X" for less flange bolts.

**Example:** **FCA501- 5.00 P** or **FCA501- 5.00 X**

**\*NOTE:** Harness Lugs used with Romac FCA501s require longer flange and through bolts than what are provided as standard with 3" - 12" FCA501s. 10" FCA501s require special considerations. Contact Romac Engineering for more information.

① CANNOT be used with mating flanges that have threaded bolt holes.

② Less flange bolts/nuts.

③ Submit pressure data when specifying pins. Pin quantity is dependant on pressure. Cannot be used on O.D. steel pipe or non-metallic pipe.



Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



# Style "FCA501" Parts List

NOM. PIPE SIZE	FLANGED BODY (with O-Ring)	END RING	COUPLING GASKET	O-RING GASKET	FLANGE BOLTS WITH NUTS				THROUGH BOLTS WITH NUTS			
					NUMBER: SIZE	PRICE EACH			NUMBER: SIZE	PRICE EACH		
						STD.	304 S.S.	316 S.S.		STD.	304 S.S.	316 S.S.
3"	\$84.75	\$10.75 <sup>1</sup>	\$4.75 <sup>1</sup>	\$7.79	NA	NA	NA	NA	4: 5/8" x 7 1/2"	\$19.03	\$25.41	\$34.19
4" x 3"	168.42	15.13 <sup>1</sup>	6.24	7.79	4: 5/8" x 3" <sup>2</sup>	\$3.75	\$16.85	\$17.02	4: 5/8" x 3" <sup>2</sup>	3.75	11.70	14.49
4"	119.89	15.13 <sup>1</sup>	6.24 <sup>1</sup>	8.41	4: 5/8" x 3" <sup>2</sup>	3.75	16.85	17.02	4: 5/8" x 7 1/2"	19.03	25.41	34.19
6"	122.21	32.03	8.88 <sup>1</sup>	8.92	4: 3/4" x 3 1/2" <sup>2</sup>	4.93	17.70	18.99	4: 3/4" x 8"	28.40	36.72	49.41
8"	221.56	39.32	13.27 <sup>1</sup>	10.08	4: 3/4" x 3 1/2" <sup>2</sup>	4.93	17.70	18.99	4: 3/4" x 8"	28.40	36.72	49.41
10" A	425.58	50.81	27.55	11.28	6: 7/8" x 4"	8.86	43.66	52.08	6: 5/8" x 7/8" x 9 1/2"	30.11	40.67	63.52
10" B	425.58	50.81	27.55 <sup>1</sup>	11.28	6: 7/8" x 4"	8.86	43.66	52.08	6: 5/8" x 7/8" x 9 1/2"	30.11	40.67	63.52
12" A	454.66	59.94	35.22 <sup>1</sup>	12.67	6: 7/8" x 4"	8.86	43.66	52.08	6: 7/8" x 9"	35.53	101.55	119.31
12" B	454.66	59.94	35.22 <sup>1</sup>	12.67	6: 7/8" x 4"	8.86	43.66	52.08	6: 7/8" x 9"	35.53	101.55	119.31
16"	776.57	173.27	86.45	14.72	N/A	NA	NA	NA	12: 5/8" x 10 1/2" <sup>3</sup>	9.35	20.98	41.49

<sup>1</sup> Parts are interchangeable with 501 couplings.

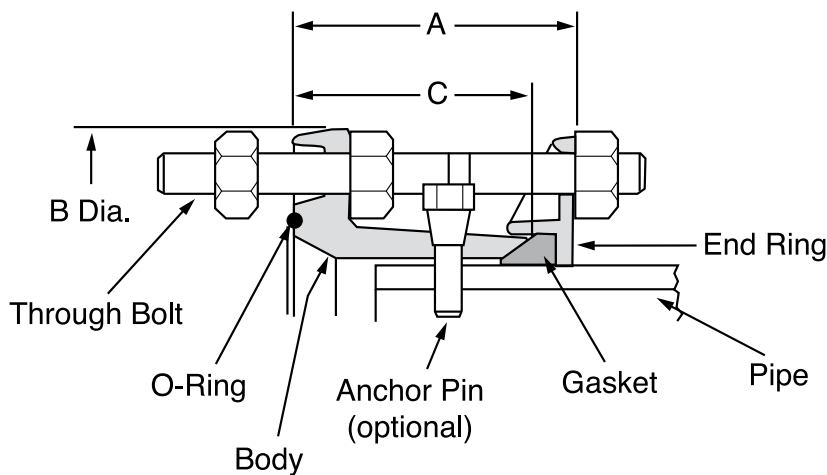
<sup>2</sup> T-head bolts.

<sup>3</sup> Trackhead bolt for end ring only

Refer to page 2-3 for information on 10" and 12" center rings.

Stainless steel anchor pins available upon request.

NOM. PIPE SIZE	DIMENSIONS		
	A	B Dia.	C
3"	4 1/2"	7 1/2"	3 3/8"
4" x 3"	4 5/8"	9"	4 1/4"
4"	4"	9"	3 1/2"
6"	4 1/8"	11"	3 5/8"
8"	4 1/4"	13 1/2"	3 1/2"
10" A	5 1/4"	16"	4 1/4"
10" B	5 1/2"	16"	4 1/2"
12" A	5 1/4"	19"	4 1/2"
12" B	5 1/2"	19"	4 1/2"
16"	8"	23 1/2"	7"



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

Stainless steel anchor pins available.  
Contact factory for price and number required.



# Fusion Epoxy Style "FCA501" Parts List

NOM. PIPE SIZE	FLANGED BODY (w/O-Ring)	END RING	COUPLING GASKET <sup>4</sup>	O-RING GASKET <sup>4</sup>	FLANGE BOLTS WITH NUTS			THROUGH BOLTS WITH NUTS				
					NUMBER: SIZE	PRICE EACH			NUMBER: SIZE	PRICE EACH		
						STD.	304 SS	316 SS		STD.	304 SS	316 SS
3"	\$106.73	\$16.69 <sup>1</sup>	N 21.61 E 21.96	N 7.49 E 7.69	N/A	N/A	N/A	N/A	4:5/8" x 7 1/2"	\$19.03	\$25.41	\$34.19
4" x 3"	196.27	22.19 <sup>1</sup>	N 21.94 E 22.52	N 7.49 E 7.69	4:5/8" x 3" <sup>2</sup>	\$3.75	\$16.85	\$17.02	4:5/8" x 3" <sup>2</sup>	3.75	11.70	14.49
4"	147.74	22.19 <sup>1</sup>	N 21.94 E 22.52	N 8.09 E 8.30	4:5/8" x 3" <sup>2</sup>	3.75	16.85	17.02	4:5/8" x 7 1/2"	19.03	25.41	34.19
6"	157.00	44.51	N 25.86 E 27.05	N 8.58 E 8.78	4:3/4" x 3 1/2" <sup>2</sup>	4.93	17.70	18.99	4:3/4" x 8"	28.40	36.92	49.41
8"	256.37	61.70	N 31.15 E 35.01	N 9.69 E 9.94	4:3/4" x 3 1/2" <sup>2</sup>	4.93	17.70	18.99	4:3/4" x 8"	28.40	36.92	49.41
10"A	490.77	110.34	N 43.39 E 50.64	N 10.85 E 11.13	6:7/8" x 4"	8.86	43.66	52.08	6:5/8" x 7/8 x 9 1/2"	30.11	40.67	63.52
10"B	490.77	110.34	N 43.39 E 50.64	N 10.85 E 11.13	6:7/8" x 4"	8.86	43.66	52.08	6:5/8" x 7/8 x 9 1/2"	30.11	40.67	63.52
12"A	535.46	132.29	N 54.34 E 63.06	N 12.18 E 11.94	6:7/8" x 4"	8.86	43.66	52.08	6:7/8" x 9"	35.53	101.55	119.31
12"B	535.46	132.29	N 54.34 E 63.06	N 12.18 E 11.94	6:7/8" x 4"	8.86	43.66	52.08	6:7/8" x 9"	35.53	101.55	119.31
16"	956.08	255.75	N 126.76 E 152.41	N 14.15 E 14.50	N/A	N/A	N/A	N/A	12:5/8"x10 1/2" <sup>3</sup>	9.35	20.98	41.49

<sup>1</sup> Parts are interchangeable with 501 couplings.

<sup>2</sup> T-head bolts.

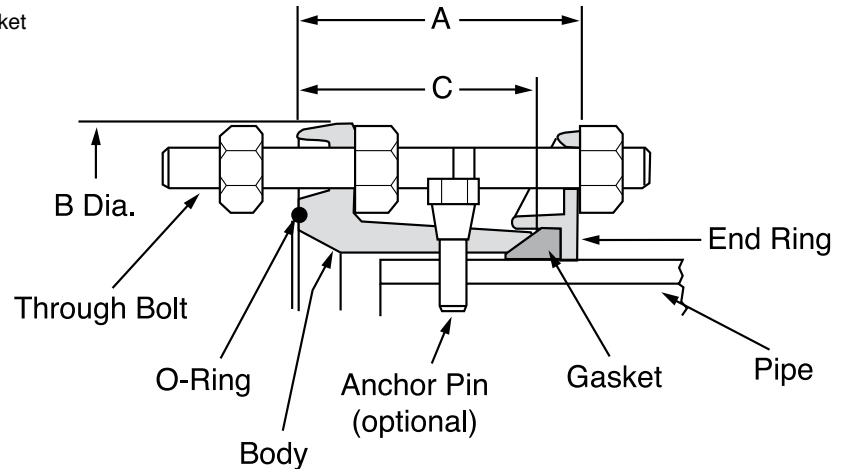
<sup>3</sup> Trackhead bolt for end ring only

<sup>4</sup> "N" indicates an NBR gasket, "E" indicates an EPDM gasket

Refer to page 2-3 for information on 10" and 12" center rings.

Stainless steel anchor pins available upon request.

NOM. PIPE SIZE	DIMENSIONS		
	A	B Dia.	C
3"	4 1/2"	7 1/2"	3 3/8"
4" x 3"	4 5/8"	9"	4 1/4"
4"	4"	9"	3 1/2"
6"	4 1/8"	11"	3 5/8"
8"	4 1/4"	13 1/2"	3 1/2"
10" A	5 1/4"	16"	4 1/4"
10" B	5 1/2"	16"	4 1/2"
12" A	5 1/4"	19"	4 1/2"
12" B	5 1/2"	19"	4 1/2"
16"	8"	23 1/2"	7"



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

Stainless steel anchor pins available.  
Contact factory for price and number required.





# Style "FC400" Steel Flanged Coupling Adapter

**Material Specifications**

**Flanges:** AWWA C207 Class D, meets the dimensional requirements of ANSI Class 125 and 150 bolt circles. Higher pressure ratings available. Bolts, nuts and gaskets for flange end not supplied. Other flanges are available.

**Flanged Body:** Beveled, flared or formed carbon steel with minimum yield of 30,000 PSI.

**End Rings:** Contoured rolled mill section carbon steel. End ring thickness determined by pipe O.D. and pressure rating.

**Gaskets:** Compounded for water and sewer service. Meets the requirements of AWWA C219 and ASTM D2000. Other compounds available on request.

**Paint:** Romac shopcoat for corrosion protection in transit.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion-resistant steel per AWWA C111. Threads protected with plastic caps on each bolt end.

**Anchor Pins:** Used for pipe restraint. For use on 12" and larger steel and ductile iron pipe, pipe wall thickness greater than 1/4" is recommended.

**Specials:** Larger sizes, special lay lengths, special linings and coatings, available on request.

**Option:** For other options and specifications, see page 2-23.

**Use:** To provide a flexible flanged end in connecting pipe; installing valves on fittings. When the specific O.D.s are not known, limited ranges can be accommodated; contact factory for assistance.

Meets AWWA C219



NOM. PIPE & FLANGE SIZE	PIPE O.D.	DIMENSION (inches)				APPROX. WEIGHT (lbs.)	CATALOG NUMBER	LIST PRICE					
		A <sup>1</sup>	B	D	L			SHOPCOAT			FUSION EPOXY		
								w/STD B&N	w/304 SS B&N	w/316 SS B&N	w/STD B&N	w/304 SS B&N	w/316 SS B&N
12"	13.20	1/4	10 13/16	18 7/16	12 3/16	88 #	FC400-13.20-12	\$1,045.45	\$1,135.85	\$1,213.20	\$1,244.89	\$1,336.71	\$1,412.64
14"	14.00	1/4	10 15/16	19 1/4	12 1/4	105 #	FC400-14.00-14	1,182.37	1,274.19	1,350.13	1,383.24	1,475.05	1,551.00
14"	15.30	1/4	10 15/16	20 9/16	12 1/4	111 #	FC400-15.30-14	1,228.61	1,343.37	1,438.31	1,429.49	1,544.24	1,639.19
14"	15.65	1/4	10 15/16	20 15/16	12 1/4	112 #	FC400-15.65-14	1,254.36	1,369.12	1,464.06	1,455.24	1,569.99	1,664.94
16"	16.00	1/4	11	21 1/4	12 3/8	127 #	FC400-16.00-16	1,323.48	1,438.24	1,533.18	1,559.52	1,674.26	1,769.22
16"	17.40	1/4	11	22 11/16	12 3/8	132 #	FC400-17.40-16	1,487.66	1,602.40	1,697.35	1,723.69	1,838.44	1,933.38
16"	17.80	1/4	11	23 1/16	12 3/8	133 #	FC400-17.80-16	1,526.12	1,640.86	1,735.81	1,762.14	1,876.91	2,086.60
18"	18.00	1/4	11 1/16	23 1/4	12 1/2	138 #	FC400-18.00-18	1,572.26	1,687.02	1,781.96	1,841.49	1,956.24	2,165.94
18"	19.50	1/4	11 1/16	24 3/4	12 1/2	144 #	FC400-19.50-18	1,787.75	1,925.45	2,062.27	2,056.98	2,198.96	2,450.58
20"	20.00	1/4	11 1/8	25 1/4	12 5/8	163 #	FC400-20.00-20	1,882.74	2,020.43	2,134.37	2,186.42	2,324.12	2,575.75
20"	21.60	1/4	11 1/8	26 7/8	12 5/8	168 #	FC400-21.60-20	2,146.81	2,284.50	2,398.44	2,450.49	2,588.19	2,839.82
24"	24.00	1/4	11 1/4	29 1/4	12 3/4	212 #	FC400-24.00-24	2,313.54	2,474.24	2,607.12	2,723.03	2,883.72	3,177.30
24"	25.80	1/4	11 1/4	31 1/16	12 3/4	218 #	FC400-25.80-24	2,477.69	2,638.39	2,771.26	2,887.18	3,047.87	3,341.44
30"	30.00	1/4	11 3/8	35 5/16	12 3/4	290 #	FC400-30.00-30	2,912.70	3,135.52	3,248.20	3,561.81	3,784.64	4,120.15
30"	32.00	1/4	11 3/8	37 5/16	12 15/16	297 #	FC400-32.00-30	2,942.82	3,165.65	3,278.33	3,591.93	3,814.76	4,150.28
36"	36.00	1/4	11 5/8	41 5/16	13 5/32	420 #	FC400-36.00-36	3,656.90	3,924.26	4,034.35	4,391.86	4,659.24	5,036.69
36"	38.30	1/4	11 5/8	43 9/16	13 5/32	428 #	FC400-38.30-36	3,734.76	4,002.14	4,112.21	4,469.72	4,737.10	5,114.55

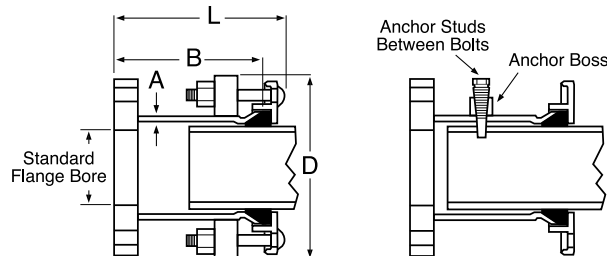
<sup>1</sup> For use with anchor pins, "A" dimension will be 3/8".  
Prices and availability on request.

Other sizes available. Price on application.

For pipes smaller than 12", please refer to Romac Style "FCA501" on Page 3-2. For sizes larger than 36", consult your representative. Reducing FC's available on request.

**To Order:** Determine pipe OD and flange size.

**Example:** The pipe end to be coupled is 16" D.I. with an O.D. of 17.40 and a flange of 16" class "D", order **FC400-17.40-16**



**WARNING:** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.



# RFCA (Restrained Flanged Coupling Adapter)

**Material Specifications**

**Flange Body:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™. See page 7-6.

**Restraining Bolts:** 7/8 -9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Polyurethane, a thermal plastic.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Use:** Ductile Iron Pipe 3 - 24", cast iron pipe 3" - 24" (same OD's as ductile iron) and IPS size STD steel pipe 3 - 12".

**To Order:** Specify catalog number. **Example:** For a 12" RFCA Order: **RFCA - 13.20**

**NOTE:** 3" - 12" special Romac gasket works on both steel and D.I. ODs.



**Not for use on PVC, HDPE pipe or plain-end mechanical joint fittings. For applications on PVC, please contact your Romac representative.**

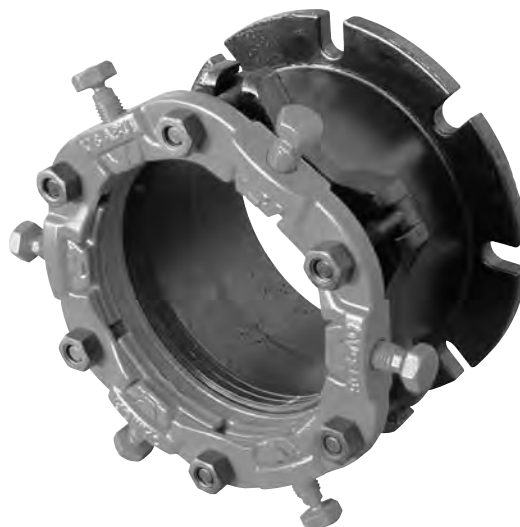
NOM. PIPE SIZE	GASKET RANGE	LENGTH	GLAND BOLTS QTY: SIZE	CATALOG NUMBER	LIST PRICE				WEIGHT (lbs.)
					Shopcoat w/Std. B&N	Shopcoat w/304 SS B&N	Fusion Epoxy w/Std. B&N	Fusion Epoxy w/304SS B&N	
3"	3.50-3.96	8.00"	4: 5/8" x 3"	RFCA - 3.96	\$145.45	\$157.56	\$165.10	\$177.20	21
4"	4.50-4.80	9.00"	4: 3/4" x 3 1/2"	RFCA - 4.80	183.32	209.43	207.88	233.99	29
6"	6.63-6.90	9.25"	6: 3/4" x 4"	RFCA - 6.90	233.85	273.01	267.10	306.26	40
8"	8.63-9.05	9.25"	6: 3/4" x 4"	RFCA - 9.05	315.59	354.75	355.82	394.98	53
10"	10.75-11.10	10.25"	8: 3/4" x 4"	RFCA - 11.10	581.96	634.17	669.69	721.91	83
12"	12.75-13.20	10.25"	8: 3/4" x 4"	RFCA - 13.20	632.13	684.34	739.86	792.07	110
14"	15.30	11.70"	10: 3/4" x 4 1/2"	RFCA - 15.30	882.79	947.37	1,020.54	1,085.12	170
16"	17.40	11.70"	12: 3/4" x 4 1/2"	RFCA - 17.40	1,225.93	1,302.91	1,410.23	1,487.21	200
18"	19.50	11.80"	12: 3/4" x 4 1/2"	RFCA - 19.50	1,346.63	1,423.60	1,546.13	1,623.10	217
20"	21.60	11.80"	14: 3/4" x 4 1/2"	RFCA - 21.60	1,521.19	1,611.94	1,772.94	1,863.69	256
24"	25.80	12.00"	16: 3/4" x 5"	RFCA - 25.80	1,845.38	1,959.61	2,130.38	2,244.61	305



*Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.*



# RFCA for PVC Pipe



**Material Specifications**

**Flange Body:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™ for PVC (see page 7-7).

**Restraining Bolts:** 7/8 –9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Stainless steel.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Use:** C900 4"-12", C905 14"-24" and, IPS 3"-12" Class 160 and greater, scd 40 & 80. Contact Romac representative for thin wall pipe such as IPS PVC (less than Class 160, etc.) C909 and Class 100 C900 (see installation instructions).



**Not for use on metal or HDPE pipe. For applications on steel or ductile iron, please contact your Romac representative.**

NOM. PIPE SIZE	GASKET RANGE	LENGTH	GLAND BOLTS QUANTITY: SIZE	CATALOG NUMBER	LIST PRICE				WEIGHT (lbs.)
					Shopcoat w/Std. B&N	Shopcoat w/304 SS B&N	Fusion Epoxy w/Std. B&N	Fusion Epoxy w/304SS B&N	
3"	3.50-3.96	8"	4: 5/8" x 3"	RFCA-PVC - 3.96	\$150.67	\$162.77	\$170.32	\$182.42	25
4"	4.50-4.80	9"	4: 3/4" x 3 1/2"	RFCA-PVC - 4.80	189.29	215.39	213.85	239.95	31
6"	6.63-6.90	9.25"	6: 3/4" x 4"	RFCA-PVC - 6.90	241.86	281.02	275.11	314.27	41
8"	8.63-9.05	9.25"	6: 3/4" x 4"	RFCA-PVC - 9.05	325.52	364.68	365.75	404.91	53
10"	10.75-11.10	10.25"	8: 3/4" x 4"	RFCA-PVC - 11.10	622.00	674.22	709.74	761.95	83
12"	12.75-13.20	10.25"	8: 3/4" x 4"	RFCA-PVC - 13.20	644.41	696.63	752.14	804.17	110
14"	15.30	11.7"	10: 3/4" x 4 1/2"	RFCA-PVC - 15.30	929.68	994.26	1,067.43	1,132.01	170
16"	17.40	11.7"	12: 3/4" x 4 1/2"	RFCA-PVC - 17.40	1,278.12	1,355.10	1,462.42	1,539.40	200
18"	19.50	11.8"	12: 3/4" x 4 1/2"	RFCA-PVC - 19.50	1,376.96	1,453.94	1,576.46	1,653.44	217
20"	21.60	11.8"	14: 3/4" x 4 1/2"	RFCA-PVC - 21.60	1,560.59	1,651.35	1,812.34	1,903.10	256
24"	25.80	12"	16: 3/4" x 5"	RFCA-PVC - 25.80	1,860.07	1,974.31	2,145.07	2,259.31	305

**To Order:** Specify catalog number. **NOTE:** 3" - 12" special Romac gasket works on both IPS and C-900 ODs.

**Example:** For a 12" RFCA -PVC Order: **RFCA-PVC - 13.20**



# Style DJ400 Dismantling Joint

**Material Specifications**

**Flange Spool:** AWWA Class D Ring Flange, compatible with ANSI Class 125 and 150 bolt circles. For 3" - 12" sizes, pipe is Sch 40 ASTM A53. For 14" - 72" sizes, ASTM A36 Carbon Steel. Other flange classes available. Bolts, nuts and gaskets for flange end not supplied. For more information contact Romac Industries.

**End Ring & Body:** For 3" - 12" sizes, body and end ring are ASTM A536 ductile (nodular) iron meeting or exceeding Grade 65-45-12. For 14" - 72" ASTM A36 Carbon Steel with AWWA C207 Class D flanges. 3" - 72" meet the dimensional requirements of ANSI CClass 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (ductile iron flange bodies, 3" - 12" have flange o-ring gaskets). Other compounds available for petroleum, chemical or high temperature services.

**Bolts & Nuts:** High strength low alloy steel bolts and nuts. Steel meets ASTM A588. Type 304 and 316 Stainless Steel bolt material available.

**Coating :** Fusion bonded epoxy, NSF 61 certified.

**Tie-Rods :** High strength steel per ASTM A193 B7. Other lengths, materials and higher pressures can be accommodated. For more information, contact your Romac representative.



NOM. PIPE SIZE	LENGTH			CATALOG NUMBER	ER BOLTS		TIE-RODS			LIST PRICE			APPROX. WEIGHT (LBS.)
	NOM.	MIN.	MAX.		QTY	SIZE	SIZE (UNC)	LENGTH	QTY	w/STD B&N	w/304 SS B&N	w/316 SS B&N	
3"	8.00	7.00	9.00	DJ400-03	2	5/8 - 11 x 7 1/2	5/8 - 11	13.50	2	\$492.48	\$540.04	\$595.43	31
4"	8.00	7.00	9.00	DJ400-04	4	5/8 - 11 x 7 1/2	5/8 - 11	13.50	2	506.17	553.88	612.70	36
6"	8.38	7.38	9.38	DJ400-06	4	3/4 - 10 x 8	3/4 - 10	15.00	2	601.93	692.36	747.76	55
8"	8.38	7.38	9.38	DJ400-08	4	3/4 - 10 x 8	3/4 - 10	15.00	2	738.74	830.84	886.22	72
10"	10.50	9.50	11.50	DJ400-10	6	5/8 - 11 X 7 1/8 - 9 x 9 1/2	7/8 - 9	17.75	2	1,053.38	1,190.85	1,246.25	108
12"	10.50	9.50	11.50	DJ400-12	6	7/8 - 9 x 9	7/8 - 9	17.75	2	1,354.35	1,495.49	1,550.89	134
14"	13.50	12.00	15.00	DJ400-14	8	5/8 - 11 x 5	1 - 8	22.00	2	1,860.53	2,049.39	2,160.16	152
16"	13.50	12.00	15.00	DJ400-16	10	5/8 - 11 x 5	1 - 8	22.00	2	2,093.09	2,298.64	2,437.10	185
18"	13.75	12.25	15.25	DJ400-18	10	5/8 - 11 x 5	1 1/8 - 7	23.25	2	2,284.62	2,866.38	3,087.94	201
20"	13.75	12.25	15.25	DJ400-20	12	5/8 - 11 x 5	1 1/8 - 7	23.25	2	2,585.60	3,295.64	3,531.04	239
24"	14.25	12.75	15.75	DJ400-24	14	5/8 - 11 x 5	1 1/4 - 7	25.50	2	3,324.33	4,084.93	4,334.17	339
30"	14.75	13.25	16.25	DJ400-30	16	5/8 - 11 x 5	1 1/4 - 7	25.50	4	4,281.95	5,303.48	5,635.81	506
36"	15.75	14.25	17.25	DJ400-36	18	5/8 - 11 x 5	1 1/2 - 6	27.50	4	5,800.48	7,519.04	7,865.22	757
42"	16.50	15.00	18.00	DJ400-42	20	5/8 - 11 x 6	1 1/2 - 6	29.25	4	7,606.30	9,360.72	9,762.29	1,005
48"	16.75	15.25	18.25	DJ400-48	22	5/8 - 11 x 6	1 1/2 - 6	29.25	6	10,561.25	12,780.99	13,265.65	1,260
54"	17.75	16.25	19.25	DJ400-54	24	5/8 - 11 x 6	1 3/4 - 5	31.75	6	14,227.60	17,710.60	18,652.20	1,657
60"	18.00	16.50	19.50	DJ400-60	28	5/8 - 11 x 6	1 3/4 - 5	31.75	6	25,801.20	30,588.50	31,751.67	1,993
72"	18.75	17.25	20.25	DJ400-72	32	5/8 - 11 x 6	1 3/4 - 5	33.50	10	32,449.87	38,896.84	40,503.11	2,960

To Order: Specify catalog number.

Example: For a 12" DJ400 Order: **DJ400-12**



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1-800-426-9341



## Style DJ405 Dismantling Joint

### Material Specifications

**Flange Spool:** AWWA C207 Class D, meets the dimensional requirements of ANSI Class 125 and 150 bolt circles. For 3" - 12" sizes, pipe is Sch 40 ASTM A53. For 14" - 24" pipe material is ASTM A36. Bolts, nuts and gaskets for flange end not supplied.

**Flange Body:** ASTM A536 ductile (nodular) iron meeting or exceeding Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™. See page 7-6.

**Restraining Bolts:** 7/8 -9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Polyurethane, a thermal plastic.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Fusion bonded epoxy, NSF 61 certified.



To Order: Specify catalog number.

Example: For a 12" DJ405 Order: **DJ405-12**

NOM. PIPE SIZE	LENGTH			CATALOG NUMBER	T-BOLTS			ALLOWABLE DEFLECTION (degrees)	LIST PRICE		APPROX. WEIGHT (LBS.)
	NOM.	MIN.	MAX.		QTY	SIZE	LENGTH		w/STD B&N	w/304 SS B&N	
3"	11.50	10.00	13.00	DJ405-03	4	5/8"	3.75	2.0	615.61	630.07	33
4"	12.75	11.00	14.50	DJ405-04	4	3/4"	4.25	3.5	632.73	663.96	46
6"	13.50	11.50	15.50	DJ405-06	6	3/4"	4.25	3.5	752.42	799.23	68
8"	13.50	11.50	15.50	DJ405-08	6	3/4"	4.25	3.3	923.43	970.23	94
10"	14.75	12.50	17.00	DJ405-10	8	3/4"	4.25	3.0	1,316.74	1,379.14	143
12"	14.75	12.50	17.00	DJ405-12	8	3/4"	4.25	3.0	1,692.98	1,758.81	193
14"	19.25	16.75	21.75	DJ405-14	10	3/4"	4.50	2.0	2,325.68	2,402.87	297
16"	19.25	16.75	21.75	DJ405-16	12	3/4"	4.50	2.0	2,721.02	2,813.02	352
18"	20.25	17.75	22.75	DJ405-18	12	3/4"	4.50	1.5	3,084.28	3,176.25	390
20"	20.25	17.75	22.75	DJ405-20	14	3/4"	4.50	1.5	3,490.55	3,599.02	457
24"	21.25	18.75	23.75	DJ405-24	16	3/4"	5.00	1.5	4,487.85	4,624.39	569



Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.





# FCG (Flanged Coupling Adapter w/MJ gland)

**Material Specifications**

**Flange Body:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Gaskets are made from virgin Styrene Butadiene Rubber(SBR) compounded for water and sewer service in accordance with ASTM D 2000 MBA 710. Flange gasket is an "O" ring style made of Nitrile Butadiene Rubber (NBR) in accordance with ASTM D 2000 MBK. Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Ductile iron per ASTM A 536, Grade 65-45-12.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Meets AWWA C219**



NOM. PIPE SIZE	GASKET RANGE	LENGTH	GLAND BOLTS QTY: SIZE	CATALOG NUMBER	LIST PRICE				WEIGHT (lbs.)
					Shopcoat w/Std. B&N	Shopcoat w/304 SS B&N	Fusion Epoxy w/Std. B&N	Fusion Epoxy w/304SS B&N	
3"	3.50-3.96	8.00"	4: 5/8" x 3"	FCG - 3.96	\$130.25	\$142.84	\$150.69	\$161.89	17.2
4"	4.50-4.80	9.00"	4: 3/4" x 3 1/2"	FCG - 4.80	167.55	194.71	193.10	220.25	25.5
6"	6.63-6.90	9.25"	6: 3/4" x 4"	FCG - 6.90	218.43	259.16	253.01	293.74	33.8
8"	8.63-9.05	9.25"	6: 3/4" x 4"	FCG - 9.05	282.94	323.67	324.78	365.51	43.4
10"	10.75-11.10	10.25"	8: 3/4" x 4"	FCG - 11.10	535.98	590.28	627.22	681.53	70.0
12"	12.75-13.20	10.25"	8: 3/4" x 4"	FCG - 13.20	548.01	602.31	660.05	714.34	91.2

**To Order:** Specify catalog number. **Example:** For a 12" FCG Order: **FCG - 13.20**

**NOTE:** Special Romac gasket works on both steel and D.I. ODs.



Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions. If restraint is required on ductile iron and standard steel pipe, the RomaGrip™ may be used with the FCG. If restraint is required on PVC pipe, the PVC RomaGrip™ may be used with the FCG. The GripRing™ may not be used with the FCG.





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1-800-426-9341



## Style ECF400 Equipment Connection Fitting

### Material Specifications

**Pipe:** ASTM A53 SCH 40 pipe for 3-12" sizes and ASTM A36 steel for 14" & larger sizes. A pipe stop is available.

**Flange Bodies and End Rings:** For 3" - 12" sizes, body and end ring are ASTM A536 ductile (nodular) iron meeting or exceeding Grade 65-45-12. For 14" - 72" ASTM A36 Carbon Steel with AWWA C207 Class D flanges. 3" - 72" meet the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (ductile iron flange bodies, 3" - 12" have flange o-ring gaskets). Other compounds available for petroleum, chemical or high temperature services.

**Bolts, Nuts, Spherical Washers:** High Strength Low Alloy Steel. Type 304 Stainless Steel or Type 316 Stainless Steel is available.

**Tie Rods:** High Strength Steel per ASTM A193 B7. Type 304 (A193 B8) and 316 (A193 B8M) Stainless steel is available.

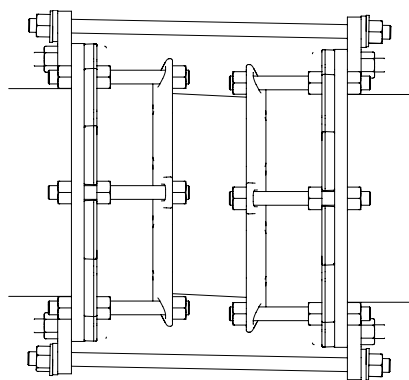
**Harness Lugs:** ASTM A36 steel. Coated with Fusion Bonded Epoxy.

**Coating:** All steel and ductile iron parts are coated at Romac with Fusion Bonded Epoxy.

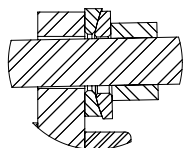
**Working Pressure:** Sizes 3" - 12" rated up to 175 psi. Sizes 14" - 72" rated up to 150 psi. Test pressure equals 1.25 times the working pressure.



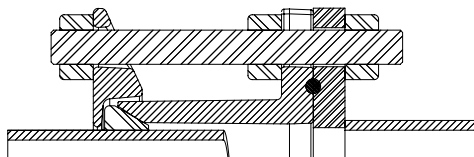
### Restraint for misaligned flanged fittings on field connections and equipment.



- The **ECF400** combines two flanged couplings with a plain spool piece and thrust restraint rods in one complete and easy-to-use assembly.
- The ECF400's flexibility and adjustability simplifies systems that are otherwise difficult to work with.
- Provided in standard lengths for ease of piping system design. Available in custom lengths if required.
- Spherical washer and harness lug assemblies are engineered to keep the tie-rods in position, and prevent bending.



**SPHERICAL WASHER  
DETAIL**



**BOLTING DETAIL**

#### Offset & Deflection

If your system has misaligned or offset flanges that need to be connected, the **ECF400** will accommodate a minimum of  $\frac{1}{4}$ " offset and  $2^\circ$  deflection. Once installed, the fitting is a solid connection that will not allow your system to move.

#### Adjustable Laying Length

Just like our DJ400 and DJ405, the ECF400 has an adjustable laying length, allowing room for access, valve installation, or an extra pipe length that may be required.

#### Connection

The Romac Equipment Connection Fitting accommodates a flanged system with ANSI CLS 125 and 150 bolt circles. We also can provide other configurations on request.

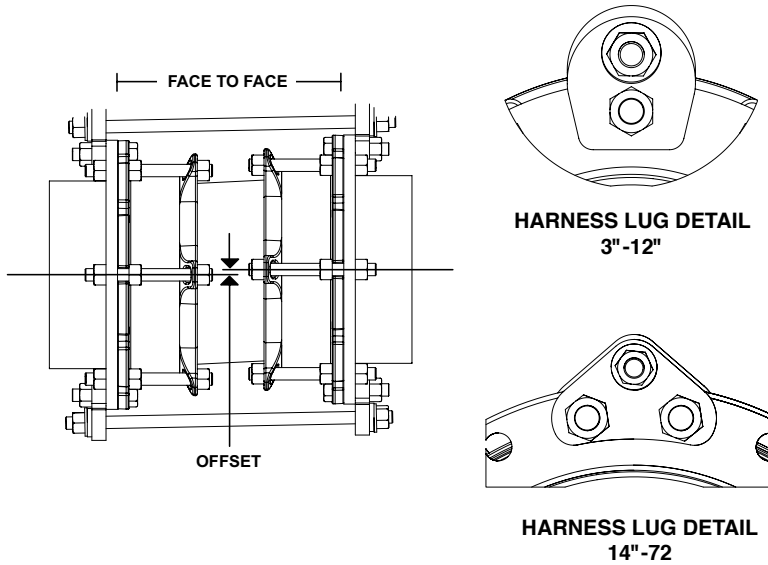
#### Restraint

Tie-rods and harness lugs provide the means of restraint. Since the tie-rods only pass through the harness lugs and not the flanges, the rods are easily installed or removed.

**For sizes, pricing and other information, contact Romac 1-800-426-9341**



# Style ECF400 Equipment Connection Fitting



NOM. PIPE SIZE	HARNES LUG THICKNESS	ALLOWABLE OFFSET	
		at MIN. LENGTH	at MAX. LENGTH
3"	0.50	0.25	0.32
4"	0.50	0.25	0.32
6"	0.75	0.25	0.32
8"	0.75	0.25	0.32
10"	1.00	0.32	0.39
12"	1.00	0.33	0.40
14"	1.00	0.25	0.37
16"	1.00	0.25	0.36
18"	1.00	0.25	0.35
20"	1.00	0.25	0.35
24"	1.00	0.25	0.35
30"	1.25	0.25	0.34
36"	1.25	0.25	0.34
42"	1.25	0.25	0.33
48"	1.75	0.25	0.32
54"	1.75	0.25	0.32
60"	1.75	0.25	0.32
66"	2.00	0.25	0.30
72"	2.00	0.25	0.30

NOM. PIPE SIZE	LENGTH FACE-TO-FACE			CATALOG NUMBER	LIST PRICE			BOLTS <sup>1</sup> Qty: Size	TIE-RODS			SPOOL		APPROX. WEIGHT
	NOM.	MIN.	MAX.		w/STD B&N.	w/304 SS B&N	w/316 SS B&N		SIZE	LENGTH	QTY	OD	THK	
3"	16.50	15.50	17.50	ECF400-03	\$1,083.47	\$1,188.10	\$1,309.94	4: 5/8 - 11	5/8	23.38	2	3.50	0.22	49
4"	16.50	15.50	17.50	ECF400-04	1,113.57	1,218.54	1,347.92	8: 5/8 - 11	5/8	23.75	2	4.50	0.24	58
6"	16.63	15.63	17.63	ECF400-06	1,324.24	1,523.19	1,645.07	8: 3/4 - 10	5/8	24.88	2	6.63	0.28	92
8"	16.63	15.63	17.63	ECF400-08	1,625.23	1,827.83	1,949.68	8: 3/4 - 10	5/8	25.25	2	8.63	0.32	122
10"	19.25	18.25	20.25	ECF400-10	2,317.45	2,619.88	2,741.75	12: 5/8 - 11 X 7/8 - 9	5/8	28.75	2	10.75	0.37	204
12"	19.50	18.50	20.50	ECF400-12	2,979.58	3,290.09	3,411.96	12: 7/8 - 9	5/8	29.63	2	12.75	0.38	268
14"	23.75	22.25	25.25	ECF400-14	4,073.15	4,569.25	5,041.90	16: 5/8 - 11	1	35.00	2	14.00	0.25	274
16"	24.75	23.25	26.25	ECF400-16	4,815.52	5,573.91	6,264.04	20: 5/8 - 11	1	36.25	2	16.00	0.25	322
18"	24.75	23.25	26.25	ECF400-18	5,063.99	6,271.58	7,211.17	20: 5/8 - 11	1	36.50	3	18.00	0.25	367
20"	24.88	23.38	26.38	ECF400-20	5,713.18	7,251.20	8,594.48	24: 5/8 - 11	1	37.13	4	20.00	0.25	438
24"	25.13	23.63	26.63	ECF400-24	7,226.62	9,569.98	11,405.56	28: 5/8 - 11	1	37.88	5	24.00	0.25	576
30"	26.38	24.88	27.88	ECF400-30	<b>POA</b>			32: 5/8 - 11	1 1/4	40.63	5	30.00	0.38	908
36"	26.88	25.38	28.38	ECF400-36				36: 5/8 - 11	1 1/4	41.63	7	36.00	0.38	1,272
42"	28.63	27.13	30.13	ECF400-42				40: 5/8 - 11	1 1/4	43.88	9	42.00	0.38	1,673
48"	30.75	29.25	32.25	ECF400-48				44: 5/8 - 11	1 1/2	47.75	8	48.00	0.38	2,098
54"	31.25	29.75	32.75	ECF400-54				48: 5/8 - 11	1 1/2	49.13	10	54.00	0.38	2,670
60"	31.50	30.00	33.00	ECF400-60				56: 5/8 - 11	1 1/2	49.63	13	60.00	0.38	3,245
66"	34.88	33.38	36.38	ECF400-66				60: 5/8 - 11	1 3/4	54.75	11	66.00	0.38	4,052
72"	35.13	33.63	36.63	ECF400-72				64: 5/8 - 11	1 3/4	55.25	13	72.00	0.38	4,659

<sup>1</sup>3" - 12" Use Through-Bolts

To Order: Specify catalog number.

Example: For a 12" ECF400 Order: **ECF400-12**



No Cancel,  
No Return Item



# EJ400 Expansion Joints

**Material Specifications**

**All Stainless Steel Expansion Joints Available on Request**

**Body:** A36 steel.

**Slip Pipe:** Type 304 stainless steel.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy, corrosion resistant steel per AWWA C111. Stainless steel available on request.

**Packing:** Alternating combination of rubber and wax impregnated flax packing compounded for water service. Other packing material available upon request.

**End Preparation:** Flanged, beveled, grooved for welding, plain end, MJ with RomaGrips™ or customer specified.

**Coating:** Customer specified.

**Use:** In pipelines where larger than usual longitudinal movements are concentrated.

**Romac Expansion Joints are available in Two (2) Models:**

**EJ401:** No Limit Rods, Single End

**EJ403:** Limit Rods, Single End. For use when more than one expansion joint is used in series.

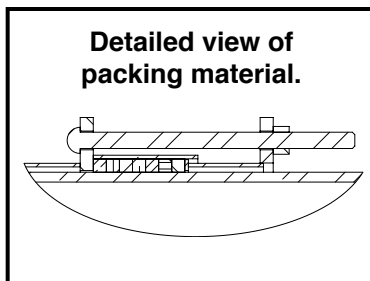
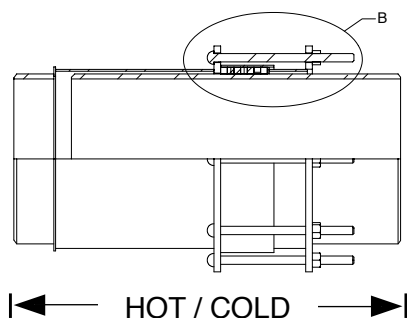
Romac Expansion Joints are factory designed and set for 10 inches of movement (total travel), unless otherwise specified. Romac Expansion Joints meet the requirements of AWWA C221.



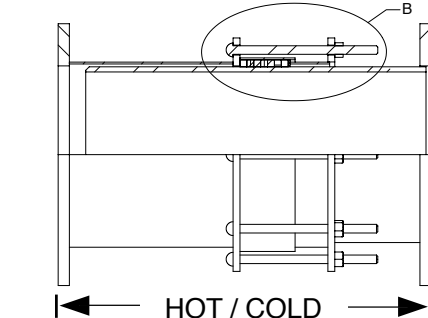
EJ401 w/flanged ends

## EJ401 (no limit rods)

### BEVELED ENDS

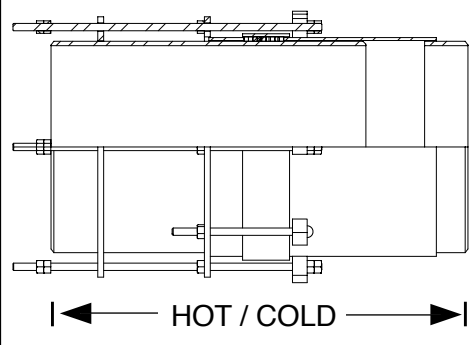


### FLANGED ENDS

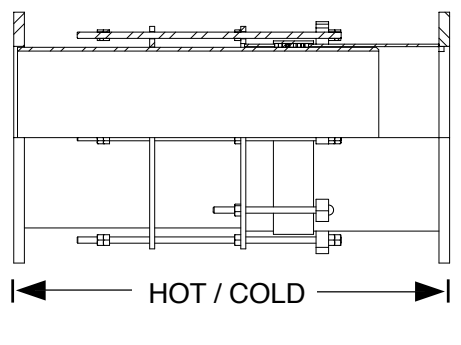


## EJ403 (with Limit Rods)

### BEVELED ENDS



### FLANGED ENDS





1-800-426-9341



# EJ401 Expansion Joints

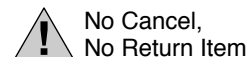
## EJ401 (single end, no limit rods) BEVELED ENDS

NOM. PIPE SIZE	PIPE OD	CATALOG NUMBER	OVERALL DIMENSIONS			BOLTS 5/8 - 11 x 11"	LIMIT ROD LENGTH	APPROX. WEIGHT	LIST PRICE
			HOT	COLD	DIAMETER				
3"	3.50	EJ401-03-B	26.19	36.19	7.69	4	NA	36	POA
4"	4.50	EJ401-04-B	26.19	36.19	8.69	4		44	
5"	5.56	EJ401-05-B	26.38	36.38	9.75	4		54	
6"	6.63	EJ401-06-B	26.38	36.38	10.81	5		63	
8"	8.63	EJ401-08-B	26.38	36.38	12.81	6		115	
10"	10.75	EJ401-10-B	26.38	36.38	14.94	7		151	
12"	12.75	EJ401-12-B	26.38	36.38	16.94	8		181	
14"	14.00	EJ401-14-B	28.06	38.06	19.38	8		249	
16"	16.00	EJ401-16-B	28.06	38.06	21.38	8		283	
18"	18.00	EJ401-18-B	28.06	38.06	23.38	8		316	
20"	20.00	EJ401-20-B	28.06	38.06	25.38	10		353	
24"	24.00	EJ401-24-B	28.06	38.06	29.38	12		423	
30"	30.00	EJ401-30-B	28.06	38.06	35.38	14		527	
36"	36.00	EJ401-36-B	28.06	38.06	41.38	16		631	
42"	42.00	EJ401-42-B	28.06	38.06	47.38	20		738	
48"	48.00	EJ401-48-B	28.06	38.06	53.38	22		842	
54"	54.00	EJ401-54-B	28.25	38.25	59.38	24		1132	
60"	60.00	EJ401-60-B	28.25	38.25	65.38	28		1260	
72"	72.00	EJ401-72-B	28.25	38.25	77.38	32		1509	

## EJ401 (single end, no limit rods) FLANGED ENDS (AWWA C207 Class D)\*

NOM. PIPE SIZE	PIPE OD	CATALOG NUMBER	OVERALL DIMENSIONS			BOLTS 5/8 - 11 x 11"	LIMIT ROD LENGTH	WEIGHTS	LIST PRICE
			HOT	COLD	DIAMETER				
3"	3.50	EJ401-03-F	25.13	35.13	8.25	4	NA	51	POA
4"	4.50	EJ401-04-F	25.13	35.13	9.00	4		62	
5"	5.56	EJ401-05-F	25.25	35.25	10.00	4		74	
6"	6.63	EJ401-06-F	25.44	35.44	11.00	5		77	
8"	8.63	EJ401-08-F	25.44	35.44	13.50	6		138	
10"	10.75	EJ401-10-F	25.56	35.56	16.00	7		182	
12"	12.75	EJ401-12-F	25.94	35.94	19.00	8		238	
14"	14.00	EJ401-14-F	26.13	36.13	21.00	8		326	
16"	16.00	EJ401-16-F	26.06	36.06	23.50	8		379	
18"	18.00	EJ401-18-F	26.31	36.31	25.00	8		418	
20"	20.00	EJ401-20-F	26.44	36.44	27.50	10		484	
24"	24.00	EJ401-24-F	26.81	36.81	32.00	12		614	
30"	30.00	EJ401-30-F	27.06	37.06	38.75	14		815	
36"	36.00	EJ401-36-F	27.81	37.81	46.00	16		1109	
42"	42.00	EJ401-42-F	28.06	38.06	53.00	20		1415	
48"	48.00	EJ401-48-F	28.31	38.31	59.50	22		1706	
54"	54.00	EJ401-54-F	29.13	39.13	66.25	24		2324	
60"	60.00	EJ401-60-F	29.38	39.38	73.00	28		2749	
72"	72.00	EJ401-72-F	30.13	40.13	86.50	32		3882	

\* Other Class flanges available on request.  
Configurations may change depending on application.





# EJ403 Expansion Joints

## EJ403 (single end, with limit rods) BEVELED ENDS

NOM. PIPE SIZE	PIPE OD	CATALOG NUMBER	OVERALL DIMENSIONS			BOLTS 5/8 - 11 x 11"	LIMIT ROD LENGTH	APPROX. WEIGHT	LIST PRICE
			HOT	COLD	DIAMETER				
3"	3.50	EJ403-03-B	30.19	40.19	7.69	4	26.00	47	POA
4"	4.50	EJ403-04-B	30.19	40.19	8.69	4	26.00	56	
5"	5.56	EJ403-05-B	30.38	40.38	9.75	4	25.88	66	
6"	6.63	EJ403-06-B	30.38	40.38	10.81	6	26.00	82	
8"	8.63	EJ403-08-B	30.38	40.38	12.81	6	25.88	139	
10"	10.75	EJ403-10-B	30.38	40.38	14.94	8	26.00	187	
12"	12.75	EJ403-12-B	30.38	40.38	16.94	8	25.88	217	
14"	14.00	EJ403-14-B	32.06	42.06	19.38	8	26.50	285	
16"	16.00	EJ403-16-B	32.06	42.06	21.38	8	26.50	322	
18"	18.00	EJ403-18-B	32.06	42.06	23.38	8	26.50	359	
20"	20.00	EJ403-20-B	32.06	42.06	25.38	10	26.50	401	
24"	24.00	EJ403-24-B	32.06	42.06	29.38	12	26.50	481	
30"	30.00	EJ403-30-B	32.06	42.06	35.38	14	26.50	597	
36"	36.00	EJ403-36-B	32.06	42.06	41.38	16	26.50	714	
42"	42.00	EJ403-42-B	32.06	42.06	47.38	20	26.50	835	
48"	48.00	EJ403-48-B	32.06	42.06	53.38	22	26.50	952	
54"	54.00	EJ403-54-B	32.25	42.25	59.38	24	26.75	1259	
60"	60.00	EJ403-60-B	32.25	42.25	65.38	28	26.75	1401	
72"	72.00	EJ403-72-B	32.25	42.25	77.38	32	26.75	1677	

## EJ403 (single end, with limit rods) FLANGED ENDS

NOM. PIPE SIZE	PIPE OD	CATALOG NUMBER	OVERALL DIMENSIONS			BOLTS 5/8 - 11 x 11"	LIMIT ROD LENGTH	WEIGHTS	LIST PRICE
			HOT	COLD	DIAMETER				
3"	3.50	EJ403-03-F	40.25	50.25	8.25	4	26.63	59	POA
4"	4.50	EJ403-04-F	40.25	50.25	9.00	4	26.63	72	
5"	5.56	EJ403-05-F	40.56	50.56	10.00	4	26.63	87	
6"	6.63	EJ403-06-F	40.75	50.75	11.00	6	26.75	95	
8"	8.63	EJ403-08-F	40.75	50.75	13.50	6	26.63	180	
10"	10.75	EJ403-10-F	40.88	50.88	16.00	8	26.88	243	
12"	12.75	EJ403-12-F	41.25	51.25	19.00	8	26.75	309	
14"	14.00	EJ403-14-F	41.19	51.19	21.00	8	27.50	363	
16"	16.00	EJ403-16-F	41.31	51.31	23.50	8	27.50	425	
18"	18.00	EJ403-18-F	41.56	51.56	25.00	8	27.75	467	
20"	20.00	EJ403-20-F	41.69	51.69	27.50	10	27.75	539	
24"	24.00	EJ403-24-F	42.06	52.06	32.00	12	27.75	680	
30"	30.00	EJ403-30-F	42.31	52.31	38.75	14	27.75	895	
36"	36.00	EJ403-36-F	43.06	53.06	46.00	16	28.00	1207	
42"	42.00	EJ403-42-F	43.31	53.31	53.00	20	28.00	1534	
48"	48.00	EJ403-48-F	43.56	53.56	59.50	22	28.00	1842	
54"	54.00	EJ403-54-F	44.50	54.50	66.25	24	28.50	2477	
60"	60.00	EJ403-60-F	44.75	54.75	73.00	28	28.50	2924	
72"	72.00	EJ403-72-F	45.50	55.50	86.50	32	28.50	4106	

\* Other Class flanges available on request.  
Configurations may change depending on application.



No Cancel,  
No Return Item







# Service Saddles



**101U & 101NU**  
Single U-Bolt Service Saddles

Page 4-3



**101S & 101NS**  
Single Strap Service Saddles

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**101B & 101BS**  
Single Strap Bronze Service Saddles

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**202U & 202NU**  
Double U-Bolt Service Saddles

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**202S & 202NS**  
Double Strap Service Saddles

Page 4-4



**202B & 202BS**  
Double Strap Bronze Service Saddles

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**304 & 306**  
Stainless Steel Service Saddles

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**305**  
Stainless Steel Service Saddle

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**FTS420T**  
Fabricated Steel Service Saddle

Page 4-8



# Service Saddles

## Painted Saddle with U-Bolt Not recommended for PVC pipe.



101U

Material Specifications

**Saddle Castings:** Ductile iron per ASTM A 536, grade 65-45-12, protected with corrosion-resistant paint.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.

**U-bolt, and Nuts:** For sizes 1-1/2" through 3", 1/2" national coarse roll thread, electro-galvanized mild steel strap with heavy hex nuts and 1/2" flat washers. 4" and above uses 5/8" national coarse roll thread, high tensile strength, low alloy steel, with heavy hex nut and 5/8" flat washer, electrogalvanized, meeting AWWA C111 composition specifications.

**Washers:** Zinc-plated high strength low alloy.

Also available with double U-bolts.

## Painted Saddle with Stainless Steel Strap Recommended for PVC, asbestos-cement, cast iron and steel pipe.



101S

Material Specifications

**Saddle Castings:** Ductile iron per ASTM A-536, grade 65-45-12, protected with corrosion-resistant paint.

**Strap:** Sizes 1 1/2" through 3" use 1/2" bolts, nuts and washers. 4" and above use 5/8". All welds fully passivated for enhanced corrosion resistance.

**Band -** Stainless steel per ASTM A 240, type 304. 2" wide to "spread out" clamping forces on the pipe.

**Bolts -** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts -** Heavy hex, stainless steel per ASTM A 194, type 304, coated to prevent galling.

**Washers:** Stainless steel per ASTM A 240, type 304.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.

Fasteners are coated to prevent galling. Also available with double strap.

## Nylon Coated Saddle with Recommended for asbestos-cement, cast iron or PVC pipe in hot or corrosive soils. Stainless Steel Strap



101NS

Material Specifications

**Saddle Castings:** Ductile iron per ASTM A-536, grade 65-45-12, covered by black nylon fused coat, approx. 10-12 mil thick, with approximate dielectric strength of 1,000 v/mil.

**Strap:** Sizes 1 1/2" through 3" use 1/2" bolts, nuts and washers. 4" and above use 5/8". All welds fully passivated for enhanced corrosion resistance.

**Band -** Stainless steel per ASTM A 240, type 304. 2" wide to "spread out" clamping forces on the pipe.

**Bolts -** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts -** Heavy hex, stainless steel per ASTM A 194, type 304, coated to prevent galling.

**Washers:** Stainless steel per ASTM A 240, type 304.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.

Fasteners are coated to prevent galling. Also available with double strap.

## Nylon Coated Saddle with Recommended for asbestos-cement, cast iron or steel pipe U-Bolt



101NU

Material Specifications

**Saddle Castings:** Ductile iron per ASTM A-536, grade 65-45-12, covered by black nylon fused coat, approx. 10-12 mil thick, with approximate dielectric strength of 1,000 v/mil.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.

**U-bolt, and Nuts:** Sizes 1 1/2" through 3" use 1/2" UNC rolled thread, zinc plated mild steel U-bolt with heavy hex nuts. 4" and above use 5/8" UNC rolled thread, zinc plated, high strength, low alloy, corrosion-resistant U-bolt with heavy hex nuts. Steel meets AWWA C111 composition specifications.

**Washers:** Zinc-plated high strength low alloy.

Also available with double U-bolts. Fasteners are coated to prevent galling.

## Bronze Saddle with Bronze Strap Recommended for asbestos-cement, cast iron or PVC pipe in hot or corrosive soils.



101B

Material Specifications

**Saddle Castings:** Water works bronze 85-5-5-5.

**Bronze Strap:** Silicon bronze 5/8" national coarse roll thread bolts with 2" wide band for "spreading out" clamping force on pipe. Nut-washers are water works bronze 85-5-5-5.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.

Also available with double strap.



# Single Strap Service Saddles



**Style 101U**  
Painted Saddle  
with U-Bolt



**Style 101NU**  
Nylon Coated Saddle  
with U-Bolt



**Style 101S**  
Painted Saddle  
with Stainless Steel Strap



**Style 101NS**  
Nylon Coated Saddle  
with Stainless Steel Strap

NOM. PIPE SIZE	O.D. PIPE RANGE	1/2" I.P., 3/4" & 1" I.P. or C.C. TAP						1 1/4" - 1 1/2" - 2" I.P. or C.C. TAP (2 1/2" I.P. ONLY)						
		101U	101NU	CTN QTY	101S	101NS	CTN QTY	101U	101NU	CTN QTY	101S	101NS	CTN QTY	APPROX. WEIGHT ea. (lbs.)
1 1/2"	1.90 - 2.13	\$23.20	\$34.46	15	\$43.59	\$54.85	25	\$42.97 <sup>2</sup>	\$48.24 <sup>2</sup>	15	\$56.34 <sup>2</sup>	\$70.03 <sup>2</sup>	25	1.7 #
2"	2.38 - 2.50	24.97	36.37	15	44.15	55.54	25	NA	NA	NA	NA	NA	NA	1.7#
2 1/2"	2.88	26.52	37.10	15	44.97	55.54	15	NA	NA	NA	NA	NA	NA	1.7 #
3"	3.45 - 4.05	27.92	39.03	12	45.80	56.92	12	NA	NA	NA	NA	NA	NA	2.5 #
4"	4.00 - 4.50	31.73	43.36	10	48.57	60.22	10	42.97	57.14	7	61.32	75.48	7	4.3 #
	4.50 - 4.80	31.73	43.36	10	48.57	60.22	10	42.97	57.14	7	61.32	75.48	7	4.0 #
	4.50 - 5.40 <sup>1</sup>	33.01	45.18	10	48.72	60.89	10	44.96	59.20	7	61.77	76.02	7	4.0 #
6"	6.00 - 6.63	35.87	48.32	5	57.31	69.76	5	49.98	65.46	5	66.47	81.94	5	5.1 #
	6.63 - 6.90	35.87	48.32	6	57.31	69.76	6	49.98	65.46	5	66.47	81.94	5	4.8 #
	6.63 - 7.60 <sup>1</sup>	38.34	50.78	6	64.20	70.88	6	53.96	69.90	5	67.10	83.05	5	4.8 #
8"	8.00 - 8.63	43.41	58.39	4	67.78	82.74	4	58.99	77.39	4	80.44	98.85	4	5.5 #
	8.63 - 9.05	43.41	58.39	5	67.78	82.74	5	58.99	77.39	4	80.44	98.85	4	5.0 #
	8.63 - 9.80 <sup>1</sup>	45.99	61.63	5	68.49	84.14	5	68.14	86.51	4	81.59	99.95	4	5.0 #
10"	10.00 - 11.10	53.58	62.40	6	83.09	91.90	6	82.31	89.69	6	104.90	112.29	6	7.5 #
	11.10 - 12.12	53.58	62.40	6	83.09	91.90	6	82.31	89.69	6	104.90	112.29	6	7.5 #
12"	12.00 - 13.20	57.62	77.98	5	85.95	106.32	5	83.82	104.20	5	128.84	130.52	5	9.0 #
	13.20 - 14.38	57.62	77.98	5	85.95	106.32	4	83.82	100.19	5	128.84	130.52	5	9.0 #

Prices and weights shown are per saddle

<sup>1</sup> Not recommended for iron pipe size PVC or ductile iron size PVC (C-900).

<sup>2</sup> 1 1/4" IP tap only.

**To Order:** Add tap size to the upper range of the saddle.

**When ordering for PVC pipe, specify O.D. (D.I. or IPS)**

**Example:** Painted Saddle with U-Bolt:  
Stainless Steel Strap—add letter "S":  
Nylon Saddle—add designation "NU":

Manufacturer Recommendation:

For PVC pipe, choose the saddle that has the pipe O.D. closest to the top of the saddle's O.D. range.

For Copper pipe, single strap saddles should be preformed at the factory, or see pg. 4-6 for 304/306 stainless steel saddles.

STYLE	UPPER RANGE	TAP SIZE	TYPE THREAD
101	- 7.60	x 3/4"	IP
101S	- 7.60	x 3/4"	IP
101NU	- 7.60	x 3/4"	IP



# Double Strap Service Saddles



**Style 202U**  
Painted Saddle  
with U-Bolts



**Style 202NU**  
Nylon Coated Saddle  
with U-Bolts



**Style 202S**  
Painted Saddle  
with Stainless Steel Straps



**Style 202NS**  
Nylon Coated Saddle  
with Stainless Steel Straps

NOMINAL PIPE SIZE	O.D. PIPE RANGE	1/2" I.P., 3/4" & 1" I.P. or C.C. TAP						1 1/4" - 1 1/2" - 2" I.P. or C.C. TAP (2 1/2" IP ONLY)						APPROX. WEIGHT ea. (lbs.)
		202U	202NU	CTN QTY	202S	202NS	CTN QTY	202U	202NU	CTN QTY	202S	202NS	CTN QTY	
2"	2.38 - 2.50 <sup>1</sup>	\$34.10	\$53.04	10	\$83.12	\$102.04	10	\$35.79	\$57.53	10	\$90.15	\$111.88	10	3.5 #
3"	3.50 <sup>2</sup>	40.57	60.24	8	83.28	102.94	8	52.59	69.01	8	95.68	112.09	8	5.0 #
	3.45 - 4.05 <sup>2</sup>	42.41	62.07	8	83.28	102.94	8	54.39	70.80	8	95.68	112.09	8	5.0 #
4"	4.00 - 4.50	47.83	64.30	5	83.83	102.94	6	60.80	73.24	5	95.96	112.09	6	7.5 #
	4.50 - 4.80	47.83	64.30	5	83.83	102.94	6	60.80	73.24	5	95.96	112.09	6	7.5 #
	4.50 - 5.40 <sup>3</sup>	47.83	66.18	5	84.61	102.94	6	60.80	76.11	5	95.96	112.09	6	7.5 #
6"	6.00 - 6.63	54.54	74.05	6	94.36	118.26	5	67.04	84.52	6	106.32	128.45	5	9.0 #
	6.63 - 6.90	54.54	74.05	6	94.36	118.26	5	67.04	84.52	6	106.32	128.45	5	9.0 #
	6.63 - 7.60 <sup>3</sup>	54.54	82.84	6	94.36	118.26	5	67.04	93.82	6	106.32	128.45	5	9.0 #
8"	8.00 - 8.63	64.32	83.68	4	114.47	137.55	4	80.25	92.57	4	131.75	146.61	4	10.0 #
	8.63 - 9.05	64.32	83.68	4	114.47	137.55	4	80.25	92.57	4	131.75	146.61	4	10.0 #
	8.63 - 9.80 <sup>3</sup>	64.32	85.59	4	118.48	137.55	4	80.25	99.76	4	131.75	146.61	4	10.0 #
10"	10.00 - 11.10	83.15	110.19	4	139.06	166.09	6	105.85	125.84	4	159.04	179.02	6	11.5 #
	11.10 - 12.12	83.15	110.19	4	139.06	166.09	6	105.85	125.84	4	159.04	179.02	6	11.5 #
12"	12.00 - 13.20	99.74	131.82	4	161.23	193.33	4	124.54	147.35	4	184.25	207.05	4	12.5 #
	13.20 - 14.38	99.74	131.82	3	161.23	193.33	4	124.54	147.35	3	184.25	207.05	4	12.5 #
14"	15.30 - 16.80	POA			192.94	225.30	4	POA			195.19	240.00	4	15.3 #
16"	17.40 - 18.90				196.57	264.93	3				220.68	283.18	3	16.0 #
18"	19.50 - 21.10				302.26	369.16	3				320.39	387.58	3	18.0 #
20"	21.10 - 22.70				338.46	413.25	3				358.85	434.08	3	20.0 #
22"	22.70 - 24.30				355.41	434.16	3				376.72	455.79	3	21.0 #
24"	24.30 - 25.90				398.10	486.26	3				421.95	510.47	3	23.0 #
26"	25.70 - 27.30				402.08	490.24	3				425.93	514.47	3	24.0 #
28"	27.30 - 28.90				406.07	494.22	3				429.91	518.45	3	24.5 #
30"	28.90 - 30.50				410.05	498.21	3				433.89	522.43	3	25.0 #
	30.50 - 32.10				414.03	502.19	3				437.88	526.42	3	26.0 #

Prices and weights shown are per saddle.  
<sup>1</sup> 202 - 2.50 can accommodate up to 1 1/2" I.P. and 1 1/4" C.C.

<sup>2</sup> 202 for 3" nominal size can accommodate up to 2" I.P. and 1 1/2" C.C.

<sup>3</sup> Not recommended for iron pipe size PVC or ductile iron size PVC (C-900).

**Manufacturer Recommendation:**

For PVC pipe, choose the saddle that has the pipe O.D. closest to the top of the saddle's O.D. range.

For Copper pipe, Romac recommends single strap saddles which should be preformed at the factory, or see pg. 4-6 for 304/306 stainless steel saddles.

**To Order:** Add tap size to the upper range of the saddle.

**When ordering for PVC pipe, specify O.D. (D.I. or IPS)**

**Example:** Painted Saddle with U-Bolt:

Stainless Steel Strap—add letter "S":

Nylon Saddle—add designation "NU":

STYLE      UPPER TAP TYPE RANGE      SIZE      THREAD

**202 - 7.60 x 3/4" IP**

**202S - 7.60 x 3/4" IP**

**202NU - 7.60 x 3/4" IP**



# Bronze Single/Double Strap Service Saddles



**Style 101B**  
Bronze Saddle with Bronze Strap



**Style 101BS**  
Bronze Saddle with Stainless Strap



**Style 202B**  
Bronze Saddle with Bronze Straps



**Style 202BS**  
Bronze Saddle with Stainless Straps

BRONZE SINGLE STRAP SERVICE SADDLES					BRONZE DOUBLE STRAP SERVICE SADDLES				
NOM. PIPE SIZE	O.D. PIPE RANGE	3/4" & 1" I.P. or C.C.		APPROX. WEIGHT (lbs.)	1/2" I.P., 3/4" & 1" I.P. or C.C.		1 1/4", 1 1/2", 2" I.P. or C.C.		APPROX. WEIGHT (lbs.)
		101B	101BS		202B	202BS	202B	202BS	
4"	4.50 - 5.40	\$97.97 <sup>1</sup>	\$79.71	4.0 #	N/A				
	4.80 - 5.40	N/A			\$164.02	\$144.52	203.09	\$168.59	7.5 #
6"	6.00 - 6.63	116.75 <sup>1</sup>	96.95	4.75 #	N/A				
	6.63 - 7.50	116.75 <sup>2</sup>	96.95 <sup>2</sup>	4.75 #	203.82 <sup>1</sup>	170.27	207.28 <sup>1</sup>	194.64	9.0 #
8"	8.00 - 8.63	122.55 <sup>1</sup>	123.57	5.0 #	N/A				
	8.63 - 9.62	122.55 <sup>2</sup>	123.57 <sup>2</sup>	5.0 #	233.30 <sup>1</sup>	210.71	236.77 <sup>1</sup>	221.84	11.5 #
10"	10.00 - 10.75	160.30 <sup>1</sup>	161.65	7.5 #	273.16 <sup>1</sup>	261.08	276.62 <sup>1</sup>	286.78	11.5 #
	11.10 - 12.12	160.30	161.65	7.5 #	273.16	261.08	276.64	286.78	12.5 #
12"	12.00 - 12.75	170.72 <sup>1</sup>	172.14	9.0 #	287.71 <sup>1</sup>	290.27	306.26 <sup>1</sup>	327.44	12.5 #
	13.20 - 14.38	170.72	172.14	9.0 #	287.71	290.27	306.26 <sup>1</sup>	327.44	13.5 #
14"	14.40 - 16.00	N/A			316.48	322.43	337.96 <sup>1</sup>	365.77	12.5 #
16"	16.00 - 17.40	N/A			348.14	368.71	378.75 <sup>1</sup>	413.61	15.0 #
	17.32 - 17.45	N/A			348.14	368.71	378.75	413.61	15.0 #

When ordering for PVC pipe, specify O.D. (D.I. or IPS).

<sup>1</sup>All saddles to be used on IPS size PVC must use stainless steel strap for bronze saddles.

<sup>2</sup> Not recommended for IPS size PVC.

Saddles for ductile iron size PVC (C-900), iron pipe size PVC and copper should be preformed at factory.

To Order: Add tap size to the upper range of the saddle.

STYLE	UPPER RANGE	TAP SIZE	TYPE THREAD
-------	-------------	----------	-------------

Example: Bronze Saddle with Bronze Strap ("B"):

101B	- 7.50 x 3/4"	IP
------	---------------	----

Bronze Saddle with Stainless Steel Strap ("BS"):

101BS	- 7.50 x 3/4"	IP
-------	---------------	----





1-800-426-9341



# Style "304" and "306" All Stainless Steel Service Saddles

**Material Specifications**

**Shells:** Stainless steel per ASTM A 240, type 304, fully passivated <sup>1</sup>.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304. Fasteners coated to prevent galling.

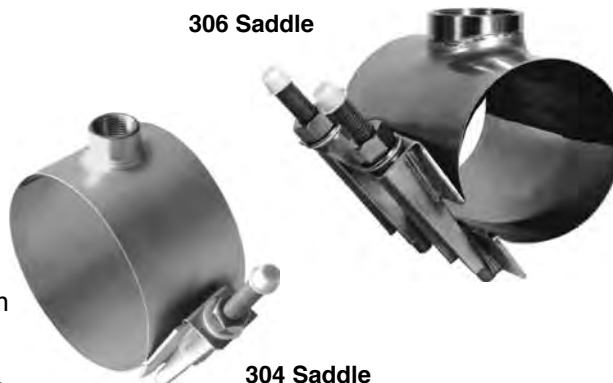
**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gasket:** NBR per ASTM D 2000 MBC 610, compounded for water and sewer service. Other compounds available on request.

**Tapped Outlet:** Stainless steel per ASTM A 240, type 304.

306 Saddle



304 Saddle

304 SINGLE BOLT (not recommended for A/C pipe)					
NOM. PIPE SIZE	O.D. PIPE RANGE	TAP	I.P.	C.C.	WEIGHT (lbs.)
2"	2.13	3/4" 1"	\$70.09	\$70.09	2 #
	2.38				
2 1/2"	2.63 - 2.88	3/4" 1"	71.98	71.98	2 #
3"	3.00 - 3.25	3/4" 1"	73.39	73.39	2 #
	3.25 - 3.50				
	3.50 - 3.75				
	3.75 - 4.00				
4"	4.00 - 4.30	3/4" 1"	85.88	85.88	3 #
	4.50 - 4.80				
	4.80 - 5.20				
5"	5.20 - 5.60	3/4" 1"	86.96	86.96	3 #
	5.60 - 6.00				
6"	6.00 - 6.40	3/4" 1"	118.30	118.30	4 #
	6.50 - 6.90				
	6.90 - 7.30				
8"	8.00 - 8.40	3/4" 1"	119.82	119.82	5 #
	8.63 - 9.05				
	9.05 - 9.45				

**304**

- (A) 2" through 5" nominal sizes with small (3/4" or 1") taps only are 4" long with one 1/2" bolt.
- (B) 6" through 8" nominal sizes with small (3/4" or 1") taps only are 4" long with one 5/8" bolt.

**306**

- (A) 2" through 5" nominal sizes with small (3/4" or 1") taps are 6" long with two 1/2" bolts.
- (B) 3" through 5" sizes with large (1 1/4", 1 1/2", or 2") taps are 8" long with two 5/8" bolts.
- (C) 6" through 12" sizes with small taps are 6" long with two 5/8" bolts.
- (D) 6" through 12" sizes with large taps are 8" long with two 5/8" bolts.

306 DOUBLE BOLT (can be used with A/C pipe)					
NOM. PIPE SIZE	O.D. PIPE RANGE	TAP	I.P.	C.C.	WEIGHT (lbs.)
2"	2.13	3/4" & 1"	\$72.74	\$72.74	2 #
	2.38				
2 1/2"	2.63 - 2.88	3/4" & 1" 1 1/4"	74.37	74.37	2 #
			162.07	NA	
3"	3.00 - 3.25 <sup>2</sup> 3.25 - 3.50 <sup>2,3</sup> 3.50 - 3.75 3.75 - 4.00	3/4" & 1" 1 1/4" 1 1/2" 2"	76.11	76.11	3 #
			164.81	164.81	
			164.81	164.81	
			164.81	NA	
			NA	NA	
4"	4.00 - 4.30 4.50 - 4.80 4.80 - 5.20	3/4" & 1" 1 1/4" 1 1/2" 2"	87.28	87.28	4 #
			169.01	169.01	
			169.01	169.01	
			169.01	169.01	
5"	5.20 - 5.60 5.60 - 6.00	3/4" & 1" 1 1/4" 1 1/2", 2"	89.22	89.22	4 #
			170.67	170.67	
			170.67	170.67	
6"	6.00 - 6.40 6.50 - 6.90 6.90 - 7.30	3/4" & 1" 1 1/4" 1 1/2", 2"	124.81	124.81	4 #
			175.64	175.64	
			175.64	175.64	
8"	8.00 - 8.40 8.63 - 9.05 9.05 - 9.45	3/4" & 1" 1 1/4" 1 1/2", 2"	126.65	126.65	6 #
			183.09	183.09	
			183.09	183.09	
10"	10.00 - 10.40 10.70 - 11.10 11.10 - 11.50	3/4" & 1" 1 1/4" 1 1/2", 2"	154.30	154.30	8 1/2 #
			193.07	193.07	
			193.07	193.07	
12"	12.00 - 12.40 12.75 - 13.20 13.20 - 13.60	3/4" & 1" 1 1/4" 1 1/2", 2"	157.83	157.83	9 #
			203.90	203.90	
			203.90	203.90	

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.

<sup>2</sup> **Not available with 2" Tap.**

<sup>3</sup> **For 3.50 OD with 2" IP Tap use 3.75 (2" CC Not Available)**

For easiest installation, choose the saddle with your pipe OD closest to the bottom of the range.

Other ODs available P.O.A.

**To Order:** Use upper range when ordering. Add tap size. Be specific when ordering. Tapped outlet products are NO CANCEL/NO RETURN items.

**Example:** 304 - 4.80 x 3/4" I.P.





**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## “305” All Stainless Steel Service Saddle

### Material Specifications

**Shells:** Stainless steel per ASTM A 240, type 304, fully passivated<sup>1</sup>.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304. Fasteners coated to prevent galling.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gasket:** Pad with O-ring gasket. NBR per ASTM D 2000 MBC 610, compounded for water and sewer service. Other compounds available on request.

**Tapped Outlet:** Stainless steel per ASTM A 240, type 304.

**Not recommended for concrete cylinder pipe.**



305 Saddle

NOMINAL PIPE SIZE	O.D. PIPE RANGE	8" WIDE		10" WIDE	APPROX. WEIGHT (lbs.)
		I.P. OR C.C. 3/4", 1"	I.P. OR C.C. 1 1/4", 1 1/2", 2"	FIP or MIP 2 1/2", 3"	
10" to 12"	10.00 - 10.80	\$215.84 (4 bolts)	\$246.33 (4 bolts)	\$560.35 (6 bolts)	14 #
	10.80 - 11.60				
	12.00 - 12.80				
	12.80 - 13.60				
	13.70 - 14.50				
14" to 16"	15.00 - 15.80	274.14 (4 bolts)	315.30 (4 bolts)	629.26 (6 bolts)	16 #
	15.90 - 16.70				
	16.70 - 17.50				
16" to 18"	17.30 - 18.10	318.93 (4 bolts)	364.80 (6 bolts)	678.83 (6 bolts)	17 #
	18.15 - 18.95				
	19.00 - 19.80				
18" to 20"	19.30 - 20.10	358.04 (4 bolts)	477.51 (6 bolts)	791.54 (6 bolts)	18 #
	20.00 - 20.80				
	21.10 - 21.90				
22" to 24"	22.00 - 22.80	378.09 (6 bolts)	497.36 (6 bolts)	797.43 (6 bolts)	19 #
	23.20 - 24.00				
	24.60 - 25.40				
	25.70 - 26.50				

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating. **Other ODs available P.O.A.**

**To Order:** Use upper range when ordering. Add tap size. Be specific when ordering. Tapped outlet products are NO CANCEL/NO RETURN items.

**Example:** 305 - 10.80 x 3/4" I.P.



# “FTS420T” Fabricated Steel Tapping Saddle

**Material Specifications**

**Body:** Carbon steel, A-36 or equal.

**Outlet:** NPT (IP) or AWWA (CC) Female Threads

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 3/4" UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service use. Other compounds available on request.

**Paint:** Romac shopcoat for corrosion protection in transit. Optional fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect any special coatings.

(Contact Factory for IPS size PVC pipe)

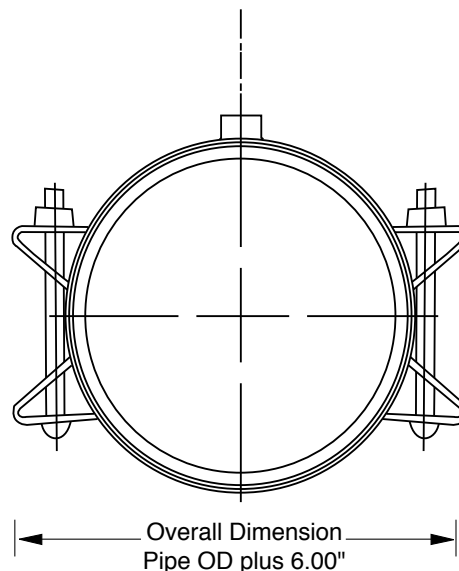
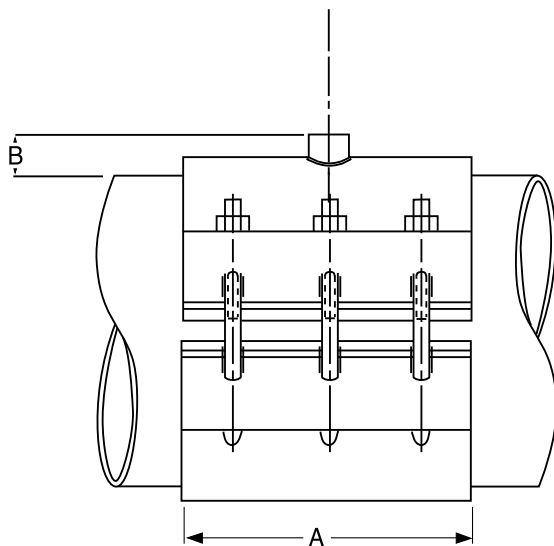


**Use:** The FTS420T Fabricated Tapping Saddle is used to make a branch outlet from a main supply line on most types of pipe except reinforced concrete cylinder pipe. It is furnished with shopcoat paint and alloy bolts, or epoxy lined and coated with stainless steel nuts and bolts.

Romac’s unique sealing gasket is reinforced with a stainless steel ring, molded into the gasket in our own rubber facility. This eliminates the need for a groove in the sleeve, making the shell “full strength.”

MAIN SIZE	OUTLET SIZE	A	B	BOLTS
				QTY: SIZE
6" - 32"	3/4" - 2 1/2"	8"	1.7	4: 3/4" x 9" <sup>1</sup>
6" - 20"	3"	8"	2.0	4: 3/4" x 9" <sup>1</sup>
24" - 32"	3"	12"	2.0	6: 3/4" x 9"
6" - 32"	4"	12"	2.2	6: 3/4" x 9" <sup>1</sup>

<sup>1</sup>Bolts are 8" long up through 12".





# “FTS420T” Fabricated Steel Tapping Saddle

NOMINAL	SLEEVE O.D. RANGE	CATALOG NUMBER			LIST PRICE EACH				APPROX. WEIGHT (lbs.)
		SLEEVE NUMBER	BY	OUTLET SIZE	SHOPCOAT		FUSION EPOXY		
					w/STD B&N	w/304 SS B&N	w/STD B&N	w/304 SS B&N	
6"	6.83 - 7.16	FTS420T - 7.16	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	\$354.96	\$422.80	\$425.42	\$493.26	29#
	7.05 - 7.40	FTS420T - 7.40		3" FIP	439.08	506.94	509.54	577.39	33#
	7.40 - 7.73	FTS420T - 7.73		4" FIP	502.16	603.90	607.84	709.59	50#
8"	7.74 - 8.35	FTS420T - 8.35	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	368.73	436.58	445.10	512.94	34#
	8.36 - 8.75	FTS420T - 8.75			452.85	520.71	529.21	597.07	38#
	8.98 - 9.37	FTS420T - 9.37			515.21	616.95	629.72	731.46	59#
	9.27 - 9.69	FTS420T - 9.69							
10"	9.83 - 10.25	FTS420T - 10.25	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	475.17	543.03	558.10	625.94	39#
	10.64 - 10.86	FTS420T - 10.86			559.29	627.13	642.21	710.05	43#
	10.87 - 11.02	FTS420T - 11.02			609.53	711.28	733.96	835.70	66#
	11.03 - 11.47	FTS420T - 11.47							
	11.36 - 11.80	FTS420T - 11.80							
12"	12.25 - 12.61	FTS420T - 12.61	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	493.37	561.20	585.06	652.91	44#
	12.62 - 12.88	FTS420T - 12.88			577.48	645.33	669.19	737.05	48#
	13.13 - 13.60	FTS420T - 13.60			625.52	727.27	763.09	864.83	74#
	13.60 - 14.09	FTS420T - 14.09							
14"	14.59 - 15.08	FTS420T - 15.08	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	510.79	578.62	610.90	678.74	47#
	15.23 - 15.80	FTS420T - 15.80			594.88	662.72	694.99	762.83	51#
	15.73 - 16.22	FTS420T - 16.22			641.30	743.04	791.39	893.13	78#
	16.30 - 16.73	FTS420T - 16.73							
16"	16.74 - 17.26	FTS420T - 17.26	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	528.60	596.45	645.51	713.35	54#
	17.33 - 17.87	FTS420T - 17.87			612.71	680.56	729.61	797.46	58#
	17.88 - 18.43	FTS420T - 18.43			657.07	758.83	832.48	934.23	88#
	18.44 - 18.61	FTS420T - 18.61							
18"	18.87 - 19.45	FTS420T - 19.45	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	550.62	618.47	671.58	739.44	63#
	19.41 - 20.01	FTS420T - 20.01			634.74	702.58	755.72	823.56	78#
	20.00 - 20.60	FTS420T - 20.60			694.71	796.46	876.25	978.01	96#
	20.29 - 20.94	FTS420T - 20.94							
	20.93 - 21.57	FTS420T - 21.57							
20"	21.51 - 22.15	FTS420T - 22.15	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	579.46	647.30	704.50	772.35	65#
	22.16 - 22.81	FTS420T - 22.81			663.56	731.42	788.61	856.45	69#
	22.78 - 23.45	FTS420T - 23.45			702.59	804.35	890.25	992.00	106#
	23.46 - 24.16	FTS420T - 24.16							
	24.15 - 24.85	FTS420T - 24.85							
24"	24.82 - 25.52	FTS420T - 25.52	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	603.50	671.35	742.89	806.61	111#
	25.71 - 26.41	FTS420T - 26.41			723.72	791.55	926.65	994.50	115#
	26.55 - 27.25	FTS420T - 27.25			723.72	825.45	926.65	1,028.40	119#
	27.26 - 27.96	FTS420T - 27.96							
	27.96 - 28.13	FTS420T - 28.13							
	28.14 - 28.84	FTS420T - 28.84							
30"	29.78 - 30.48	FTS420T - 30.48	X	3/4", 1", 1 1/4", 1 1/2", 2" 2 1/2" IP, CC	656.17	724.02	801.81	869.65	131#
	30.48 - 31.18	FTS420T - 31.18			782.62	850.46	1,001.04	1,068.88	135#
	31.52 - 32.22	FTS420T - 32.22			782.62	884.37	1,001.04	1,102.80	139#

Other sizes, ranges and outlets available. Price on application.

No Cancel, No Return Item

**To Order:** Specify catalog number by the desired O.D. range and outlet size. Add S.S. for optional 304 stainless steel bolts & nuts, and F.E. for optional 8 to 12 mils of fusion bonded epoxy.

**Example:** FTS420T - 17.87 x 2 1/2" IP - SSFE





# Tapping Sleeves



**SST**  
Stainless Steel Tapping Sleeve with Full Circumferential Seal.

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**SST III**  
Stainless Steel Tapping Sleeve with Triangular Sidebars and Full Circumferential Seal

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**FTS 419**  
Fabricated Steel Tapping Sleeve

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**FTS 420**  
Fabricated Steel Tapping Sleeve with Triangular Sidebars

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**FTS 420T**  
Fabricated Steel Tapping Saddle

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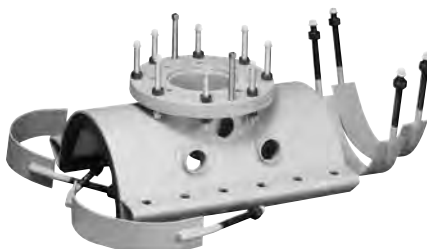
**STS 420**  
Stainless Steel Tapping Sleeve with Triangular Sidebars

Page 5-13



**FTS 425**  
Fabricated Steel Tapping Sleeve

Page 5-16



**FTS 435**  
Fabricated Steel Tapping Sleeve for Concrete Steel Cylinder Pipe

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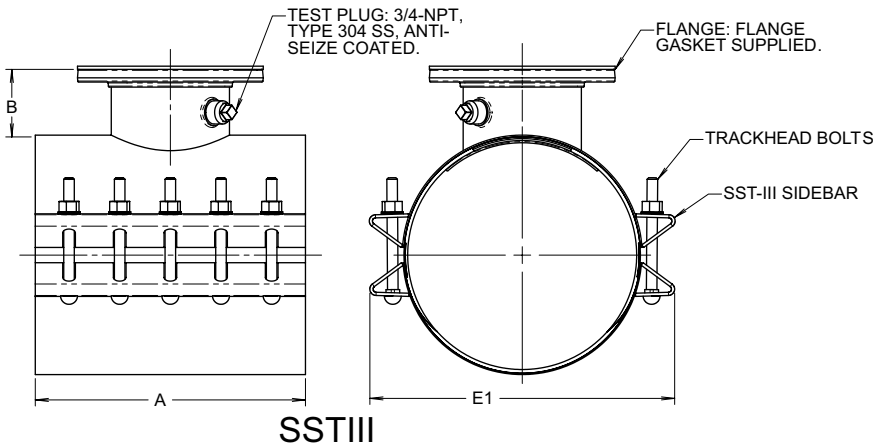
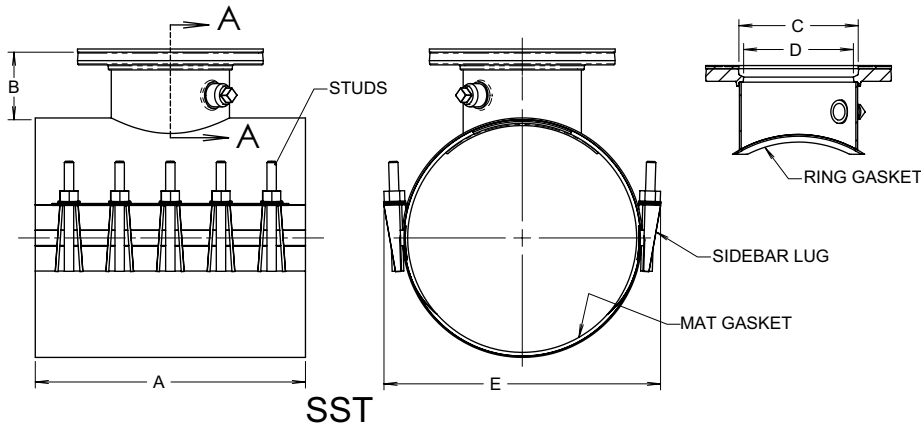
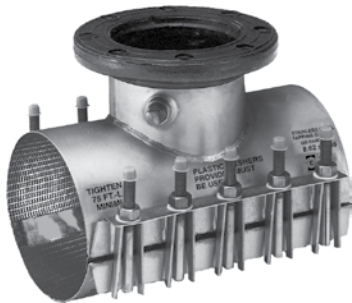
**FTS 445**  
Fabricated Steel Tapping Sleeve for Weld-On Outlets

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# “SST” & SSTIII Dimensions

**A ROMAC ORIGINAL**  
1980 - **Stainless Steel Tapping Sleeve**  
Corrosion resistant, provides full circumferential seal



DIMENSIONS								
FLANGE SIZE	CATALOG NUMBER	NO. OF BOLTS	A	B	C	D	E	E1
3"	4.60 - 5.30	8	12.0	4.00	4.03	3 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	5.60 - 19.30	10	16.0					
	19.70 - 26.50	14	20.0					
	27.80 - 32.00*	21	20.0					
4"	4.60 - 5.30	8	12.0	4.00	5.03	4 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	5.60 - 19.30	10	16.0					
	19.70 - 26.50	14	20.0					
	27.80 - 32.00*	21	20.0					
6"	6.25 - 17.95	10	16.0	4.5	7.03	6 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	18.25 - 26.50	14	20.0					
	27.80 - 32.00*	21	20.0					
8"	8.30 - 26.50	14	20.0	5	9.03	8 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	27.80 - 32.00*	21	20.0					
10"	10.73 - 26.50	16	24.0	5.5	11.03	10 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	27.80 - 32.00*	24	24.0					
	12.75 - 16.78	20	30.0					
12"	17.20 - 26.50	20	30.0	5.75	13.03	12 1/2	PIPE OD + 3.0	PIPE OD + 4.6
	27.80 - 32.00*	30	30.0					

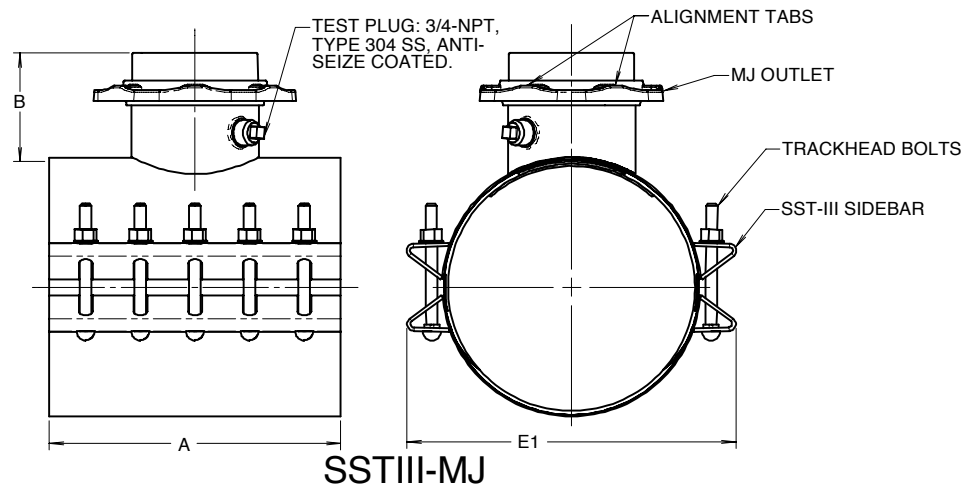
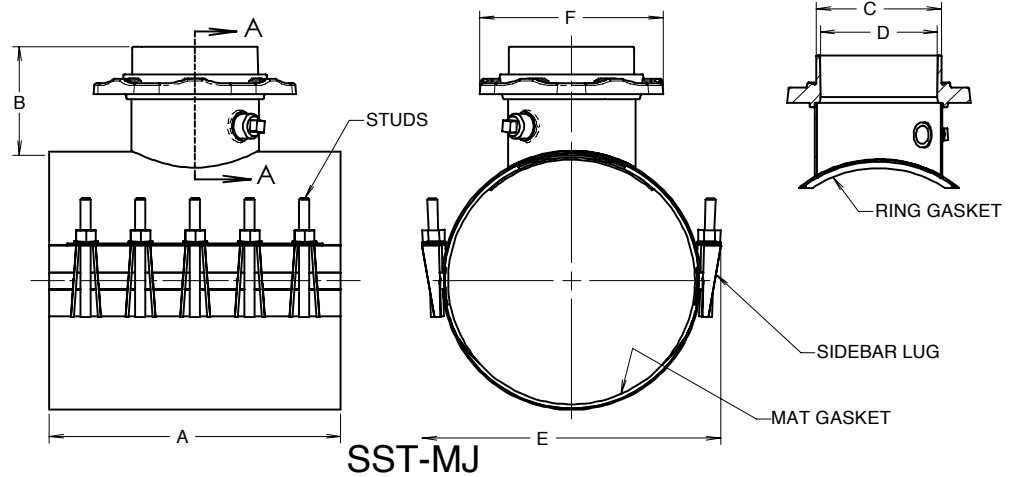
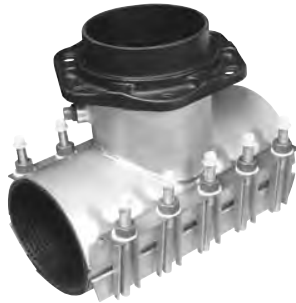
- 6.25 & 6.60 sizes not available with 6" branch.
- 8.30 size not available with 8" branch.
- 10.73 size not available with 10" branch
- 12.75 - 12.90 sizes: 1/2" undersize cutter recommended.

\* SSTIII Only





# “SST-MJ” & SSTIII-MJ Dimensions



FLANGE SIZE	CATALOG NUMBER	NO. OF BOLTS	A	B	C	D	E	E1	F
4"	4.60 - 5.30	8	12.0	5.88	4.80	4.33	PIPE OD + 3.0	PIPE OD + 4.6	9.12
	5.60 - 19.30	10	16.0						
	19.70 - 26.50	14	20.0						
	27.80 - 32.00*	21	20.0						
6"	7.00 - 17.95	10	16.0	6.88	6.90	6.43	PIPE OD + 3.0	PIPE OD + 4.6	11.12
	18.25 - 26.50	14	20.0						
	27.80 - 32.00*	21	20.0						
8"	8.63 - 26.50	14	20.0	7.00	9.05	8.52	PIPE OD + 3.0	PIPE OD + 4.6	13.40
	27.80 - 32.00*	21	20.0						
10"	10.73 - 26.50	16	24.0	7.50	11.10	10.51	PIPE OD + 3.0	PIPE OD + 4.6	15.70
	27.80 - 32.00*	24	24.0						
12"	13.30 - 16.78	20	30.0	7.63	13.20	12.54	PIPE OD + 3.0	PIPE OD + 4.6	18.10
	17.20 - 26.50	20	30.0						
	27.80 - 32.00*	30	30.0						

\* SSTIII Only

- 6.25 & 6.60 sizes not available with 6" branch.
- 8.30 size not available with 8" branch.
- 10.73 size not available with 10" branch
- 12.75 - 12.90 sizes: 1/2" undersize cutter recommended.



# “SST” Stainless Steel Tapping Sleeve

**Material Specifications**

**Shell and Lugs:** Stainless steel per ASTM A 240, type 304 and type 304L.

**Bolts:** 5/8" UNC rolled thread, stainless steel per ASTM A 193, type 304. 4" nominal pipe size has 1/2" bolts.

**Nuts:** Heavy hex, stainless steel per ASTM A 194, type 304, coated to prevent galling

**Washers:** Stainless steel per ASTM A240, type 304 and plastic lubricating washer.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

**MJ Bolts & Nuts:** 3/4" UNC T-Bolts, heavy hex nuts, high strength low alloy steel per AWWA C111.

**Outlets (three outlet options):**

1. **Ductile Iron Flange**  
per ASTM A536, Grade 65-45-12. Will accommodate tapping flanges per MSS SP-60.
2. **Stainless Steel Flange**  
per ASTM A 240, type 304. Will accommodate tapping flanges per MSS SP-60.
3. **Mechanical Joint Outlet**  
MJ style in accordance with AWWA standard C-111. Cast from ductile (nodular) iron, meeting or exceeding ASTM A536, Grade 65-45-12.



Meets requirements of MSS SP-124 and AWWA C223

**SST with Mechanical Joint Outlet**

MJ Gasket and T-bolts & Nuts are included with SST-MJ

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH			APPROX. WEIGHT (lbs.)
		SLEEVE NUMBER	BY	BRANCH SIZE	DUCTILE FLANGE	S.S. FLANGE	DUCTILE IRON MJ OUTLET	
4"	4.40 - 4.60	SST - 4.60	X	3" 4"	NA \$724.31	\$954.53 954.53	NA \$760.48	28# 30#
	4.50 - 4.80	SST - 4.80						
	4.70 - 5.00	SST - 5.00						
	5.00 - 5.30	SST - 5.30						
	5.30 - 5.60	SST - 5.60						
	5.60 - 5.90	SST - 5.90						
6"	5.90 - 6.25 <sup>1</sup>	SST - 6.25	X	3" 4" 6"	NA 752.51 856.87	994.79 994.79 1,134.46	NA 788.66 897.87	36# 38# 45#
	6.25 - 6.60 <sup>1</sup>	SST - 6.60						
	6.60 - 7.00	SST - 7.00						
	6.90 - 7.30	SST - 7.30						
	7.10 - 7.50	SST - 7.50						
	7.50 - 7.90	SST - 7.90						
8"	7.90 - 8.30 <sup>2</sup>	SST - 8.30	X	3" 4" 6" 8"	NA 763.69 812.10 1,087.79	1,030.01 1,030.01 1,145.55 1,423.22	NA 799.85 853.09 1,145.16	42# 44# 48# 66#
	8.30 - 8.63	SST - 8.63						
	8.62 - 9.06	SST - 9.06						
	9.04 - 9.45	SST - 9.45						
	9.20 - 9.60	SST - 9.60						
	9.55 - 9.95	SST - 9.95						
	9.90 - 10.30	SST - 10.30						
10"	10.33 - 10.73 <sup>3</sup>	SST - 10.73	X	3" 4" 6" 8" 10"	NA 841.88 905.26 1,098.93 1,877.79	1,118.55 1,118.55 1,214.89 1,540.47 2,552.67	NA 878.03 946.24 1,156.31 1,949.96	45# 48# 55# 70# 80#
	10.73 - 11.13	SST - 11.13						
	11.06 - 11.45	SST - 11.45						
	11.45 - 11.85	SST - 11.85						
	11.79 - 12.19	SST - 12.19						
	12.10 - 12.50	SST - 12.50						

<sup>1</sup> Not Available with 6" branch.  
<sup>2</sup> Not Available with 8" branch.  
<sup>3</sup> Not Available with 10" branch.

**To Order:** Specify Sleeve Number x Branch Size x Outlet Type.  
**Example:** SST - 9.45 x 6" D.I. FLG  
Other sizes are available on request - P.O.A



1-800-426-9341

# “SST” Stainless Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH			APPROX. WEIGHT (lbs.)	
		SLEEVE NUMBER	BY	BRANCH SIZE	DUCTILE FLANGE	S.S. FLANGE	DUCTILE IRON MJ OUTLET		
12"	12.35 - 12.75 <sup>4,5</sup>	SST - 12.75	X						
	12.45 - 12.85 <sup>4,5</sup>	SST - 12.85							
	12.70 - 12.90 <sup>4,5</sup>	SST - 12.90			3"	NA	1,323.42	NA	50#
	12.75 - 13.20 <sup>4,5</sup>	SST - 13.20			4"	938.77	1,323.42	974.93	52#
	12.90 - 13.30	SST - 13.30			6"	1,007.83	1,456.06	1,048.82	60#
	13.16 - 13.56	SST - 13.56			8"	1,180.87	1,760.52	1,238.27	81#
	13.40 - 13.80	SST - 13.80			10"	1,959.59	2,772.79	2,031.76	96#
	13.70 - 14.10	SST - 14.10			12"	2,132.83	3,303.28	2,238.30	143#
	13.98 - 14.38	SST - 14.38							
	14.38 - 14.80	SST - 14.80							
14"	14.80 - 15.20	SST - 15.20	X						
	15.20 - 15.60	SST - 15.60			3"	NA	1,833.29	NA	62#
	15.60 - 16.00	SST - 16.00			4"	1,479.96	1,833.29	1,547.01	64#
	15.80 - 16.20	SST - 16.20			6"	1,534.54	2,010.04	1,575.53	74#
	16.00 - 16.40	SST - 16.40			8"	2,002.55	2,641.80	2,059.93	81#
	16.38 - 16.78	SST - 16.78			10"	2,693.42	3,575.83	2,765.60	95#
16"	16.78 - 17.20	SST - 17.20	X						
	17.15 - 17.55	SST - 17.55			3"	NA	2,117.35	NA	78#
	17.40 - 17.80	SST - 17.80			4"	1,747.03	2,117.35	1,783.19	80#
	17.55 - 17.95	SST - 17.95			6"	1,801.66	2,294.05	1,842.66	85#
	17.85 - 18.25	SST - 18.25			8"	2,087.08	2,732.41	2,144.46	100#
	18.20 - 18.60	SST - 18.60			10"	2,899.36	3,794.18	2,971.54	115#
18"	18.58 - 18.98	SST - 18.98	X						
	18.90 - 19.30	SST - 19.30			12"	3,069.55	4,350.39	3,175.01	172#
	19.30 - 19.70	SST - 19.70			3"	NA	2,161.37	NA	92#
	19.70 - 20.10	SST - 20.10			4"	1,788.87	2,161.37	1,825.03	94#
	19.80 - 20.20	SST - 20.20			6"	1,843.58	2,338.52	1,884.58	98#
	20.20 - 20.60	SST - 20.60			8"	2,162.18	2,811.80	2,219.57	115#
20"	20.60 - 21.00	SST - 21.00	X						
	21.00 - 21.40	SST - 21.40			10"	2,985.37	3,885.52	3,057.55	139#
	21.40 - 21.80	SST - 21.80			12"	3,155.28	4,441.76	3,260.73	191#
	21.70 - 22.10	SST - 22.10			3"	NA	2,479.50	NA	81#
	21.90 - 22.30	SST - 22.30			4"	2,087.02	2,479.50	2,123.17	85#
	22.30 - 22.70	SST - 22.70			6"	2,142.34	2,656.32	2,183.32	89#
24"	22.70 - 23.10	SST - 23.10	X						
	23.00 - 23.40	SST - 23.40			8"	2,570.90	3,246.28	2,628.29	99#
	23.40 - 23.80	SST - 23.80			10"	3,464.06	4,394.64	3,536.24	120#
	23.80 - 24.20	SST - 24.20			12"	3,634.19	4,950.81	3,739.64	205#
	24.20 - 24.60	SST - 24.60			3"	NA	2,598.69	NA	85#
	24.60 - 25.00	SST - 25.00			4"	2,199.78	2,598.69	2,235.94	87#
24"	24.90 - 25.30	SST - 25.30	X						
	25.30 - 25.70	SST - 25.70			6"	2,254.24	2,775.39	2,295.23	90#
	25.60 - 26.00	SST - 26.00			8"	2,695.07	3,378.26	2,752.46	100#
	25.90 - 26.30	SST - 26.30			10"	3,599.90	4,539.18	3,672.05	145#
	26.10 - 26.50	SST - 26.50			12"	3,769.91	5,099.41	3,875.36	230#
	26.30 - 26.70	SST - 26.70							
	26.70 - 27.10	SST - 27.10							
	27.10 - 27.50	SST - 27.50							

<sup>4</sup> For 12" flanged outlets, the recommended cutter size is, 11 1/2" .

<sup>5</sup> Not available with 12" MJ Outlet.

**To Order:** Specify Sleeve Number x Branch Size x Outlet Type.

**Example:** **SST - 9.45 x 6" D.I. FLG**

Other sizes are available on request - P.O.A.



# “SST III” Stainless Steel Tapping Sleeve

**Material Specifications**

**Shell and Lugs:** Stainless steel per ASTM A 240, type 304 and type 304L.

**Bolts:** 5/8" UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Heavy hex, stainless steel per ASTM A 194, type 304, coated to prevent galling

**Washers:** Stainless steel per ASTM A240, type 304 and plastic lubricating washer.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

**MJ Bolts & Nuts:** 3/4" UNC T-Bolts,, heavy hex nuts, high strength low alloy steel per AWWA C111.

**Outlets (three outlet options):**

1. **Ductile Iron Flange**  
per ASTM A536, Grade 65-45-12
2. **Stainless Steel Flange**  
per ASTM A 240, type 304. Will accommodate tapping flanges per MSS SP-60.
3. **Mechanical Joint Outlet**  
MJ style in accordance with AWWA standard C-111. Cast from ductile (nodular) iron, meeting or exceeding ASTM A536, Grade 65-45-12.

Meets requirements of MSS SP-124 and AWWA C223



MJ Gasket and T-bolts & Nuts are included with SST-MJ

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH			APPROX. WEIGHT (lbs.)
		SLEEVE NUMBER	BY	BRANCH SIZE	DUCTILE FLANGE	S.S. FLANGE	DUCTILE IRON MJ OUTLET	
4"	4.40 - 4.60	SSTIII- 4.60	X	3" 4"	NA \$835.12	\$1,038.90 1,038.90	NA \$871.28	37# 42#
	4.50 - 4.80	SSTIII- 4.80						
	4.70 - 5.00	SSTIII- 5.00						
	5.00 - 5.30	SSTIII- 5.30						
	5.30 - 5.60	SSTIII- 5.60						
	5.60 - 5.90	SSTIII- 5.90						
6"	5.90 - 6.25 <sup>1</sup>	SSTIII- 6.25	X	3" 4" 6"	NA 879.85 897.79	1,038.90 1,038.90 1,071.03	NA 916.01 938.79	50# 54# 59#
	6.25 - 6.60 <sup>1</sup>	SSTIII- 6.60						
	6.60 - 7.00	SSTIII- 7.00						
	6.90 - 7.30	SSTIII- 7.30						
	7.10 - 7.50	SSTIII- 7.50						
	7.50 - 7.90	SSTIII- 7.90						
8"	7.90 - 8.30 <sup>2</sup>	SSTIII- 8.30	X	3" 4" 6" 8"	NA 914.28 994.93 1,285.87	1,064.92 1,064.92 1,152.13 1,409.18	NA 950.45 1,035.91 1,343.25	56# 60# 63# 83#
	8.30 - 8.63	SSTIII- 8.63						
	8.62 - 9.06	SSTIII- 9.06						
	9.04 - 9.45	SSTIII- 9.45						
	9.20 - 9.60	SSTIII- 9.60						
	9.55 - 9.95	SSTIII- 9.95						
	9.90 - 10.30	SSTIII- 10.30						
10"	10.33 - 10.73 <sup>3</sup>	SSTIII- 10.73	X	3" 4" 6" 8" 10"	NA 1,022.61 1,047.95 1,292.15 1,821.56	1,227.09 1,227.09 1,237.82 1,623.38 2,376.17	NA 1,058.77 1,088.94 1,349.54 1,893.73	60# 64# 68# 88# 121#
	10.73 - 11.13	SSTIII- 11.13						
	11.06 - 11.45	SSTIII- 11.45						
	11.45 - 11.85	SSTIII- 11.85						
	11.79 - 12.19	SSTIII- 12.19						
	12.10 - 12.50	SSTIII- 12.50						

<sup>1</sup> Not Available with 6" branch.  
<sup>2</sup> Not Available with 8" branch.  
<sup>3</sup> Not Available with 10" branch.

**To Order:** Specify Sleeve Number x Branch Size x Outlet Type.  
**Example:** SSTIII - 9.45 x 6" D.I. FLG  
Other sizes are available on request - P.O.A.



1-800-426-9341



# “SST III” Stainless Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH			APPROX. WEIGHT (lbs.)	
		SLEEVE NUMBER	BY	BRANCH SIZE	DUCTILE FLANGE	S.S. FLANGE	DUCTILE IRON MJ OUTLET		
12"	12.35 - 12.75 <sup>4,5</sup>	SSTIII - 12.75	X	3"	NA	1,373.99	NA	65#	
	12.45 - 12.85 <sup>4,5</sup>	SSTIII - 12.85			1,178.23	1,373.99	1,214.38	68#	
	12.70 - 12.90 <sup>4,5</sup>	SSTIII - 12.90			1,205.58	1,520.86	1,246.58	72#	
	12.75 - 13.20 <sup>4,5</sup>	SSTIII - 13.20			1,556.07	1,854.49	1,613.47	93#	
	12.90 - 13.30	SSTIII - 13.30			2,018.40	2,428.20	2,090.58	123#	
	13.16 - 13.56	SSTIII - 13.56			2,387.74	2,689.81	2,493.19	159#	
	13.40 - 13.80	SSTIII - 13.80							
	13.70 - 14.10	SSTIII - 14.10							
	13.98 - 14.38	SSTIII - 14.38							
14.38 - 14.80	SSTIII - 14.80								
14"	14.80 - 15.20	SSTIII - 15.20	X	3"	NA	1,404.58	NA	70#	
	15.20 - 15.60	SSTIII - 15.60			1,447.47	1,404.58	1,483.62	75#	
	15.60 - 16.00	SSTIII - 16.00			1,410.06	1,768.74	1,451.05	80#	
	15.80 - 16.20	SSTIII - 16.20			1,649.09	2,213.97	1,706.47	103#	
	16.00 - 16.40	SSTIII - 16.40			2,101.60	2,734.20	2,173.81	134#	
	16.38 - 16.78	SSTIII - 16.78			2,641.48	2,995.82	2,690.88	174#	
16"	16.78 - 17.20	SSTIII - 17.20	X	3"	NA	1,941.63	NA	92#	
	17.15 - 17.55	SSTIII - 17.55			1,449.29	1,941.63	1,672.70	96#	
	17.40 - 17.80	SSTIII - 17.80			1,636.53	2,201.74	1,677.53	102#	
	17.55 - 17.95	SSTIII - 17.95			1,844.73	2,393.01	1,902.12	110#	
	17.85 - 18.25	SSTIII - 18.25			2,286.32	2,836.72	2,358.48	140#	
	18.20 - 18.60	SSTIII - 18.60			3,004.62	3,280.42	3,110.09	205#	
	18.58 - 18.98	SSTIII - 18.98							
18.90 - 19.30	SSTIII - 19.30								
18"	19.30 - 19.70	SSTIII - 19.70	X	3"	NA	1,972.24	NA	97#	
	19.70 - 20.10	SSTIII - 20.10			1,539.92	1,972.24	1,576.07	102#	
	19.80 - 20.20	SSTIII - 20.20			1,665.53	2,354.74	1,706.52	107#	
	20.20 - 20.60	SSTIII - 20.60			1,823.32	2,546.00	1,919.30	115#	
	20.60 - 21.00	SSTIII - 21.00			2,145.08	2,989.72	2,385.04	152#	
	21.00 - 21.40	SSTIII - 21.40			3,212.39	3,586.44	3,317.85	230#	
20"	21.40 - 21.80	SSTIII - 21.80	X	3"	NA	2,050.27	NA	104#	
	21.70 - 22.10	SSTIII - 22.10			1,595.72	2,050.27	1,631.87	109#	
	21.90 - 22.30	SSTIII - 22.30			1,721.28	2,431.25	1,762.28	114#	
	22.30 - 22.70	SSTIII - 22.70			1,879.11	2,581.20	1,936.49	120#	
	22.70 - 23.10	SSTIII - 23.10			2,339.43	3,142.72	2,411.59	155#	
	23.00 - 23.40	SSTIII - 23.40			3,248.86	3,892.45	3,317.85	232#	
24"	23.30 - 23.70	SSTIII - 23.70	X	3"	NA	2,158.90	NA	107#	
	23.60 - 24.00	SSTIII - 24.00			1,642.83	2,158.90	1,679.00	112#	
	23.80 - 24.20	SSTIII - 24.20			1,649.74	2,507.75	1,690.73	117#	
	24.20 - 24.60	SSTIII - 24.60			1,788.62	2,816.82	1,846.00	124#	
	24.60 - 25.00	SSTIII - 25.00			2,214.00	3,295.73	2,286.17	158#	
	24.90 - 25.30	SSTIII - 25.30			3,593.27	4,198.46	3,698.73	236#	
	25.30 - 25.70	SSTIII - 25.70							
	25.60 - 26.00	SSTIII - 26.00							
	25.90 - 26.30	SSTIII - 26.30							
26.10 - 26.50	SSTIII - 26.50								
28"	27.20 - 27.80 <sup>6</sup>	SSTIII - 27.80	X	3"	NA	2,870.94	NA	185#	
	27.80 - 28.40 <sup>6</sup>	SSTIII - 28.40			2,354.87	2,870.94	2,391.03	190#	
	28.40 - 29.00 <sup>6</sup>	SSTIII - 29.00			2,476.84	3,334.84	2,517.83	195#	
	29.00 - 29.60 <sup>6</sup>	SSTIII - 29.60			2,717.90	3,745.84	2,775.29	202#	
					3,300.97	4,382.70	3,373.15	236#	
					4,479.79	5,583.16	4,585.26	314#	
30"	29.60 - 30.20 <sup>6</sup>	SSTIII - 30.20	X	3"	NA	3,103.70	NA	232#	
	30.20 - 30.80 <sup>6</sup>	SSTIII - 30.80			2,587.64	3,103.70	2,623.80	237#	
	30.80 - 31.40 <sup>6</sup>	SSTIII - 31.40			2,747.22	3,605.22	2,788.22	242#	
	31.40 - 32.00 <sup>6</sup>	SSTIII - 32.00			3,021.37	4,049.55	3,078.74	249#	
					3,656.33	4,738.05	3,728.49	283#	
					4,932.47	6,035.84	5,037.93	361#	

<sup>4</sup> For 12" flanged outlets, the recommended cutter size is 11 1/2"

<sup>5</sup> Not available with 12" MJ Outlet.

<sup>6</sup> Three piece sleeve.

**To Order:** Specify Sleeve Number x Branch Size x Outlet Type.

**Example:** SSTIII - 9.45 x 6" D.I. FLG

Other sizes are available on request - P.O.A.



# “FTS419” Fabricated Steel Tapping Sleeve

**Material Specifications**

**Body and Outlet Nozzle:** Carbon steel, A-36 or equal.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service use. Other compounds available on request.

**Coating:** Fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect coating.

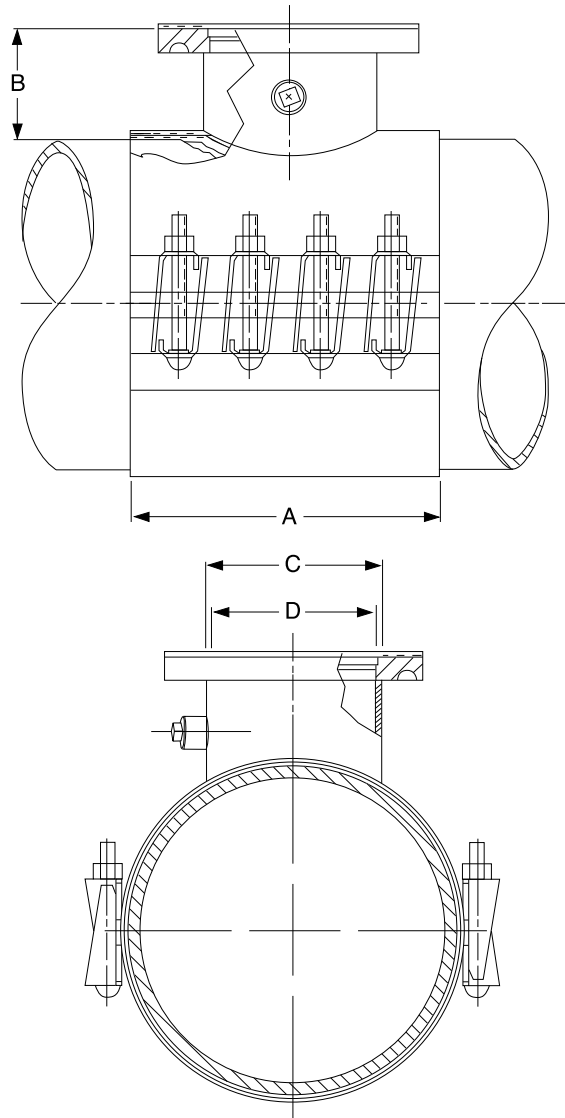
**Flange:** AWWA Class “D” plate flange, ANSI Class 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60.

**Use:** Recommended for PVC, steel, D.I., copper pipe.

Meets requirements of MSS SP-124 and AWWA C223



FLANGE SIZE	A	B	C	D	BOLTS
					QTY: SIZE
3"	9"	5.18"	4.031"	3.5"	6: 5/8" x 6"
4"	9"	5.18"	5.031"	4.5"	6: 5/8" x 6"
6"	12"	5.18"	7.031"	6.5"	8: 5/8" x 6"
8"	15"	5.18"	9.031"	8.5"	10: 5/8" x 6"
10"	18"	5.50"	11.031"	10.5"	12: 5/8" x 6"
12"	24"	5.75"	13.031"	12.5"	16: 5/8" x 6"







# “FTS419” Fabricated Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. (INCHES)	CATALOG NUMBER			LIST PRICE EACH		APPROX. WEIGHT (lbs.)
		SLEEVE NUMBER	BY	BRANCH SIZE	W/ALLOY BOLTS	W/304 SS BOLTS & NUTS	
4"	4.00 4.13	FTS419-4.00 FTS419-4.13	X	3" *	\$584.88	\$643.51	28#
	4.50 4.80	FTS419-4.50 FTS419-4.80	X	3" * 4" *	584.88 584.88	644.55 644.55	34# 34#
5"	5.13 5.56	FTS419-5.13 FTS419-5.56	X	3" * 4" *	584.88 584.88	644.55 644.55	33# 35#
	6.00 6.13	FTS419-6.00 FTS419-6.13	X	3" 4"	602.92 602.92	662.60 662.60	34# 36#
6"	6.63 6.90	FTS419-6.63 FTS419-6.90	X	3" 4" 6" *	602.92 602.92 672.32	662.60 662.60 746.24	34# 36# 53#
	8.00 8.13	FTS419-8.00 FTS419-8.13	X	3" 4" 6"	648.29 648.29 697.77	707.97 707.97 771.71	34# 38# 55#
	8.63 9.05	FTS419-8.63 FTS419-9.05	X	3" 4" 6" 8" *	648.29 648.29 697.77 852.80	707.97 707.97 771.71 940.91	38# 40# 56# 77#
10"	10.00	FTS419-10.00	X	3" 4" 6" 8"	649.85 649.85 721.03 889.40	709.54 709.54 794.96 977.52	38# 41# 58# 79#
	10.75 11.10	FTS419-10.75 FTS419-11.10	X	3" 4" 6" 8" 10" *	649.85 649.85 721.03 889.40 1,183.29	709.54 709.54 794.96 977.52 1,285.62	41# 43# 60# 81# 108#
12"	12.75 13.20	FTS419-12.75 FTS419-13.20	X	3" 4" 6" 8" 10" 12" *	689.19 689.19 785.09 948.60 1,250.00 1,485.17	748.89 748.89 859.00 1,036.71 1,352.31 1,615.91	44# 46# 64# 85# 111# 129#
	14.00 15.30	FTS419-14.00 FTS419-15.30	X	3" 4" 6" 8" 10" 12"	759.28 762.40 841.91 1,017.85 1,445.31 1,626.14	908.25 908.25 887.63 1,250.61 1,696.88 1,886.46	47# 49# 67# 88# 114# 136#
	16.00 17.40	FTS419-16.00 FTS419-17.40	X	3" 4" 6" 8" 10" 12"	792.92 792.92 888.74 976.50 1,496.49 1,716.51	940.27 980.71 1,040.08 1,294.02 1,751.20 1,981.23	50# 52# 71# 92# 117# 144#
	18.00 19.50	FTS419-18.00 FTS419-19.50	X	3" 4" 6" 8" 10" 12"	814.68 814.68 915.99 1,113.10 1,558.60 1,742.67	963.08 963.08 1,069.31 1,350.55 1,815.66 2,008.66	56# 57# 76# 96# 120# 160#
	20.00 21.60	FTS419-20.00 FTS419-21.60	X	3" 4" 6" 8" 10" 12"	836.45 836.45 943.22 1,203.54 1,620.68 1,766.55	985.92 985.92 1,097.87 1,407.09 1,880.75 2,036.06	56# 58# 78# 100# 123# 160#
	24"	24.00 25.80	FTS419-24.00 FTS419-25.80	X	3" 4" 6" 8" 10" 12"	960.62 960.62 1,082.65 1,402.85 1,882.08 2,008.40	1,116.12 1,116.12 1,244.05 1,616.10 2,154.87 2,287.30

**To Order:** Specify catalog number by the desired O.D. and flange size. Add S.S. for optional 304 stainless steel bolts and nuts. Some O.D.s not listed are available on request.

**Example:** FTS419 - 6.90 x 6 - SSFE

\* For size on size taps, a 1/2" undersized shell cutter is required.

Test plugs furnished on all applicable models, and are stainless steel when tapping sleeve is ordered with S.S. bolts & nuts.



# “FTS420” Fabricated Steel Tapping Sleeve

**Material Specifications**

**Body and Outlet Nozzle:** Carbon steel, A-36 or equal. (Also available in type 304SS, Style STS420)

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 3/4" UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.

**Outlet Gaskets:** SBR per ASTM D 2000, compounded for water and sewer service use. For 3"-12" size-on-size flanges, the gaskets are reinforced with a metal ring. Larger than 12" size-on-size sleeves use a square profile o-ring NBR per ASTM D2000 set in a full body thickness cavity. Other compounds available on request.

**Test Plug:** 3/4" NPT type 304 stainless steel test plug.

**Flange Gaskets:** 3" - 12" full face proprietary gasket are made from Styrene Butadiene Rubber (SBR) compounded for water and sewer service in accordance with ASTM D2000. Other compounds available for petroleum, chemicals or high temperature service.

**Coating:** Fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect coating.

**Flange:** AWWA Class “D” plate flange, ANSI Class 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60. (Also Available with a threaded outlet, Style FTS420T - see page 3-9)

Meets requirements of MSS SP-124, and AWWA C223.

**For larger sizes, contact your Romac representative.**

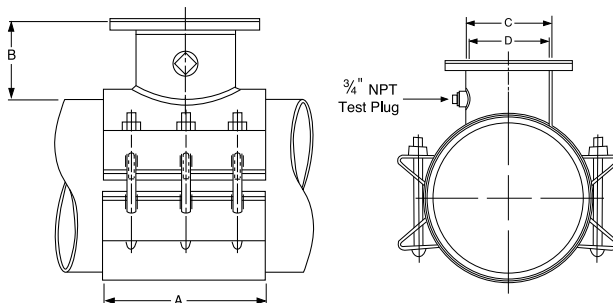
(Not recommended for IPS size PVC pipe)



FLANGE SIZE	A	B	C	D	BOLTS
					QTY: SIZE <sup>1</sup>
3"	12"	5.18"	4.03"	3 1/2"	6: 3/4" x 9"
4"	12"	5.18"	5.03"	4 1/2"	6: 3/4" x 9"
6"	12"	5.18"	7.03"	6 1/2"	6: 3/4" x 9"
8"	16"	5.18"	9.03"	8 1/2"	8: 3/4" x 9"
10"	20"	5.50"	11.03"	10 1/2"	10: 3/4" x 9"
12"	20"	5.75"	13.03"	12 1/2"	10: 3/4" x 9"
14" <sup>2</sup>	24"	6.00"	15.03"	14 1/2"	12: 3/4" x 9"
16" <sup>2</sup>	28"	6.00"	17.03"	16 1/2"	14: 3/4" x 9"
18" <sup>2</sup>	32"	6.00"	19.03"	18 1/2"	16: 3/4" x 9"
20" <sup>2</sup>	32"	6.00"	21.03"	20 1/2"	16: 3/4" x 9"
24" <sup>2</sup>	36"	6.63"	25.03"	24 1/2"	18: 3/4" x 9"

<sup>1</sup> 7.16-14.56" sizes use 8" long bolts.

<sup>2</sup> Valve Manufacturer must be specified upon ordering.



## Threaded outlet model FTS420T (for detailed information see pg. 4-8)

**Body:** Carbon steel, A-36 or equal.

**Outlet:** NPT (IP) or AWWA (CC) Female Threads

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 3/4" UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service use. Other compounds available on request.

**Paint:** Romac shopcoat for corrosion protection in transit. Optional fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect any special coatings.

# “FTS420-T” Fabricated Steel Tapping Saddle



**Material Specifications**



# “FTS420” Fabricated Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH		APPROX. WEIGHT (LBS.)
		SLEEVE NUMBER	BY	BRANCH SIZE	EPOXY W/ALLOY BOLTS	EPOXY W/304 SS BOLTS & NUTS	
6"	6.83 - 7.16 <sup>1</sup>	FTS420 - 7.16	X	3"	\$596.40	\$697.20	66 #
	7.05 - 7.40 <sup>1</sup>	FTS420 - 7.40		4"	596.40	697.20	69 #
	7.40 - 7.73 <sup>1</sup>	FTS420 - 7.73		6"	700.04	800.83	73 #
8"	7.74 - 8.35 <sup>2</sup>	FTS420 - 8.35	X	3"	649.25	750.07	73 #
	8.36 - 8.75 <sup>1</sup>	FTS420 - 8.75		4"	649.25	750.07	75 #
	8.98 - 9.37 <sup>1</sup>	FTS420 - 9.37		6"	708.49	809.28	79 #
	9.27 - 9.69 <sup>1</sup>	FTS420 - 9.69		8"	890.35	1,024.73	107 #
10"	9.83 - 10.25 <sup>2</sup>	FTS420 - 10.25	X	3"	653.53	754.32	82 #
	10.64 - 10.86 <sup>1</sup>	FTS420 - 10.86		4"	653.53	754.32	85 #
	10.87 - 11.02 <sup>1</sup>	FTS420 - 11.02		6"	729.64	830.44	88 #
	11.03 - 11.47 <sup>1</sup>	FTS420 - 11.47		8"	924.18	1,058.56	118 #
	11.36 - 11.80 <sup>1</sup>	FTS420 - 11.80		10"	1,205.50	1,373.44	148 #
	11.76 - 12.24	FTS420 - 12.24					
12"	12.25 - 12.61 <sup>2</sup>	FTS420 - 12.61	X	3"	706.36	807.16	91 #
	12.62 - 12.88 <sup>1</sup>	FTS420 - 12.88		4"	706.36	807.16	93 #
	13.13 - 13.60 <sup>1</sup>	FTS420 - 13.60		6"	771.93	872.74	96 #
	13.60 - 14.09	FTS420 - 14.09		8"	983.40	1,117.80	129 #
	14.10 - 14.56	FTS420 - 14.56		10"	1,353.52	1,521.50	162 #
				12"	1,490.96	1,658.95	178 #
14"	14.59 - 15.08	FTS420 - 15.08	X	3"	740.20	840.99	99 #
	15.23 - 15.80	FTS420 - 15.80		4"	740.20	840.99	101 #
	15.73 - 16.22	FTS420 - 16.22		6"	862.78	963.59	107 #
	16.30 - 16.73	FTS420 - 16.73		8"	992.99	1,127.39	140 #
				10"	1,452.91	1,621.50	174 #
				12"	1,666.53	1,834.49	207 #
16"	16.74 - 17.26	FTS420 - 17.26	X	3"	769.83	870.63	107 #
	17.33 - 17.87	FTS420 - 17.87		4"	769.83	870.63	110 #
	17.88 - 18.43	FTS420 - 18.43		6"	862.87	963.65	113 #
	18.44 - 18.61	FTS420 - 18.61		8"	992.99	1,198.17	151 #
	18.62 - 19.19	FTS420 - 19.19		10"	1,452.91	1,620.89	188 #
				12"	1,666.53	1,834.49	220 #
				14"	2,340.84	2,542.45	273 #
				16"	2,418.26	2,653.46	327 #
18"	18.87 - 19.45	FTS420 - 19.45	X	3"	769.83	870.63	116 #
	19.41 - 20.01	FTS420 - 20.01		4"	769.83	870.63	118 #
	20.00 - 20.60	FTS420 - 20.60		6"	862.87	963.65	121 #
	20.29 - 20.94	FTS420 - 20.94		8"	992.99	1,198.17	162 #
	20.93 - 21.57	FTS420 - 21.57		10"	1,452.91	1,620.89	202 #
				12"	1,666.53	1,834.49	233 #
				14"	2,443.10	2,644.70	288 #
				16"	2,552.77	2,787.97	343 #
20"	21.51 - 22.15	FTS420 - 22.15	X	3"	812.09	912.89	130 #
	22.16 - 22.81	FTS420 - 22.81		4"	812.09	912.89	132 #
	22.78 - 23.45	FTS420 - 23.45		6"	915.75	1,016.55	135 #
	23.46 - 24.16	FTS420 - 24.16		8"	1,168.49	1,302.87	181 #
	24.15 - 24.85	FTS420 - 24.85		10"	1,573.49	1,741.44	225 #
	24.82 - 25.52	FTS420 - 25.52		12"	1,717.28	1,885.26	256 #
				14"	2,567.83	2,769.44	314 #
				16"	2,652.55	2,887.76	373 #
				18"	2,744.24	2,979.43	373 #
				20"	2,940.02	3,175.22	421 #

<sup>1</sup> For size on size taps, a 1/2" undersized shell cutter is required.

<sup>2</sup> For size on size taps, 2" undersized shell cutter is required.

**Other sizes, ranges and outlets available - POA.**

Test plugs furnished on all applicable models.

**To Order:** Specify catalog number by the desired O.D. range and flange size. Add S.S. for optional 304 stainless steel bolts & nuts.

**Example:** FTS420 - 17.87 x 6 - SSFE

**NOTE:** For flanges 14" and larger, please specify valve manufacturer upon ordering.



# “FTS420” Fabricated Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH		APPROX. WEIGHT (LBS.)
		SLEEVE NUMBER	BY	BRANCH SIZE	EPOXY W/ALLOY BOLTS	EPOXY W/304 SS BOLTS & NUTS	
24"	25.71 - 26.41 26.55 - 27.25 27.26 - 27.96 28.14 - 28.84	FTS420 - 26.41 FTS420 - 27.25 FTS420 - 27.96 FTS420 - 28.84	X	3"	932.64	1,033.46	148 #
				4"	932.64	1,033.46	150 #
				6"	1,051.13	1,151.90	154 #
				8"	1,361.99	1,496.39	205 #
				10"	1,901.57	1,995.25	255 #
				12"	1,949.91	2,117.89	285 #
				14"	2,904.31	3,105.92	350 #
				16"	2,944.87	3,180.07	413 #
				18"	3,115.70	3,350.90	467 #
				20"	3,289.79	3,524.99	489 #
				24"	4,807.61	5,110.02	587 #
30"	29.78 - 30.48 30.48 - 31.18 31.52 - 32.22 32.20 - 33.00 33.00 - 33.80 33.80 - 34.60 34.60 - 35.40	FTS420 - 30.48 FTS420 - 31.18 FTS420 - 32.22 FTS420 - 33.00 FTS420 - 33.80 FTS420 - 34.60 FTS420 - 35.40	X	3"	1,019.40	1,120.17	180 #
				4"	1,019.40	1,120.17	182 #
				6"	1,165.28	1,266.09	186 #
				8"	1,514.29	1,648.64	248 #
				10"	1,880.13	2,048.11	310 #
				12"	1,949.91	2,158.07	346 #
				14"	2,998.88	3,200.46	422 #
				16"	3,083.58	3,318.78	497 #
				18"	3,254.43	3,489.63	563 #
				20"	3,467.30	3,702.49	587 #
				24"	5,068.12	5,370.52	701 #
36"	35.40 - 36.20 36.20 - 37.00 37.00 - 37.80 37.80 - 38.60 38.60 - 39.40 39.40 - 40.20 41.00 - 41.80	FTS420 - 36.20 FTS420 - 37.00 FTS420 - 37.80 FTS420 - 38.60 FTS420 - 39.40 FTS420 - 40.20 FTS420 - 41.80	X	3"	1,481.88	1,582.67	221 #
				4"	1,481.88	1,582.67	224 #
				6"	1,537.37	1,638.18	227 #
				8"	1,804.71	1,939.11	303 #
				10"	2,326.98	2,494.99	379 #
				12"	2,458.18	2,626.18	413 #
				14"	3,567.93	3,769.52	502 #
				16"	4,255.42	4,490.62	590 #
				18"	4,978.86	5,214.06	668 #
				20"	5,136.70	5,426.93	690 #
				24"	6,542.20	6,844.60	810 #
42"	41.80 - 42.60 42.60 - 43.40 43.40 - 44.20 44.20 - 45.00	FTS420 - 42.60 FTS420 - 43.40 FTS420 - 44.20 FTS420 - 45.00	X	3"	1,590.49	1,691.29	235 #
				4"	1,590.49	1,691.29	238 #
				6"	1,666.89	1,767.70	242 #
				8"	2,499.22	2,633.62	322 #
				10"	2,743.18	2,911.19	402 #
				12"	2,870.24	3,042.37	436 #
				14"	3,831.00	4,032.60	530 #
				16"	4,515.01	4,750.21	623 #
				18"	5,238.46	5,473.66	705 #
				20"	5,451.33	5,686.52	726 #
				24"	6,801.80	7,104.20	849 #

Other sizes, ranges and outlets available - POA.

Test plugs furnished on all applicable models.

**To Order:** Specify catalog number by the desired O.D. range and flange size. Add S.S. for optional 304 stainless steel bolts & nuts.

**Example:** FTS420 - 17.87 x 6 - SSFE

**NOTE:** For flanges 14" and larger, please specify valve manufacturer upon ordering.



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## “STS420” Stainless Steel Tapping Sleeve

### Material Specifications

**Body and Outlet:** Stainless steel, thick gauge ASTM A240 type 304/304L or equal. Chemically passivated after welding for maximum corrosion resistance. Type 316 stainless steel is optional.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts,  $\frac{5}{8}$ " UNC rolled thread, type 304 SS. Nuts coated to prevent galling.

**Outlet Gaskets:** SBR per ASTM D 2000, compounded for water and sewer service use. For 3"-12" size-on-size flanges, the gaskets are reinforced with a metal ring. Larger than 12" size-on-size sleeves use a square profile o-ring NBR per ASTM D2000 set in a full body thickness cavity. Other compounds available on request.

**Test Plug:**  $\frac{3}{4}$ " NPT type 304 stainless steel test plug.

**Flange Gaskets:** 3" - 12" full face proprietary gasket are made from Styrene Butadiene Rubber (SBR) compounded for water and sewer service in accordance with ASTM D2000. Other compounds available for petroleum, chemicals or high temperature service.

**Flange:** Stainless steel, ASTM A240 type 304 per AWWA C228 class "D" plate flange, ANSI class 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60.

Meets requirements of MSS SP-124 and AWWA C223.

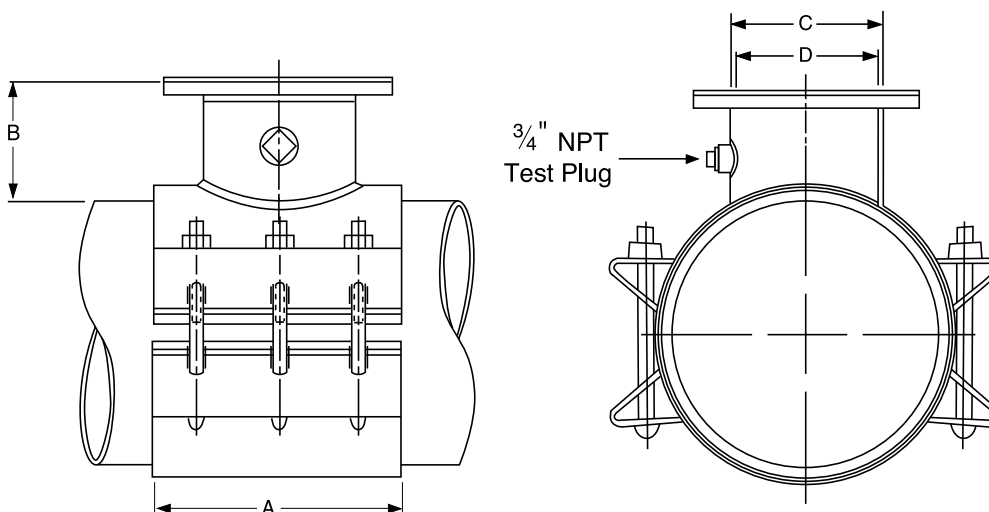
**Use:** The STS420 Stainless Steel Tapping Sleeve is used to make a branch outlet from a main supply line on most types of pipe (except for reinforced concrete cylinder pipe).



FLANGE SIZE	A	B	C	D	BOLTS
					QTY: SIZE*
3"	12"	5.18"	4.03"	3.26"	8: $\frac{5}{8}$ " x 7"
4"	12"	5.18"	5.03"	4.79"	8: $\frac{5}{8}$ " x 7"
6"	12"	5.18"	7.03"	6.79"	8: $\frac{5}{8}$ " x 7"
8"	16"	5.18"	9.03"	8.79"	10: $\frac{5}{8}$ " x 7"
10"	20"	5.50"	11.03"	10.79"	14: $\frac{5}{8}$ " x 7"
12"	20"	5.75"	13.03"	12.79"	14: $\frac{5}{8}$ " x 7"
14" <sup>1</sup>	24"	6.00"	15.03"	14.79"	16: $\frac{5}{8}$ " x 7"
16" <sup>1</sup>	30"	6.00"	17.03"	16.79"	20: $\frac{5}{8}$ " x 7"
18" <sup>1</sup>	30"	6.00"	19.03"	18.79"	20: $\frac{5}{8}$ " x 7"
20" <sup>1</sup>	36"	6.00"	21.03"	20.73"	24: $\frac{5}{8}$ " x 7"
24" <sup>1</sup>	48"	6.63"	25.03"	24.73"	32: $\frac{5}{8}$ " x 7"

<sup>1</sup>NOTE: Tapping valve manufacturer must be specified.

*Also available with threaded outlet model STS420T*





1-800-426-9341



# “STS420” Stainless Steel Tapping Sleeve


NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE	APPROX. WEIGHT (LBS.)
		SLEEVE NUMBER	BY	BRANCH SIZE		
6"	6.83 - 7.16	STS420 - 7.16	X	3"	\$1,749.39	59 #
	7.05 - 7.40	STS420 - 7.40		4"	1,749.39	59 #
	7.40 - 7.73	STS420 - 7.73		6"	1,966.12	64 #
8"	7.74 - 8.35 <sup>2</sup>	STS420 - 8.35	X	3"	1,866.26	67 #
	8.36 - 8.75 <sup>1</sup>	STS420 - 8.75		4"	1,866.26	68 #
	8.98 - 9.37	STS420 - 9.37		6"	2,063.87	73 #
	9.27 - 9.69	STS420 - 9.69		8"	2,541.95	77 #
10"	9.83 - 10.25 <sup>1</sup>	STS420 - 10.25	X	3"	2,057.49	78 #
	10.64 - 10.86	STS420 - 10.86		4"	2,057.49	79 #
	10.87 - 11.02	STS420 - 11.02		6"	2,212.60	84 #
	11.03 - 11.47	STS420 - 11.47		8"	2,722.55	89 #
	11.36 - 11.80	STS420 - 11.80		10"	3,884.81	109 #
12"	11.76 - 12.24 <sup>1</sup>	STS420 - 12.24	X	3"	2,085.12	89 #
	12.25 - 12.61	STS420 - 12.61		4"	2,085.12	89 #
	12.62 - 12.88	STS420 - 12.88		6"	2,310.34	94 #
	13.13 - 13.60	STS420 - 13.60		8"	2,845.78	99 #
	13.60 - 14.09	STS420 - 14.09		10"	3,997.43	123 #
				12"	5,100.19	137 #
14"	14.10 - 14.56 <sup>2</sup>	STS420 - 14.56	X	3"	2,588.68	98 #
	14.59 - 15.08 <sup>2</sup>	STS420 - 15.08		4"	2,588.68	99 #
	15.23 - 15.80	STS420 - 15.80		6"	2,847.92	104 #
				8"	3,880.56	108 #
				10"	5,129.94	135 #
				12"	5,531.41	149 #
				14"	6,077.41	205 #
16"	15.73 - 16.22 <sup>2</sup>	STS420 - 16.22	X	3"	2,767.17	109 #
	16.30 - 16.73 <sup>2</sup>	STS420 - 16.73		4"	2,767.17	109 #
	16.74 - 17.26	STS420 - 17.26		6"	3,041.27	114 #
	17.33 - 17.87	STS420 - 17.87		8"	4,127.03	118 #
				10"	5,261.67	147 #
				12"	5,649.02	162 #
				14"	6,289.91	217 #
				16"	8,085.12	274 #
18"	17.88 - 18.43 <sup>2</sup>	STS420 - 18.43	X	3"	2,813.92	119 #
	18.44 - 18.61 <sup>2</sup>	STS420 - 18.61		4"	2,813.92	119 #
	18.62 - 19.19	STS420 - 19.19		6"	3,100.76	124 #
	18.87 - 19.45	STS420 - 19.45		8"	4,216.27	129 #
				10"	5,280.69	160 #
				12"	5,690.25	174 #
				14"	6,502.39	231 #
				16"	8,290.24	290 #
20"	19.41 - 20.01 <sup>2</sup>	STS420 - 20.01	X	3"	2,911.66	136 #
	20.00 - 20.60 <sup>2</sup>	STS420 - 20.60		4"	2,911.66	137 #
	20.29 - 20.94	STS420 - 20.94		6"	3,219.43	142 #
	20.93 - 21.57	STS420 - 21.57		8"	4,373.51	146 #
	21.51 - 22.15	STS420 - 22.15		10"	5,302.97	181 #
	22.16 - 22.81	STS420 - 22.81		12"	5,691.58	195 #
	22.78 - 23.45	STS420 - 23.45		14"	6,714.90	255 #
				16"	8,490.14	320 #
				18"	8,906.86	332 #
				20"	10,419.68	402 #

<sup>1</sup> For size on size taps, a 1/2" undersized shell cutter is required.

<sup>2</sup> For size on size taps, 2" undersized shell cutter is required.

Other sizes, ranges and outlets available - POA.

Test plugs furnished on all applicable models.

 No Cancel, No Return Item.

**To Order:** Specify catalog number by the desired O.D. range and flange size.

**Example:** STS420 - 17.87 x 6

**NOTE:** For flanges 14" and larger, please specify valve manufacturer upon ordering.





# “STS420” Stainless Steel Tapping Sleeve

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (inches)	CATALOG NUMBER			LIST PRICE EACH	APPROX. WEIGHT (LBS.)
		SLEEVE NUMBER	BY	BRANCH SIZE		
24"	23.46 - 24.16 <sup>2</sup> 24.15 - 24.85 24.82 - 25.52 25.71 - 26.41 26.55 - 27.25 27.26 - 27.96 28.14 - 28.84	STS420 - 24.16 STS420 - 24.85 STS420 - 25.52 STS420 - 26.41 STS420 - 27.25 STS420 - 27.96 STS420 - 28.84	X	3"	\$3,119.89	151 #
				4"	3,119.89	152 #
				6"	3,355.85	156 #
				8"	4,670.98	162 #
				10"	5,306.85	200 #
				12"	5,771.89	214 #
				14"	6,927.39	277 #
				16"	8,704.70	346 #
				18"	9,323.59	357 #
				20"	10,836.39	431 #
				24"	13,601.92	589 #
30"	29.78 - 30.48 30.48 - 31.18 31.52 - 32.22 32.20 - 33.00 33.00 - 33.80 33.80 - 34.60 34.60 - 35.40	STS420 - 30.48 STS420 - 31.18 STS420 - 32.22 STS420 - 33.00 STS420 - 33.80 STS420 - 34.60 STS420 - 35.40	X	3"	3,949.90	170 #
				4"	3,949.90	173 #
				6"	4,413.04	177 #
				8"	4,867.76	183 #
				10"	5,339.29	230 #
				12"	5,802.43	259 #
				14"	7,139.88	318 #
				16"	9,326.18	398 #
				18"	9,742.90	408 #
				20"	11,255.71	492 #
				24"	14,021.23	665 #
36"	35.40 - 36.20 36.20 - 37.00 37.00 - 37.80 37.80 - 38.60 38.60 - 39.40 39.40 - 40.20 41.00 - 41.80	STS420 - 36.20 STS420 - 37.00 STS420 - 37.80 STS420 - 38.60 STS420 - 39.40 STS420 - 40.20 STS420 - 41.80	X	3"	4,428.61	198 #
				4"	4,428.61	201 #
				6"	4,825.18	205 #
				8"	5,221.77	211 #
				10"	5,618.34	264 #
				12"	6,014.92	294 #
				14"	7,352.37	360 #
				16"	9,718.85	449 #
				18"	10,135.57	459 #
				20"	11,648.38	552 #
				24"	14,413.91	744 #
42"	41.80 - 42.60 42.60 - 43.40 43.40 - 44.20 44.20 - 45.00	STS420 - 42.60 STS420 - 43.40 STS420 - 44.20 STS420 - 45.00	X	3"	4,907.31	213 #
				4"	4,907.31	215 #
				6"	5,237.34	219 #
				8"	5,567.37	225 #
				10"	5,897.39	282 #
				12"	6,227.41	312 #
				14"	7,564.88	381 #
				16"	10,111.51	476 #
				18"	10,528.24	485 #
				20"	12,041.06	584 #
				24"	14,806.57	785 #

Other sizes, ranges and outlets available - POA.

Test plugs furnished on all applicable models.

**To Order:** Specify catalog number by the desired O.D. range and flange size.

**Example:** STS420 - 42.60 x 12



No Cancel, No Return Item

**NOTE:** For flanges 14" and larger, please specify valve manufacturer upon ordering.



# “FTS425” Steel Fabricated Tapping Sleeve

**Material Specifications**

- Body and Outlet Nozzle:** Carbon steel, A-36 or equal.
  - Bolts and Nuts:** Trackhead bolts, heavy hex nuts, UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.
  - Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service use. Other compounds available on request.
  - Paint:** Romac shopcoat for corrosion protection in transit. Optional fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect any special coatings.
  - Flange:** AWWA Class “D” plate flange, ANSI Class 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60.
- Meets requirements of MSS SP-124 and AWWA C223

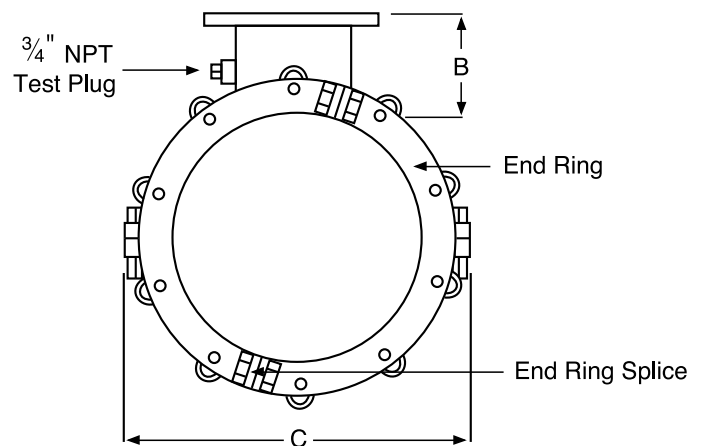
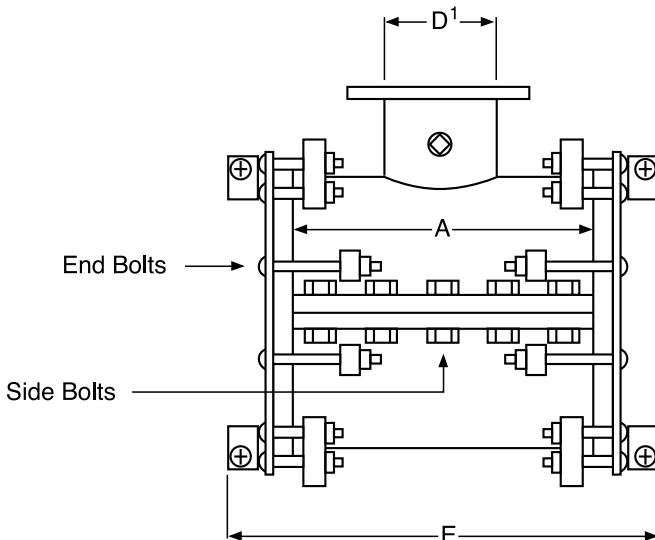


The Romac steel sleeve with side and end gasket seals provides extra protection on lines subject to excessive beam loads.

**Fabricated to special order only**

- Exact O.D. of pipe required
- No range provided
- Price on application

Contact Romac Engineering for high pressure and larger than 24" pipe applications



<sup>1</sup> For D dimension: 4" - 12" flanges will accommodate tapping flanges per MSS SP-60.



# “FTS425” Steel Fabricated Tapping Sleeve

NOM. PIPE SIZE	PIPE O.D.	FLANGE SIZE	A	B	C	E	SIDE BOLTS QTY: SIZE	END BOLTS QTY: SIZE	APPROX. WEIGHT (lbs.)
12"	Ductile Iron 13.20	4"	15.3	6.00	18.38	22.36	8: 1"	16: 5/8"	217#
		6" & 8"	19.0	6.00	18.38	26.13	10: 1"	16: 5/8"	261#
		10" & 12"	22.8	6.00	18.38	29.90	12: 1"	16: 5/8"	325#
	Cast Iron 13.50	4"	15.3	6.00	18.68	22.36	8: 1"	16: 5/8"	220#
		6" & 8"	19.0	6.00	18.68	26.13	10: 1"	16: 5/8"	264#
		10" & 12"	22.8	6.00	18.68	29.90	12: 1"	16: 5/8"	329#
A/C 13.55	4"	15.3	6.00	18.73	22.36	8: 1"	16: 5/8"	221#	
6" & 8"	19.0	6.00	18.73	26.13	10: 1"	16: 5/8"	264#		
10" & 12"	22.8	6.00	18.73	29.90	12: 1"	16: 5/8"	329#		
14"	Ductile Iron 15.30	4"	15.3	6.00	20.48	22.36	8: 1"	20: 5/8"	241#
		6" & 8"	19.0	6.00	20.48	26.13	10: 1"	20: 5/8"	288#
		10" & 12"	22.8	6.00	20.48	29.90	12: 1"	20: 5/8"	355#
	Cast Iron 15.55	4"	15.3	6.00	20.83	22.36	8: 1"	20: 5/8"	244#
		6" & 8"	19.0	6.00	20.83	26.13	10: 1"	20: 5/8"	291#
		10" & 12"	22.8	6.00	20.83	29.90	12: 1"	20: 5/8"	358#
A/C 15.65	4"	15.3	6.00	20.73	22.36	8: 1"	20: 5/8"	244#	
6" & 8"	19.0	6.00	20.73	26.13	10: 1"	20: 5/8"	292#		
10" & 12"	22.8	6.00	20.73	29.90	12: 1"	20: 5/8"	360#		
16"	Ductile Iron 17.40	4"	15.3	6.00	22.58	22.36	8: 1"	20: 5/8"	261#
		6" & 8"	19.0	6.00	22.58	26.13	10: 1"	20: 5/8"	311#
		10" & 12"	22.8	6.00	22.58	29.90	12: 1"	20: 5/8"	388#
	A/C 17.55	4"	15.3	6.00	22.98	22.36	8: 1"	20: 5/8"	265#
		6" & 8"	19.0	6.00	22.98	26.13	10: 1"	20: 5/8"	316#
		10" & 12"	22.8	6.00	22.98	29.90	12: 1"	20: 5/8"	387#
Cast Iron 17.80	4"	15.3	6.00	22.73	22.36	8: 1"	20: 5/8"	263#	
	6" & 8"	19.0	6.00	22.73	26.13	10: 1"	20: 5/8"	313#	
	10" & 12"	22.8	6.00	22.73	29.90	12: 1"	20: 5/8"	384#	
18"	Ductile Iron 19.50	4" & 6"	18.3	6.00	24.68	25.42	8: 1 1/8"	24: 5/8"	338#
		8", 10" & 12"	23.0	6.00	24.68	30.10	10: 1 1/8"	24: 5/8"	430#
		4" & 6"	18.3	6.00	25.10	25.42	8: 1 1/8"	16: 5/8"	343#
	Cast Iron 19.92	8", 10" & 12"	23.0	6.00	25.10	30.10	10: 1 1/8"	24: 5/8"	435#
		4" & 6"	18.3	6.00	25.68	25.42	8: 1 1/8"	24: 5/8"	349#
		8", 10" & 12"	23.0	6.00	25.68	30.10	10: 1 1/8"	24: 5/8"	443#
20"	Ductile Iron 21.60	4" & 6"	18.4	6.00	27.78	25.49	8: 1 1/4"	24: 5/8"	395#
		8", 10" & 12"	23.0	6.00	27.78	30.10	10: 1 1/4"	24: 5/8"	500#
		4" & 6"	18.4	6.00	28.24	25.49	8: 1 1/4"	24: 5/8"	400#
	Cast Iron 22.06	8", 10" & 12"	23.0	6.00	28.24	30.10	10: 1 1/4"	24: 5/8"	505#
		4" & 6"	18.4	6.00	28.88	25.49	8: 1 1/4"	24: 5/8"	410#
		8", 10" & 12"	23.0	6.00	28.88	30.10	10: 1 1/4"	24: 5/8"	515#
24"	Ductile Iron 25.80	4" & 6"	18.4	6.00	31.98	25.49	8: 1 1/4"	28: 5/8"	446#
		8", 10" & 12"	23.0	6.00	31.98	30.10	10: 1 1/4"	28: 5/8"	558#
		4" & 6"	18.4	6.00	32.50	25.49	8: 1 1/4"	28: 5/8"	452#
	Cast Iron 26.32	8", 10" & 12"	23.0	6.00	32.50	30.10	10: 1 1/4"	28: 5/8"	565#
		4" & 6"	18.4	6.00	33.33	25.49	8: 1 1/4"	28: 5/8"	460#
		8", 10" & 12"	23.0	6.00	33.33	30.10	10: 1 1/4"	28: 5/8"	576#

All prices POA.

Sizes not listed are available on request.



No Cancel, No Return Item



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## “FTS435” Steel Fabricated Tapping Sleeve

### Material Specifications

**Body & Outlet:** ASTM A 36 Steel Plate. Thickness and length along pipe determined by application pressure and size.

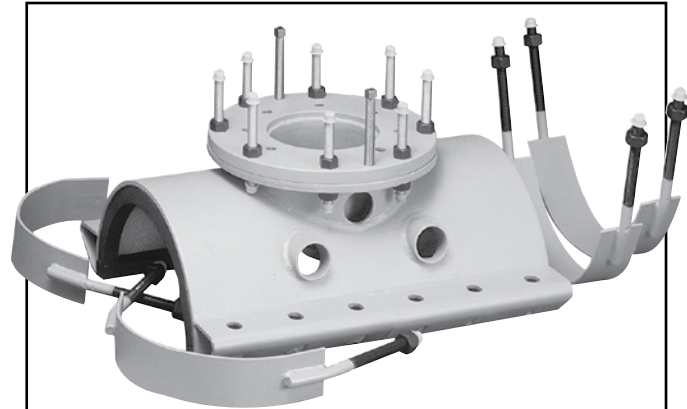
**Flange:** Steel Ring Flange, compatible with ANSI Class 125 and 150 bolt circles, are standard. Counterbored to fit tapping valve lip per MSS SP-60 where applicable. Other flange styles are available. Information about make of valve and size of cutter necessary for flanges 14" and larger.

**Strap Assemblies:** High strength low alloy steel studs and nuts, meeting AWWA Standard C111. Straps are ASTM A 36 steel. Type 304 and 316 Stainless Steel stud, nut and strap material optional.

**Neck Gasket:** Gaskets are made from Styrene Butadiene Rubber (SBR) Compounded for water and sewer service in accordance with ASTM D 2000 3 BA715. Other compounds available for petroleum, chemical, or high temperature service.

**Grout Seal:** One inch square High density Nitrile foam. 1/2" hard rubber stops provided to maintain minimum space between body of tapping sleeve and O.D. of pipe.

**Coatings:** Shop coat applied to parts for corrosion protection in transit. Fusion bonded epoxy in accordance with AWWA C213 is optional.



***The FTS435 fabricated tapping sleeve is designed for concrete steel cylinder pipe.***

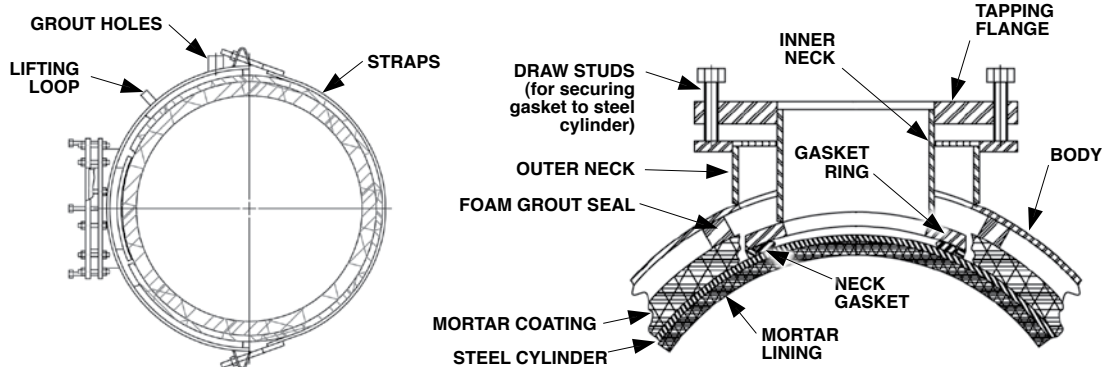
***This type of pipe, typically manufactured to AWWA C300 or C301 standards, is a steel pipe lined with concrete and then wrapped with reinforcing bars and coated with concrete.***

## INSTALLATION

The body of the sleeve is bolted onto the pipe (no welding is required) and the concrete inside the outlet is then chipped away along with removing the bars exposing the steel cylinder. The inner neck is then installed which seals on the steel cylinder OD. At this point you can safely make a tap into the concrete cylinder pipe and be assured of a watertight seal.

The FTS435 is available for all sizes of Concrete Cylinder pipe.

When ordering or requesting a quotation, please provide the Concrete pipe OD, Steel Cylinder OD, Outlet Flange size, Pipeline Pressure, Coating, and fastener requirements.



No Cancel, No Return Item.



# “FTS445” Steel Fabricated Tapping Sleeve

**Material Specifications**

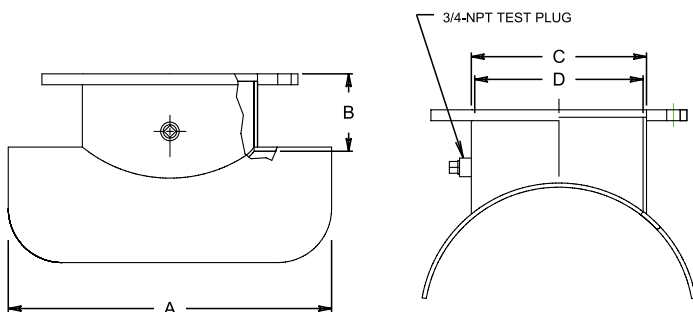
**Body and Outlet Nozzle:** Carbon steel, A-36 or equal. Also available with type 304 stainless steel (style STS445)

**Flange:** Carbon steel, A-36 or equal. AWWA Class "D" plate flange, ANSI CLS 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60.

**Test Plug:** 3/4" NPT type 304 stainless steel test plug.

**Coatings:** Romac shopcoat for corrosion protection in transit. Optional fusion epoxy 8-12 mil. lined and coated. Edges and ID masked where weld is required. Romac packages sleeves to protect coating.

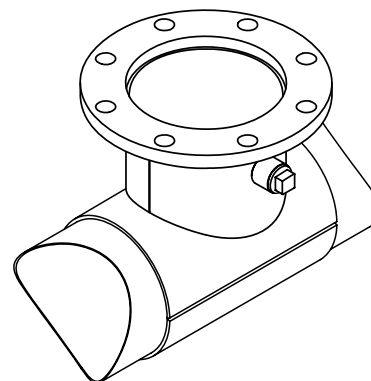
## Fabricated Tapping Sleeve for Weld-on Outlets



FLANGE SIZE	DIMENSIONS				MIN. PIPE DIAMETER
	A	B	C	D	
4"	9.0	5.18	5.03	4.73	6.00
6"	12.0	5.18	7.03	6.73	8.00
8"	16.0	5.18	9.03	8.73	10.00
10"	20.0	5.50	11.03	10.73	12.00
12"	22.0	5.75	13.03	12.73	14.00
14" *	24.0	6.00	15.03	14.73	16.00
16" *	29.0	6.00	17.03	16.73	20.00
18" *	32.0	6.00	19.03	18.73	22.00
20" *	35.0	6.00	21.03	20.73	24.00
24" *	42.0	6.63	25.03	24.73	36.00

Sleeves designed for a minimum pipe wall thickness of 0.25" and a minimum pipe material yield strength of 36 ksi will be collar style.

Size on size sleeves, and sleeves for thinner or lower strength pipe will require full wrap style sleeve (see illustration below).



\* Please specify tapping valve manufacturer, and flange dimensions for flange sizes larger than 12 inches.

Larger sizes and outlets available.

All prices POA



No Cancel, No Return Item.







# Sewer Products



Style CB Sewer Saddle  
Patent #4494780

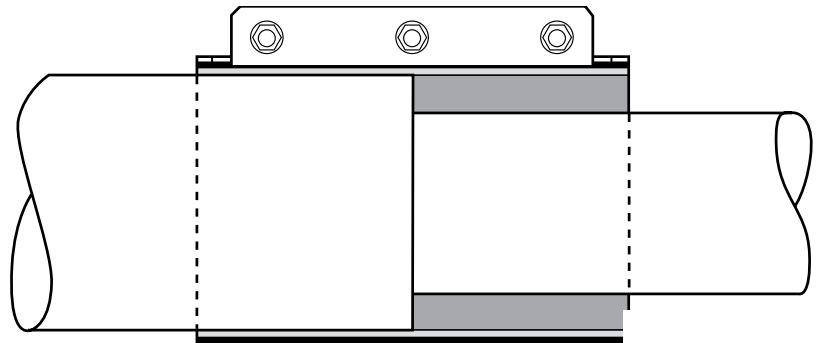


**501**  
Ductile Iron Coupling for Sewer  
Page 6-6

**CB**  
Sewer Saddle - Page 6-3



**LSS1**  
Sewer Clamp Couplings  
Page 6-7



**TRANSITION CLAMP COUPLING for SEWER**  
Page 6-8



**A/C x PVC**  
Sewer Adapter Gasket  
Page 6-9



**LCT™**  
Manhole Adapter Gasket  
Page 6-10

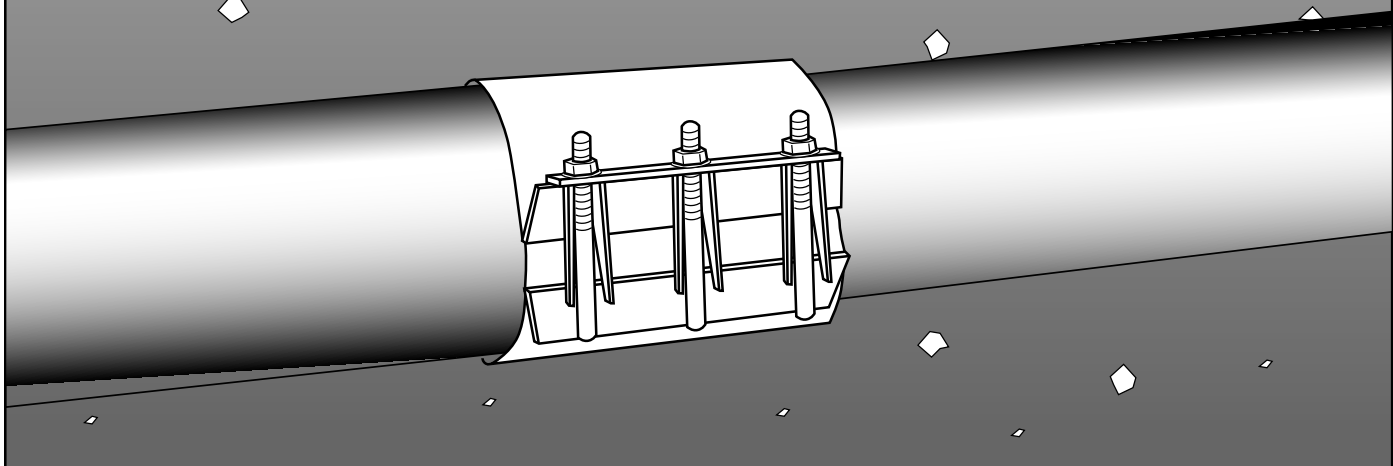


**MJ x SDR 35**  
Transition Gasket (PVC Sewer)  
Page 6-10

# Sewer Pipe O.D. Chart

NOMINAL PIPE SIZE	ASBESTOS CEMENT SEWER						PVC			CI SOIL NO HUB	CLAY	CONCRETE (Average)
	CL1500	CL2400	CL3300	CL4000	CL5000	A/CME	SDR 35	SDR 41	PIP			
4"	4.81	4.87	5.05			4.62	4.215	4.50	4.130	4.30	4.85 - 5.38	6.00
5"	5.90	5.97	6.15			5.78		5.563		5.30	6.31 - 6.65	
6"	6.92	6.98	7.14			6.66	6.275	6.625	6.140	6.30	7.19 - 7.93	8.00
8"	9.02	9.04	9.22			8.96	8.40	8.625	8.160	8.40	9.25 - 10.09	10.25
10"	11.12	11.16	11.36	11.50	11.70	11.05	10.50	10.75	10.20	10.50	11.50 - 12.88	12.75
12"	13.22	13.26	13.50	13.64	13.86	13.15	12.50	12.75	12.24	12.50	13.75 - 15.30	15.50
14"	15.30	15.36	15.46	15.78	16.00	15.23						
15"	16.34	16.42	16.66	16.84	17.06	16.11	15.30		15.30	15.62	17.19 - 18.70	18.75
16"	17.38	17.46	17.72	17.90	18.14	17.31						
18"		19.54	19.82	20.02	20.36	19.39	18.70		18.70		20.65 - 22.40	22.00
20"		21.66	21.88	22.10	22.32	21.45						
21"		22.47	23.03	23.29	23.66	22.37	22.05		22.05		24.13 - 26.43	25.50
22"												
24"		25.78	26.10	26.32	26.60	25.67	24.80		24.80		27.50 - 29.84	29.00
27"							27.95		27.96		31.00 - 32.13	32.25
28"												
30"			32.34	32.60	32.90	32.13					34.38 - 35.63	35.50

Note: Due to variations in outside diameters and specifications, dimensions listed above are approximate. For this reason, the O.D. of pipe being used should be determined before ordering Romac products.



**A ROMAC ORIGINAL**  
**- 1981 -**



Patent #4494780

### Design Advantages:

- **Inventory Reduction:** Unique gaskets fit wide range of diameters.
- **Ease of Installation:** Saddle can be installed by unskilled labor, using a socket or open end wrench. Built-in stop prevents blockages due to inadvertant insertion of branch into main.
- **Superior Strap:** Strong 304 stainless steel band GMAW & GTAW welded to roll threaded 304 stainless bolts adjusts over a wide range. Clamping force is well distributed by 3 1/2" width.
- **Flexibility:** Gasket allows considerable deflection due to earth movement, while large sealing surface and wide band strongly resist displacement.
- **Reliability:** Continuous rubber connection between rim and branch eliminates potential leak spots. Saddles have been tested to pressures well in excess of typical service test requirements.

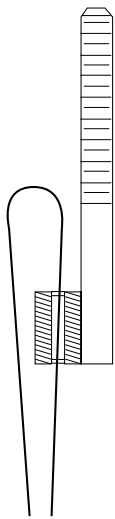
Note: A pipe stop capable of withstanding 1000 pounds of thrust is molded into the CB saddle gasket. Care must be taken during system design and installation to assure that this thrust limit is not exceeded.



# Detail Specifications for Romac "CB"™ Sewer Saddles

## Adjustable Strap

Bolts are 1/2" UNC rolled thread, lubricant coated bolt or nut, stainless steel per ASTM A 193, type 304. Nuts are stainless steel per ASTM A 194, type 304. Washers are stainless steel per ASTM A 240, type 304. Band is 3 1/2" wide for spreading out clamp force on pipe. The stainless welds are fully passivated<sup>1</sup>. Excess strap goes between pipe and band.



## Gasket

SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Gaskets are especially formulated with antioxidant/antiozonant agent to increase shelf life.

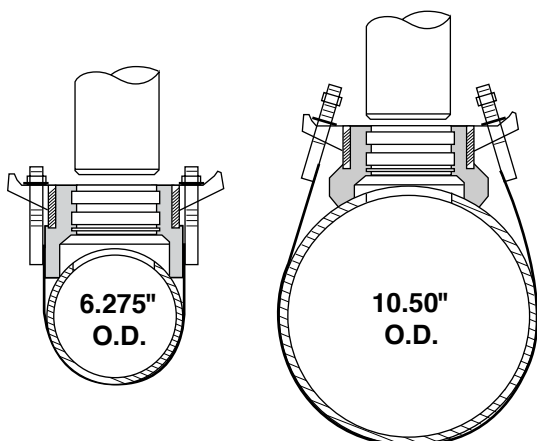


## Saddle Casting

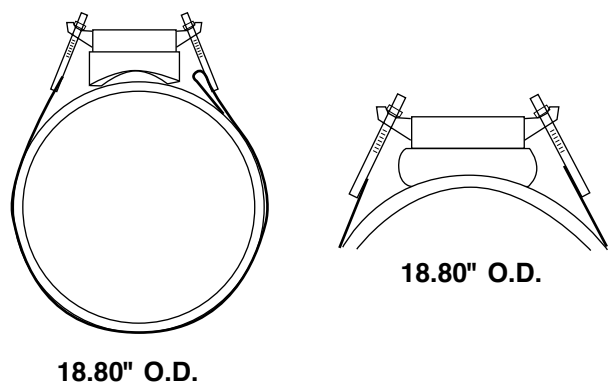
Ductile iron per ASTM 536, Grade 65-45-12. Protected with a yellow corrosion-resistant paint.

<sup>1</sup> **Passivated:** chemically treated after welding to produce a highly corrosion resistant coating.

Same saddle conforming to different outside diameters.



Saddle conforming to pipe.





# Style "CB"™ Sewer Saddle

**Material Specifications**

**Castings:** Ductile iron per ASTM 536, Grade 65-45-12. Protected with a yellow shopcoat.

**Adjustable Strap:** 3 1/2" wide, stainless steel per ASTM A 240, type 304.

**Bolts:** 1/2" UNC rolled thread, lubricant coated, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

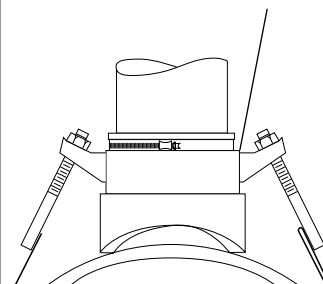
**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.



**CB-4.63UN**  
Patent #4494780

NOM. BRANCH SIZE	NOM. PIPE SIZE	RANGE	BRANCH TYPE	BRANCH O.D.	CATALOG NUMBER	LIST PRICE	ADD-ON EPOXY	APPROX. WEIGHT (lbs.)
4"	6"-12" 48" Strap	2 6.27-14.40 Regular Gasket	PVC Sewer	4.215	CB-4.215	\$113.96		10 #
			Tyseal	4.28	CB-4.28			
			C.I. Soil-No Hub	4.38	CB-4.38			
			PVC	4.50	CB-4.50			
			Universal <sup>1</sup>	4.20-4.80	CB-4.80UN <sup>1</sup>			
			Clay <sup>1</sup>	5.00-5.38	CB-5.38 <sup>1</sup>			
	14"-24" 96" Strap	14.40-25.80 Large O.D. Gasket	PVC Sewer	4.215	CB-4.215LS	144.91	\$34.66	11 #
			Tyseal	4.28	CB-4.28LS			
			C.I. Soil-No Hub	4.38	CB-4.38LS			
			PVC	4.50	CB-4.50LS			
			Universal <sup>1</sup>	4.20-4.80	CB-4.80UNLS <sup>1</sup>			
			Clay <sup>1</sup>	5.00-5.38	CB-5.38LS <sup>1</sup>			
	24"-48" 192" Strap	25.80-54.00 Large O.D. Gasket	PVC Sewer	4.215	CB-4.215XLS	268.96		13 #
			Tyseal	4.28	CB-4.28XLS			
			C.I. Soil-No Hub	4.38	CB-4.38XLS			
PVC			4.50	CB-4.50XLS				
Universal <sup>1</sup>			4.20-4.80	CB-4.80UNXLS <sup>1</sup>				
Clay <sup>1</sup>			5.00-5.38	CB-5.38XLS <sup>1</sup>				
6"	8"-12" 48" Strap	2 8.00-14.40 Regular Gasket	PVC Sewer	6.27-6.30	CB-6.30	151.91		12 #
			C.I. Soil-No Hub					
			A/C M.E. Sewer	6.66	CB-6.66			
			Universal <sup>1</sup>	6.27-6.66	CB-6.66UN <sup>1</sup>			
			Cast Iron-D.I.	6.90	CB-6.90			
			Clay <sup>1</sup>	7.19-7.56	CB-7.56 <sup>1</sup>			
	14"-24" 96" Strap	14.40-25.80 Large O.D. Gasket	PVC Sewer	6.27-6.30	CB-6.30LS	181.40	52.43	13 #
			C.I. Soil-No Hub					
			A/C M.E. Sewer	6.66	CB-6.66LS			
			Universal <sup>1</sup>	6.27-6.66	CB-6.66UNLS <sup>1</sup>			
			Cast Iron-D.I.	6.90	CB-6.90LS			
			Clay <sup>1</sup>	7.19-7.56	CB-7.56LS <sup>1</sup>			
	24"-48" 192" Strap	25.80-54.00 Large O.D. Gasket	PVC Sewer	6.27-6.30	CB-6.30XLS	305.45		15 #
			C.I. Soil-No Hub					
			A/C M.E. Sewer	6.66	CB-6.66XLS			
Universal <sup>1</sup>			6.27-6.66	CB-6.66UNXLS <sup>1</sup>				
Cast Iron-D.I.			6.90	CB-6.90XLS				
Clay <sup>1</sup>			7.19-7.56	CB-7.56XLS <sup>1</sup>				

Stainless Steel  
Hose Clamp



<sup>1</sup> CB Sewer Saddles for Universal and Clay pipe include stainless steel hose clamp.

<sup>2</sup> Regular gaskets are NOT interchangeable with large gaskets.

**PARTS LIST**

BRANCH SIZE	SIZE	GASKET	SADDLE CASTING	SLIDING BOLT	STRAP
4"	6-12"	\$37.15	\$39.96	\$13.58	REG (48") \$36.85
	14-24"	50.67			LS (96") 54.28
	24-48"	50.67			
6"	8-12"	65.42	49.64	13.58	
	14-24"	77.48			XLS (192") 178.33
	24-48"	77.48			

**To Order:** Specify catalog number.

**Example:** To fit 4" branch to 6" -12" nominal pipe with branch 4.20 - 4.80, order **CB-4.80UN**



1-800-426-9341



# Style "501" Straight and Transition Couplings for Sewer

**Material Specifications**

**Center Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Yellow shopcoat. Epoxy and special coatings available on request.

**End Rings:** Ductile iron per ASTM A 536, Grade 65-45-12. Color coded RED for O.D. and Std. Stl., BLACK for cast iron and YELLOW for A/C.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy corrosion resistant steel per AWWA C111. Threads protected with plastic caps on each bolt end. Other materials or special coatings available on request.



PIPE SIZE	ONE END		BY	OTHER END			LIST PRICE				APPROX. WEIGHT (lbs.)	
	NOM. COLOR CODE	GASKET a RANGE 1st Half Cat. No.		APPROX. USE	COLOR CODE	GASKET RANGE 2nd Half Cat. No.	APPROX. USE	SHOPCOAT		FUSION EPOXY		
								w/STD B&N	w/304 SS B&N	w/STD B&N		w/304 SS B&N
4"	RED	4.06 - 4.31	Cl-Soil, PVC Sewer	RED	4.06 - 4.31	Cl-Soil, PVC Sewer	\$116.15	\$153.59	\$143.52	\$180.96	17 #	
	BLACK	4.74 - 5.10	A/C-CL. 1500, 2400, 3300	BLACK	4.74 - 5.10	A/C-CL. 1500, 2400, 3300						
		5.11 - 5.30	Clay		5.11 - 5.30	Clay						
6"	RED	6.05 - 6.30	Cl-Soil, PVC Sewer	RED	6.05 - 6.30	Cl-Soil, PVC Sewer	158.09	204.89	195.35	242.14	25 #	
	BLACK	6.86 - 7.20	A/C-CL. 1500, 2400, 3300	BLACK	6.86 - 7.20	A/C-CL. 1500, 2400, 3300						
		YELLOW	7.15 - 7.45		Clay	YELLOW						7.15 - 7.45
8"	RED	8.30 - 8.55	Cl-Soil, PVC Sewer	RED	8.30 - 8.55	Cl-Soil, PVC Sewer	200.28	256.44	247.48	303.64	32 #	
	BLACK	8.99 - 9.40	A/C-CL. 1500, 2400, 3300	BLACK	8.99 - 9.40	A/C-CL. 1500, 2400, 3300						
		YELLOW	9.25 - 9.75		Clay	YELLOW						9.25 - 9.75
10"	RED	10.20 - 10.55A <sup>1</sup>	Cl-Soil, PVC Sewer	RED	10.20 - 10.55A <sup>1</sup>	Cl-Soil, PVC Sewer	276.34	352.34	341.45	417.46	62 #	
	BLACK	10.89 - 11.40B <sup>1</sup>	A/C-CL. 1500, 2400, 3300	BLACK	10.89 - 11.40B <sup>1</sup>	A/C-CL. 1500, 2400, 3300						
		YELLOW	11.55 - 11.75B <sup>1</sup> 11.76 - 12.12B <sup>1</sup>		Clay Clay	YELLOW						11.55 - 11.75B <sup>1</sup> 11.76 - 12.12B <sup>1</sup>
12"	RED	11.95 - 12.25A <sup>1</sup> 12.24 - 12.50A <sup>1</sup> 12.65 - 12.95A <sup>1</sup>	PVC SDR 41 PVC SDR 35 IPS	RED	11.95 - 12.25A <sup>1</sup> 12.24 - 12.50A <sup>1</sup> 12.65 - 12.95A <sup>1</sup>	PVC SDR 41 PVC SD R 35 IPS	332.35	419.22	410.66	497.53	71 #	
	BLACK	13.15 - 13.55B <sup>1</sup>	A/C-Cl. 1500, 2400, 3300	BLACK	13.15 - 13.55B <sup>1</sup>	A/C-Cl. 1500, 2400, 3300						
		YELLOW	13.85 - 14.10B <sup>1</sup> 14.03 - 14.40B <sup>1</sup>		Clay Clay	YELLOW						13.85 - 14.10B <sup>1</sup> 14.03 - 14.40B <sup>1</sup>

For sizes 14" - 24" see page 2-3

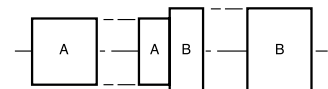
Other gasket ranges and larger sizes are available.

**To Order:** Determine O.D. of pipes to be coupled. Select proper gasket range for each pipe from above table. Insert top range of each gasket, as indicated in gray column, into catalog number as follows: 501 (one end x other end).

**Example:** To couple 4" PVC and 4" Clay, order **501-5.30 x 4.31**

<sup>1</sup> To accommodate the wide range of pipe sizes within the 10" and 12" categories, it is necessary that the center rings be made in three sizes: A, AB, and B.

**See Page 2-3 for Parts List**



**!** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.





# Style LSS1 Lightweight Repair Clamp

**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304.

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Stainless steel per ASTM A 240, type 304 and plastic lubricating washers.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

**LSS1-5.14 x 8" Repair Clamp**



Number of Bolts per Clamp Length							
OD Range	4"	6"	8"	10"	12"	16"	20"
All Sizes	1	2	2	3	3	4	5

NOMINAL PIPE SIZE	O.D. SIZE RANGE	CATALOG NUMBER	LENGTH							
			4"	6"	8"	10"	12"	16"	20"	
<b>2"</b>	2.13	LSS1-2.13 x length								
<b>2" to 2 1/4"</b>	2.38 - 2.63 2.62 - 2.87	LSS1-2.63 x length <sup>1</sup> LSS1-2.87 x length <sup>1</sup>	\$42.54 3 #	\$75.42 3 #	\$103.31 4 #	\$143.70 4 #	\$171.82 4 #	\$185.03 8#	NA	
<b>2 1/2"</b>	2.87 - 3.12	LSS1-3.12 x length <sup>1</sup>	47.87 3 #	78.74 3 #	107.37 4 #	149.61 4 #	175.79 5 #	190.48 8#	NA	
<b>3"</b>	3.45 - 3.70 3.75 - 4.00	LSS1-3.70 x length <sup>1</sup> LSS1-4.00 x length <sup>1</sup>	53.39 3 #	91.22 4 #	112.68 4 #	155.73 4 #	182.49 5 #	206.04 9#	\$264.31 13#	
<b>3 1/2"</b>	3.95 - 4.20	LSS1-4.20 x length <sup>1</sup>	54.43 3 #	95.77 4 #	121.34 4 #	164.81 5 #	192.13 6 #	214.69 10#	279.34 14#	
<b>4"</b>	4.00 - 4.40 4.45 - 4.85 4.74 - 5.14 4.95 - 5.35 5.20 - 5.60	LSS1-4.40 x length LSS1-4.85 x length LSS1-5.14 x length LSS1-5.35 x length LSS1-5.60 x length	—	101.85 4 #	127.10 4 #	173.20 6 #	201.86 7 #	224.48 11#	340.45 14#	
<b>6"</b>	5.95 - 6.35 6.25 - 6.65 6.60 - 7.00 6.84 - 7.24 7.05 - 7.46 7.40 - 7.80	LSS1-6.35 x length LSS1-6.65 x length LSS1-7.00 x length LSS1-7.24 x length LSS1-7.46 x length LSS1-7.80 x length	—	126.80 5.5#	152.12 6 #	215.85 8 #	242.87 8 #	267.83 12#	404.03 15#	
<b>8"</b>	8.00 - 8.40 8.30 - 8.70 8.60 - 9.00 9.00 - 9.40 9.30 - 9.70	LSS1-8.40 x length LSS1-8.70 x length LSS1-9.00 x length LSS1-9.40 x length LSS1-9.70 x length	—	148.91 6#	178.19 7 #	236.08 9 #	286.00 10 #	326.82 13#	462.99 17#	
<b>10"</b>	10.15 - 10.55 10.40 - 10.80 11.00 - 11.40 11.55 - 11.95 11.95 - 12.23	LSS1-10.55 x length LSS1-10.80 x length LSS1-11.40 x length LSS1-11.95 x length LSS1-12.23 x length	—	184.70 8#	225.42 7 #	296.51 9 #	353.65 10 #	406.38 20#	542.61 24#	
<b>12"</b>	12.15 - 12.55 12.40 - 12.80 13.15 - 13.55 13.80 - 14.20 14.20 - 14.60	LSS1-12.55 x length LSS1-12.80 x length LSS1-13.55 x length LSS1-14.20 x length LSS1-14.60 x length	—	216.49 9#	255.92 12 #	339.41 14 #	409.88 16 #	463.48 22#	643.65 26#	

<sup>1</sup> .25" Range

**To Order:** Specify catalog number x length of clamp.

**Example:** For a one-section clamp for pipe with an O.D. between 4.74 and 5.14 and clamp length of 8", order **LSS1 - 5.14 x 8"**



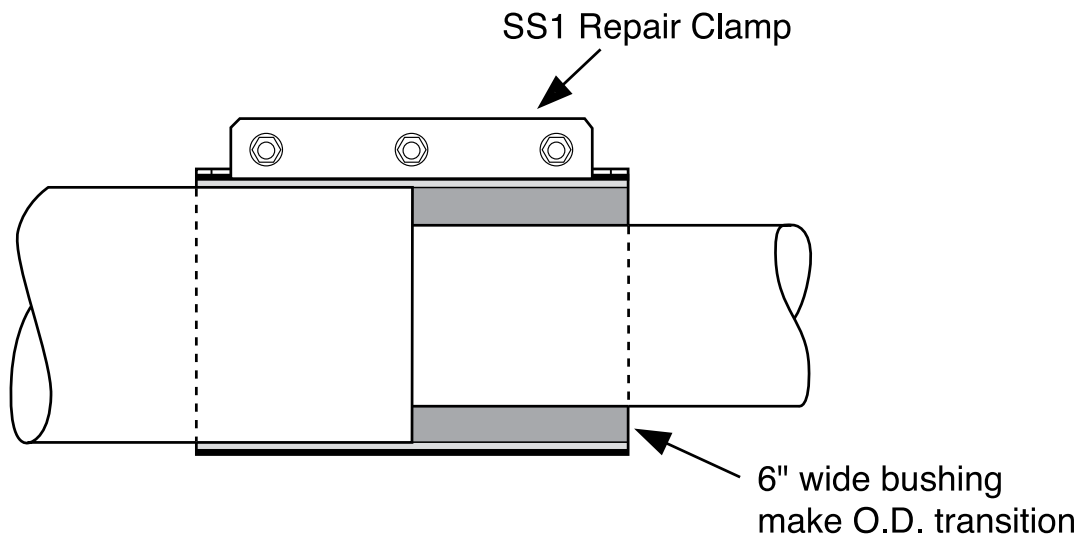
# Style "LSS2 & LSS3" Sewer Clamp Coupling

## (Double & Triple Sections) SIZES 14" AND LARGER

NOMINAL PIPE SIZE	O.D. SIZE RANGE	APPROXIMATE USE	CATALOG NUMBER	LIST PRICE WEIGHT
15" to 16"	14.90 - 15.70	PVC, Clay & A/C (CL1500, CL2400, CL3300)	LSS2 - 15.70 x 12	\$864.24 22.2 #
	17.10 - 17.90		LSS2 - 17.90 x 12	
18"	18.30 - 19.10	PVC, C.I. & Clay	LSS2 - 19.10 x 12	946.82 26.7 #
	19.10 - 19.90		LSS2 - 19.90 x 12	
	20.65 - 21.45		LSS2 - 21.45 x 12	
21"	21.45 - 22.25	PVC, C.I. & Clay	LSS2 - 22.25 x 12	1,047.54 28.5 #
	24.20 - 25.00		LSS2 - 25.00 x 12	
24"	24.70 - 25.90	PVC, Concrete, C.I. & Clay	LSS3 - 25.90 x 12	1,524.43 30.4 #
	25.50 - 26.70		LSS3 - 26.70 x 12	
	27.35 - 28.55		LSS3 - 28.55 x 12	

**To Order:** Specify catalog number. Sizes and lengths not listed are available on request.

## Transition Clamp Coupling for Sewer



**To Order:** Contact Romac Engineering with the type of pipe and outside diameters of each end to be joined. Prices on application.

Transition clamp couplings are 12" wide.

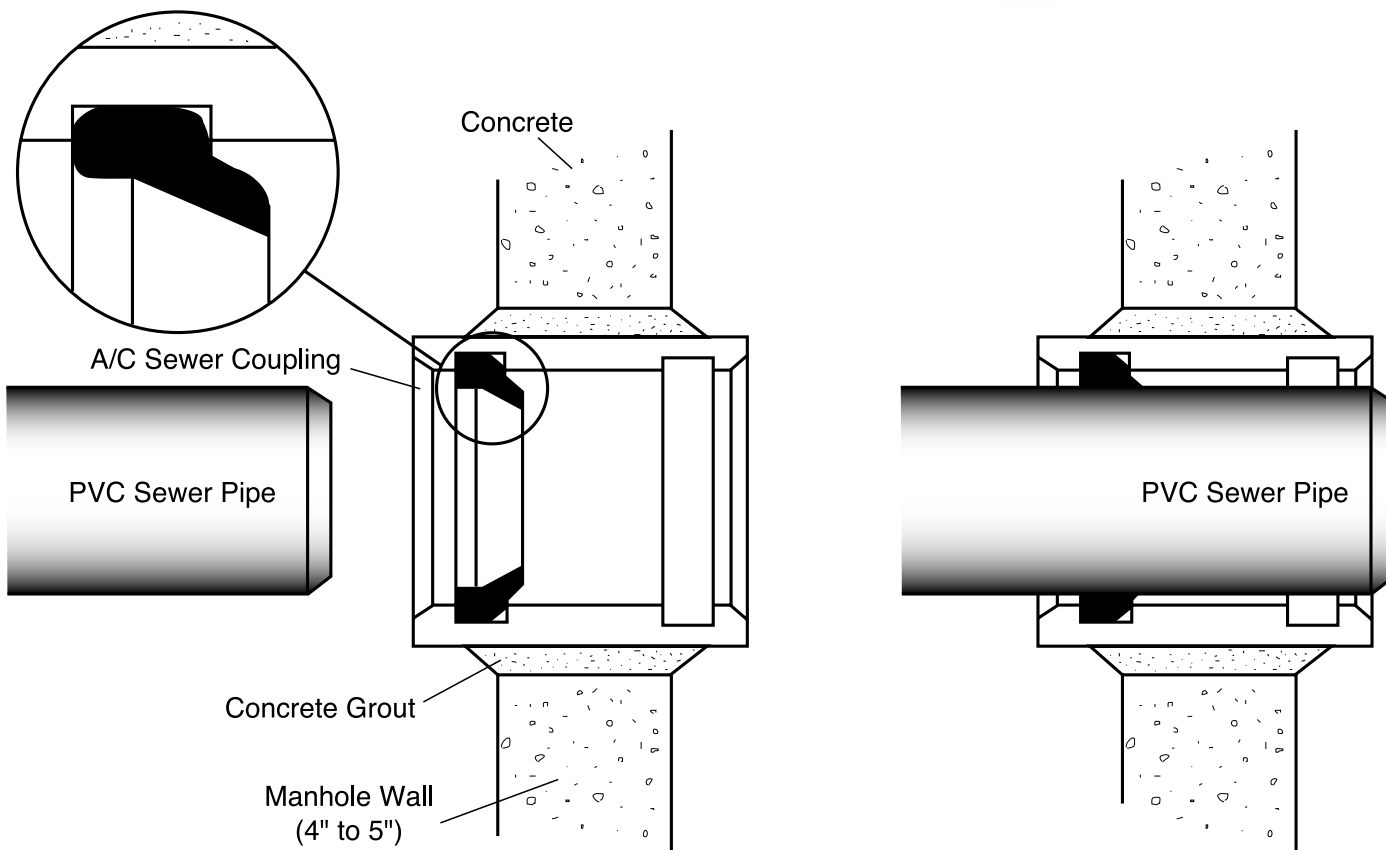


# A/C x PVC Sewer Adapter Gasket

**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to be used in an A/C sewer coupling to adapt PVC sewer pipe to the coupling. The coupling is grouted in a sewer manhole wall.



NOMINAL PIPE SIZE	CATALOG NUMBER	APPROXIMATE WEIGHT (lbs.)	LIST PRICE
4"	4" AC X PVC Sewer Gasket	.20#	\$12.44
6"	6" AC X PVC Sewer Gasket	.25#	14.22
8"	8" AC X PVC Sewer Gasket	.45#	20.92

**To Order:** Specify catalog number.



**ROMAC INDUSTRIES, INC.**

1-800-426-9341

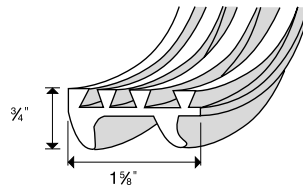


# Romac Style "LCT"<sup>TM</sup> Manhole Adapter Gasket

**Material Specifications**

**Gasket:** Virgin SBR per ASTM D 2000 M2AA 60, compounded for water and sewer service.

**Use:** The gasket is designed to be used on PVC sewer pipe when grouting into a concrete manhole wall.



"LCT" Gasket cross section



Manhole Adapter Gasket

NOMINAL PIPE SIZE	CATALOG NUMBER	SIZED FOR SDR 35 PIPE O.D.s	APPROXIMATE WEIGHT (lbs.)	LIST PRICE
4"	4" LCT- Adapter Gasket	4.215	0.30 #	\$22.09
6"	6" LCT- Adapter Gasket	6.275	0.45 #	23.99
8"	8" LCT- Adapter Gasket	8.4	0.55 #	26.99
10"	10" LCT- Adapter Gasket	10.5	0.70 #	29.24
12"	12" LCT- Adapter Gasket	12.5	0.85 #	31.49
15"	15" LCT- Adapter Gasket	15.3	1.00 #	33.99
18"	18" LCT- Adapter Gasket	18.7	1.25 #	39.42
21"	21" LCT- Adapter Gasket	22.05	1.50 #	47.06
24"	24" LCT- Adapter Gasket	24.8	1.65 #	52.61
27"	27" LCT- Adapter Gasket	27.96	1.85 #	55.60

**To Order:** Specify catalog number. Other sizes available, please specify pipe O.D. Price on application.

**Example:** For 6.28 O.D., order **6" LCT**

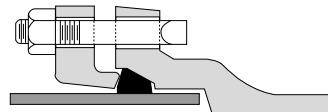
# MJ x SDR35 Transition Gasket (PVC Sewer)

**Material Specifications**

**Gasket:** Virgin SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to be used in cast iron mechanical joint fittings for adapting to PVC sewer pipe.

**Pressure Rating:** Up to 10 psi. For higher pressure ratings, contact Romac Engineering.



MJ x SDR35 Transition Gasket

NOMINAL PIPE SIZE	CATALOG NUMBER	APPROXIMATE WEIGHT (lbs.)	LIST PRICE
4"	4" MJ x SDR35 Transition Gasket	0.60 #	\$18.39
6"	6" MJ x SDR35 Transition Gasket	0.90 #	20.34
8"	8" MJ x SDR35 Transition Gasket	1.15 #	23.60
10"	10" MJ x SDR35 Transition Gasket	1.60 #	39.32
12"	12" MJ x SDR35 Transition Gasket	1.90 #	49.76
18"	18" MJ x SDR35 Transition Gasket	3.16 #	125.39
24"	24" MJ x SDR35 Transition Gasket	5.00 #	148.10

**To Order:** Specify catalog number.



# Restraint Systems



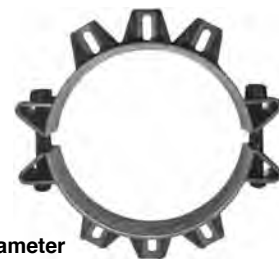
**GripRing™**  
Pipe Restraint

Page 7-2



**600 Series**  
Pipe Restraint

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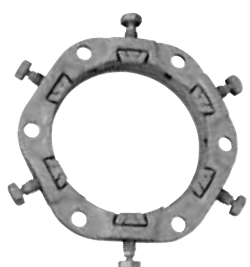
**470**  
Large Diameter  
PVC Pipe Restraint

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**RomaGrip™**  
Pipe Restraint

Page 7-6



**PVC-RomaGrip™**  
Pipe Restraint

Page 7-7



**400RG**  
Restrained  
Coupling

Page 7-9



**RFCA**  
Restrained Flange  
Coupling Adapter

Page 7-10



**RFCA for PVC**  
Restrained Flange  
Coupling Adapter

Page 7-11



**FJ Restraint**  
Flexible Expansion Joint

Page 7-14



**DJ400**  
Dismantling  
Joint

Page 7-12



**DJ405**  
Dismantling  
Joint

Page 7-13



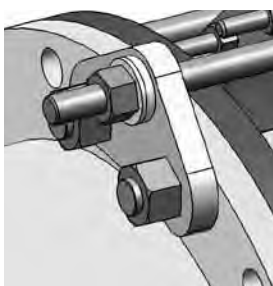
**Field Flange**  
Pipe Restraint

Page 7-17



**Duc Lug & 90° Eye-Bolt**  
Pipe Restraints

Page 7-18



**Harness Lugs**  
Pipe Restraint

Page 7-19



**A.W.W.A M11**  
Harness Restraint

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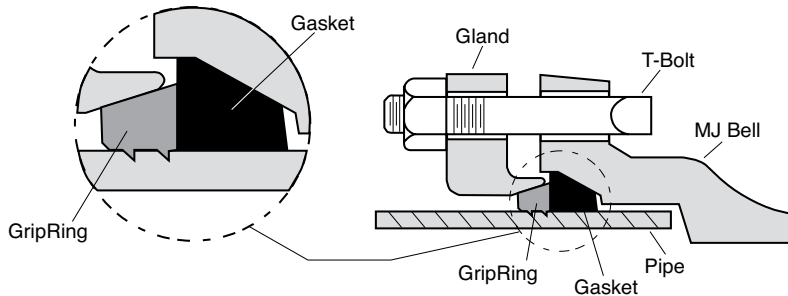
# GripRing™ Pipe Restrainer

<sup>1</sup> for use on Ductile Iron, C-900, and IPS size PVC

**The GripRing's articulating wedge action provides the restraint required for virtually any pressure.**

## A ROMAC ORIGINAL

**GripRing™**  
US Patent #: 5335946



- **Full circumferential pipe restraint.**  
This spreads the restraining forces more evenly than restrainers using radial bolts or pads.
- **Easy to install.**  
The GripRing™ uses standard a mechanical joint gasket and T-bolts. There are no radial bolts or pads for the installer to forget to tighten. When the T-bolts on the gland are tightened, the GripRing restraint system is engaged.
- **Rated to full working pressure of pipe.**  
GripRing pipe restrainers may be used at the full rated capacity of the pipe, including an allowance for pressure surges.
- **Built-in stop to prevent damage to pipe.**  
The "gap" in each GripRing is designed to completely close before a pipe can be excessively stressed.
- **The GripRing flexes to accommodate deflection allowed in a Mechanical Joint.**  
Restrains under the misalignment conditions often found in the field.
- **The gland is painted yellow to avoid confusion.**  
Since the gland used with the GripRing restraint system is similar in looks to a standard MJ gland, it is painted yellow. The inspector can easily see that a restrainer has in fact, been used.



## GRIPRING™ PIPE MATERIAL COMPATIBILITY CHART

Pipe Material	Ring Color	Working Pressure	Comments
<sup>2</sup> Ductile Iron - AWWA C151	Black	350	
Cast Iron - Obsolete Std.	Black	350	OD is same as DI, C151.
<sup>2</sup> PVC - D.I. Size, AWWA C900	Black	Rating of pipe	Class 235 & 305.
PVC - "Class Pipe", ASTM D 2241	Red	Rating of pipe	4"-8" Class 160-200. 10" & 12" Class 200 only.
PVC - ASTM D 1785	Red	Rating of pipe	4"-8" Class Sched. 40-80. 10" & 12" Sched. 80 only.
PVC Molecularly Oriented (C909)	-	-	GripRing is not for use on C909 pipe.

For pipe and classes not listed in the compatibility chart above, contact Romac Industries.

<sup>1</sup>Consult GripRing Pipe Material Compatibility Chart.

<sup>2</sup>UL Listed & FM Approved





1-800-426-9341



# GripRing™ Accessory Pack

**Material Specifications**

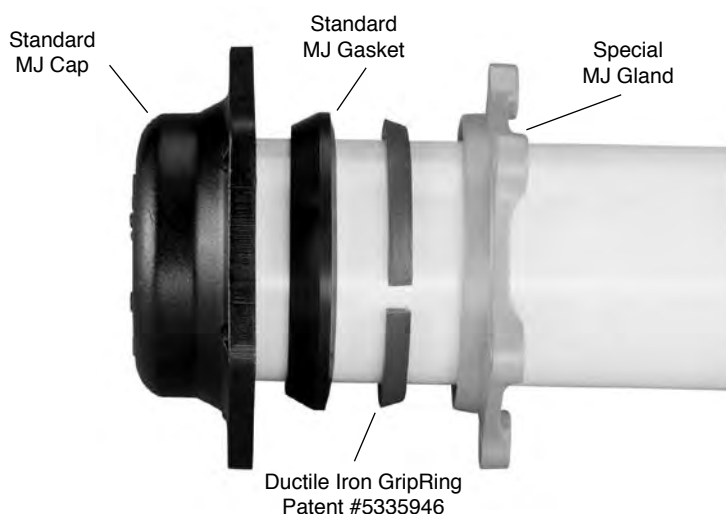
**GripRing:** Hardened ductile iron. GripRing is painted red for IPS, and black for D.I. and C-900.

**Gland:** Ductile iron per ASTM A 536, Grade 65-45-12. Gland is painted yellow.

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**T-bolts and Nuts:** 3/4" UNC T-bolts, heavy hex nuts, high strength, low alloy steel per AWWA C111.

**Not for use on polyethylene pipe, steel pipe, plain end mechanical joint fittings, Molecularly Oriented Polyvinylchloride (PVC) AWWA C909-02. See pipe material compatibility chart for details.**



DUCTILE IRON and C-900								
ACCESSORY PACK (Gland, GripRing, Gasket, Bolts and Nuts)					GLAND and GRIPRING ONLY			
NOM. PIPE SIZE	CATALOG NUMBER	BOLTS QUANTITY: SIZE	WEIGHT (lbs.)	LIST PRICE	NOM. PIPE SIZE	CATALOG NUMBER	WEIGHT (lbs.)	LIST PRICE
4"	4" GRAP-DI	4: 3/4" x 3 1/2"	8#	\$59.33	4"	4" GR-DI	4#	\$39.80
6"	6" GRAP-DI	6: 3/4" x 4"	11#	68.97	6"	6" GR-DI	6#	45.58
8"	8" GRAP-DI	6: 3/4" x 4"	14#	98.33	8"	8" GR-DI	8#	69.78
10"	10" GRAP-DI	8: 3/4" x 4"	18#	140.87	10"	10" GR-DI	11#	104.95
12"	12" GRAP-DI	8: 3/4" x 4"	20#	192.45	12"	12" GR-DI	13#	152.23

PVC-IRON PIPE SIZE (IPS)								
ACCESSORY PACK (Gland, Ring, Gasket, Bolts and Nuts)					GLAND and RING ONLY			
NOM. PIPE SIZE	CATALOG NUMBER	BOLTS QUANTITY: SIZE	WEIGHT (lbs.)	LIST PRICE	NOM. PIPE SIZE	CATALOG NUMBER	WEIGHT (lbs.)	LIST PRICE
4"	4" GRAP-IP	4: 3/4" x 3 1/2"	8#	\$67.83	4"	4" GR-IP	4#	\$48.45
6"	6" GRAP-IP	6: 3/4" x 4"	11#	82.33	6"	6" GR-IP	6#	58.90
8"	8" GRAP-IP	6: 3/4" x 4"	14#	115.50	8"	8" GR-IP	9#	86.95
10"	10" GRAP-IP	8: 3/4" x 4"	18#	200.52	10"	10" GR-IP	12#	164.55
12"	12" GRAP-IP	8: 3/4" x 4"	20#	212.71	12"	12" GR-IP	14#	172.87

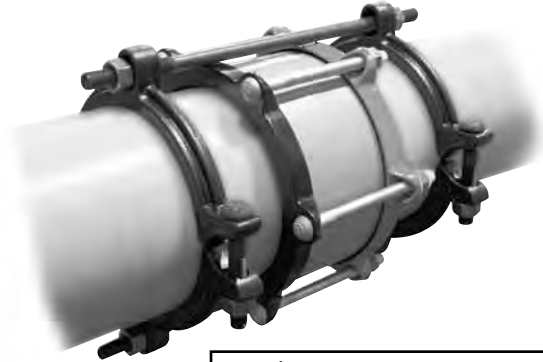
To Order: Specify catalog number.



# “600” Series Pipe Restraining System

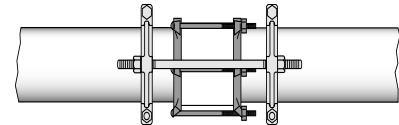
**Material Specifications**

- Castings:** Ductile iron, meeting or exceeding ASTM A 536, Grade 65-45-12.
- Clamping Bolts:** High Strength Low Alloy Steel per AWWA C111
- Clamping Nuts:** ANSI B 18.2.2.
- Restraining Rods, T-Bolts and Nuts:** High strength, low alloy steel per AWWA C111.
- Coating:** Color coded shop coat. Black on ductile iron sizes, Red on IPS (steel) size PVC.
- Not for use on polyethelene pipe, plain end mechanical joint fittings or steel pipe.**



## STYLE 611

for Bell & Spigot Joints, Romac Couplings and Transitions



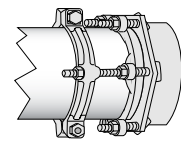
NOM. PIPE SIZE	PIPE	PIPE DIA.	CATALOG NUMBER	CLAMPING BOLTS <sup>1</sup> QTY: SIZE	RESTRAINING RODS QTY: SIZE	APPROX. WEIGHT (lbs.)	LIST PRICE
4"	IPS size PVC DI, C-900	4.50 4.80	611 - 4.50 611 - 4.80	4: 5/8" x 4"	2: 3/4" x 18"	18 1/2 #	\$61.18
6"	IPS size PVC DI, C-900	6.63 6.90	611 - 6.63 611 - 6.90	4: 5/8" x 4"	2: 3/4" x 20"	22 #	81.12
8"	IPS size PVC DI, C-900	8.63 9.05	611 - 8.63 611 - 9.05	4: 3/4" x 5"	2: 3/4" x 20"	40 #	131.45
10"	IPS size PVC DI, C-900	10.75 11.10	611 - 10.75 611 - 11.10	4: 7/8" x 5"	4: 3/4" x 22"	50 #	229.15
12"	IPS size PVC DI, C-900	12.75 13.20	611 - 12.75 611 - 13.20	4: 7/8" x 5"	4: 3/4" x 22"	60 #	250.70

<sup>1</sup> Per pair of castings **To Order:** Specify catalog number.

**Example:** For a 6" DI or C-900 Bell & Spigot Joint, order **Style 611 - 6.90**

## STYLE 612

for Mechanical Joints & Push-On Fittings with Restraint Ears.



NOM. PIPE SIZE	PIPE	PIPE DIA.	CATALOG NUMBER	CLAMPING BOLTS <sup>1</sup> QTY: SIZE	RESTRAINING RODS QTY: SIZE	APPROX. WEIGHT (lbs.)	LIST PRICE
4"	IPS size PVC DI, C-900	4.50 4.80	612 - 4.50 612 - 4.80	2: 5/8" x 4"	2: 3/4" x 7"	10 #	\$43.42
6"	IPS size PVC DI, C-900	6.63 6.90	612 - 6.63 612 - 6.90	2: 5/8" x 4"	2: 3/4" x 7"	11 1/2 #	52.61
8"	IPS size PVC DI, C-900	8.63 9.05	612 - 8.63 612 - 9.05	2: 3/4" x 5"	2: 3/4" x 7"	20 1/2 #	78.24
10"	IPS size PVC DI, C-900	10.75 11.10	612 - 10.75 612 - 11.10	2: 7/8" x 5"	4: 3/4" x 7"	28 #	146.78
12"	IPS size PVC DI, C-900	12.75 13.20	612 - 12.75 612 - 13.20	2: 7/8" x 5"	4: 3/4" x 7"	32 #	155.96

<sup>1</sup> Per pair of castings **To Order:** Specify catalog number.

**Example:** For a 6" DI or C-900 MJ fitting, order **Style 612 - 6.90**



# “470” Series Pipe Restraining System

**Material Specifications**

- Restraint Ring:** Mild steel, meeting or exceeding ASTM A 36, machined teeth.
- Clamping Bolts and Nuts:** High strength, low alloy steel per AWWA C111.
- Restraining Rods:** High strength, low alloy steel per AWWA C111.
- Coating:** Romac shopcoat enamel, fusion bonded epoxy (exterior only) available on request.
- Use:** For PVC pipe only.



**470 Pipe Restrainer**

**Not for use on polyethelene pipe.**

**STYLE 470MJ for MECHANICAL JOINTS**

- Tie-Rod clearance is pipe OD + 5.0"

NOM. PIPE SIZE	PIPE O.D.	CATALOG NUMBER	LIST PRICE	CLAMPING BOLTS & NUTS		RESTRAINING RODS w/NUTS		WEIGHT (lbs.)	OD (inches)
			COMPLETE	QTY: SIZE	PRICE ea.	QTY: SIZE	PRICE ea.		
<b>14"</b>	15.30	470MJ - 15.30	\$632.84	4:1" x 9"	\$22.06	6: 3/4" x 14"	\$8.64	60#	23.4
<b>16"</b>	17.40	470MJ - 17.40	667.50	4:1" x 9"	22.06	6: 3/4" x 14"	8.64	65#	25.5
<b>18"</b>	19.50	470MJ - 19.50	703.63	4:1" x 9"	22.06	8: 3/4" x 14"	8.64	75#	27.6
<b>20"</b>	21.60	470MJ - 21.60	896.41	6:1" x 9"	22.06	8: 3/4" x 16"	8.64	95#	29.7
<b>24"</b>	25.80	470MJ - 25.80	1,025.14	6:1" x 9"	22.06	12: 3/4" x 16"	8.64	120#	33.9
<b>30"</b>	32.00	470MJ - 32.00	POA	8:1 1/8" x 9"	POA	14: 1" x 24"	POA	253#	43.0

**STYLE 470SJ for BELL JOINTS & COUPLINGS**

- Accommodates up to 10" Center Ring length.
- Tie-Rod clearance is pipe OD + 5.0"

NOM. PIPE SIZE	PIPE O.D.	CATALOG NUMBER	LIST PRICE	CLAMPING BOLTS & NUTS		RESTRAINING RODS w/NUTS		WEIGHT (lbs.)	OD (inches)
			COMPLETE	QTY: SIZE	PRICE ea.	QTY: SIZE	PRICE ea.		
<b>14"</b>	15.30	470SJ - 15.30	\$922.63	8:1" x 9"	\$22.06	6: 3/4" x 26"	\$13.25	110#	23.4
<b>16"</b>	17.40	470SJ - 17.40	1,005.35	8:1" x 9"	22.06	6: 3/4" x 26"	13.25	120#	25.5
<b>18"</b>	19.50	470SJ - 19.50	1,068.64	8:1" x 9"	22.06	8: 3/4" x 26"	13.25	135#	27.6
<b>20"</b>	21.60	470SJ - 21.60	1,411.63	12:1" x 9"	22.06	8: 3/4" x 32"	14.61	180#	29.7
<b>24"</b>	25.80	470SJ - 25.80	1,728.74	12:1" x 9"	22.06	12: 3/4" x 32"	14.61	230#	33.9
<b>30"</b>	32.00	470SJ - 32.00	POA	16:1 1/8" x 9"	POA	14: 1" x 42"	POA	477#	43.0

**To Order:** Specify catalog number.

**Example:** For 16" C905 to MJ Romac 470MJ, order Style 470MJ-17.40

**For other PVC pipe sizes, contact Romac Engineering.**



# RomaGrip™ Pipe Restraint

**Material Specifications**

**Gland:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12.

**Gaskets:** 3-24" sizes: A standard MJ gasket is used with this fitting. See ANSI/AWWA C111/A21.11 for gasket specs. For 30-48" sizes, SBR in accordance with ASTM D2000. Other compounds available for petroleum, chemical or high temperature service.

**Restraining Bolt:** Ductile (nodular) iron, meeting or exceeding ASTM A 536-84. (3-24" sizes: 7/8 - 9 roll thread), (30-48" sizes: 1 1/4 - 7 roll thread)

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536-84. Heat treated using a proprietary process.

**Coatings:** Shop coat applied to the casting for corrosion protection in transit.

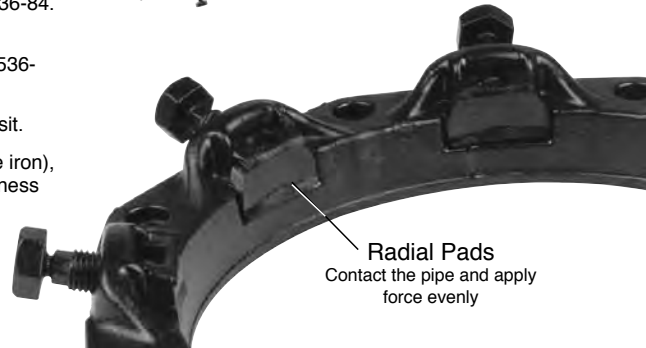
**Use:** Ductile iron pipe 3" - 48", cast iron pipe 3" - 48" (same OD's as ductile iron), IPS size and STD steel 3" - 12" with transition gasket and a minimum thickness of schedule 40.

**Not for use on polyethylene pipe, PVC pipe or plain end mechanical joint fittings.**

**To Order:** Specify catalog number.



Torque Off Bolts  
Assure the proper torque is applied



Radial Pads  
Contact the pipe and apply force evenly

## ROMAGRIP for Ductile Iron Pipe Accessory Pack (RomaGrip, Gasket, Bolts and Nuts)

NOM. PIPE SIZE	CATALOG NUMBER	T- BOLTS QUANTITY: SIZE	WEIGHT (ea.)	LIST PRICE (ea.)	CRATE QUANTITY
3"	3" RGAP-D	4: 5/8" x 3"	8#	\$50.50	54
4"	4" RGAP-D	4: 3/4" x 3 1/2"	11#	54.50	96
6"	6" RGAP-D	6: 3/4" x 4"	17#	67.50	72
8"	8" RGAP-D	6: 3/4" x 4"	22#	91.75	48
10"	10" RGAP-D	8: 3/4" x 4"	31#	130.00	30
12"	12" RGAP-D	8: 3/4" x 4"	37#	175.00	32
14"	14" RGAP-D	10: 3/4" x 4 1/2"	53#	270.00	-
16"	16" RGAP-D	12: 3/4" x 4 1/2"	62#	320.00	-
18"	18" RGAP-D	12: 3/4" x 4 1/2"	68#	450.00	-
20"	20" RGAP-D	14: 3/4" x 4 1/2"	78#	550.00	-
24"	24" RGAP-D	16: 3/4" x 5"	98#	680.00	-
30"	30" RGAP-IMPORT	20: 1" x 6"	295#	SEE PAGE 7-8	-
36"	36" RGAP-IMPORT	24: 1" x 6"	380#		-
42"	42" RGAP-IMPORT	28: 1 1/4" x 8 1/2"	595#		-
48"	48" RGAP-IMPORT	32: 1 1/4" x 8 1/2"	730#		-

## ROMAGRIP for Ductile Iron Pipe (RomaGrip ONLY)

NOM. PIPE SIZE	CATALOG NUMBER	WEIGHT (ea.)	LIST PRICE (ea.)	BANDED QUANTITY
3"	3" RG-D	6#	\$33.50	5
4"	4" RG-D	7#	34.50	5
6"	6" RG-D	11#	41.00	5
8"	8" RG-D	16#	62.25	5
10"	10" RG-D	21#	92.00	3
12"	12" RG-D	28#	134.00	3
14"	14" RG-D	41#	215.00	-
16"	16" RG-D	49#	265.00	-
18"	18" RG-D	56#	390.00	-
20"	20" RG-D	64#	485.00	-
24"	24" RG-D	81#	601.00	-
30"	30" RG-IMPORT	250#	SEE PAGE 7-8	-
36"	36" RG-IMPORT	325#		-
42"	42" RG-IMPORT	479#		-
48"	48" RG-IMPORT	594#		-



Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.



# RomaGrip™ for PVC Pipe

**Material Specifications**

**Gland:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12.

**Gasket:** SBR, compounded for water and sewer service in accordance with ASTM D 2000 MBA 710. Other compounds available for petroleum, chemical, or high temperature service.

**Restraining Bolts:** 7/8 -9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**T-bolts and Nuts:** HSLA steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit.

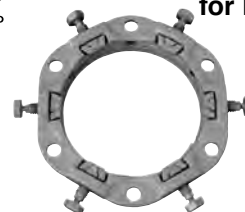
**Use:** C900 4"-12", C905 14"-24" and, IPS 3"-12" Class 160 and greater, scd 40 & 80. Contact Romac representative for thin wall pipe such as IPS PVC (less than Class 160, etc.) C909 and Class 100 C900 (see installation instructions).

**Not for use on polyethylene or ductile iron pipe.**

**To Order:** Specify catalog number.



**8" RomaGrip for PVC**



**Torque Off Bolts**  
Assure the proper torque is applied



**Radial Pads**  
Contact the pipe and apply force evenly

**ROMAGRIP for PVC Accessory Pack** (RomaGrip, Gasket, Bolts and Nuts)

NOM. PIPE SIZE	RANGE	CATALOG NUMBER	T- BOLTS QUANTITY: SIZE	WEIGHT (ea.)	LIST PRICE (ea.)	CRATE QUANTITY
3"	3.50-3.96	3" RG-PVCAP-D	4: 5/8" x 3"	11#	\$61.00	54
4"	4.50-4.80	4" RG-PVCAP-D	4: 3/4" x 3 1/2"	15#	62.50	80
6"	6.63-6.90	6" RG-PVCAP-D	6: 3/4" x 4"	20#	79.00	48
8"	8.63-9.05	8" RG-PVCAP-D	6: 3/4" x 4"	24#	107.00	30
10"	10.75-11.10	10" RG-PVCAP-D	8: 3/4" x 4"	30#	185.00	32
12"	12.75-13.20	12" RG-PVCAP-D	8: 3/4" x 4"	37#	195.00	32
14"	15.30	14" RG-PVCAP-D	10: 3/4" x 4 1/2"	58#	345.00	-
16"	17.40	16" RG-PVCAP-D	12: 3/4" x 4 1/2"	68#	415.00	-
18"	19.50	18" RG-PVCAP-D	12: 3/4" x 4 1/2"	80#	520.00	-
20"	21.60	20" RG-PVCAP-D	14: 3/4" x 4 1/2"	87#	635.00	-
24"	25.80	24" RG-PVCAP-D	16: 3/4" x 5"	112#	705.00	-

**ROMAGRIP for PVC** (PVC-RomaGrip Only)

NOM. PIPE SIZE	RANGE	CATALOG NUMBER	WEIGHT (ea.)	LIST PRICE (ea.)	BANDED QUANTITY
3"	3.50-3.96	3" RG-PVC-D	9#	\$42.00	5
4"	4.50-4.80	4" RG-PVC-D	11#	44.00	5
6"	6.63-6.90	6" RG-PVC-D	14#	53.00	5
8"	8.63-9.05	8" RG-PVC-D	18#	78.00	5
10"	10.75-11.10	10" RG-PVC-D	22#	149.00	3
12"	12.75-13.20	12" RG-PVC-D	28#	156.00	3
14"	15.30	14" RG-PVC-D	47#	265.00	-
16"	17.40	16" RG-PVC-D	53#	350.00	-
18"	19.50	18" RG-PVC-D	68#	450.00	-
20"	21.60	20" RG-PVC-D	72#	550.00	-
24"	25.80	24" RG-PVC-D	95#	620.00	-

**NOTE:** 3" - 12" special Romac gasket works on both IPS and C-900 ODs.





**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341

# IMPORT RomaGrip™ and RomaGrip™ for PVC

## RomaGrip™ for Ductile Iron Pipe

Specifications for the RomaGrip are located on page 7-6.

To Order: Specify catalog number.



### IMPORT - ROMAGRIP for Ductile Iron Pipe Accessory Pack (RomaGrip, Gasket, Bolts and Nuts)

NOM. PIPE SIZE	CATALOG NUMBER	T- BOLTS QUANTITY: SIZE	WEIGHT (ea.)	LIST PRICE (ea.)
14"	14" RGAP - I	10: 3/4" x 4 1/2"	53#	\$237.00
16"	16" RGAP - I	12: 3/4" x 4 1/2"	62#	287.00
18"	18" RGAP - I	12: 3/4" x 4 1/2"	68#	392.00
20"	20" RGAP - I	14: 3/4" x 4 1/2"	78#	490.00
24"	24" RGAP - I	16: 3/4" x 5"	98#	570.00
30"	30" RGAP - I	20: 1" x 6"	295#	1,490.00
36"	36" RGAP - I	24: 1" x 6"	380#	1,935.00
42"	42" RGAP - I	28: 1 1/4" x 8 1/2"	595#	2,975.00
48"	48" RGAP - I	32: 1 1/4" x 8 1/2"	730#	3,510.00

### IMPORT - ROMAGRIP for Ductile Iron Pipe (RomaGrip ONLY)

NOM. PIPE SIZE	CATALOG NUMBER	WEIGHT	LIST PRICE
14"	14" RG - I	41#	\$183.00
16"	16" RG - I	49#	237.00
18"	18" RG - I	56#	340.00
20"	20" RG - I	64#	430.00
24"	24" RG - I	81#	495.00
30"	30" RG - I	250#	1,350.00
36"	36" RG - I	325#	1,715.00
42"	42" RG - I	479#	2,525.00
48"	48" RG - I	594#	3,325.00

## RomaGrip™ for PVC Pipe

Specifications for the RomaGrip are located on page 7-7.

To Order: Specify catalog number.



### IMPORT - ROMAGRIP for PVC Accessory Pack (RomaGrip for PVC, Gasket, Bolts and Nuts)

NOM. PIPE SIZE	RANGE	CATALOG NUMBER	T- BOLTS QUANTITY: SIZE	WEIGHT	LIST PRICE (ea.)
14"	15.30	14" RG-PVCAP - I	10: 3/4" x 4 1/2"	58#	\$305.00
16"	17.40	16" RG-PVCAP - I	12: 3/4" x 4 1/2"	68#	370.00
18"	19.50	18" RG-PVCAP - I	12: 3/4" x 4 1/2"	80#	460.00
20"	21.60	20" RG-PVCAP - I	14: 3/4" x 4 1/2"	87#	575.00
24"	25.80	24" RG-PVCAP - I	16: 3/4" x 5"	112#	625.00

### IMPORT - ROMAGRIP for PVC (RomaGrip for PVC ONLY)

NOM. PIPE SIZE	RANGE	CATALOG NUMBER	WEIGHT	LIST PRICE (ea.)
14"	15.30	14" RG-PVC - I	47#	238.00
16"	17.40	16" RG-PVC - I	53#	312.00
18"	19.50	18" RG-PVC - I	68#	399.00
20"	21.60	20" RG-PVC - I	72#	495.00
24"	25.80	24" RG-PVC - I	95#	550.00

Catalog Numbers ending in "I" indicate a RomaGrip imported into the US.



Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.





# 400RG Restrained Coupling

**Material Specifications**

**Body (Center Ring):** Beveled, flared, or formed carbon steel meeting AWWA C219 Standard.

**Gaskets:** 14-24" sizes: A standard MJ gasket is used with this fitting. See ANSI/AWWA C111/A21.11 for gasket specs. For 12" and 30-48" sizes, SBR in accordance with ASTM D2000. Other compounds available for petroleum, chemical or high temperature service.

**Glands:** Romac RomaGrip™ (two required). See page 7-6.

**Restraining Bolts:** 7/8 –9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Bolting:** ASTM A193 Grade B7 all-thread-rod. Nuts per ASTM A194. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Use:** Ductile Iron Pipe 12 - 48", cast iron pipe 12" - 48" (same OD's as ductile iron) and IPS size STD steel pipe 12".

- NOTES:**
1. 12" special Romac gasket works on both steel and D.I. ODs.
  2. For 3" - 10" sizes, Romac recommends a mechanical joint solid sleeve with 2 RomaGrip™ Accessory Packs (see page 7-6).



**14" 400RG - Restrained Coupling**

Also available with a flange end.  
For a flanged 400RG, contact your Romac representative.



Not for use on PVC, HDPE pipe or plain-end mechanical joint fittings.  
For applications on PVC, please contact your Romac representative.

NOM. PIPE SIZE	GASKET RANGE	MAX DEFLECTION	BOLTING QTY: SIZE	CATALOG NUMBER	LIST PRICE	WEIGHT (lbs.)
12"	12.75-13.20	10°	8: 3/4" x 18"	400RG - 13.20	\$1,693.42	120 #
14"	15.30	4°	10: 3/4" x 18"	400RG - 15.30	2,158.41	158 #
16"	17.40	4°	12: 3/4" x 18"	400RG - 17.40	2,572.33	186 #
18"	19.50	3°	12: 3/4" x 18"	400RG - 19.50	2,919.90	207 #
20"	21.60	3°	14: 3/4" x 18"	400RG - 21.60	3,327.48	234 #
24"	25.80	3°	16: 3/4" x 18"	400RG - 25.80	4,129.91	287 #
30"	32.00	2°	20: 1" x 22.5"	400RG - 32.00	5,405.34	725 #
36"	38.30	2°	24: 1" x 22.5"	400RG - 38.30	7,033.70	919 #
42"	44.50	2°	28: 1 1/4" x 25"	400RG - 44.50	11,070.04	1,394 #
48"	50.80	2°	32: 1 1/4" x 25"	400RG - 50.80	14,128.92	1,685 #

To Order: Specify Catalog Number. **Example:** For a 12" 400RG Order: **400RG- 13.20**



No Cancel, No Return Item



Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.



# RFCA (Restrained Flanged Coupling Adapter)

**Material Specifications**

**Flange Body:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™. See page 7-6.

**Restraining Bolts:** 7/8 –9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Polyurethane, a thermal plastic.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Use:** Ductile Iron Pipe 3 - 24", cast iron pipe 3" - 24" (same OD's as ductile iron) and IPS size STD steel pipe 3 - 12" with a minimum thickness of schedule 40.

**To Order:** Specify catalog number. **Example:** For a 12" RFCA Order: **RFCA - 13.20**

**NOTE:** 3" - 12" special Romac gasket works on both steel and D.I. ODs.



**Not for use on polyethylene pipe, PVC pipe or plain-end mechanical joint fittings. For applications on PVC, please contact your Romac representative.**

NOM. PIPE SIZE	GASKET RANGE	LENGTH	GLAND BOLTS QTY: SIZE	CATALOG NUMBER	LIST PRICE				WEIGHT (lbs.)
					Shopcoat w/Std. B&N	Shopcoat w/304 SS B&N	Fusion Epoxy w/Std. B&N	Fusion Epoxy w/304SS B&N	
3"	3.50-3.96	8.00"	4: 5/8" x 3"	RFCA - 3.96	\$145.45	\$157.56	\$165.10	\$177.20	21
4"	4.50-4.80	9.00"	4: 3/4" x 3 1/2"	RFCA - 4.80	183.32	209.43	207.88	233.99	29
6"	6.63-6.90	9.25"	6: 3/4" x 4"	RFCA - 6.90	233.85	273.01	267.10	306.26	40
8"	8.63-9.05	9.25"	6: 3/4" x 4"	RFCA - 9.05	315.59	354.75	355.82	394.98	53
10"	10.75-11.10	10.25"	8: 3/4" x 4"	RFCA - 11.10	581.96	634.17	669.69	721.91	83
12"	12.75-13.20	10.25"	8: 3/4" x 4"	RFCA - 13.20	632.13	684.34	739.86	792.07	110
14"	15.30	11.70"	10: 3/4" x 4 1/2"	RFCA - 15.30	882.79	947.37	1,020.54	1,085.12	170
16"	17.40	11.70"	12: 3/4" x 4 1/2"	RFCA - 17.40	1,225.93	1,302.91	1,410.23	1,487.21	200
18"	19.50	11.80"	12: 3/4" x 4 1/2"	RFCA - 19.50	1,346.63	1,423.60	1,546.13	1,623.10	217
20"	21.60	11.80"	14: 3/4" x 4 1/2"	RFCA - 21.60	1,521.19	1,611.94	1,772.94	1,863.69	256
24"	25.80	12.00"	16: 3/4" x 5"	RFCA - 25.80	1,845.38	1,959.61	2,130.38	2,244.61	305



*Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.*



# RFCA for PVC Pipe

**Material Specifications**

**Flange Body:** Ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™ for PVC (see page 7-7).

**Restraining Bolts:** 7/8 –9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

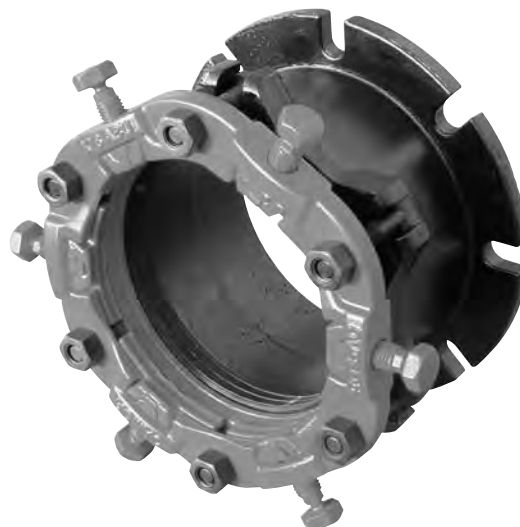
**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Stainless steel.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Shop coat applied to cast parts for corrosion protection in transit. Fusion bonded epoxy available on request.

**Use:** C900 4"-12", C905 14"-24" and, IPS 3"-12" Class 160 and greater, scd 40 & 80. Contact Romac representative for thin wall pipe such as IPS PVC (less than Class 160, etc.) C909 and Class 100 C900 (see installation instructions).



**Not for use on metal or HDPE pipe. For applications on steel or ductile iron, please contact your Romac representative.**

NOM. PIPE SIZE	GASKET RANGE	LENGTH	GLAND BOLTS QUANTITY: SIZE	CATALOG NUMBER	LIST PRICE				WEIGHT (lbs.)
					Shopcoat w/Std. B&N	Shopcoat w/304 SS B&N	Fusion Epoxy w/Std. B&N	Fusion Epoxy w/304SS B&N	
3"	3.50-3.96	8"	4: 5/8" x 3"	RFCA-PVC - 3.96	\$150.67	\$162.77	\$170.32	\$182.42	25
4"	4.50-4.80	9"	4: 3/4" x 3 1/2"	RFCA-PVC -4.80	189.29	215.39	213.85	239.95	31
6"	6.63-6.90	9.25"	6: 3/4" x 4"	RFCA-PVC - 6.90	241.86	281.02	275.11	314.27	41
8"	8.63-9.05	9.25"	6: 3/4" x 4"	RFCA-PVC - 9.05	325.52	364.68	365.75	404.91	53
10"	10.75-11.10	10.25"	8: 3/4" x 4"	RFCA-PVC - 11.10	622.00	674.22	709.74	761.95	83
12"	12.75-13.20	10.25"	8: 3/4" x 4"	RFCA-PVC - 13.20	644.41	696.63	752.14	804.17	110
14"	15.30	11.7"	10: 3/4" x 4 1/2"	RFCA-PVC -15.30	929.68	994.26	1,067.43	1,132.01	170
16"	17.40	11.7"	12: 3/4" x 4 1/2"	RFCA-PVC -17.40	1,278.12	1,355.10	1,462.42	1,539.40	200
18"	19.50	11.8"	12: 3/4" x 4 1/2"	RFCA-PVC -19.50	1,376.96	1,453.94	1,576.46	1,653.44	217
20"	21.60	11.8"	14: 3/4" x 4 1/2"	RFCA-PVC - 21.60	1,560.59	1,651.35	1,812.34	1,903.10	256
24"	25.80	12"	16: 3/4" x 5"	RFCA-PVC - 25.80	1,860.07	1,974.31	2,145.07	2,259.31	305

**To Order:** Specify catalog number. **NOTE:** 3" - 12" special Romac gasket works on both IPS and C-900 ODs.

**Example:** For a 12" RFCA -PVC Order: **RFCA-PVC - 13.20**

## Material Specifications

**Flange Spool:** AWWA Class D Ring Flange, compatible with ANSI Class 125 and 150 bolt circles. For 3" - 12" sizes, pipe is Sch 40 ASTM A53. For 14" - 72" sizes, ASTM A36 Carbon Steel. Other flange classes available. Bolts, nuts and gaskets for flange end not supplied. For more information contact Romac Industries.

**End Ring & Body:** For 3" - 12" sizes, body and end ring are ASTM A536 ductile (nodular) iron meeting or exceeding Grade 65-45-12. For 14" - 72" ASTM A36 Carbon Steel with AWWA C207 Class D flanges. 3" - 72" meet the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (ductile iron flange bodies, 3" - 12" have flange o-ring gaskets). Other compounds available for petroleum, chemical or high temperature services.

**Bolts & Nuts:** High strength low alloy steel bolts and nuts. Steel meets ASTM A588. Type 304 and 316 Stainless Steel bolt material available.

**Coating :** Fusion bonded epoxy, NSF 61 certified.

**Tie-Rods :** High strength steel per ASTM A193 B7. Other lengths, materials and higher pressures can be accommodated. For more information, contact your Romac representative.



NOM. PIPE SIZE	LENGTH			CATALOG NUMBER	ER BOLTS		TIE-RODS			LIST PRICE			APPROX. WEIGHT (LBS.)
	NOM.	MIN.	MAX.		QTY	SIZE	SIZE (UNC)	LENGTH	QTY	w/STD B&N	w/304 SS B&N	w/316 SS B&N	
3"	8.00	7.00	9.00	DJ400-03	2	5/8 - 11 x 7 1/2	5/8 - 11	13.50	2	\$492.48	\$540.04	\$595.43	31
4"	8.00	7.00	9.00	DJ400-04	4	5/8 - 11 x 7 1/2	5/8 - 11	13.50	2	506.17	553.88	612.70	36
6"	8.38	7.38	9.38	DJ400-06	4	3/4 - 10 x 8	3/4 - 10	15.00	2	601.93	692.36	747.76	55
8"	8.38	7.38	9.38	DJ400-08	4	3/4 - 10 x 8	3/4 - 10	15.00	2	738.74	830.84	886.22	72
10"	10.50	9.50	11.50	DJ400-10	6	5/8 - 11 X 7/8 - 9 x 9 1/2	7/8 - 9	17.75	2	1,053.38	1,190.85	1,246.25	108
12"	10.50	9.50	11.50	DJ400-12	6	7/8 - 9 x 9	7/8 - 9	17.75	2	1,354.35	1,495.49	1,550.89	134
14"	13.50	12.00	15.00	DJ400-14	8	5/8 - 11 x 5	1 - 8	22.00	2	1,860.53	2,049.39	2,160.16	152
16"	13.50	12.00	15.00	DJ400-16	10	5/8 - 11 x 5	1 - 8	22.00	2	2,093.09	2,298.64	2,437.10	185
18"	13.75	12.25	15.25	DJ400-18	10	5/8 - 11 x 5	1 1/8 - 7	23.25	2	2,284.62	2,866.38	3,087.94	201
20"	13.75	12.25	15.25	DJ400-20	12	5/8 - 11 x 5	1 1/8 - 7	23.25	2	2,585.60	3,295.64	3,531.04	239
24"	14.25	12.75	15.75	DJ400-24	14	5/8 - 11 x 5	1 1/4 - 7	25.50	2	3,324.33	4,084.93	4,334.17	339
30"	14.75	13.25	16.25	DJ400-30	16	5/8 - 11 x 5	1 1/4 - 7	25.50	4	4,281.95	5,303.48	5,635.81	506
36"	15.75	14.25	17.25	DJ400-36	18	5/8 - 11 x 5	1 1/2 - 6	27.50	4	5,800.48	7,519.04	7,865.22	757
42"	16.50	15.00	18.00	DJ400-42	20	5/8 - 11 x 6	1 1/2 - 6	29.25	4	7,606.30	9,360.72	9,762.29	1,005
48"	16.75	15.25	18.25	DJ400-48	22	5/8 - 11 x 6	1 1/2 - 6	29.25	6	10,561.25	12,780.99	13,265.65	1,260
54"	17.75	16.25	19.25	DJ400-54	24	5/8 - 11 x 6	1 3/4 - 5	31.75	6	14,227.60	17,710.60	18,652.20	1,657
60"	18.00	16.50	19.50	DJ400-60	28	5/8 - 11 x 6	1 3/4 - 5	31.75	6	25,801.20	30,588.50	31,751.67	1,993
72"	18.75	17.25	20.25	DJ400-72	32	5/8 - 11 x 6	1 3/4 - 5	33.50	10	32,449.87	38,896.84	40,503.11	2,960

To Order: Specify catalog number.

Example: For a 12" DJ400 Order: **DJ400-12**



# Style DJ405 Dismantling Joint

## Material Specifications

**Flange Spool:** AWWA C207 Class D, meets the dimensional requirements of ANSI Class 125 and 150 bolt circles. For 3" - 12" sizes, pipe is Sch 40 ASTM A53. For 14" - 24" pipe material is ASTM A36. Bolts, nuts and gaskets for flange end not supplied.

**Flange Body:** ASTM A536 ductile (nodular) iron meeting or exceeding Grade 65-45-12. Flange meets the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**Gaskets:** Compounded for water and sewer service in accordance with ASTM D 2000 (Sizes 3 - 12" have flange O-Ring gasket). Other compounds available for petroleum, chemical, or high temperature service.

**Gland:** Romac RomaGrip™. See page 7-6.

**Restraining Bolts:** 7/8 -9 roll thread, Ductile (nodular) iron, meeting or exceeding ASTM A 536.

**Restraining Lugs:** Ductile (nodular) iron, meeting or exceeding ASTM A 536. Heat treated using a proprietary process.

**Lug Locators:** Polyurethane, a thermal plastic.

**T-bolts and Nuts:** High strength low alloy steel T-head bolt. National coarse rolled thread and heavy hex nut. Steel meets AWWA C111 composition specifications. Stainless steel bolts and nuts available on request.

**Coatings:** Fusion bonded epoxy, NSF 61 certified.



To Order: Specify catalog number.

Example: For a 12" DJ405 Order: **DJ405-12**

NOM. PIPE SIZE	LENGTH			CATALOG NUMBER	T-BOLTS			ALLOWABLE DEFLECTION (degrees)	LIST PRICE		APPROX. WEIGHT (LBS.)
	NOM.	MIN.	MAX.		QTY	SIZE	LENGTH		w/STD B&N	w/304 SS B&N	
3"	11.50	10.00	13.00	DJ405-03	4	5/8"	3.75	2.0	615.61	630.07	33
4"	12.75	11.00	14.50	DJ405-04	4	3/4"	4.25	3.5	632.73	663.96	46
6"	13.50	11.50	15.50	DJ405-06	6	3/4"	4.25	3.5	752.42	799.23	68
8"	13.50	11.50	15.50	DJ405-08	6	3/4"	4.25	3.3	923.43	970.23	94
10"	14.75	12.50	17.00	DJ405-10	8	3/4"	4.25	3.0	1,316.74	1,379.14	143
12"	14.75	12.50	17.00	DJ405-12	8	3/4"	4.25	3.0	1,692.98	1,758.81	193
14"	19.25	16.75	21.75	DJ405-14	10	3/4"	4.50	2.0	2,325.68	2,402.87	297
16"	19.25	16.75	21.75	DJ405-16	12	3/4"	4.50	2.0	2,721.02	2,813.02	352
18"	20.25	17.75	22.75	DJ405-18	12	3/4"	4.50	1.5	3,084.28	3,176.25	390
20"	20.25	17.75	22.75	DJ405-20	14	3/4"	4.50	1.5	3,490.55	3,599.02	457
24"	21.25	18.75	23.75	DJ405-24	16	3/4"	5.00	1.5	4,487.85	4,624.39	569



Some initial axial movement may occur in lug style restraints as the lugs seat. Movement is directly related to the size of the piping system and the system pressure. In general terms movement of approximately 0.25" can be expected in restraints under 16". For larger sizes, movement of approximately 0.4" may be seen. If this is critical to your application please contact Romac Engineering for additional information.





**ROMAC INDUSTRIES, INC.**

1-800-426-9341



# FJ Restraint Flexible Expansion Joint

## FJ • Restraint

U.S. Patent: 5,897,146



**Protective Sleeve:** Polyethylene sleeve, 8 mils thick to cover entire FJ Restraint assembly after installation. Provided with flexible rubber bands to secure to pipe ends and FJ Restraint.

**Pressure:** When properly installed the FJ Restraint can be used at working pressures up to 350 psi.

**Material Specifications**

**USE:** The FJ Restraint is a flexible ductile iron fitting, developed to accommodate pipeline forces that result in damaged pipe or loss of service. The FJ Restraint is designed to compensate for expansion, contraction, rotation, bending and settlement of your pipeline all at the same time, with one fitting.

**MATERIALS**

**Castings:** The Casing, Ball and Sleeve are cast of ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12.

**Flange Ends:** Flanges meet the dimensional requirements of ANSI Class 125 and 150 bolt circles.

**MJ Ends:** Mechanical Joint ends meet the dimensional requirements of either ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53 depending on size.

**MJ Restraint:** To securely fix MJ ends of the FJ Restraint, Romac Grip Rings or Roma Grip can be supplied.

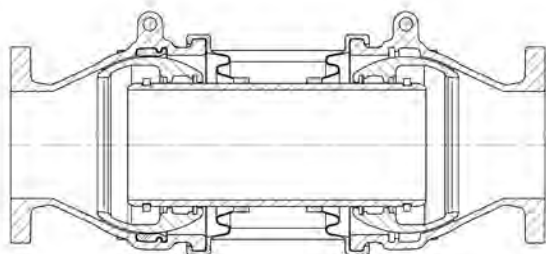
**Lock Ring:** Series 400 stainless steel. Limits expansion and contraction of FlexiJoint up to maximum working pressure. Standard MJ gasket is used with this fitting. See ANSI/AWWA C111/A21.11 for specifications. Transition gaskets may be used for steel (IPS) pipe size PVC.

**Ring Gaskets:** Ring gaskets are made of dual durometer Ethylene Propylene Diene Methylene rubber (EPDM) compounded for water and sewer service.

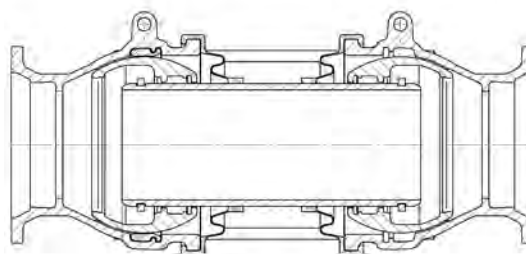
**Casing Covers:** Covers are made of Ethylene Propylene Diene Methylene (EPDM) compounded for water and sewer service.

**Coatings:** The entire fitting is lined and coated with fusion bonded epoxy.

FJ Restraint with flanged ends



FJ Restraint with mechanical joint ends



**To Order:** Specify Part Number and contact Romac Quotations Department

**Example:** For a 3" Flange to Flange FJ Restraint with an offset of 4" Order: **221-01-0314**

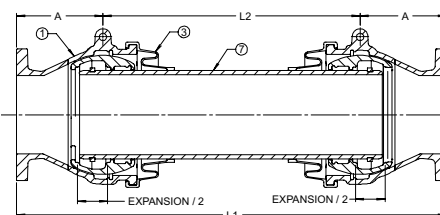
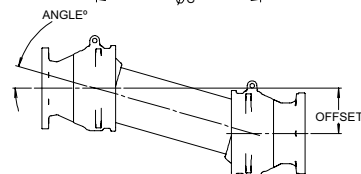
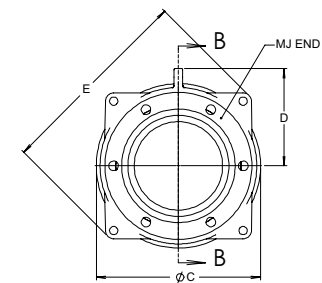
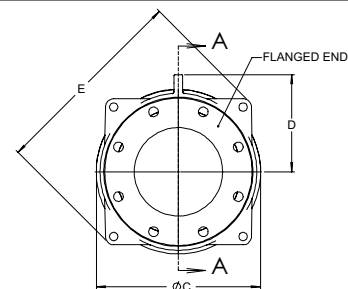




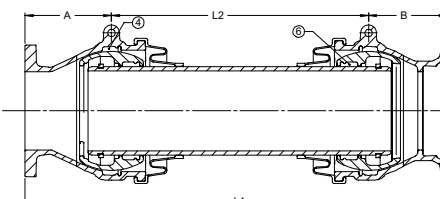
# FJ Restraint Flexible Expansion Joint

## 3" - 24" Dimensions

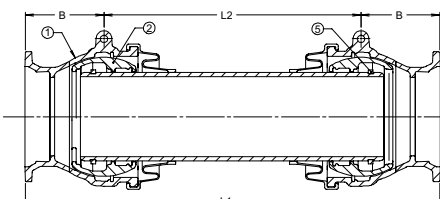
NOM SIZE	OFFSET	A	B	C	D	E	FLANGE X FLANGE	MJ X FLANGE	MJ X MJ	TOTAL EXPANSION	ANGLE	
							L1	L1	L1			L2
3"	4	6.8	6.2	8.2	5.7	11.9	24.7	24.1	23.5	11.2	4.00	20.0°
	8						35.7	35.1	34.5	22.2		
	12						46.7	46.1	45.5	33.2		
	16						57.7	57.1	56.5	44.2		
	20						68.7	68.1	67.5	55.2		
4"	4	7.0	6.4	9.4	6.3	13.2	26.7	26.1	25.5	12.6	4.00	19.0°
	8						37.7	37.1	36.5	23.6		
	12						49.7	49.1	48.5	35.6		
	16						60.7	60.1	59.5	46.6		
	20						72.7	72.1	71.5	58.6		
6"	4	7.9	7.5	11.9	7.4	15.6	28.9	28.6	28.2	13.2	6.26	18.0°
	8						40.9	40.6	40.2	25.2		
	12						52.9	52.6	52.2	37.2		
	16						65.9	65.6	65.2	50.2		
	20						77.9	77.6	77.2	62.2		
8"	4	8.8	8.0	14.4	8.7	18.1	31.1	30.3	29.5	13.4	6.26	17.0°
	8						44.1	43.3	42.5	26.4		
	12						57.1	56.3	55.5	39.4		
	16						70.1	69.3	68.5	52.4		
	20						83.1	82.3	81.5	65.4		
10"	4	9.3	8.6	16.9	10.1	20.7	33.6	32.9	32.2	14.9	6.26	16.0°
	8						46.6	45.9	45.2	27.9		
	12						60.6	59.9	59.2	41.9		
	16						74.6	73.9	73.2	55.9		
	20						88.6	87.9	87.2	69.9		
12"	4	10.0	9.2	19.4	11.3	23.7	35.5	34.7	33.9	15.4	7.88	15.0°
	8						50.5	49.7	48.9	30.4		
	12						65.5	64.7	63.9	45.4		
	16						80.5	79.7	78.9	60.4		
	20						95.5	94.7	93.9	75.4		
14"	4	10.9	11.0	21.7	12.7	26.2	42.9	43.0	43.1	21.0	7.88	15.0°
	8						55.9	56.0	56.1	34.0		
	12						69.9	70.0	70.1	48.0		
	16						84.9	85.0	85.1	63.0		
	20						99.9	100.0	100.1	78.0		
16"	4	11.7	11.7	24.1	14.0	28.6	46.7	46.5	46.4	23.0	9.44	15.0°
	8						57.7	57.5	57.4	34.0		
	12						72.7	72.5	72.4	49.0		
	16						87.7	87.5	87.4	64.0		
	20						102.7	102.5	102.4	79.0		
18"	4	12.5	12.3	26.3	15.1	30.9	49.0	48.7	48.5	23.9	9.44	15.0°
	8						60.0	59.7	59.5	34.9		
	12						74.0	73.7	73.4	48.9		
	16						89.0	88.7	88.5	63.9		
	20						104.0	103.7	103.5	78.9		
20"	4	13.7	13.2	29.2	16.9	34.3	52.9	52.4	51.9	25.5	11.82	15.0°
	8						61.9	61.4	60.9	34.5		
	12						77.9	77.4	76.9	50.5		
	16						92.9	92.4	91.9	65.5		
	20						107.9	107.4	106.9	80.5		
24"	4	14.9	14.5	34.7	19.7	39.4	56.2	55.8	55.4	26.5	11.82	15.0°
	8						64.2	63.8	63.4	34.5		
	12						80.2	79.8	79.4	50.5		
	16						95.2	94.8	94.4	65.5		
	20						110.2	109.8	109.4	80.5		



SECTION A-A  
FLANGE X FLANGE



SECTION B-B  
FLANGE X MJ



SECTION C-C  
MJ X MJ

**Note:** Dimension L1 Equals Midpoint of Expansion.  
See page 7-16 for weights.



# FJ Restraint Flexible Joint

NOM SIZE	OFFSET	FLANGE X FLANGE		FLANGE X MJ		MJ X MJ		LIST PRICE
		*Length / Part Number	Approx. Weight (lbs.)	*Length / Part Number	Approx. Weight (lbs.)	*Length / Part Number	Approx. Weight (lbs.)	
3"	4.0	24.67 / 221-01-0314	97	24.07 / 221-03-0314	93	23.47 / 221-02-0314	95	POA
	8.0	35.67 / 221-01-0325	110	35.07 / 221-03-0325	106	34.47 / 221-02-0325	108	
	12.0	46.67 / 221-01-0336	123	46.07 / 221-03-0336	119	45.47 / 221-02-0336	121	
	16.0	57.67 / 221-01-0347	136	57.07 / 221-03-0347	132	56.47 / 221-02-0347	134	
	20.0	68.67 / 221-01-0358	149	68.07 / 221-03-0358	145	67.47 / 221-02-0358	147	
4"	4.0	26.66 / 221-01-0416	138	26.06 / 221-03-0416	128	25.46 / 221-02-0416	133	POA
	8.0	37.66 / 221-01-0427	155	37.06 / 221-03-0427	145	36.46 / 221-02-0427	150	
	12.0	49.66 / 221-01-0439	173	49.06 / 221-03-0439	163	48.46 / 221-02-0439	168	
	16.0	60.66 / 221-01-0450	189	60.06 / 221-03-0450	179	59.46 / 221-02-0450	184	
	20.0	72.66 / 221-01-0462	207	72.06 / 221-03-0462	197	71.46 / 221-02-0462	202	
6"	4.0	28.92 / 221-01-0617	215	28.55 / 221-03-0617	200	28.18 / 221-02-0617	208	POA
	8.0	40.92 / 221-01-0629	245	40.55 / 221-03-0629	230	40.18 / 221-02-0629	237	
	12.0	52.92 / 221-01-0641	274	52.55 / 221-03-0641	260	52.18 / 221-02-0641	267	
	16.0	65.92 / 221-01-0654	307	65.55 / 221-03-0654	292	65.18 / 221-02-0654	299	
	20.0	77.92 / 221-01-0666	336	77.55 / 221-03-0666	321	77.18 / 221-02-0666	329	
8"	4.0	31.07 / 221-01-0818	331	30.27 / 221-03-0818	303	29.47 / 221-02-0818	317	POA
	8.0	44.07 / 221-01-0831	372	43.27 / 221-03-0831	344	42.47 / 221-02-0831	358	
	12.0	57.07 / 221-01-0844	414	56.27 / 221-03-0844	386	55.47 / 221-02-0844	400	
	16.0	70.07 / 221-01-0857	456	69.27 / 221-03-0857	428	68.47 / 221-02-0857	442	
	20.0	83.07 / 221-01-0870	498	82.27 / 221-03-0870	470	81.47 / 221-02-0870	484	
10"	4.0	33.61 / 221-01-1020	466	32.91 / 221-03-1020	428	32.21 / 221-02-1020	447	POA
	8.0	46.61 / 221-01-1033	520	45.91 / 221-03-1033	482	45.21 / 221-02-1033	501	
	12.0	60.61 / 221-01-1047	578	59.91 / 221-03-1047	541	59.21 / 221-02-1047	559	
	16.0	74.61 / 221-01-1061	637	73.91 / 221-03-1061	599	73.21 / 221-02-1061	618	
	20.0	88.61 / 221-01-1075	695	87.91 / 221-03-1075	657	87.21 / 221-02-1075	676	
12"	4.0	35.48 / 221-01-1221	630	34.68 / 221-03-1221	561	33.88 / 221-02-1221	596	POA
	8.0	50.48 / 221-01-1236	708	49.68 / 221-03-1236	640	48.88 / 221-02-1236	674	
	12.0	65.48 / 221-01-1251	787	64.68 / 221-03-1251	718	63.88 / 221-02-1251	752	
	16.0	80.48 / 221-01-1266	865	79.68 / 221-03-1266	796	78.88 / 221-02-1266	830	
	20.0	95.48 / 221-01-1281	943	94.68 / 221-03-1281	874	93.88 / 221-02-1281	908	
14"	4.0	42.88 / 221-01-1427	832	42.98 / 221-03-1427	776	43.08 / 221-02-1427	804	POA
	8.0	55.88 / 221-01-1440	909	55.98 / 221-03-1440	853	56.08 / 221-02-1440	881	
	12.0	69.88 / 221-01-1454	993	69.98 / 221-03-1454	937	70.08 / 221-02-1454	965	
	16.0	84.88 / 221-01-1469	1,082	84.98 / 221-03-1469	1,026	85.08 / 221-02-1469	1,054	
	20.0	99.88 / 221-01-1484	1,171	99.98 / 221-03-1484	1,115	100.08 / 221-02-1484	1,143	
16"	4.0	46.42 / 221-01-1629	1,090	46.42 / 221-03-1629	1,034	46.42 / 221-02-1629	1,062	POA
	8.0	57.42 / 221-01-1640	1,166	57.42 / 221-03-1640	1,110	57.42 / 221-02-1640	1,138	
	12.0	72.42 / 221-01-1655	1,270	72.42 / 221-03-1655	1,214	72.42 / 221-02-1655	1,242	
	16.0	87.42 / 221-01-1670	1,374	87.42 / 221-03-1670	1,318	87.42 / 221-02-1670	1,346	
	20.0	102.42 / 221-01-1685	1,477	102.42 / 221-03-1685	1,421	102.42 / 221-02-1685	1,449	
18"	4.0	48.98 / 221-01-1830	1,307	48.74 / 221-03-1830	1,259	48.50 / 221-02-1830	1,283	POA
	8.0	59.98 / 221-01-1841	1,394	59.74 / 221-03-1841	1,346	59.50 / 221-02-1841	1,370	
	12.0	73.98 / 221-01-1855	1,505	73.74 / 221-03-1855	1,457	73.50 / 221-02-1855	1,481	
	16.0	88.98 / 221-01-1870	1,625	88.74 / 221-03-1870	1,577	88.50 / 221-02-1870	1,601	
	20.0	103.98 / 221-01-1885	1,744	103.74 / 221-03-1885	1,696	103.50 / 221-02-1885	1,720	
20"	4.0	52.90 / 221-01-2032	1,755	52.40 / 221-03-2032	1,667	51.90 / 221-02-2032	1,711	POA
	8.0	61.90 / 221-01-2041	1,844	61.40 / 221-03-2041	1,756	60.90 / 221-02-2041	1,800	
	12.0	77.90 / 221-01-2057	2,004	77.40 / 221-03-2057	1,916	76.90 / 221-02-2057	1,960	
	16.0	92.90 / 221-01-2072	2,153	92.40 / 221-03-2072	2,065	91.90 / 221-02-2072	2,109	
	20.0	107.90 / 221-01-2087	2,303	107.40 / 221-03-2087	2,215	106.90 / 221-02-2087	2,259	
24"	4.0	56.22 / 221-01-2433	2,402	55.82 / 221-03-2433	2,290	55.42 / 221-02-2433	2,349	POA
	8.0	64.22 / 221-01-2441	2,503	63.82 / 221-03-2441	2,391	63.42 / 221-02-2441	2,447	
	12.0	80.22 / 221-01-2457	2,704	79.82 / 221-03-2457	2,592	79.42 / 221-02-2457	2,648	
	16.0	95.22 / 221-01-2472	2,893	94.82 / 221-03-2472	2,781	94.42 / 221-02-2472	2,837	
	20.0	110.22 / 221-01-2487	3,081	109.82 / 221-03-2487	2,969	109.42 / 221-02-2487	3,025	

Larger Sizes Available Upon Request

\* Length shown is nominal, or shipped length



## Material Specifications

**Castings:** Ductile iron per ASTM A 536, Grade 65-45-12. Flange in accordance with ANSI Class 150 drilling. Black shopcoat.

**Set Screws:** 5/8" x 2", 4140 steel alloy. Screws are designed with a unique "TRUE TORQUE"™ head (7/16", 12 point) which will shear off at approximately 80 ft-lbs. of torque.

**Gaskets:** SBR per ASTM D-2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The Field Flange™ joins plain-end pipe of ductile iron and steel sizes to flanged fittings. It requires no threading or welding.



6" Field Flange™

**Not for use on PVC pipe or plain end mechanical joint fittings.**

NOM. PIPE SIZE	CATALOG NUMBER	SET SCREWS NUMBER: SIZE	APPROX. WEIGHT (lbs.)	WORKING PRESSURE PSI <sup>1</sup>	MAXIMUM JOINT DEFLECTION	LIST PRICE		
						GASKET ONLY		FIELD FLANGE ONLY
						MJ x IPS	MJ x CI	
4"	4" Field Flange	4: 5/8" x 2"	11 #	300	3°	FOR GASKET PRICES, SEE PAGE 9-3.		\$91.32
6"	6" Field Flange	8: 5/8" x 2"	16 #	300	2°			98.33
8"	8" Field Flange	8: 5/8" x 2"	19 #	300	2°			114.94
10"	10" Field Flange	12: 5/8" x 2"	31 #	250	2°			246.52
12"	12" Field Flange	12: 5/8" x 2"	43 #	175	1.5°			287.19

<sup>1</sup> Based on test pressure of at least two times rated pressure.

**Note:** Not recommended for use on Class 50 ductile iron pipe.

**To Order:** Specify catalog description.

### FIELD FLANGE™ INSTALLATION INSTRUCTIONS

1. Cut pipe to length. Pipe must be cut square and clean.
2. Slip flange over end of pipe. Tighten pins so that they are touching the pipe all around. Inspect to make sure that any gap between pipe and flange is even all the way around the pipe.
3. Tap flange into place. Face of the flange should be flush with the end of the pipe.
4. Tighten pins evenly, checking to be sure that even gap between pipe and flange is maintained. Continue until 80-85 ft-lbs. torque is reached or until the pin heads break off above the notch.
5. Stretch gasket over end of pipe and press firmly into flange.
6. Bolt Field Flange™ to its mating flange.

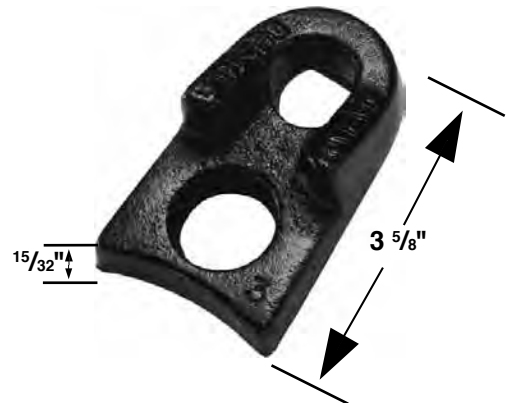
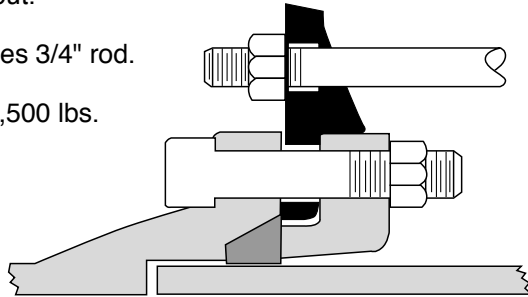


# Romac "Ductile Lug"

**Material Specifications**

**Lug:** Ductile iron per ASTM A 536, Grade 65-45-12.  
**Use:** The "Ductile Lug" is designed to facilitate the restraining of pipe joints to prevent pull-out.

Accommodates 3/4" rod.  
Max. Load: 7,500 lbs.



CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
Ductile Lug	.844 #	\$3.91

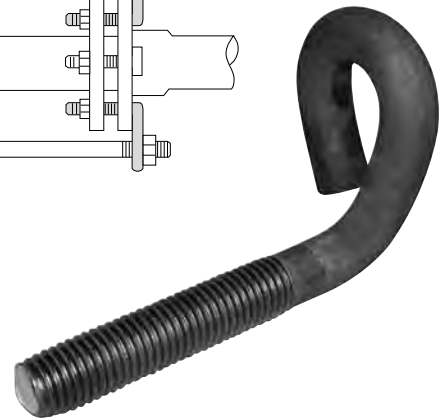
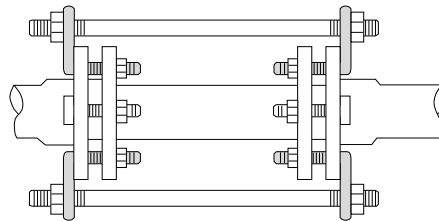
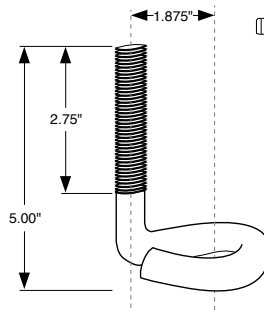
Ductile lugs are packaged 50 per box. **To Order:** Specify catalog number.

# 90° Eye Bolt

**Material Specifications**

**Eye Bolt:** 3/4" UNC rolled thread, high strength, low alloy steel per AWWA C111 (Corten or Mayari-R).  
**Nut and Washer:** 3/4" heavy hex, high strength low alloy steel.  
**Use:** Facilitate the restraining of pipe joints to prevent pull-out.

Accommodates 3/4" rod.  
Max. Load: 7,500 lbs.



ITEM	CATALOG NUMBER	LIST PRICE EACH per QUANTITY					APPROX. WEIGHT (lbs.)
		1 - 200	400	600	800	1000	
3/4" Eye-Bolts	EYE-3/4	\$9.81	\$9.74	\$9.67	\$9.58	\$9.46	200 # / crate
3/4" Nuts	HH-3/4	1.55	1.49	1.44	1.37	1.30	40 # / crate
3/4" Washers	WASHER-3/4	1.37	1.29	1.29	1.23	1.14	4 # / 100

Bolts and nuts are packaged 200 per crate. **To Order:** Specify catalog number.



**ROMAC INDUSTRIES, INC.**

1-800-426-9341



# Romac Harness Lugs

## Material Specifications

**Harness Lug:** ASTM A36 Steel, profile shape cut with plasma arc or oxy-fuel. Holes plasma arc cut or drilled. Stainless steel optional.

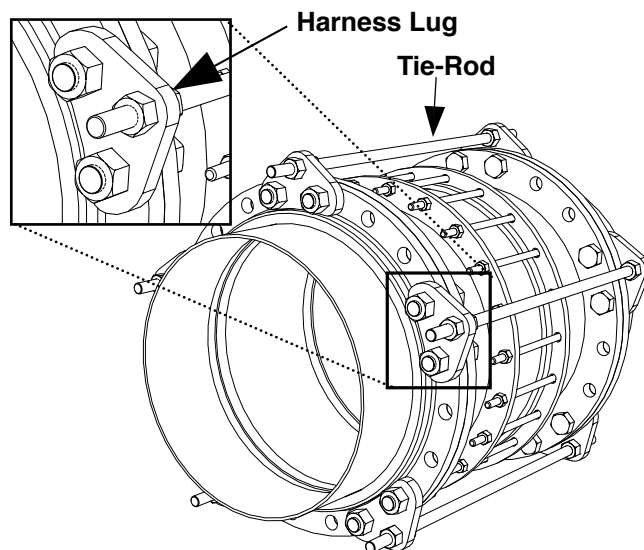
**Tie-rods:** All Thread Rod. Alloy steel per ASTM A193 Grade B7. Stainless steel, type 304 per ASTM A193 Grade B8. Stainless steel, type 316 per Grade B8M

**Coating:** Bare, shopcoat paint for corrosion protection in transit, or fusion bonded epoxy.

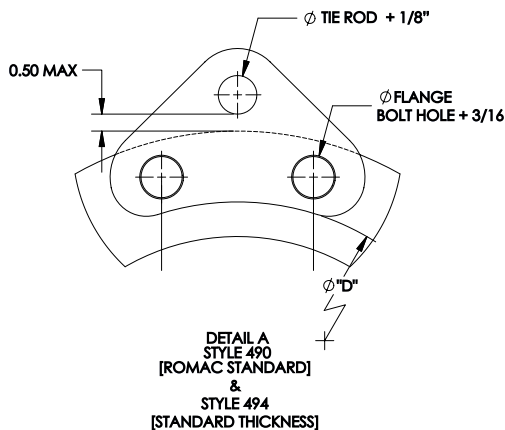
**Flange Compatibility:** Designed for use with an ANSI B16.1 Cls 125, ANSI B16.5 Cls 150, AWWA C207 Cls B, AWWA C207 Cls D, or AWWA C207 Cls E flange. Radius of lug designed to provide clearance on the majority of high hub threaded ductile iron flanges. Lugs for Cls 250 / 300 are also available.



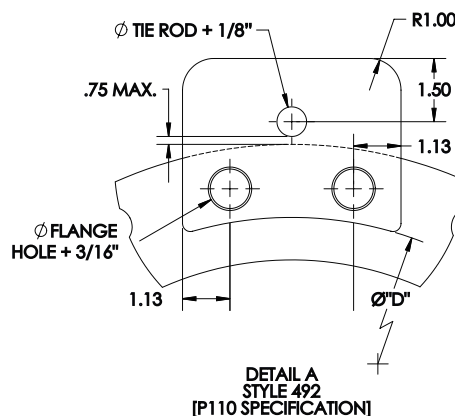
**CAUTION:** Some threaded ductile iron flanges have large diameter hubs which may interfere with harness lug radius. Check lug diameter (pg. 7-20 through 7-22) for clearance over flange hub.



### Three-Hole Triangular



### Three-Hole Rectangular



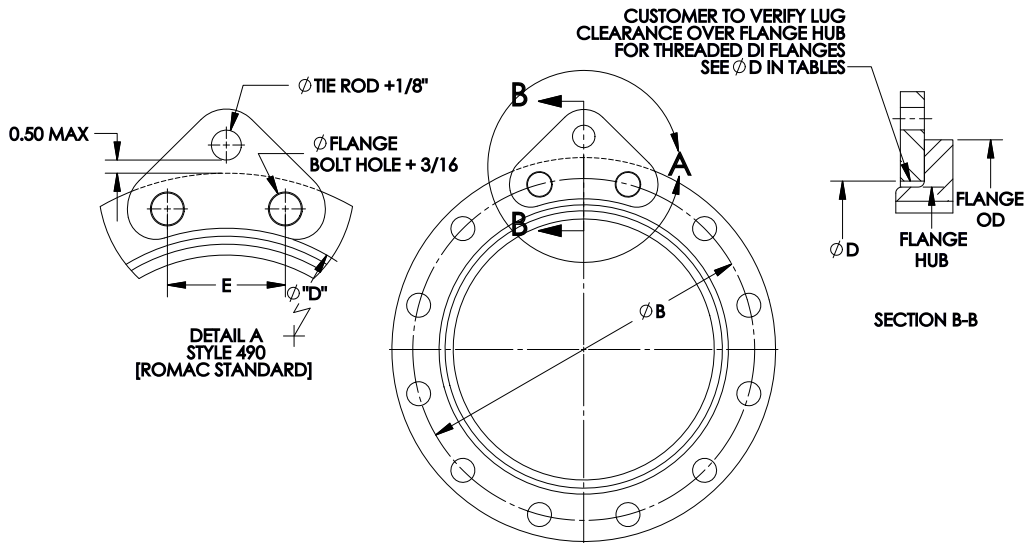
## TIE RODS - All Thread Rod with 4 Heavy Hex Nuts

SIZE (UNC)	LIST PRICE - STANDARD LENGTH																	
	ALLOY STEEL (A193 GR B7)						304 STAINLESS STEEL (A193 GR B8)						316 STAINLESS STEEL (A193 GR B8M)					
	18"	24"	30"	36"	42"	48"	18"	24"	30"	36"	42"	48"	18"	24"	30"	36"	42"	48"
5/8"	\$12.97	\$16.51	\$20.18	\$23.58	\$27.11	\$30.65	\$59.76	\$72.49	\$85.69	\$97.91	\$110.62	\$123.33	\$95.71	\$114.82	\$134.71	\$153.07	\$172.18	\$191.29
3/4"	21.44	27.29	33.36	38.98	44.82	50.64	84.20	102.27	121.07	138.40	156.49	174.56	147.27	176.16	206.20	233.93	262.82	291.71
7/8"	29.08	35.82	42.55	49.28	56.02	62.76	120.76	147.84	173.89	198.89	224.93	250.98	223.11	265.44	309.44	350.09	392.40	434.70
1"	45.27	54.60	63.60	72.22	81.20	90.20	183.07	218.62	252.80	285.62	319.80	353.98	257.69	358.58	417.62	474.31	533.36	592.42
1 1/8"	55.69	68.64	81.09	93.07	105.51	117.98	250.62	301.42	350.29	397.20	446.04	494.91	391.11	466.16	538.31	607.58	679.73	751.89
1 1/4"	80.02	96.18	111.69	126.60	142.13	157.64	335.42	401.49	465.02	528.56	589.53	653.07	496.09	592.20	684.62	777.02	865.76	958.18
1 1/2"	118.51	141.89	164.36	185.91	207.38	230.84	511.51	608.71	702.18	791.89	885.36	978.82	784.29	935.62	1,081.16	1,220.84	1,366.38	1,511.89
1 3/4"	289.86	353.22	414.25	472.84	533.87	595.92	750.71	888.71	1,021.38	1,148.76	1,281.44	1,414.11	1,187.78	1,417.20	1,637.78	1,849.53	2,070.13	2,290.71

**To Order:** Specify size, length and type of steel. To determine the number of necessary tie-rods see harness lug charts on pages 7-20, 7-21 and 7-22.



# Style "490" Triangular Harness Lugs



## STYLE 490 - ROMAC STANDARD LUG - "3 HOLE TRIANGULAR"

FLANGE SIZE	REQUIRED TIE-ROD QUANTITY MAXIMUM PRESSURE					TIE-ROD SIZE (UNC)	LUG THICKNESS	LIST PRICE EACH (two lugs required per rod)			LUG DIAMETER (FOR CLEARANCE) ØD
	50 PSI	100 PSI	150 PSI	200 PSI	275 PSI			BARE	SHOPCOAT	EPOXY	
3"	2	2	2	2	2	5/8	0.50	\$49.19	\$47.92	\$56.44	Ø4.80
4"	2	2	2	2	2	5/8	0.50	64.58	63.31	68.20	Ø6.38
6"	2	2	2	2	2	5/8	0.75	77.14	75.87	83.24	Ø8.16
8"	2	2	2	3	3	5/8	0.75	96.20	94.93	93.47	Ø10.38
10"	2	2	2	3	3	3/4	1.00	112.71	111.44	121.47	Ø12.68
12"	2	2	2	3	3	7/8	1.00	134.13	132.86	147.78	Ø15.12
14"	2	2	2	3	3	1	1.00	143.91	142.64	149.62	Ø16.68
16"	2	2	2	3	4	1	1.00	152.09	150.82	161.40	Ø19.32
18"	2	2	3	4	5	1	1.00	163.60	162.33	167.78	Ø20.90
20"	2	3	4	5	6	1	1.00	174.71	173.44	181.64	Ø23.00
24"	2	3	5	6	9	1	1.00	184.20	181.93	191.79	Ø27.28
30"	2	3	5	6	9	1 1/4	1.25	243.27	242.00	243.98	Ø33.82
36"	3	5	7	9	12	1 1/4	1.25	243.33	252.12	252.21	Ø40.12
42"	3	6	9	12	16	1 1/4	1.25	261.10	260.01	257.65	Ø46.68
48"	3	6	8	11	15	1 1/2	1.75	512.82	511.55	533.33	Ø52.82
54"	4	7	10	14	18	1 1/2	1.75	569.80	568.53	586.09	Ø59.26
60"	5	9	13	17	23	1 1/2	1.75	584.80	583.53	608.82	Ø65.76
66"	4	8	11	15	20	1 3/4	2.00	613.02	611.75	650.40	Ø72.00
72"	5	9	13	18	24	1 3/4	2.00	784.31	783.04	838.58	Ø79.00

**STYLE 490 REQUIREMENTS:**

- 1.) DRAWING REFERENCES: 3" - 12" B3305-A; 14" - 72" B3292-A
- 2.) (2) LUGS REQUIRED PER TIE ROD
- 3.) 4 NUTS REQUIRED PER TIE ROD, (DOUBLE NUT CONFIGURATION)
- 4.) TIE ROD SIZE VARIES, SEE TABLE

**To Order:** Specify style, flange size and coating option.  
For Tie-Rods see page 7-19.



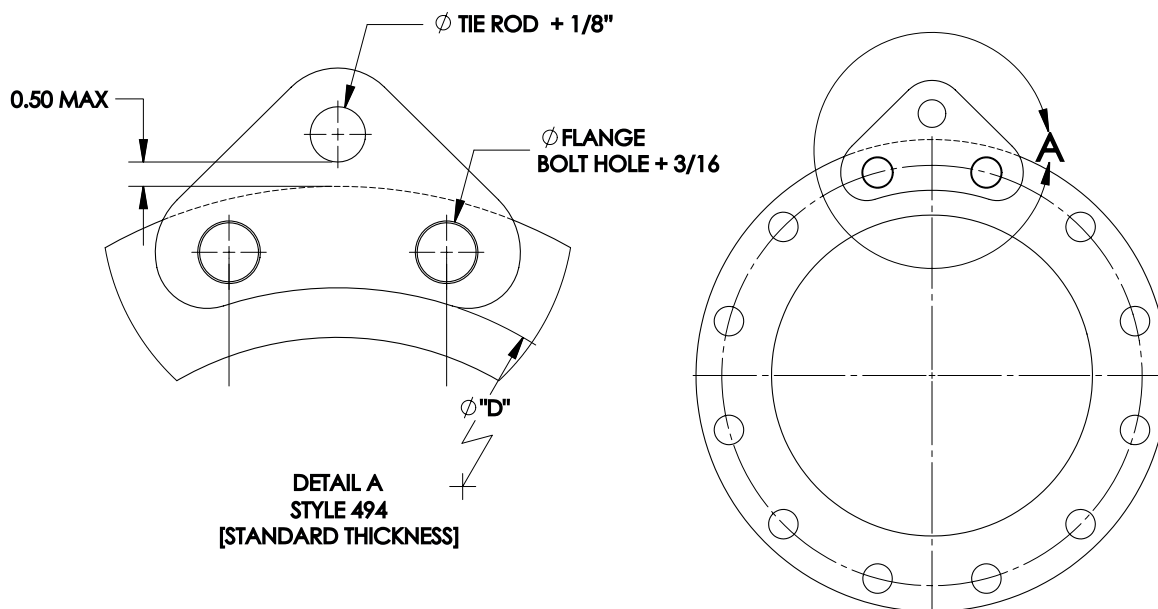
**CAUTION:** Some threaded ductile iron flanges have large diameter hubs which may interfere with harness lug radius. Check lug diameter (above) for clearance over flange hub.

**\*NOTE:** Harness Lugs used with Romac FCA501s require longer flange and through bolts than what are provided as standard with 3" - 12" FCA501s. 10" FCA501s require special considerations. Contact Romac Engineering for more information.





# Style "494" Triangular Harness Lugs



## STYLE 494 - STANDARD THICKNESS - "3 HOLE TRIANGULAR"

FLANGE SIZE	REQUIRED TIE-ROD QUANTITY MAXIMUM PRESSURE		TIE-ROD SIZE (UNC)	LUG THICKNESS	LIST PRICE EACH (two lugs required per rod)			LUG DIAMETER (FOR CLEARANCE) ØD
	100 PSI	200 PSI			BARE	SHOPCOAT	EPOXY	
3"	2	2	3/4	1.00	\$ 57.84	\$56.57	\$66.10	Ø4.75
4"	2	2	3/4	1.00	71.87	70.60	75.89	Ø5.57
6"	2	2	3/4	1.00	85.82	84.55	92.64	Ø7.81
8"	2	2	3/4	1.00	107.00	105.73	103.98	Ø9.98
10"	2	4	3/4	1.00	111.71	110.44	120.47	Ø12.31
12"	2	4	3/4	1.00	133.13	131.86	146.78	Ø14.41
14"	2	4	3/4	1.00	142.91	141.64	148.62	Ø16.50
16"	4	6	3/4	1.00	151.09	149.82	160.40	Ø18.69
18"	4	8	3/4	1.00	162.60	161.33	166.78	Ø20.78
20"	4	6	1	1.25	173.71	172.44	180.61	Ø22.88
24"	4	6	1	1.25	183.20	181.93	190.79	Ø27.07
30"	6	10	1	1.25	225.27	224.00	234.59	Ø33.00
36"	8	14	1	1.25	233.98	232.71	242.51	Ø39.37

**STYLE 494 REQUIREMENTS:**

- 1.) DRAWING REFERENCES: B2784-A
- 2.) FOR SIMPLICITY, LUG THICKNESSES AND TIE ROD SIZES ARE STANDARDIZED
- 3.) DEVELOPED FROM CUSTOMER REQUESTS AND DETAILS
- 4.) (2) LUGS REQUIRED PER TIE ROD
- 5.) 4 NUTS REQUIRED PER TIE ROD, (DOUBLE NUT CONFIGURATION)



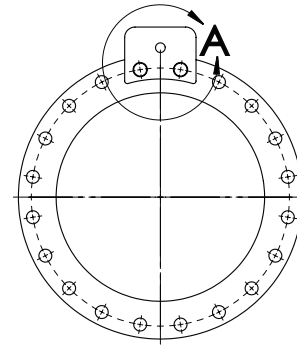
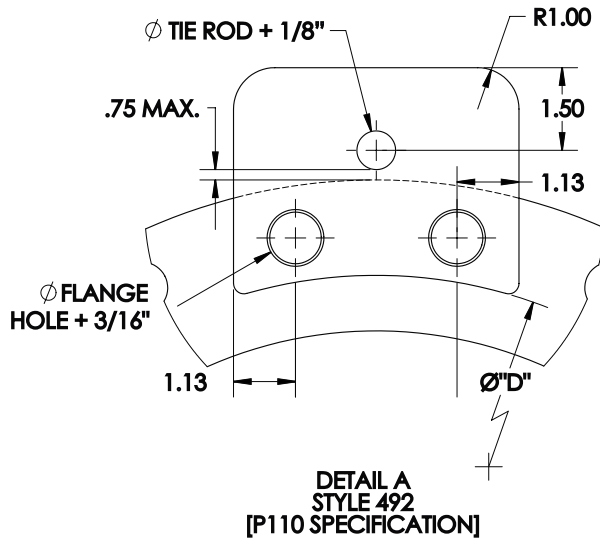
**CAUTION:** Some threaded ductile iron flanges have large diameter hubs which may interfere with harness lug radius. Check lug diameter (above) for clearance over flange hub.

**To Order:** Specify style, flange size and coating option.  
For Tie-Rods see page 7-19.

**\*NOTE:** Harness Lugs used with Romac FCA501s require longer flange and through bolts than what are provided as standard with 3" - 12" FCA501s. 10" FCA501s require special considerations. Contact Romac Engineering for more information.



# Style "492" Rectangular Harness Lugs



## STYLE 492 - SPECIFICATION P110 - "3 HOLE RECTANGULAR"

FLANGE SIZE	REQUIRED TIE-ROD QUANTITY, MAXIMUM PRESSURE										LUG THICKNESS	LIST PRICE EACH (two lugs required per rod)			LUG DIAMETER (FOR CLEARANCE) ØD
	50 PSI	TIE-ROD SIZE	100 PSI	TIE-ROD SIZE	150 PSI	TIE-ROD SIZE	200 PSI	TIE-ROD SIZE	250 PSI	TIE-ROD SIZE		BARE	SHOPCOAT	EPOXY	
3"	2	3/4	2	0.75	2	3/4	2	0.75	2	3/4	1.00	\$61.20	\$59.93	\$73.31	Ø4.75
4"	2	3/4	2	0.75	2	3/4	2	0.75	2	3/4	1.00	75.78	74.51	79.96	Ø5.57
6"	2	3/4	2	0.75	2	3/4	2	0.75	2	3/4	1.00	90.30	89.03	97.39	Ø7.81
8"	2	3/4	2	0.75	2	3/4	3	0.75	3	3/4	1.00	112.32	111.05	109.18	Ø9.98
10"	2	3/4	2	0.75	3	3/4	4	0.75	5	3/4	1.00	117.22	115.95	126.33	Ø12.31
12"	2	3/4	3	0.75	4	3/4	5	0.75	4	1	1.00	139.50	138.23	153.69	Ø14.41
14"	2	3/4	4	0.75	5	3/4	4	1	5	1	1.00	146.67	145.40	155.61	Ø16.50
16"	2	3/4	4	0.75	4	1	5	1	6	1	1.00	158.17	156.90	167.86	Ø18.69
18"	3	3/4	5	0.75	5	1	6	1	8	1	1.00	170.14	168.87	176.49	Ø20.78
20"	4	3/4	4	1	6	1	8	1	9	1	1.00	181.70	180.43	188.19	Ø22.88
24"	5	3/4	6	1	8	1	NA	NA	NA	NA	1.00	191.57	190.30	199.47	Ø27.07
30"	4	1	8	1	12	1	NA	NA	NA	NA	1.00	255.11	253.84	262.19	Ø33.00
36"	6	1	12	1	NA	NA	NA	NA	NA	NA	1.00	264.52	263.25	287.14	Ø39.37
42"	8	1	15	1	NA	NA	NA	NA	NA	NA	1.00	245.75	244.48	313.12	Ø45.56
48"	10	1	20	1	NA	NA	NA	NA	NA	NA	1.00	338.83	337.56	346.31	Ø52.00
54"	13	1	NA	NA	NA	NA	NA	NA	NA	NA	1.00	384.79	383.52	393.31	Ø58.25

**STYLE 492 REQUIREMENTS:**

- HARNES PLATE THICKNESS IS 1.0"
- TIE ROD SIZE IS 3/4" OR 1", DEPENDING UPON PIPE THRUST, SEE TABLE
- PIPE THRUST BASED ON TEST PRESSURE
- (2) LUGS REQUIRED PER TIE ROD
- 4 NUTS REQUIRED PER TIE ROD, (DOUBLE NUT CONFIGURATION.)



**CAUTION:** Some threaded ductile iron flanges have large diameter hubs which may interfere with harness lug radius. Check lug diameter (above) for clearance over flange hub.

**\*NOTE:** Harness Lugs used with Romac FCA501s require longer flange and through bolts than what are provided as standard with 3" - 12" FCA501s. 10" FCA501s require special considerations. Contact Romac Engineering for more information.

**To Order:** Specify style, flange size and coating option.  
For Tie-Rods see page 7-19.



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## A.W.W.A Manual M11 Harness Restraint

### Material Specifications

**Restraint Rings:** This weldment is manufactured from ASTM A36 Steel with a minimum yield stress of 36,000 psi. Two of these are required, one on each side of the coupling.

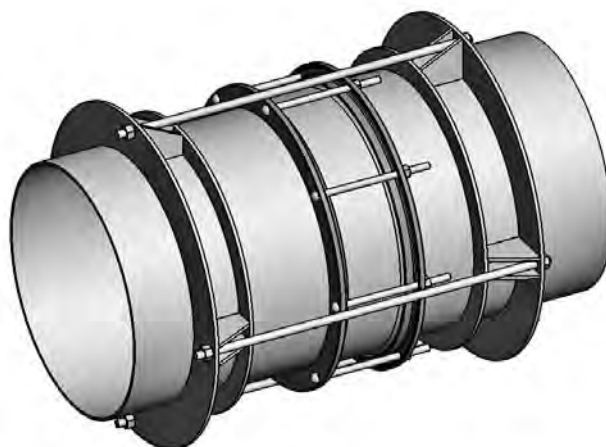
**Tie Rods:** High tensile alloy steel per ASTM A193 grade B7. Type 304 or 316 stainless steel is optional and requires twice as many rods.

**Coating:** Bare, unless otherwise specified.

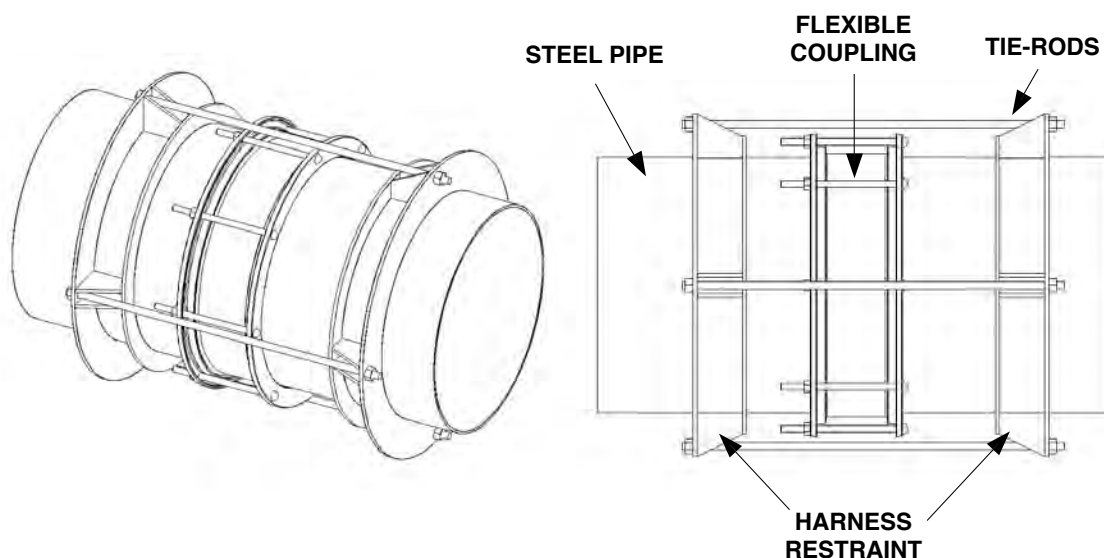
**Pressure:** The standard design pressures of 50, 100, 150, 200, & 250 psi are specified in the AWWA M11 manual. These pressures specify the tie rod quantities and diameter. Other pressures can be accommodated.

**Ring Tolerance:** The Harness weldment inner diameter (ID) is manufactured with a 3/16 inch (on diameter) clearance between the specified pipe OD up through 24 inch and 1/4 inch larger than 24 inch.

**Sizes:** 6" – 96" for steel pipe. Other sizes available on request.



***Romac manufactures joint harnesses as specified per AWWA M11, Chapter 13, designed to restrain flexible couplings (Style 501 and Style 400) on steel pipelines. These harness assemblies are field welded in place.***



Contact your Romac representative for more information.

All prices: Priced On Application.





## Important Information

# Properties of HDPE pipe

High density polyethylene pipe (HDPE) has several properties that make it very different from “traditional” water works pipe materials:

- **Coefficient of thermal expansion** is over 10 times that of DI and steel and 3 times that of PVC. In practical terms, this means HDPE pipe shrinks 10 times as much as DI and 3 times as much as PVC when it gets cold. This can loosen any fittings installed on it. Also, it's length shrinks 1 inch per 100 feet of pipe length with a 10° F temperature drop, making it likely to pull out of unrestrained couplings.
- **Yield strength** of HDPE is approximately  $\frac{1}{50}$  that of DI or steel and  $\frac{1}{5}$  that of PVC.
- **Modulus of Elasticity** of HDPE is much lower than other pipe materials, which means it is not as rigid.
- **Creep** is continuous yield of material under stress. HDPE will creep if the stress placed on it gets above a certain level. If great care is not taken when designing fittings for use on HDPE pipe, this stress level can be exceeded and fittings that work great today may fail later as the HDPE creeps.
- **Low coefficient of friction** means HDPE is very “slick.” This makes it easy for fittings to rotate on the pipe or migrate along it.
- **Toe-in** occurs when HDPE is cut. This can affect tapping sleeves and saddles, and makes stiffeners difficult to install in pipe ends.

## Limitations of Romac products for use on HDPE pipe

HDPE has a lower modulus of elasticity and higher coefficient of thermal expansion than other pipe materials. These properties cause HDPE pipe to expand and contract much more from changes in temperature and/or pressure than other piping materials. Because of these and other properties, great care must be taken in choosing fittings and repair products for use on HDPE pipe. Romac products in this catalog section are designed to function within the following limitations:

- Pipe must be manufactured in accordance with AWWA Standard ANSI/AWWA C906-90 / with respect to size.
- Operating temperatures are limited to 85° F maximum and 32° F minimum.
- Operating pressure is limited to 150 psi or the rating of the pipe, whichever is less.
- Pipe systems must be designed to compensate for pipe movement so as to prevent fittings from migrating or rotating on the pipe.
- Products are intended for use in underground service only.
- Romac internal pipe stiffeners must be used when coupling pipe ends.
- Proper restraint must be used when coupling pipe ends to prevent pullout from hydraulic forces or temperature changes.



**Romac cannot warrant products used in applications that are outside one or more of these limitations. Contact Romac's Engineering Department at 1-800-426-9341 if you have questions about the use of our products on HDPE pipe.**

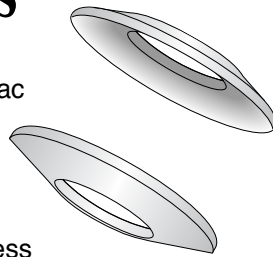
**FOR HIGH DENSITY  
POLYETHYLENE PIPE**

MADE IN U.S.A

## Important Information

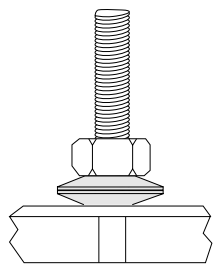
# Spring Washers

Spring washers are used with Romac products for HDPE pipe to help counteract the problem of pipe contraction during temperature and pressure changes. They are made of a special "spring" grade of stainless steel.

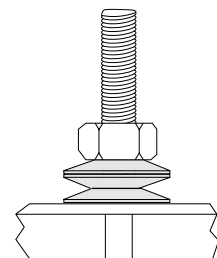


**Only products listed in the HDPE Products section are suitable for use with HDPE pipe. Do not use products not listed in this section on HDPE!**

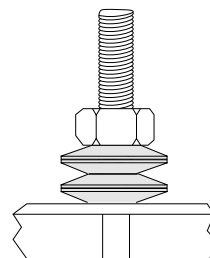
The proper number of bolts have been provided for each fitting based on the limitations on Page 8-1.



**Two Spring Washers**



**Three Spring Washers**



**Four Spring Washers**

## DIMENSIONS OF COMMON HDPE PIPE

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SDR 21		SDR 17		SDR 13.5		SDR 11		SDR 9	
		PRESSURE CLASS 80		PRESSURE CLASS 100		PRESSURE CLASS 128		PRESSURE CLASS 160		PRESSURE CLASS 200	
		INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS	INSIDE DIAMETER	WALL THICKNESS
<b>3"</b>	3.50	3.167	0.167	3.088	0.206	2.981	0.259	2.864	0.318	2.722	0.389
<b>4"</b>	4.50	4.071	0.214	3.971	0.265	3.833	0.333	3.682	0.409	3.500	0.500
	4.80	4.343	0.229	4.235	0.282	4.089	0.356	3.927	0.436	3.733	0.533
<b>5"</b>	5.56	5.033	0.265	4.909	0.327	4.739	0.412	4.552	0.506	4.327	0.618
<b>6"</b>	6.63	5.994	0.315	5.846	0.390	5.644	0.491	5.420	0.602	5.153	0.736
	6.90	6.243	0.329	6.088	0.406	5.878	0.511	5.645	0.627	5.367	0.767
<b>8"</b>	8.63	7.804	0.411	7.610	0.507	7.347	0.639	7.057	0.784	6.708	0.958
	9.05	8.188	0.431	7.985	0.532	7.709	0.670	7.405	0.823	7.039	1.006
<b>10"</b>	10.75	9.726	0.512	9.485	0.632	9.157	0.796	8.795	0.977	8.361	1.194
	11.10	10.043	0.529	9.794	0.653	9.456	0.822	9.082	1.009	8.633	1.233
<b>12"</b>	12.75	11.536	0.607	11.250	0.750	10.861	0.944	10.432	1.159	9.917	1.417
	13.20	11.943	0.629	11.647	0.776	11.244	0.978	10.800	1.200	10.267	1.467
<b>14"</b>	14.00	12.667	0.667	12.353	0.824	11.926	1.037	11.455	1.273	10.889	1.556
<b>16"</b>	16.00	14.476	0.762	14.118	0.941	13.630	1.185	13.091	1.455	12.444	1.778
<b>18"</b>	18.00	16.286	0.857	15.882	1.059	15.333	1.333	14.727	1.636	14.000	2.000
<b>20"</b>	20.00	18.095	0.952	17.647	1.176	17.037	1.481	16.364	1.818	15.556	2.222
<b>22"</b>	22.00	19.905	1.048	19.412	1.294	18.741	1.630	18.000	2.000	17.111	2.444
<b>24"</b>	24.00	21.714	1.143	21.176	1.412	20.444	1.778	19.636	2.182	18.667	2.667

This chart is based on information in AWWA Standard ANSI/AWWA C906-90.

Contact Romac's Engineering Department at 1-800-426-9341 for sizes not listed in the catalog.

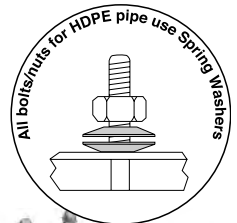
All dimensions are nominal and subject to manufacturing tolerances.



# HDPE FOR HIGH DENSITY POLYETHYLENE PIPE



## “SS1-H”, “SS2-H” and “SS3-H” Repair Clamps



**Material Specifications**

**Shells and Lugs:** Stainless steel per ASTM A 240, type 304, fully passivated.<sup>1</sup>

**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Flat washers are stainless steel per ASTM A 240, type 304; spring washers are special “spring” grade of stainless steel and plastic lubricating washers.

**Gaskets:** SBR per ASTM D 2000 MAA 610. Compounded for water and sewer service. Other compounds available on request.



**SS1-H**  
One Section



**SS2-H**  
Two Sections



**SS3-H**  
Three Sections

For above-ground HDPE applications, contact Romac’s Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac’s Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

NOM. PIPE SIZE	OUTSIDE DIAMETER	CATALOG NUMBER	LIST PRICE (WEIGHT) for LENGTH of:			
			8"	12"	16"	20"
2"	2.38	SS1-H - 2.38 x length	\$133.18 (4#)	\$217.78 (5#)	\$243.41 (8#)	—
3"	3.50	SS1-H - 3.50 x length	155.38 (5#)	247.41 (6#)	290.19 (9#)	—
4"	4.50	SS1-H - 4.50 x length	170.75 (5#)	268.06 (8#)	309.81 (10#)	—
	4.50	SS2-H - 4.50 x length	232.13 (9#)	362.00 (13#)	437.86 (17#)	—
	4.80	SS1-H - 4.80 x length	170.75 (5#)	268.06 (8#)	309.81 (10#)	—
	4.80	SS2-H - 4.80 x length	232.13 (9#)	362.00 (13#)	437.86 (17#)	—
6"	6.63	SS1-H - 6.63 x length	226.36 (7#)	355.18 (10#)	413.98 (14#)	—
	6.63	SS2-H - 6.63 x length	307.18 (11#)	459.54 (17#)	588.43 (22#)	—
	6.90	SS1-H - 6.90 x length	226.36 (7#)	355.18 (10#)	413.98 (14#)	—
	6.90	SS2-H - 6.90 x length	307.18 (11#)	459.54 (17#)	588.43 (22#)	—
8"	8.63	SS1-H - 8.63 x length	254.18 (8#)	401.19 (12#)	476.85 (15#)	—
	8.63	SS2-H - 8.63 x length	342.07 (12#)	500.54 (19#)	654.50 (24#)	—
	9.05	SS1-H - 9.05 x length	254.18 (8#)	401.19 (12#)	476.85 (15#)	—
	9.05	SS2-H - 9.05 x length	342.07 (12#)	500.54 (19#)	654.50 (24#)	—
10"	10.75	SS2-H - 10.75 x length	424.96 (11#)	814.28 (16#)	893.14 (24#)	—
	10.75	SS3-H - 10.75 x length	532.36 (15#)	875.31 (23#)	1,177.34 (32#)	—
	11.10	SS2-H - 11.10 x length	424.96 (11#)	814.28 (16#)	893.14 (24#)	—
	11.10	SS3-H - 11.10 x length	532.36 (15#)	875.31 (23#)	1,177.34 (32#)	—
12"	12.75	SS2-H - 12.75 x length	550.20 (16#)	923.14 (25#)	1,064.45 (33#)	—
	12.75	SS3-H - 12.75 x length	580.18 (22#)	960.37 (33#)	1,225.17 (43#)	\$1,751.25 (56#)
	13.20	SS2-H - 13.20 x length	550.20 (16#)	923.14 (25#)	1,064.45 (33#)	—
	13.20	SS3-H - 13.20 x length	580.18 (22#)	960.37 (33#)	1,225.17 (43#)	1,751.25 (56#)

For higher working pressures, clamp length should equal or exceed diameter of pipe. Sizes and lengths not listed are available on request. Clamps are not to be used for joining plain end pipe.

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.



The SS1-H, SS2-H and SS3-H are not to be used on HDPE pipe with an SDR greater than 26.

**To Order:** Specify catalog number x length of clamp desired. **Indicate if for above ground application.**

**Example:** For a one-section clamp for pipe with an O.D. of 6.63, and clamp length of 12", order **SS1-H - 6.63 x 12"**

**For Tapped Outlets See Page 8-4**

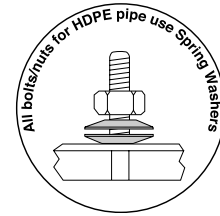
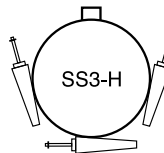
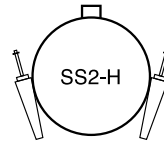
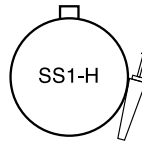


**HDPE Products are No Cancel, No Return Items**

**HDPE FOR HIGH DENSITY POLYETHYLENE PIPE**  **Taps for Repair Clamps “SS1-H”, “SS2-H” and “SS3-H”**



**6" SS1-H - 6.63 x 12 x 3/4" IP Tapped Repair Clamp**



**For above-ground HDPE applications, contact Romac's Engineering Department at 1-800-426-9341.**

**Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac's Engineering Department.**

**For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.**


**Available in All Styles**

The same design, construction, and installation features as Styles SS1-H, SS2-H and SS3-H. Tapped outlet is stainless steel per ASTM A 240, type 304, permanently “fused” by GTAW welding, and fully passivated <sup>1</sup>.

**To Order:**

1. Select size, length, and style of clamp.
2. Select size and type of tapped thread desired from the table below.
3. Add list price for tap to the list price of clamp selected from separate price sheet.
4. Indicate if for above ground application.
5. Tapped outlet products are NO CANCEL/NO RETURN items—please be specific when ordering.

**Example:** For a one-section clamp for pipe with an O.D. of 6.63, with length of 12" and a 3/4" iron pipe tap size, order **SS1-H-6.63 x 12 x 3/4" IP**

 The SS1-H, SS2-H and SS3-H are not to be used on HDPE pipe with an SDR greater than 26.

**ADD ON LIST PRICES FOR TAPPED CLAMPS**

TAP SIZE	TYPE OF THREAD	MINIMUM PIPE O.D.	MINIMUM LENGTH	ADD ON LIST PRICE
3/4"	Iron Pipe or AWWA Taper (CC)	2.38"	8"	\$54.18
1"	Iron Pipe or AWWA Taper (CC)	2.38"	8"	84.93
1 1/4"	Iron Pipe or AWWA Taper (CC)	2.88" <sup>2</sup>	12"	84.93
1 1/2"	Iron Pipe or AWWA Taper (CC)	3.50"	12"	84.93
2"	Iron Pipe	3.50"	12"	84.93
2"	AWWA Taper (CC)	4.50"	12"	103.98
2 1/2" <sup>3</sup>	Iron Pipe only (MIP, FIP)	6.63" <sup>4</sup>	12"	240.16
3" <sup>3</sup>	Iron Pipe only (MIP, FIP) SS2, SS3 only	8.63" <sup>4</sup>	12"	240.16

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.

<sup>2</sup> CC tap requires 3.50 OD minimum.

<sup>3</sup> Requires SS2-H or SS3-H

<sup>4</sup> MIP only

 **HDPE Products are No Cancel, No Return Items**

# HDPE FOR HIGH DENSITY POLYETHYLENE PIPE



## “101N-H” and “202N-H” Service Saddles

**Material Specifications**

**Strap:** 3" size uses 1/2" bolts, nuts and washers. 4" and above use 3/8". All welds fully passivated<sup>1</sup> for enhanced corrosion resistance.

**Band:** Stainless steel per ASTM A 240, type 304. 2" wide to "spread out" clamping forces on the pipe.

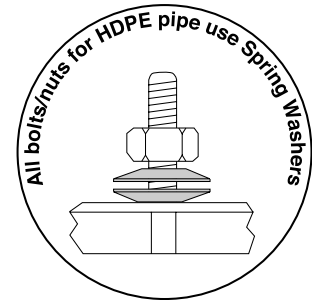
**Bolts:** UNC rolled thread, stainless steel per ASTM A 193, type 304. Fasteners coated to prevent galling.

**Nuts:** Heavy hex, stainless steel per ASTM A 194, type 304.

**Washers:** Flat washers are stainless steel per ASTM A 240, type 304; spring washers are special "spring" grade of stainless steel and plastic lubricating washers.

**Saddle Castings:** Ductile iron per ASTM A-536, grade 65-45-12, covered by black nylon fused coat, approx. 10-12 mil thick, with approximate dielectric strength of 1,000 v/mil.

**Gaskets:** NBR per ASTM MBC 610, compounded for water and sewer service. Other compounds available on request.



**Style 101N-H**  
Nylon Saddle with Stainless Steel Single Strap



**Style 202N-H**  
Nylon Saddle with Stainless Steel Double Strap

For above-ground HDPE applications, contact Romac's Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac's Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.



The 101N-H and 202N-H Saddles are not to be used on HDPE pipe with an SDR greater than 26.

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	1/2" I.P, 3/4" & 1" I.P. or C.C. TAP				1 1/4" - 1 1/2" - 2" I.P. or C.C. TAP (2 1/2" I.P. ONLY)			
		101N-H		202N-H		101N-H		202N-H	
		LIST PRICE	APPROX. WEIGHT	LIST PRICE	APPROX. WEIGHT	LIST PRICE	APPROX. WEIGHT	LIST PRICE	APPROX. WEIGHT
2"	2.13	\$81.91	1.7 #	N/A	N/A	\$96.96 <sup>4</sup>	2.1 # <sup>4</sup>	N/A	N/A
	2.38	81.91	1.7 #	\$154.10	3.5 #	N/A	N/A	\$164.74 <sup>2</sup>	3.5 #
3"	3.50	84.86	2.5 #	158.38	5.0 #	N/A	N/A	\$163.59 <sup>3</sup>	5.0 #
4"	4.50	93.48	4.3 #	175.62	7.5 #	108.52	4.3 #	185.07	7.5 #
	4.80								
6"	6.63	107.28	5.1 #	191.74	9.0 #	120.38	5.1 #	202.66	9.0 #
	6.90								
8"	8.63	148.99	5.5 #	276.81	10.0 #	165.67	5.5 #	289.16	10.0 #
	9.05								
10"	10.75	161.12	7.5 #	305.17	11.5 #	178.69	7.5 #	318.70	11.5 #
	11.10								
12"	12.75	176.46	9.0 #	334.40	12.5 #	196.9	9.0 #	349.66	12.5 #
	13.20								

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosion-resistant coating.

<sup>2</sup> 202N-H - 2.38 can accommodate up to 1 1/2" I.P. and 1 1/4" C.C. only.

<sup>3</sup> 202N-H - 3.50 can accommodate up to 2" I.P. and 1 1/2" C.C. only.

<sup>4</sup> 1 1/4" IP Tap only.

**To Order:** Add tap size and thread type to the outside diameter. **Indicate if for above ground application.**

Example: **101N-H - 6.63 x 3/4" IP**



**HDPE Products are No Cancel, No Return Items**

**HDPE** FOR HIGH DENSITY POLYETHYLENE PIPE 

**“305-H” and “306-H”  
All Stainless Steel Service Saddles**

**Material Specifications**

**Shells:** Stainless steel per ASTM A 240, type 304, fully passivated <sup>1</sup>.

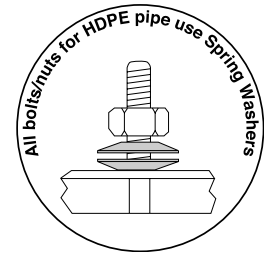
**Bolts:** UNC rolled thread, Teflon coated, stainless steel per ASTM A 193, type 304.

**Nuts:** Stainless steel per ASTM A 194, type 304.

**Washers:** Flat washers are stainless steel per ASTM A 240, type 304; spring washers are special “spring” grade of stainless steel and plastic lubricating washers.

**Gasket:** NBR per ASTM D 2000 MBC 610, compounded for water and sewer service. Other compounds available on request.

**Tapped Outlet:** Stainless steel per ASTM A 240, type 304.



305-H Saddle



306-H Saddle

For above-ground HDPE applications, contact Romac’s Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac’s Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

“306-H” SADDLE					
NOM. PIPE SIZE	OUTSIDE DIAMETER	TAP	I.P.	C.C.	WEIGHT (lbs.)
2"	2.13 2.38	3/4" & 1"	\$106.74	\$106.74	2 #
3"	3.50	3/4" & 1" 1 1/4" 1 1/2" 2"	204.05 234.38 234.38 234.38	204.05 234.38 234.38 NA	3 #
4"	4.50 4.80	3/4" & 1" 1 1/4" 1 1/2" 2"	209.53 234.38 234.38 234.38	209.53 234.38 234.38 234.38	4 #
5"	5.56	3/4" & 1" 1 1/4" 1 1/2", 2"	219.73 256.74 256.74	219.73 256.74 256.74	4 #
6"	6.63 6.90	3/4" & 1" 1 1/4" 1 1/2", 2"	244.87 262.27 262.27	244.87 262.27 262.27	4 #
8"	8.63 9.05	3/4" & 1" 1 1/4" 1 1/2", 2"	263.81 286.38 286.38	263.81 286.38 286.38	6 #

“305-H” SADDLE					
NOM. PIPE SIZE	OUTSIDE DIAMETER	I.P. OR C.C. 3/4", 1"	I.P. OR C.C. 1 1/4", 1 1/2", 2"	FIP or MIP 2 1/2", 3"	APPROX. WEIGHT (lbs.)
10"	10.75 11.10	\$374.99	\$409.61	\$831.19	14#
12"	12.75 13.20	374.99	409.61	831.19	14 #

<sup>1</sup> **Passivated:** Chemically treated after welding to produce a highly corrosive resistant coating.

**To Order:** Use pipe O.D. when ordering. Add tap size and thread type. Be specific when ordering. **Indicate if for above ground application.** Tapped outlet products are NO CANCEL/NO RETURN items.

**Example:** 305-H - 10.75 x 3/4" I.P.

**305-H**  
8" wide with four 5/8" bolts.

- 306-H**
- (A) 2" through 5" nominal sizes with small (3/4" or 1") taps are 6" long with two 1/2" bolts.
  - (B) 6" through 8" sizes with small (3/4" or 1") taps are 6" long with two 5/8" bolts.
  - (C) 3" through 8" sizes with large (1 1/4", 1 1/2", or 2") taps are 8" long with two 5/8" bolts.



The 305-H and 306-H are not to be used on HDPE pipe with an SDR greater than 26.



HDPE Products are No Cancel, No Return Items



# HDPE FOR HIGH DENSITY POLYETHYLENE PIPE

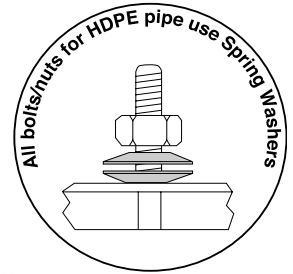


## "BP" All Stainless Steel Sewer Saddle

### Material Specifications

- Shell and Lugs:** Stainless steel per ASTM A 240, type 304.
- Neck:** Stainless steel per ASTM A 240, type 304; Sch 10 pipe.
- Bolts:** 5/8" UNC rolled thread, stainless steel per ASTM A 193, type 304. Fasteners coated to prevent galling.
- Nuts:** Heavy hex, stainless steel per ASTM A 194, type 304.
- Washers:** Flat washers are stainless steel per ASTM A 240, type 304; spring washers are special "spring" grade of stainless steel and plastic lubricating washers.
- Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

### A Romac Original



For above-ground HDPE applications, contact Romac's Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac's Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

**Branch to Neck Connection:** This connection can be made with Romac's Style SS1-H Repair Clamp (or any other standard coupling). See Page 8-3.

NOM. BRANCH SIZE	NOM. PIPE SIZE	OUTSIDE DIAMETER	BRANCH O.D.	CATALOG NUMBER	LIST PRICE	APPROX. WEIGHT (lbs.)
4"	6"	6.63	4.50	BP-6.63 x 4.50	\$530.60	14.5 #
		6.90		BP-6.90 x 4.50		
	8"	8.63	4.50	BP-8.63 x 4.50	578.43	14.8 #
		9.05		BP-9.05 x 4.50		
6"	8"	8.63	6.63	BP-8.63 x 6.63	699.13	15.8 #
		9.05		BP-9.05 x 6.63		
6"	10"	10.75	6.63	BP-10.75 x 6.63	755.07	15.8 #
		11.10		BP-11.10 x 6.63		
	12"	12.75	6.63	BP-12.75 x 6.63	790.19	16.3 #
13.20		BP-13.20 x 6.63				

**To Order:** Sewer main O.D. x branch O.D.  
**Indicate if for above ground application.**

**Example:** For a sewer main O.D. of 8.63" and branch O.D. of 4.50", order **BP - 8.63 x 4.50**

Other sizes are available on request - P.O.A.

Branch on the inside of the saddle is not radiused. This part of the branch will intersect the wall of the main, eliminating the potential for the saddle to migrate around or along the pipe. The pipe must be tapped before installing the saddle.

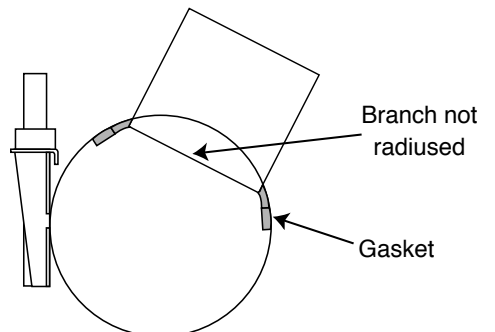


The "BP Sewer Saddle is not to be used on HDPE pipe with an SDR greater than 32.5.



**HDPE Products are No Cancel, No Return Items**

**Standard orientation of bolts to branch**  
 Other orientations and variations available on request.



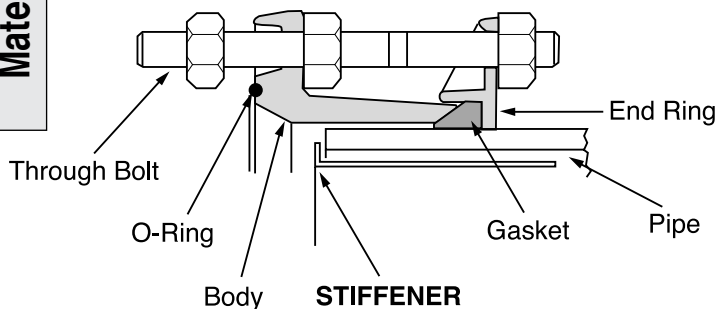
# HDPE FOR HIGH DENSITY POLYETHYLENE PIPE



## Stiffening Inserts

**Material Specifications**

Romac's specially designed Stiffening Inserts provide circumferential inside support of HDPE pipe ends. The Stiffening Inserts are constructed of stainless steel per ASTM 240, type 304; their thin yet strong wall reinforces the pipe without disturbing the flow characteristic of the medium.



**!** Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

A Stiffener must be used in a coupling for SDR greater than 7.

Romac Only warrants the use of Romac stiffeners with Romac 501 Couplings and Romac Flanged Coupling Adapters.

Romac Couplings are not to be used on HDPE pipe with an SDR greater than 32.5.

For above-ground HDPE applications, contact Romac's Engineering Department at 1-800-426-9341.

Products and prices listed on pages 8-9 and 8-10 are standard Romac sizes. For information on other sizes, contact Romac's Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

### Easy Installation...

**1** Both pipe ends being joined require stiffeners. Insert stiffener into each pipe so that stiffener lip touches pipe end.

**2** Insert wedge into stiffener. Make sure wedges are not directly opposed.

Wedge Extension

**3** Fix wedge firmly in stiffener by striking with a rubber hammer.

**4** Assemble coupling onto pipe.

**!** A stiffener **MUST** be used in each HDPE pipe end.  
Exact SDR of HDPE used is required when ordering.

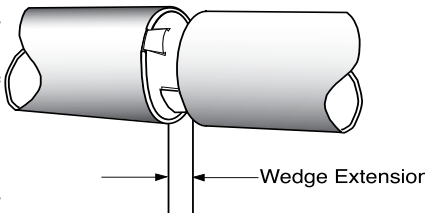


**HDPE** FOR HIGH DENSITY POLYETHYLENE PIPE  MADE IN U.S.A. **Stiffening Inserts**

For IPS Pipe Size									
NOM. PIPE SIZE	PIPE OUTSIDE DIAMETER	SDR	SUGGESTED CENTER RING LENGTH	AVERAGE PIPE ID	AVERAGE PIPE WALL	MAXIMUM WEDGE EXTENSION*	CATALOG NUMBER	LIST PRICE	WEIGHT (LBS)
4"	4.5	9	7	3.44	0.530	2.2	206-04020907	\$82.68	1.6#
		11		3.63	0.434	1.9	206-04021107		
		13.5		3.79	0.353	1.7	206-04021307		
		15.5		3.88	0.308	1.6	206-04021507		
		17		3.94	0.281	1.5	206-04021707		
		19		4.00	0.251	1.5	206-04021907		
		21		4.05	0.227	1.4	206-04022107		
		26		4.13	0.183	1.3	206-04022607		
		32.5		4.22	0.138	1.2	206-04023207		
		6"		6.625	9	7	5.06		
11	5.35		0.638		2.0		206-06021107		
13.5	5.58		0.520		1.8		206-06021307		
15.5	5.72		0.453		1.7		206-06021507		
17	5.80		0.413		1.6		206-06021707		
19	5.89		0.370		1.5		206-06021907		
21	5.96		0.334		1.5		206-06022107		
26	6.08		0.270		1.4		206-06022607		
32.5	6.22		0.204		1.3		206-06023207		
8"	8.625		9		7		6.59	1.016	2.2
		11	6.96	0.831		1.9	206-08021107		
		13.5	7.27	0.677		1.7	206-08021307		
		15.5	7.45	0.590		1.6	206-08021507		
		17	7.55	0.538		1.5	206-08021707		
		19	7.66	0.481		1.5	206-08021907		
		21	7.75	0.435		1.4	206-08022107		
		26	7.92	0.352		1.3	206-08022607		
		32.5	8.10	0.265		1.2	206-08023207		
		10"	10.75	9		7	8.22	1.266	2.7
11	8.68			1.036	2.4		206-10021107		
13.5	9.06			0.844	2.1		206-10021307		
15.5	9.28			0.735	2.0		206-10021507		
17	9.41			0.670	1.9		206-10021707		
19	9.55			0.600	1.8		206-10021907		
21	9.66			0.543	1.7		206-10022107		
26	9.87			0.438	1.6		206-10022607		
32.5	10.09			0.331	1.5		206-10023207		
12"	12.75			9	7		9.75	1.502	3.2
		11	10.29	1.229		2.8	206-12021107		
		13.5	10.75	1.001		2.5	206-12021307		
		15.5	11.01	0.872		2.4	206-12021507		
		17	11.16	0.795		2.3	206-12021707		
		19	11.33	0.711		2.2	206-12021907		
		21	11.46	0.644		2.1	206-12022107		
		26	11.71	0.520		1.9	206-12022607		
		32.5	11.97	0.392		1.8	206-12023207		

**To Order:**  
Determine Nominal Pipe Size and SDR Size.

\* **Maximum Wedge Extension:** This would be the extension if the pipe was made to the smallest permissible inside diameter and the stiffener was installed at zero Fahrenheit. This extension also takes into account the slight collapsing of the pipe on the cut end "toe in" (1% of the outside diameter). The typical wedge extension, at room temperature and for the average pipe ID would be half the values listed above. For best results, install wedges so that they're not directly opposed



**!** A stiffener **MUST** be used in each HDPE pipe end.  
Exact SDR of HDPE used is required when ordering.

**!** HDPE Products are No Cancel, No Return Items

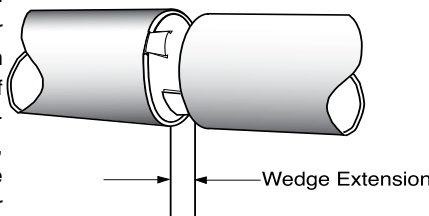


# Stiffening Inserts

For Ductile Iron Pipe Sizes									
NOM. PIPE SIZE	PIPE OUTSIDE DIAMETER	SDR	SUGGESTED CENTER RING LENGTH	AVERAGE PIPE ID	AVERAGE PIPE WALL	MAXIMUM WEDGE EXTENSION*	CATALOG NUMBER	LIST PRICE	WEIGHT (LBS)
4"	4.80	9	7	3.67	0.565	2.3	206-04010907	\$91.07	1.7#
		11		3.87	0.463	2.0	206-04011107		
		13.5		4.05	0.377	1.8	206-04011307		
		15.5		4.14	0.328	1.7	206-04011507		
		17		4.20	0.299	1.6	206-04011707		
		19		4.26	0.268	1.6	206-04011907		
		21		4.32	0.242	1.5	206-04012107		
		26		4.41	0.196	1.4	206-04012607		
		32.5		4.50	0.148	1.3	206-04013207		
		6"		6.90	9	7	5.27		
11	5.57		0.665		2.1		206-06011107		
13.5	5.82		0.542		1.9		206-06011307		
15.5	5.96		0.472		1.8		206-06011507		
17	6.04		0.430		1.7		206-06011707		
19	6.13		0.385		1.6		206-06011907		
21	6.20		0.348		1.5		206-06012107		
26	6.34		0.281		1.4		206-06012607		
32.5	6.48		0.212		1.3		206-06013207		
8"	9.05		9		7		6.92	1.066	2.3
		11	7.31	0.872		2.0	206-08011107		
		13.5	7.63	0.711		1.8	206-08011307		
		15.5	7.81	0.619		1.7	206-08011507		
		17	7.92	0.564		1.6	206-08011707		
		19	8.04	0.505		1.5	206-08011907		
		21	8.14	0.457		1.5	206-08012107		
		26	8.31	0.369		1.4	206-08012607		
		32.5	8.49	0.278		1.3	206-07013207		
		10"	11.10	9		7	8.49	1.307	2.8
11	8.96			1.070	2.5		206-10011107		
13.5	9.36			0.872	2.2		206-10011307		
15.5	9.58			0.759	2.1		206-10011507		
17	9.72			0.692	2.0		206-10011707		
19	9.86			0.619	1.9		206-10011907		
21	9.98			0.560	1.8		206-10012107		
26	10.20			0.453	1.7		206-10012607		
32.5	10.42			0.342	1.6		206-10013207		
12"	13.20			9	7		10.09	1.555	3.3
		11	10.66	1.272		2.9	206-12011107		
		13.5	11.13	1.036		2.6	206-12011307		
		15.5	11.39	0.903		2.5	206-12011507		
		17	11.55	0.823		2.4	206-12011707		
		19	11.73	0.736		2.2	206-12011907		
		21	11.87	0.666		2.1	206-12012107		
		26	12.12	0.538		2.0	206-12012607		
		32.5	12.39	0.406		1.9	206-12013207		

**To Order:**  
Determine Nominal Pipe Size and SDR Size.

\* **Maximum Wedge Extension:** This would be the extension if the pipe was made to the smallest permissible inside diameter and the stiffener was installed at zero Fahrenheit. This extension also takes into account the slight collapsing of the pipe on the cut end "toe in" (1% of the outside diameter). The typical wedge extension, at room temperature and for the average pipe ID would be half the values listed above. For best results, install wedges so that they're not directly opposed



**A stiffener MUST be used in each HDPE pipe end.**

**Exact SDR of HDPE used is required when ordering.**

**! HDPE Products are No Cancel, No Return Items**



## “SST-H” Stainless Steel Tapping Sleeve

**Material Specifications**

**Shell and Lugs:** Stainless steel per ASTM A 240, type 304 and type 304L.

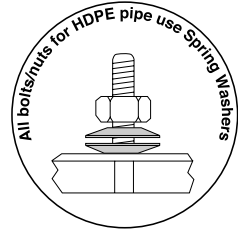
**Bolts:** 5/8" UNC rolled thread, stainless steel per ASTM A 193, type 304. 4" nominal pipe size has 1/2" bolts. Fasteners coated to prevent galling.

**Nuts:** Heavy hex, stainless steel per ASTM A 194, type 304.

**Washers:** Plastic lubricating flat washers; spring washers are special “spring” grade stainless steel.

**Gaskets:** SBR per ASTM D 2000 MAA 610, compounded for water and sewer service. Other compounds available on request.

**Flange:** Ductile iron per ASTM 536, Grade 65-45-12; or stainless steel per ASTM A 240, type 304. Will accommodate tapping flanges per MSS SP-60.



For above-ground HDPE applications, contact Romac’s Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac’s Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	CATALOG NUMBER			LIST PRICE EACH		APPROX. WEIGHT (lbs.)
		SLEEVE NUMBER	BY	BRANCH SIZE	DUCTILE FLANGE	S.S. FLANGE	
4"	4.50	SST-H - 4.50	X	3" FLG.	NA	\$1,157.86	28#
	4.80	SST-H - 4.80					
6"	6.63	SST-H - 6.63	X	3" FLG.	NA	1,271.48	36#
	6.90	SST-H - 6.90		4" FLG.	\$977.53	1,271.48	38#
8"	8.63	SST-H - 8.63	X	3" FLG.	NA	1,387.92	42#
	9.05	SST-H - 9.05		4" FLG.	1,066.80	1,387.92	44#
				6" FLG.	1,119.08	1,516.50	48#
10"	10.75	SST-H - 10.75	X	3" FLG.	NA	1,486.43	45#
	11.10	SST-H - 11.10		4" FLG.	1,151.28	1,486.43	48#
				6" FLG.	1,219.75	1,593.66	55#
				8" FLG.	1,525.66	2,052.63	70#
12"	12.75	SST-H - 12.75	X	3" FLG.	NA	1,791.64	50#
	13.20	SST-H - 13.20		4" FLG.	1,333.19	1,791.64	52#
				6" FLG.	1,410.90	1,970.44	60#
				8" FLG.	1,722.30	2,405.63	81#
				10" FLG.	2,627.39	3,595.94	96#

**To Order:** Specify Sleeve Number x Branch Size x Flange Type. Indicate if for above ground application.

**Example:** SST-H - 8.63 x 6" D.I. FLG



The SST-H Tapping Sleeve is not to be used on HDPE pipe with an SDR greater than 17.

Other sizes are available on request - P.O.A.

HDPE Products are No Cancel, No Return Items

**HDPE** FOR HIGH DENSITY POLYETHYLENE PIPE 

**“FTS423-H” Fabricated Steel Tapping Sleeve**

**Material Specifications**

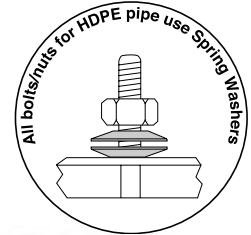
**Body and Outlet Nozzle:** Carbon steel, A-36 or equal.

**Bolts and Nuts:** Trackhead bolts, heavy hex nuts, 5/8" UNC rolled thread, high strength, low alloy, steel per AWWA C111. Optional stainless steel, type 304.

**Gaskets:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service use. Other compounds available on request.

**Coating:** Fusion epoxy 8-12 mil. lined and coated. Other coatings available. Romac packages sleeves to protect coating.

**Flange:** AWWA Class “D” plate flange, ANSI Class 150 drilling, proper recessing for tapping valves. Will accommodate tapping flanges per MSS SP-60.



The FTS423-H is not to be used on HDPE pipe with an SDR greater than 17.

For above-ground HDPE applications, contact Romac’s Engineering Department at 1-800-426-9341.

Products and prices listed below are standard Romac sizes. For information on other sizes, contact Romac’s Engineering Department.

For important technical information on HDPE pipe, see Page 8-1 & Page 8-2.

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	CATALOG NUMBER			LIST PRICE EACH		APPROX. WEIGHT (lbs)
		SLEEVE NUMBER	BY	BRANCH SIZE	FUSION EPOXY W/ ALLOY BOLTS & NUTS	FUSION EPOXY W/ 304 S.S. BOLTS & NUTS	
4"	4.50 <sup>1</sup>	FTS423-H - 4.50	X	3"	\$655.70	\$570.87	30 #
	4.80	FTS423-H - 4.80		4"			
6"	6.63	FTS423-H - 6.63	X	3"	672.93	729.89	33 #
	6.90	FTS423-H - 6.90		4"	672.93	729.89	37 #
8"	8.63	FTS423-H - 8.63	X	3"	764.91	821.89	37 #
	9.05	FTS423-H - 9.05		4"	764.91	821.89	40 #
				6"	813.61	931.43	56 #
10"	10.75	FTS423-H - 10.75	X	3"	766.42	823.39	40 #
	11.10	FTS423-H - 11.10		4"	766.42	823.39	43 #
				6"	883.05	953.62	60 #
				8"	1,092.48	1,176.59	80 #
12"	12.75 13.20	FTS423-H - 12.75 FTS423-H - 13.20	X	3"	852.66	909.64	43 #
				4"	852.66	909.64	46 #
				6"	1,009.18	1,079.71	64 #
				8"	1,517.86	1,595.65	85 #
				10"	1,807.27	2,034.81	157 #

<sup>1</sup> A 1/2" undersized shell cutter is required.

**To Order:** Specify catalog number by the desired O.D. range and flange size. Add S.S. for optional 304 stainless steel bolts and nuts, and F.E. for optional 8 to 12 mils of fusion bonded epoxy. **Indicate if for above ground application.**

**Example:** **FTS423-H - 6.63 x 4 - SSFE**

Test plugs furnished on all applicable models, and are stainless steel when tapping sleeve is ordered with S.S. bolts & nuts.

**Note:** All 423 tapping sleeves require the use of a 1/2" undersize shell cutter.

 HDPE Products are No Cancel, No Return Items



# Miscellaneous

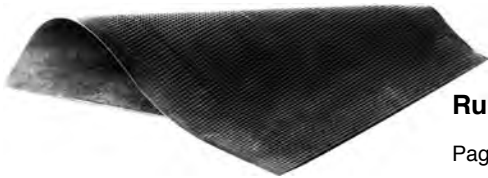
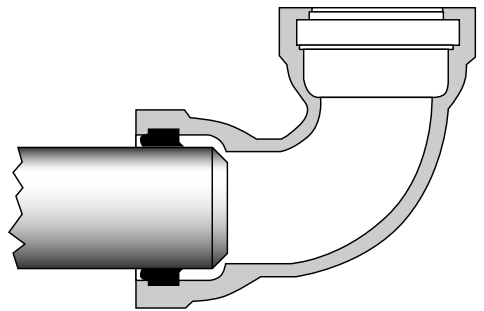
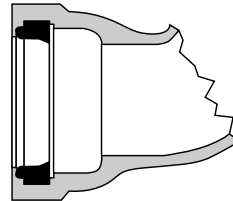


**MJ Accessory Pack**  
Mechanical Joint  
Accessory Pack  
Page 9-2



**MJ Gaskets**  
For CI and IPS Pipe  
Page 9-3

**A/C Common Groove  
Transition Gaskets**  
For CI and IPS Pipe  
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**Rubber Gasket Mat**  
Page 9-5



**OD Tape Measure**  
Page 9-5



**Threaded Flange  
Gaskets**  
Page 9-6



**Tapping Flange  
Gaskets**  
Page 9-6



**Meter Companion  
Flange & Gaskets**  
Page 9-7



**Fire Hydrant Gaskets**  
Page 9-8



# Mechanical Joint Accessory Pack (for Ductile Iron & IPS)

**Material Specifications**

**Gland:** Ductile iron per ASTM A 536, Grade 65-45-12.  
**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.  
**T-Bolts and Nuts:** 3/4" UNC T-bolts, heavy hex nuts, high strength, low alloy steel per AWWA C111.



NOM. PIPE SIZE	CATALOG NUMBER	T-BOLTS QUANTITY: SIZE	APPROX. WEIGHT EA. (lbs.)	LIST PRICE EACH
3"	3-MJAP <sup>1</sup>	4: 5/8" x 3"	5.0	\$19.50
4"	4-MJAP <sup>1</sup>	4: 3/4" x 3 1/2"	7.0	19.50
6"	6-MJAP <sup>1</sup>	6: 3/4" x 3 1/2"	11.0	28.00
8"	8-MJAP <sup>1</sup>	6: 3/4" x 4"	13.0	32.00
10"	10-MJAP <sup>1</sup>	8: 3/4" x 4"	16.0	40.00
12"	12-MJAP <sup>1</sup>	8: 3/4" x 4"	17.0	42.00

### GASKET PACK

GASKET, T-BOLTS & NUTS	NOMINAL PIPE SIZE	CATALOG NUMBER	LIST PRICE	APPROX WEIGHT (lbs.)
	3"	241-GP 0350 241-GP 0396	\$13.45	3.2 #
4"	241-GP 0450 241-GP 0480	13.45	3.5 #	
6"	241-GP 0663 241-GP 0690	13.55	5.5 #	
8"	241-GP 0863 241-GP 0905	24.84	6.0 #	
10"	241-GP 1075 241-GP 1110	27.67	8.0 #	
12"	241-GP 1275 241-GP 1320	34.92	8.5 #	

<sup>1</sup> To Order:

For **Ductile Iron**, specify catalog number and add "CI".

**Example:** **6-MJAP-CI**

For **IPS**, specify catalog number and add "IP".

**Example:** **6-MJAP-IP**

For **SDR35**, specify catalog number and add "SDR35".

**Example:** **6-MJAP-SDR35**

### INDIVIDUAL PARTS

MJ GLAND	NOMINAL PIPE SIZE	CATALOG NUMBER	STD.	304 S.S.	
	3"	3-MJG	\$10.89		
4"	4-MJG	10.89			3.5 #
6"	6-MJG	14.83			4.8 #
8"	8-MJG	15.72			6.4 #
10"	10-MJG	21.02			8.0 #
12"	12-MJG	23.23			9.2 #

MJ x CI GASKET	For MJ Gaskets, See Page 9-3				
T-BOLTS and NUTS	NOMINAL PIPE SIZE	CATALOG NUMBER	STD.	304 S.S.	
	3"	3/4" x 3" T-bolts & nuts	2.90	16.85	175 # /crate Qty. = 225
	4" & 6"	3/4" x 3 1/2" T-bolts & nuts	3.00	17.70	175 # /crate Qty. = 225
8", 10" & 12"	3/4" x 4" T-bolts & nuts	4.00	18.58	168 # /crate Qty. = 200	





# MJ Gaskets (for CI and IPS pipe)

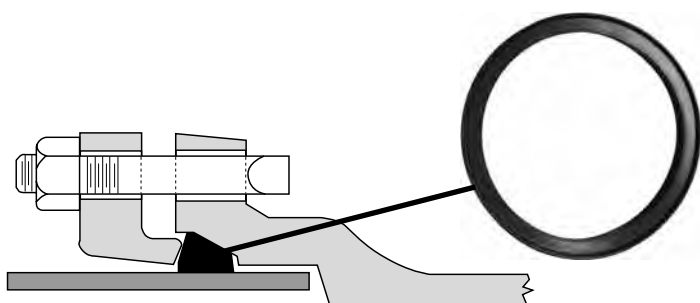
**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Note:** Known in the industry as an "MJ Gasket." Meets specifications of AWWA C 111.

**Use:** The gasket is designed to be used in cast iron mechanical joint fittings for cast iron size pipe (ductile iron and C-900 PVC).

**Pressure Rating:** Rating of pipe.



## MJ x CI GASKET

NOM. PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
3"	3" - MJ x CI Gasket	0.2 #	\$8.21
4"	4" - MJ x CI Gasket	0.4 #	8.21
6"	6" - MJ x CI Gasket	0.5 #	8.31
8"	8" - MJ x CI Gasket	0.7 #	8.47
10"	10" - MJ x CI Gasket	0.9 #	11.30
12"	12" - MJ x CI Gasket	1.0 #	14.60
14"	14" - MJ x CI Gasket	1.3 #	18.55
16"	16" - MJ x CI Gasket	1.3 #	22.51
18"	18" - MJ x CI Gasket	1.5 #	27.20
20"	20" - MJ x CI Gasket	1.0 #	31.34
24"	24" - MJ x CI Gasket	2.0 #	36.58

To Order: Specify catalog number.

**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Backing Ring:** Heavy gauge 304 stainless steel.

**Use:** The gasket is designed to be used in cast iron mechanical joint fittings for adapting to PVC or steel pipe (IPS dimensions).

**Pressure Rating:** 2-12", up to 350 psi. 14-24", up to 10 psi without backing ring, with backing ring 150 psi.

**MJ x SDR Transition Gasket available. See Page 6-10.**

## MJ x IPS TRANSITION GASKET

NOM. PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
2"	2" - MJ x IPS Transition Gasket	0.2 #	8.21
3"	3" - MJ x IPS Transition Gasket	0.3 #	8.21
4"	4" - MJ x IPS Transition Gasket	0.5 #	8.21
6"	6" - MJ x IPS Transition Gasket	0.7 #	8.31
8"	8" - MJ x IPS Transition Gasket	1.1 #	8.47
10"	10" - MJ x IPS Transition Gasket	1.2 #	11.30
12"	12" - MJ x IPS Transition Gasket	1.5 #	14.60
14"	14" - MJ x IPS Transition Gasket	2.5 #	108.34
16"	16" - MJ x IPS Transition Gasket	3.3 #	112.77
18"	18" - MJ x IPS Transition Gasket	3.8 #	117.19
20"	20" - MJ x IPS Transition Gasket	5.0 #	130.29
24"	24" - MJ x IPS Transition Gasket	6.0 #	138.40

## BACKING RING

NOM. PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
14"	14" - MJ x IPS Gasket Backing Ring	2.0 #	\$139.77
16"	16" - MJ x IPS Gasket Backing Ring	2.4 #	159.17
18"	18" - MJ x IPS Gasket Backing Ring	3.0 #	180.95
20"	20" - MJ x IPS Gasket Backing Ring	3.0 #	205.08
24"	24" - MJ x IPS Gasket Backing Ring	4.0 #	260.28

To Order: Specify catalog number.



# A/C Common Groove Transition Gaskets ( for CI and IPS pipe)

**Material Specifications**

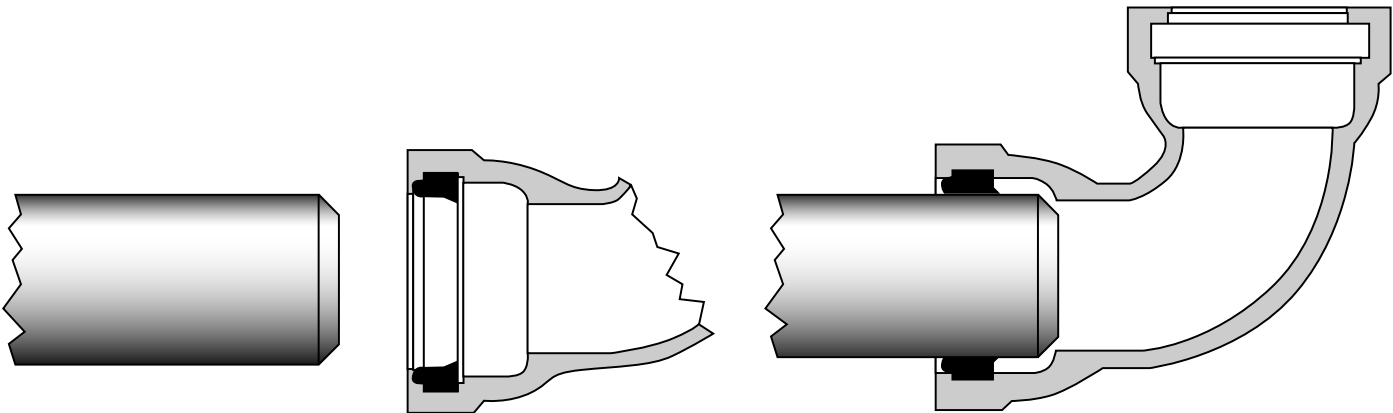
**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to be used in cast iron fittings with an A/C common groove, or asbestos-cement couplings for adapting to C900 PVC or ductile iron pipe.

**To Order:** Specify catalog number.

## A/C x CI TRANSITION GASKET

NOM. PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
4"	4" - A/C x CI Transition Gasket	0.3 #	\$11.94
6"	6" - A/C x CI Transition Gasket	0.5 #	14.73
8"	8" - A/C x CI Transition Gasket	0.8 #	17.42
10"	10" - A/C x CI Transition Gasket	1.0 #	24.45
12"	12" - A/C x CI Transition Gasket	1.0 #	31.46



**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to be used in cast iron fittings with an A/C common groove, or asbestos-cement couplings for adapting to PVC or steel pipe (IPS dimension).

**To Order:** Specify catalog number.

## A/C x IPS TRANSITION GASKET

NOM. PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
4"	4" - A/C x IPS Transition Gasket	0.3 #	\$10.80
6"	6" - A/C x IPS Transition Gasket	0.5 #	12.71
8"	8" - A/C x IPS Transition Gasket	0.8 #	16.69

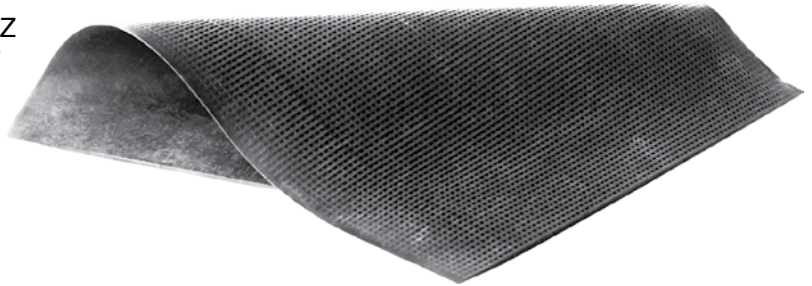
**A/C x PVC Sewer Adapter Gasket available. See Page 6-9.**



# Rubber Gasket Mat

**Material Specifications**

**Rubber:** SBR per ASTM D 2000 MAA 610Z (Z = 60 Durometer), compounded for water & sewer service. Other compounds available on request. Gaskets are specially formulated with antioxidant/antiozanant agents to increase shelf life.



MAT DIMENSION	APPROX. WEIGHT (lbs.)	THICKNESS (inches)	CATALOG NUMBER	LIST PRICE
<b>6" x 24"</b>	0.8 #	.125"	6 x 24 RM	\$18.87
<b>9" x 24"</b>	1.0 #	.25"	9 x 24 RM	18.87
<b>10" x 24"</b>	2.0 #	.25"	10 x 24 RM	19.40
<b>12" x 24"</b>	2.0 #	.25"	12 x 24 RM	23.23
<b>16" x 24"</b>	3.0 #	.25"	16 x 24 RM	31.92
<b>20" x 24"</b>	4.0 #	.25"	20 x 24 RM	38.80
<b>21" x 24"*</b>	4.0 #	.25"	21 x 24 RM	40.72
<b>23" x 24"</b>	4.0 #	.25"	23 x 24 RM	44.60
<b>27" x 24"</b>	5.0 #	.25"	27 x 24 RM	52.32
<b>34" x 24"</b>	6.0 #	.25"	34 x 24 RM	65.89
<b>37" x 30"</b>	8.0 #	.25"	37 x 30 RM	89.66

\* No taper

**To Order:** Specify catalog number.

## OD Tape Measure

- Features Romac logo on one side.
- Add your logo to the other side for small additional charge.
- Standard inches on top of tape (up to 120").
- Diameter inches to 100ths on bottom of tape (up to 38.30").



DESCRIPTION	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
Romac Logo Only	001-0001	0.2 #	\$18.22
With Additional Logo <sup>1</sup>	001-0002	0.2 #	19.72

<sup>1</sup> Minimum order of 100 to add second logo





# Flange Gaskets

**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to effect a seal between two flanged surfaces.

## THREADED FLANGE GASKET

NOMINAL PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
4"	4" - Threaded Flange Gasket	0.2 #	\$9.08
6"	6" - Threaded Flange Gasket	0.3 #	9.36
8"	8" - Threaded Flange Gasket	0.5 #	9.87



Cross Section of Gasket

**To Order:** Specify catalog number.

**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Other compounds available on request.

**Use:** The gasket is designed to effect a seal between a tapping flange and tapping valve.

## TAPPING FLANGE GASKET

FLANGE PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
3"	3" - Tapping Flange Gasket	0.2 #	\$9.08
4"	4" - Tapping Flange Gasket	0.2 #	9.08
6"	6" - Tapping Flange Gasket	0.3 #	9.36
8"	8" - Tapping Flange Gasket	0.5 #	9.87
10"	10" - Tapping Flange Gasket	0.6 #	14.82
12"	12" - Tapping Flange Gasket	0.8 #	18.75
16"	16" - Tapping Flange Gasket	0.9 #	23.18



Cross Section of Gasket

**To Order:** Specify catalog number.



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## Meter Companion Flanges

Material Specifications

### ROMAC COMPANION FLANGE

**Castings:** Ductile iron per ASTM A 536, Grade 65-45-12. Black shopcoat.

**Threads:** NPT per ANSI / ASME B1.20.1



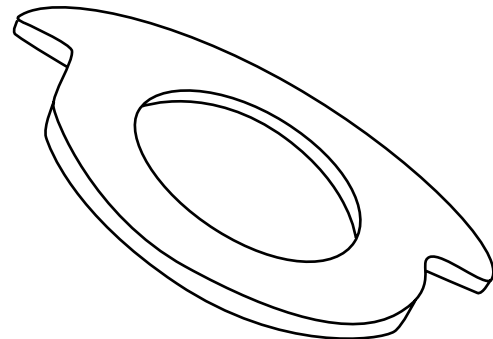
NOMINAL PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
1 1/2"	1 1/2" — Companion Flange	2.0 #	\$21.82
2"	2" — Companion Flange	3.0 #	23.08

**To Order:** Specify catalog number.

Material Specifications

### ROMAC METER COMPANION FLANGE GASKET

**Gasket:** 60 Neoprene compounded for water and sewer service, 1/8" thick.



NOMINAL PIPE SIZE	CATALOG NUMBER	APPROX. WEIGHT (lbs.)	LIST PRICE
1 1/2"	1 1/2" - Drop-in Meter Companion Flange Gasket	0.1#	\$2.10
2"	2" - Drop-in Meter Companion Flange Gasket	0.2#	2.71

**To Order:** Specify catalog number.



**ROMAC  
INDUSTRIES,  
INC.**

1-800-426-9341



## Fire Hydrant Valve Gaskets

**Material Specifications**

**Gasket:** SBR per ASTM D 2000 MBA 910, compounded for water service.



NOMINAL PIPE SIZE	CATALOG NUMBER	OUTSIDE DIAMETER	COMPATIBLE WITH	APPROX. WEIGHT (lbs.)	LIST PRICE
5 1/4"	RV - 588	5.91"	Vogt - 55	0.6 #	\$52.08
	RC - 601	6.01"	Clow Medallion	1.4 #	52.08
	RC - 585	5.85"	Clow #24	0.6#	52.08
	RD - 596	5.96"	R.D. Wood Special	1.1 #	52.08
	RE - 640	6.40"	Eddy	0.6 #	52.08
	RI - 585	5.85"	Iowa	0.7 #	52.08
	RM - 588	5.88"	Mueller	1.3 #	52.08
	RMH - 580	5.80"	M&H, Dresser 300, 500 129T	1.1 #	52.08
	RTC - 610	6.10"	Traverse City	0.6 #	52.08
	RAD - 567	5.67"	American Darling	1.2 #	52.08
5 1/2"	RMA - 625	6.25"	Matthews	1.3 #	52.08
	RV - 700	6.95"	Vogt - 25	2.0 #	52.08
5"	RR - 573	5.73"	Rensselaer	1.1 #	52.08
	RG - 563	5.63"	Greensburg	1.2 #	52.08
—	RR - 165	1.65"	Rensselaer (Drip Valve Rubber)	0.1 #	27.73
5"	RK - 542	5.42"	Kupferle	1.2 #	52.08

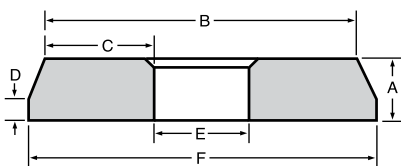
**To Order:** Specify catalog number.



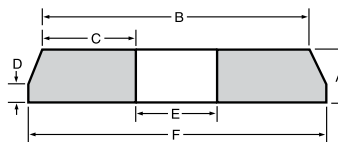


# Fire Hydrant Valve Gasket Dimensions

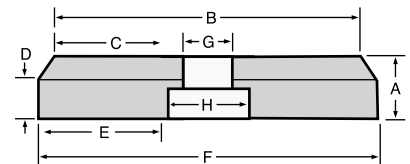
CATALOG NUMBER	COMPATIBLE WITH	A	B	C	D	E	F	G	H	I
RC - 601	Clow Medallion	1.12"	5.64"	2.50"	0.80"	2.14"	6.01"	1.00"	1.74"	—
RC - 585	Clow #24	0.87"	5.29"	0.87"	0.27"	3.28"	5.87"	—	—	—
RD - 596	R.D. Wood Special	1.13"	5.25"	1.58"	0.38"	2.04"	5.54"	—	—	—
RV - 588	Vogt 55	1.153"	5.262"	2.051"	0.925"	1.184"	5.908"	—	—	—
RV - 700	Vogt 25	1.268"	6.224"	1.970"	0.525"	2.239"	6.946"	—	—	—
RE - 640	Eddy	0.92"	1.38"	0.48"	5.25"	5.97"	6.38"	3.58"	0.08"	5.13"
RI - 585	Iowa	0.87"	5.13"	1.20"	0.30"	0.80"	5.86"	3.28"	2.74"	—
RM - 588	Mueller	1.16"	5.29"	2.14"	0.62"	0.92"	5.87"	—	—	—
RMH - 580	M&H, Dresser 300, 500 129T	1.06"	5.34"	2.13"	0.54"	1.04"	5.79"	—	—	—
RTC - 610	Traverse City	0.80"	0.46"	0.15"	6.07"	0.73"	5.20"	3.71"	—	—
RAD - 567	American Darling	1.02"	5.27"	2.13"	0.44"	1.02"	0.10"	1.23"	5.67"	—
RMA - 625	Matthews	1.11"	5.52"	1.74"	0.41"	2.00"	6.19"	—	—	—
RR - 573	Rensselaer	1.30"	5.09"	1.24"	0.86"	2.54"	5.70"	—	—	—
RG - 563	Greenburg	1.37"	5.04"	1.23"	0.97"	2.51"	5.60"	—	—	—
RR - 165	Rensselaer (Drip Valve Rubber)	0.76"	1.63"	0.48"	0.24"	1.28"	0.07"	—	—	—
RK - 542	Kupferle	1.14"	4.96"	2.06"	0.62"	0.84"	5.41"	—	—	—



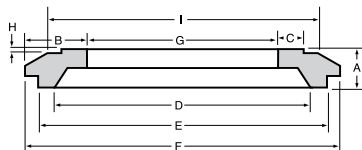
**RC-585, RMA-625**



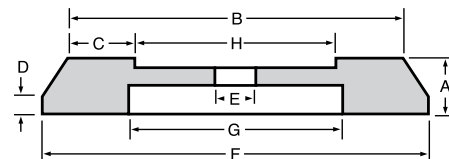
**RD-596, RM-588, RMH-580, RR-573, RG-563, RK-542, RV-588, RV-700**



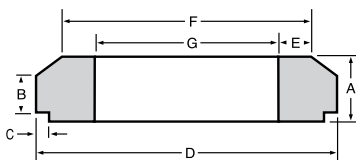
**RC-601**



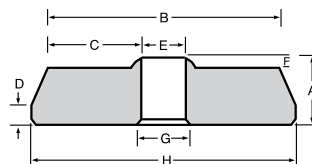
**RE-640**



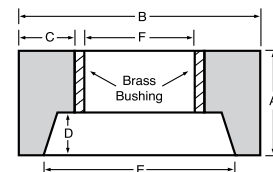
**RI-585**



**RTC-610**



**RAD-567**



**RR-165**



# Transmate WaterWorks Tools



**Transmate**  
a Division of Romac Industries, Inc.



## TapMate Main Drilling Machines

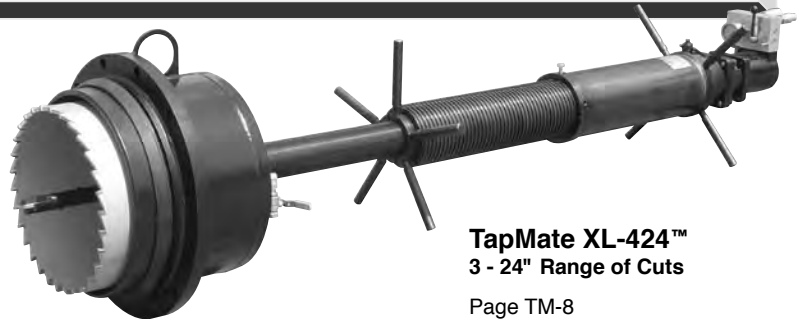


**TapMate™**  
3" - 12" Range of Cuts

Page TM-2

**TapMate Too™**  
3/4" - 2" Range of Cuts

Page TM-4



**TapMate XL-424™**  
3 - 24" Range of Cuts

Page TM-8

## Direct Corporation Stop Insertion



**B-1™**  
Drills & Inserts 3/4" to 1"  
corporation stops under  
pressure.

Page TM-10



**B-Too™**  
Drills & Inserts 3/4" to 1"  
corporation stops under  
pressure.

Page TM-14



**TapMate Dry Tap™**  
Drills & taps 3/4" to 1"  
holes in dry mains.

Page TM-21

## Valve Exerciser



**The Exerciser™**  
Hydraulic Valve  
Exerciser

Page TM-25

## Pipe Drilling Machines



**5930**  
3/4" - 1" range of cuts.

Page TM-19



**5935**  
3/4" - 2" range of cuts.

Page TM-20



**M-1**  
3/4" - 1" range of cuts.

Page TM-18



**Sewer Pipe  
Tapping Machine**

Page TM-24



**Dechlorinator**

Page TM-22



**Power Units**  
Hydraulic & Electric Drives

Pages TM-26 - TM-29



**Tools & Accessories**

Pages TM-30 & TM-31



**Transmate**

1-800-426-9341



# TapMate™

## 3" to 12" Range of Cuts

**Material Specifications**

- **LATERAL TAPS** - For 3" - 12" lateral taps. Not for use when installing valves.
- **LIGHTWEIGHT** - Weighs 65 lbs., allowing easy handling and operation
- **EASY-TO-USE** - No hidden gears or mechanisms. Simple control and the depth scale is always visible.
- **PIPE COMPATIBILITY** - Taps any pipe commonly used in underground water mains
- **EASY TO MAINTAIN** - Simple construction allows in-house maintenance and repair
- **FLEXIBLE** - Use with hydraulic, electric or air drive units.



**To Order:**

1. Order Base Machine
2. Order Cutters per size
3. Order Adapters per size and outlet type
4. Order Extra Spade Bit (350-03-08) if doing A/C taps
5. If doing 10" and 12" taps, you must order Pilot Drill Extension (350-14)
6. Select Power Unit (see compatible power units on pages TM-26 - TM-28)

ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE		
<b>350-00</b>	<b>TapMate™ Base Machine &amp; Storage Box</b> For lateral tapping	<b>\$9,600.29</b>	<b>Shell Cutters</b>				
	Included with Tapmate Machine:			Actual Size			
350-21-A	1" Shaft Nose (used for 3" - 8" cuts)	included	For Ductile, Cast Iron, Steel, A/C & PVC	350-01-1024	3" Carbide Cutter	2 1/2"	463.88
350-03-08	1" Spade Bit	"		350-01-1032	4" Carbide Cutter	3 1/2"	603.13
350-04	PVC Pilot (required for any plastic pipe taps)	"		350-01-1048	6" Carbide Cutter	5 1/2"	893.96
350-61	Storage Box	"		350-01-1064	8" Carbide Cutter	7 1/2"	1,182.42
353-10-1	Tapping Compound	"		350-01-1080 <sup>1</sup>	10" Carbide Cutter	9 1/2"	2,640.28
				350-01-1096 <sup>1</sup>	12" Carbide Cutter	11 1/2"	3,122.92
			For HDPE & PVC	350-01-2024 <sup>2</sup>	3" Cutter for HDPE & PVC Pipe	2 1/2"	462.67
				350-01-2032 <sup>2</sup>	4" Cutter for HDPE & PVC Pipe	3 1/2"	601.72
				350-01-2048 <sup>2</sup>	6" Cutter for HDPE & PVC Pipe	5 1/2"	891.79
				350-01-2064 <sup>2</sup>	8" Cutter for HDPE & PVC Pipe	7 1/2"	1,177.29
				350-01-2080 <sup>1,2</sup>	10" Cutter for HDPE & PVC Pipe	9 1/2"	2,633.70
				350-01-2096 <sup>1,2</sup>	12" Cutter for HDPE & PVC Pipe	11 1/2"	3,116.40
			For Steel	350-01-5024	3" Cutter for Steel	2 1/2"	463.79
				350-01-5032	4" Cutter for Steel	3 1/2"	603.13
				350-01-5048	6" Cutter for Steel	5 1/2"	893.96
				350-01-5064	8" Cutter for Steel	7 1/2"	1,182.42
				350-01-5080 <sup>1</sup>	10" Cutter for Steel	9 1/2"	2,640.28
				350-01-5096 <sup>1</sup>	12" Cutter for Steel	11 1/2"	3,124.31
<b>360-00</b>	<b>QuikValve™ Base Machine</b> For lateral tapping, QuikValve™ & InsertaValve™ installations	See Page QV-5 for pricing.	<b>NOTE: Shell Cutters can be resharpened, and retooled</b>				
	For QuikValve see QV-2 & InsertaValve see QV-7		<b>Accessories</b>				
			350-03-08	1" Spade Bit		87.38	
			350-21-A	Shaft Nose (includes 1" Spade Bit)		327.72	
			350-14 <sup>1</sup>	Pilot Drill Extension (required for 10" and 12" taps)		130.71	
			350-04	PVC Pilot		165.00	
			350-04H	HDPE Pilot		331.84	
			350-05-571	Adapter Bell O-Ring		14.92	
			350-05-512	Adapter Set Screw		6.03	
Please call Romac for recommendations on ordering and using HDPE Holesaws							
1 10" and 12" Cutters require the Pilot Drill Extension							
2 HDPE Pilot needed (350-04H) if tapping HDPE pipe only							



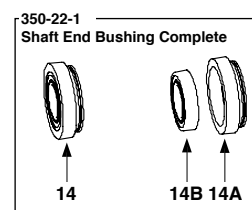
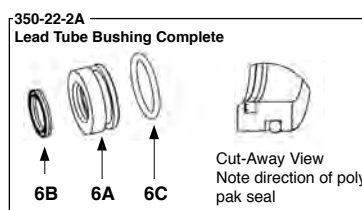
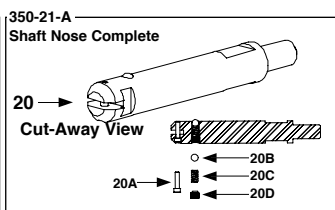
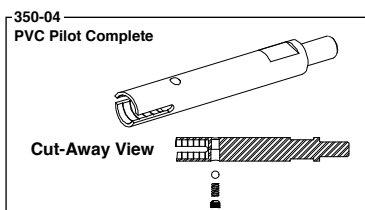
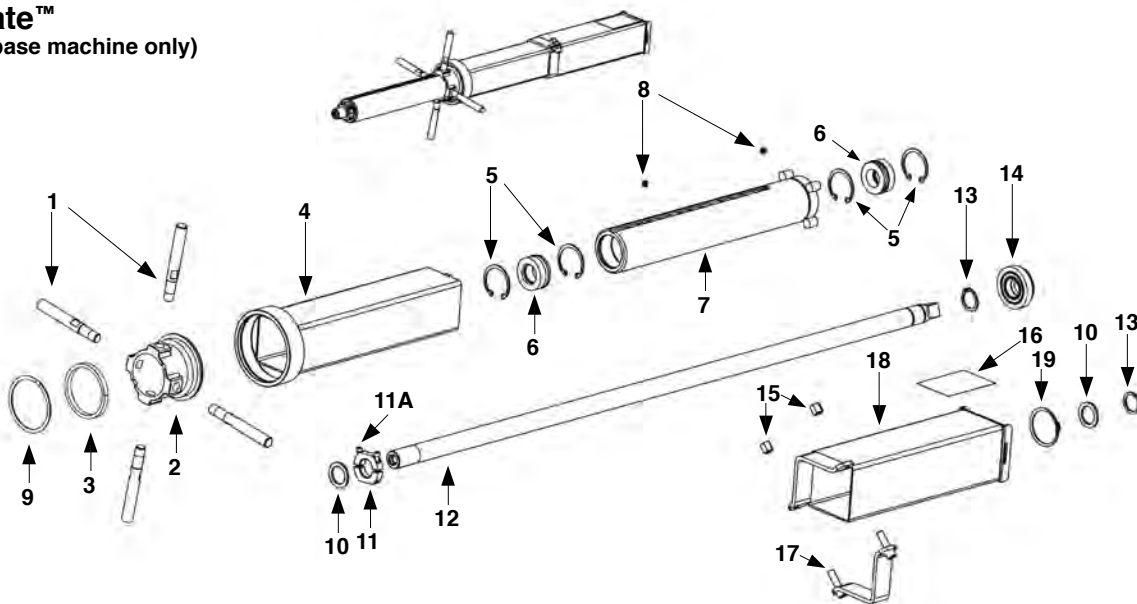
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# TapMate™ Parts List

## TapMate™ 350-00 (base machine only)



REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
1	Handle for Lead Nut (4 required)	350-29	\$83.93
2	Lead Nut	350-24	539.42
3	Lead Nut Nylatron Washer	350-24-531	37.38
4	Thrust Tube	350-32	779.12
5	Lead Tube Snap Ring (4 required)	350-23-54	10.81
6	Lead Tube Bushing Complete (2 required)	350-22-2A	226.90
6A	Lead Tube Bushing Only (2 required)	350-22-2	184.43
6B	Shaft Poly Pak Seal (1 per bushing, 2 per machine)	350-57-2	23.05
6C	Lead Tube Bushing O-Ring (1 per bushing, 2 per machine)	350-57-1-62	11.99
7	Lead Tube	350-23	1,282.52
8	Lead Tube Socket Plug (2 required)	350-23-512	6.03
9	Lead Nut Snap Ring	350-24-54	23.97
10	Jam Nut Thrust Washer (2 required)	350-20-531	18.54
11	Jam Nut (for cutters)	350-52	50.41
11A	Jam Nut Set Screw	350-52-1	1.07
12	Shaft Main	350-20	838.70
13	Shaft End Snap Ring (2 required)	350-20-54	10.81
14	Shaft End Bushing Complete	350-22-1	234.95
14A	Shaft End Bushing	350-22	130.38
14B	Shaft End Bearing	350-20-56	107.89
15	Brake Nut (2 required)	350-31-52	7.19
16	Serial Number Plate	350-58	13.15
17	Brake Half, Threaded	350-31	100.67
18	Brake Tube Complete	350-30	779.12
19	Shaft End Bushing Snap Ring	350-22-54	10.81
20	Shaft Nose Complete	350-21-A	327.72
20A	Spade Bit Lock Screw	350-03-531	6.03
20B	Coupon Retainer Ball (5/16)	350-21-561	6.03
20C	Coupon Retainer Spring	350-21-55	6.42
20D	Coupon Retainer Set Screw	350-21-512	6.03



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# TapMate Too™

3/4" to 2" Range of Cuts

**Material Specifications**

- Weighs 10 lbs., allowing easy handling and operation
- Safety brake provides controlled boring bar release on high pressure cuts
- Sturdy construction with more than 12" of boring bar travel
- Taps any pipe commonly used in underground water mains
- Simple construction allows in-house maintenance and repair



**To Order:**

1. Order Base Machine
2. Order Cutters or Spade Bits per desired pipe type and size
3. Order Adapters per size and corp outlet type
4. Order Arbors per size
5. Select Power Option.

ITEM NUMBER	DESCRIPTION	LIST PRICE
351-00	<b>Base Machine and Tool Box</b>	<b>\$1,462.41</b>
	Included with Tapmate Too Machine:	
351-60-1	Hand Ratchet	included
351-61	Tool Box	included
353-10-1	Tapping Compound	included

**POWER OPTIONS, you choose how to power your TapMate Too...**

**Multi-Purpose Hydraulic Drive Base Unit \*372-01** requires Hydraulic Drive Head Adapter 372-351-05

See Page TM-26



ITEM NUMBER	DESCRIPTION	LIST PRICE
*372-01	Multi Purpose Base Unit only	3,785.27
or		
*372-98	Multi Purpose Base Unit w/ electric start	4,510.61
and		
372-351-05	TapMate Too Drive Head Assembly with 1/4" Hoses	1,765.50

**TapMate Too Hydraulic Drive \*372-351**

See Page TM-29



*372-351	TapMate Too Hydraulic - Drive System, complete	\$4,708.00
*372-351-01	Base Unit	included

**Ridgid 690 Electric Drive**  
See Page TM-29



373-351	Ridgid 690 Electric Drive with 1/2" Adapter for TM-Too	\$2,613.02 included
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

\*Considered Hazardous Material When Shipped by Air



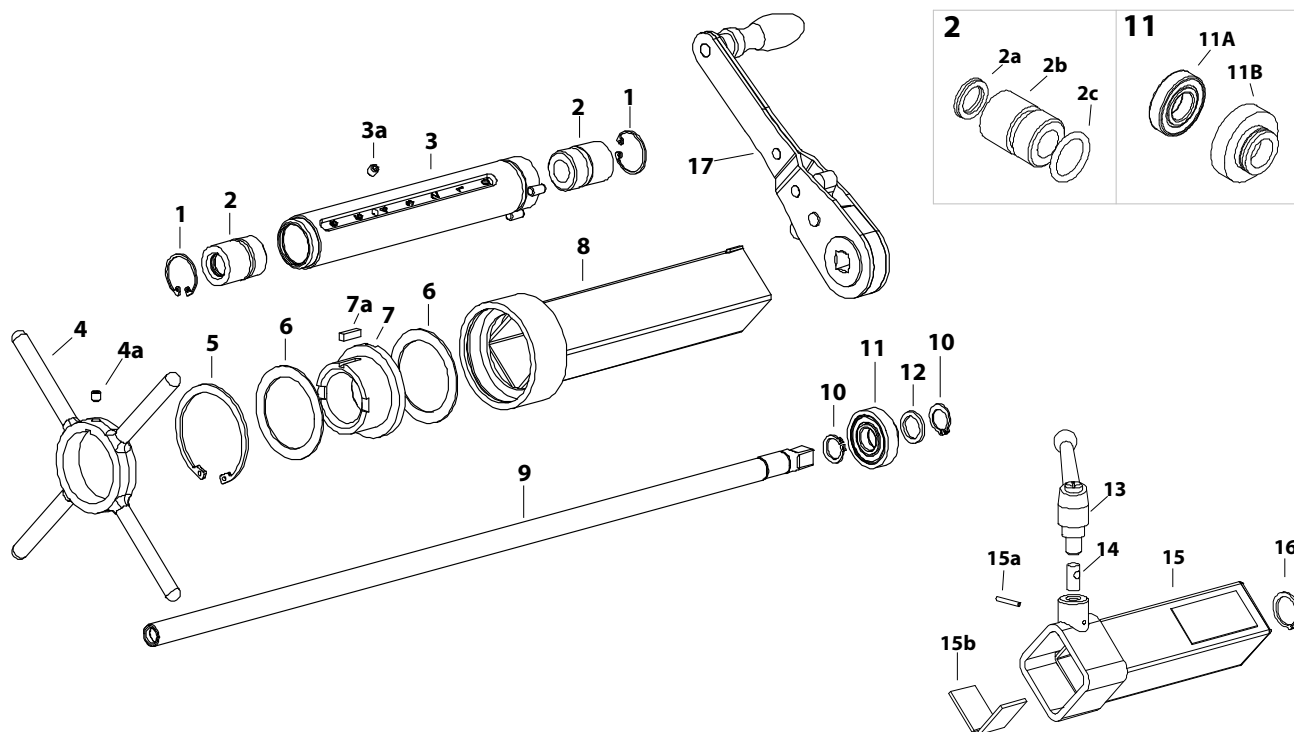


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# TapMate Too™ Parts



REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE	REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
1	Lead Tube Snap Ring (2 required)	351-23-54	ea. 2.18	12	Shaft End Nylatron Washer	351-20-531	8.00
2	<b>Lead Tube Bushing Complete</b> (includes Bushing, Shaft Seal,O-Ring)	<b>351-22-2A</b>	<b>68.51</b>	13	Brake Handle	351-29-2	34.27
2a	Poly Pak Shaft Seal	351-57-2	5.69	14	Brake Pin	351-50-2	28.14
2b	Lead Tube Bushing	351-22-2	62.77	15	<b>Brake Tube (includes Brake Pads)</b>	351-30	<b>252.23</b>
2c	Lead Tube Bushing O-Ring	351-57-1-62	1.12	15a	Roll Pin	351-50-3	1.12
3	<b>Lead Tube</b>	<b>351-23</b>	<b>343.52</b>	15b	<b>Brake Pad (2 required)</b>	351-30-1	<b>ea. 13.50</b>
3a	Lead Tube Set Screw	351-23-512	1.12	16	<b>Shaft End Bushing Snap Ring</b>	351-22-54	<b>2.18</b>
4	<b>Handle for Lead Nut</b>	<b>351-29-1</b>	<b>138.20</b>	17	<b>Ratchet Wrench</b>	351-60-1	<b>186.45</b>
4a	Arbor & Handle Set Screw	351-51-2	1.12	<b>NOT ILLUSTRATED</b>			
5	<b>Lead Nut Snap Ring</b>	<b>351-24-54</b>	<b>3.42</b>	Toolbox		351-61	171.74
6	<b>Lead Nut Nylatron Washers (2 required)</b>	<b>351-24-531</b>	<b>ea. 13.48</b>	<b>POWER OPTIONS:</b>			
7	<b>Lead Nut</b>	<b>351-24</b>	<b>138.20</b>	TapMate Too Hyd. Drive complete (see pg. TM-29)	372-351		4,708.00
7a	Lead Nut Key	351-24-66	4.41	Ridgid 690 Electric Drive (see pg.TM-29 )	373-351		2,488.57
8	<b>Thrust Tube</b>	<b>351-32</b>	<b>112.06</b>	Ground Fault Interrupter Plug (required)	370-70		111.82
9	<b>Shaft</b>	<b>351-20</b>	<b>169.00</b>	TM Multi-Purpose Base Unit	372-01		3,785.27
10	<b>Shaft End Snap Ring (2 required)</b>	<b>351-20-54</b>	<b>ea. 2.18</b>	also needed: TM Too Drive Head, 372-351-05 (see pg TM-26)			1,765.50
11	<b>Shaft End Bushing Complete</b>	<b>351-22-1A</b>	<b>102.72</b>				
11a	Shaft End Bearing	351-20-56	45.64				
11b	Shaft End Bushing	351-22-1	75.34				



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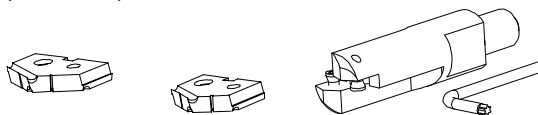
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# TapMate Too™ Accessories

## SPADE BITS

The spade bit provides a low cost alternative to the traditional twist drill bit, pilot and holesaw/cutters. Spade bits are attached to the spade bit holder using the two Torx™ screws provided. Spade bits are available in the 3/4" nominal (23/32" actual), and the 1" nominal (7/8" actual) sizes.



ITEM NUMBER	DESCRIPTION	LIST PRICE
351-03-106	3/4" Spade Bit (actual OD 23/32")	\$65.29
351-03-108	1" Spade Bit (actual OD 7/8")	68.51
351-03-12	Spade Bit Holder (includes Torx Key Wrench and Screws; required for Spade Bit use)	233.96
351-60-5	Torx Key Wrench	6.86
351-03-512	Spade Bit Screw (2 required)	ea. 4.97

## HOLESAWS

Five types of Holesaws are available in 5 sizes

- The carbide cutter is best for use on A/C, Cast Iron, or Ductile Iron pipe.
- The HSS carbide tipped Holesaw works well on ductile iron, cast iron and A/C.
- The Bi-Metal holesaw is best for use with Steel Pipe, but may be used for ductile, cast iron and A/C as well.
- The PVC Cutter is necessary for cutting into plastic pipe.
- Special deep throated cutters for HDPE (see page **TM-7**) are also available.

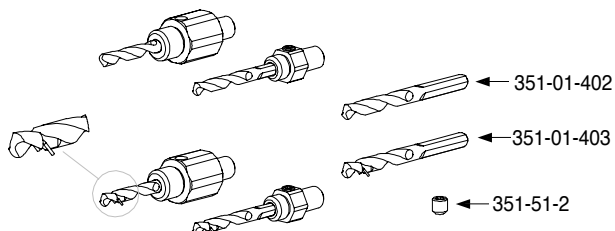


Holesaw Size Chart	Nominal	O.D.
	3/4"	11/16"
1"	7/8"	
1 1/4"	1 1/8"	
1 1/2"	1 3/8"	
2"	1 3/4"	

ITEM NUMBER	DESCRIPTION	LIST PRICE
For Ductile, Cast Iron & A/C	351-01-106 3/4" Carbide Cutter	107.32
	351-01-108 1" Carbide Cutter	120.97
	351-01-110 1 1/4" Carbide Cutter	127.12
	351-01-112 1 1/2" Carbide Cutter	136.98
	351-01-116 2" Carbide Cutter	184.91
For Ductile, Cast Iron & A/C	351-01-406 3/4" HSS Carbide Tip Holesaw	37.66
	351-01-408 1" HSS Carbide Tip Holesaw	44.30
	351-01-410 1 1/4" HSS Carbide Tip Holesaw	48.66
	351-01-412 1 1/2" HSS Carbide Tip Holesaw	55.97
	351-01-416 2" HSS Carbide Tip Holesaw	62.68
For Ductile, Cast Iron, A/C & Steel	351-01-506 3/4" Bimetal Holesaw	21.19
	351-01-508 1" Bimetal Holesaw	23.97
	351-01-510 1 1/4" Bimetal Holesaw	25.10
	351-01-512 1 1/2" Bimetal Holesaw	26.26
	351-01-516 2" Bimetal Holesaw	34.27
For PVC only	351-01-206 3/4" PVC Cutter	111.64
	351-01-208 1" PVC Cutter	114.16
	351-01-210 1 1/4" PVC Cutter	125.59
	351-01-212 1 1/2" PVC Cutter	136.98
	351-01-216 2" PVC Cutter	148.41

## HOLESAW ARBORS

The arbors mate the end of the shaft to the holesaw/cutter being used. Two arbors are available. The Small Arbor accommodates 3/4" - 1 1/4" cuts. The Large Arbor is necessary for 1 1/2" and 2" cuts.



ITEM NUMBER	DESCRIPTION	LIST PRICE
351-14-1	Small Holesaw Arbor, includes Arbor Pilot Drill 351-01-402 <b>(for 3/4", 1" and 1 1/4" holesaws/cutters)</b>	73.08
351-14-2	Large Holesaw Arbor, includes Arbor Pilot Drill 351-01-402 <b>(for 1 1/2" and 2" holesaws/cutters)</b>	114.16
351-01-402	1/4" Arbor Pilot Drill (for Small and Large Holesaw Arbor)	14.84
351-01-403	1/4" Arbor Pilot Drill w/Retaining Spring	27.19
351-51-2	Arbor & Handle Set Screw	1.12
351-14-5	Small Holesaw Arbor, includes Arbor Pilot Drill 351-01-403 <b>(for 3/4", 1" and 1 1/4" holesaws/cutters)</b>	85.43
351-14-6	Large Holesaw Arbor, includes Arbor Pilot Drill 351-01-403 <b>(for 1 1/2" and 2" holesaws/cutters)</b>	126.50



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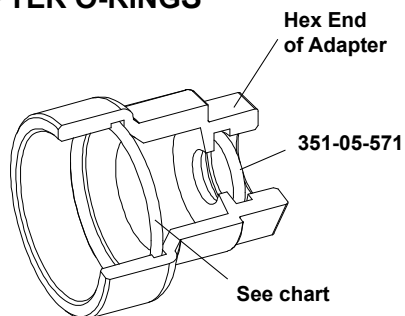


# TapMate Too™ Accessories

## ADAPTERS

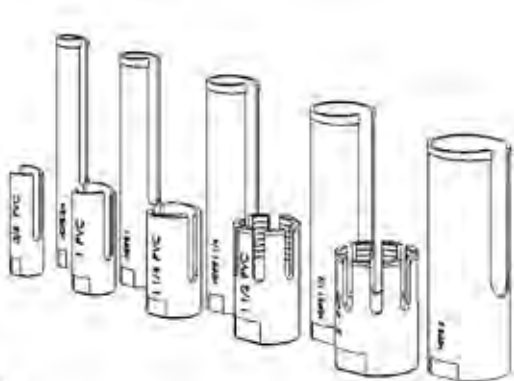
ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE
Note: Adapter thread description describes thread machined on the adapter					
351-05-406	3/4" Female Iron Pipe Adapter	\$117.70	351-05-606	3/4" Male Iron Pipe Adapter	\$117.70
351-05-408	1" Female Iron Pipe Adapter	117.70	351-05-608	1" Male Iron Pipe Adapter	117.70
351-05-410	1 1/4" Female Iron Pipe Adapter	117.70	351-05-610	1 1/4" Male Iron Pipe Adapter	117.70
351-05-412	1 1/2" Female Iron Pipe Adapter	117.70	351-05-612	1 1/2" Male Iron Pipe Adapter	117.70
351-05-416	2" Female Iron Pipe Adapter	117.70	351-05-616	2" Male Iron Pipe Adapter	117.70
351-05-420	2 1/2" Female Iron Pipe Adapter	117.70	351-05-812	1 1/2" Jones SG Adapter	117.70
			351-05-816	2" Jones SG Adapter	117.70
351-05-506	3/4" Flare Copper Adapter	117.70	351-05-706	3/4" 110 Compression Connection	117.70
351-05-508	1" Flare Copper Adapter	117.70	351-05-708	1" 110 Compression Connection	117.70
351-05-510	1 1/4" Flare Copper Adapter	117.70	351-05-710	1 1/4" 110 Compression Connection	117.70
351-05-512	1 1/2" Flare Copper Adapter	117.70	351-05-712	1 1/2" 110 Compression Connection	117.70
351-05-516	2" Flare Copper Adapter	117.70	351-05-716	2" 110 Compression Connection	117.70

## ADAPTER O-RINGS



ITEM NUMBER	DESCRIPTION	LIST PRICE
351-05-571	TT Adapter O-Ring (All TT Adapters)	\$2.28
351-05-5571-1	TT Adapter O-Ring 3/4" Flare Copper	2.28
351-05-5571-2	TT Adapter O-Ring 1" Flare Copper	2.28
351-05-5571-3	TT Adapter O-Ring 1 1/4" Flare Copper	2.28
351-05-5571-4	TT Adapter O-Ring 1 1/2" Flare Copper	2.28
351-05-5571-5	TT Adapter O-Ring 2" Flare Copper	2.28
351-05-706-57	TT Adapter O-Ring 3/4" Special Fine Thread	2.28
351-05-708-57	TT Adapter O-Ring 1" Special Fine Thread	2.28
351-05-710-57	TT Adapter O-Ring 1 1/4" Special Fine Thread	2.28
351-05-712-57	TT Adapter O-Ring 1 1/2" Special Fine Thread	2.28
351-05-716-57	TT Adapter O-Ring 2" Special Fine Thread	2.28

## HDPE ADAPTERS & HOLESAWS



**NOTE:** HDPE cutters require HDPE adapters. This is due to the increased overall length (illustrated above with PVC cutters)

ITEM NUMBER	DESCRIPTION	LIST PRICE
Note: Adapter thread description describes thread machined on the adapter		
351-05-106	3/4" HDPE Adapter FIP	\$323.05
351-05-108	1" HDPE Adapter FIP	324.50
351-05-110	1 1/4" HDPE Adapter FIP	331.72
351-05-112	1 1/2" HDPE Adapter FIP	344.23
351-05-116	2" HDPE Adapter FIP	355.78
351-05-906	3/4" HDPE Adapter FC	323.05
351-05-908	1" HDPE Adapter FC	324.50
351-05-910	1 1/4" HDPE Adapter FC	331.72
351-05-912	1 1/2" HDPE Adapter FC	344.23
351-05-916	2" HDPE Adapter FC	355.78
351-05-206	3/4" HDPE Adapter MIP	323.05
351-05-208	1" HDPE Adapter MIP	324.50
351-05-210	1 1/4" HDPE Adapter MIP	331.72
351-05-212	1 1/2" HDPE Adapter MIP	344.23
351-05-216	2" HDPE Adapter MIP	355.78
351-01-906	3/4" HDPE Cutter	380.03
351-01-908	1" HDPE Cutter	382.20
351-01-910	1 1/4" HDPE Cutter	389.40
351-01-912	1 1/2" HDPE Cutter	396.50
351-01-916	2" HDPE Cutter	403.82



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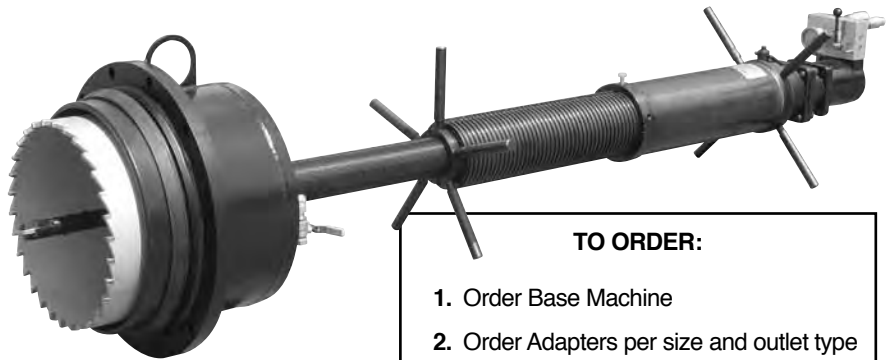
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# TapMate™ XL-424 Main Drilling Machine

**Material Specifications**

- 4" - 24" Taps.
- 300 PSI pressure rating.
- Can be used with existing TapMate and QuikValve equipment.
- Base Machine weighs 285 lbs.
- Taps any pipe commonly used in underground water mains.
- Storage crate functions as a workstation with storage space for tools, pilots and other accessories.
- Over 39 inches of travel.
- Integrated hydraulic motor.



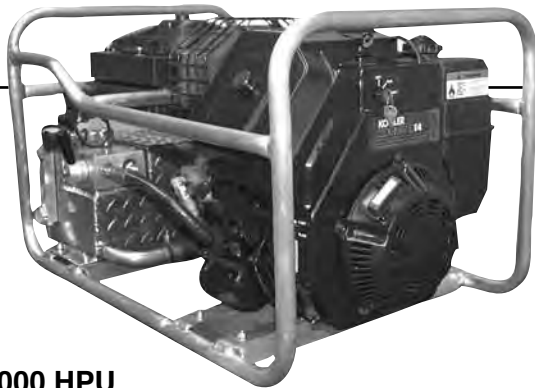
**TO ORDER:**

1. Order Base Machine
2. Order Adapters per size and outlet type
3. Order necessary Cutters.
4. Order extra Spade Bit if doing A/C taps
5. Select Power Unit.

ITEM NUMBER	DESCRIPTION	LIST PRICE
366-00	TapMate XL-424 Drilling Machine Approximate Shipping Weight (base machine and items included with base machine): 650 lbs.	\$21,994.50

*Included with base machine*

ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE
366-42	Small Adapter Hub (4" - 12")	\$522.50	350-14	TM,Pilot Drill Extension (required for 10" & 12" taps)	\$130.71
366-43	Large Adapter Hub (14" - 24")	599.50	366-66-10	Tool Kit & Spare Parts	473.00
366-38	TM-XL Shaft Nose, Complete (14" - 24")	654.50	366-61	Storage Crate / Work-station	1,083.50
366-39	TM-XL PVC Pilot, Complete (14" - 24")	489.50	372-02-05	1/2" Hose Kit (includes two hoses and two sets of Quick Disconnects)	710.20
350-21-A	TM Shaft Nose, Complete (4" - 12")	327.72			
350-04	TM PVC Pilot (4" - 12")	176.55			



**82000 HPU Hydraulic Power Unit** (also on page TM-27)

- Weighs approximately 200 lbs
- 15 h.p. Kohler gasoline engine
- Hydraulic pump delivering 8 gpm to 2,000 psi
- 4 1/2 gallon hydraulic fluid reservoir
- 12V electric air-to-oil heat exchanger

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>*372-82000-01</b>	<b>82000 HPU Hydraulic Base Power Unit</b>	<b>\$8,597.88</b>
*Considered Hazardous Material When Shipped by Air		
<b>POWER UNIT ACCESSORIES</b>		
372-02-05	1/2" Hose Kit (includes two Hoses and two sets of Quick Disconnects)	\$710.20
372-02-01	1/2" Hydraulic Hose, 20' Long, 2250WP	ea 160.13
372-13-6	1/2" Male QD Flush Face FF502-8FP	81.54
372-13-7	1/2" Female QD Flush Face FF501-8FP	200.62
372-06-02	Hydraulic Versa Latch (2 req.)	ea 15.07



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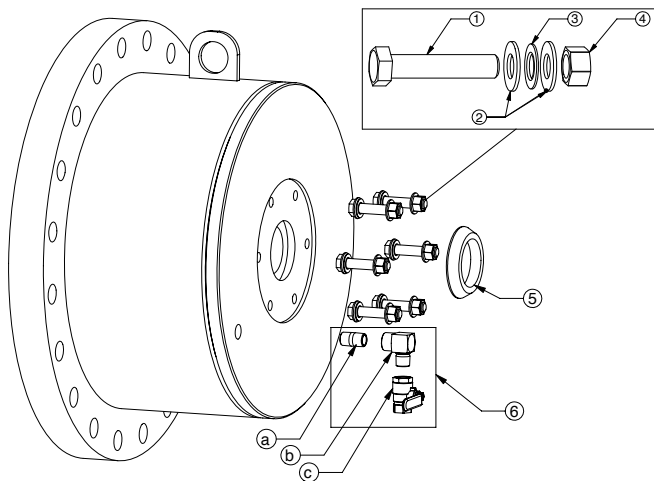


# TapMate™ XL-424 Accessories

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>ADAPTERS</b>		
350-05-1032	4" MJ Adapter	492.73
350-05-1048	6" MJ Adapter	567.26
350-05-1064	8" MJ Adapter	668.11
350-05-1080	10" MJ Adapter	873.99
350-05-1096	12" MJ Adapter	983.68
366-05-1112	14" MJ Adapter	4,394.50
366-05-1128	16" MJ Adapter	5,164.50
366-05-1144	18" MJ Adapter	5,494.50
366-05-1160	20" MJ Adapter	5,824.50
366-05-1192	24" MJ Adapter	6,044.50
350-05-2032	4" Flange Adapter	492.73
350-05-2048	6" Flange Adapter	581.58
350-05-2064	8" Flange Adapter	668.64
350-05-2080	10" Flange Adapter	1,201.51
350-05-2096	12" Flange Adapter	1,310.91
366-05-2112	14" Flange Adpater	4,394.50
366-05-2128	16" Flange Adpater	5,164.50
366-05-2144	18" Flange Adpater	5,494.50
366-05-2160	20" Flange Adpater	5,824.50
366-05-2192	24" Flange Adpater	6,044.50

Special Adapter Bells (metric sizes and push-on style pipe connections) are also available.

**ADAPTER PARTS**



ITEM NUMBER	DESCRIPTION	LIST PRICE
1. 361-06-05	QV Flange Bolt (Qty. 6)	2.57 ea.
2. 8FW-410	Washer (Qty. 12)	1.10 ea.
3. 350-05-80.96-57	TM,Hub Adapter Seals (Qty. 6)	3.27 ea.
4. 350-05-80.96-52	TM,Hub Adapter Nuts (Qty. 6)	2.19 ea.
5. 8R211S0300	Gasket (Qty. 1)	3.85
6. 366-05-01	TM-XL, Adapter Exhaust Valve (Qty. 1)	42.35
6a. 356-01-03	BT Slide Gate Pipe Nipple (Qty. 1)	1.97
6b. 356-03-04	BT,Exhaust Elbow (Qty. 1)	15.54
6c. 371-02	AD Air Drive Valve (Qty. 1)	20.87

ITEM NUMBER	DESCRIPTION	LIST PRICE	
<b>CUTTERS</b>			
For Ductile, Cast Iron, Steel, A/C & PVC	350-01-1032	4" Carbide Cutter	3 1/2" \$603.13
	350-01-1048	6" Carbide Cutter	5 1/2" 893.96
	350-01-1064	8" Carbide Cutter	7 1/2" 1,182.42
	350-01-1080 <sup>1</sup>	10" Carbide Cutter	9 1/2" 2,640.28
	350-01-1096 <sup>1</sup>	12" Carbide Cutter	11 1/2" 3,122.92
	366-02-1108	14" Carbide Cutter	13 1/2" 3,850.00
	366-02-1124	16" Carbide Cutter	15 1/2" 5,225.00
	366-02-1140	18" Carbide Cutter	17 1/2" 5,775.00
	366-02-1156	20" Carbide Cutter	19 1/2" 6,737.50
	366-02-1180	24" Carbide Cutter	22 1/2" 7,837.50
For HDPE & PVC	350-01-2032 <sup>2</sup>	4" Cutter for HDPE & PVC Pipe	3 1/2" 601.72
	350-01-2048 <sup>2</sup>	6" Cutter for HDPE & PVC Pipe	5 1/2" 891.79
	350-01-2064 <sup>2</sup>	8" Cutter for HDPE & PVC Pipe	7 1/2" 1,177.29
	350-01-2080 <sup>1,2</sup>	10" Cutter for HDPE & PVC Pipe	9 1/2" 2,633.70
	350-01-2096 <sup>1,2</sup>	12" Cutter for HDPE & PVC Pipe	11 1/2" 3,116.40
	366-01-2108 <sup>2</sup>	14" Cutter for HDPE & PVC Pipe	13 1/2" 3,850.00
	366-01-2124 <sup>2</sup>	16" Cutter for HDPE & PVC Pipe	15 1/2" 5,225.00
	366-01-2140 <sup>2</sup>	18" Cutter for HDPE & PVC Pipe	17 1/2" 5,775.00
	366-01-2156 <sup>2</sup>	20" Cutter for HDPE & PVC Pipe	19 1/2" 6,737.50
	366-01-2180 <sup>2</sup>	24" Cutter for HDPE & PVC Pipe	22 1/2" 7,837.50
For Steel	350-01-5032	4" Cutter for Steel	3 1/2" 603.13
	350-01-5048	6" Cutter for Steel	5 1/2" 893.96
	350-01-5064	8" Cutter for Steel	7 1/2" 1,182.42
	350-01-5080 <sup>1</sup>	10" Cutter for Steel	9 1/2" 2,640.28
	350-01-5096 <sup>1</sup>	12" Cutter for Steel	11 1/2" 3,124.31

<sup>1</sup> 10" and 12" Cutters require the Pilot Drill Extension  
<sup>2</sup> HDPE Pilot needed (350-04H) if tapping HDPE pipe only

ITEM NUMBER	DESCRIPTION	LIST PRICE
-------------	-------------	------------

**ACCESSORIES**

350-03-08	1" Spade Bit	\$87.38
358-88	1 3/8" Spade Bit	172.22
350-04H	HDPE Pilot	331.84
350-52	Cutter Jam Nut	50.41
353-10-1	Tapping Compound	28.80
350-05-571	Adapter O-Ring	14.92
366-44	TM-XL Adapter Hub O-Ring	3.03
366-68	TM-XL Anti-Seize Lubricant	18.37

## NEW 14" - 24" ROMAC CUTTERS

Can be adapted to fit other manufacturer's tapping machines. Contact Romac for pricing and availability.



TM-9



Transmate

1-800-426-9341



# B-1™ Drilling and Tapping Machine

## Material Specifications

- Weighs approximately 32 lbs.
- Performs direct corporation stop insertion without time consuming disassembly
- Inserts any 3/4" to 1" corporation stop under pressure
- Extracts threaded corporation stops from the main and inserts a main plug
- Extracts a defective threaded corporation stop from the main and inserts a new corporation stop (3/4" size only)



3/4" to 1" range  
of cuts

## First Choice in the Ditch

Because the B-1...

**Is lighter and easier to handle.**

**Is faster – no disassembly and reassembly during installation.**

**Has no chip problems or water loss.**

**Is simpler and easier to operate, manually or with power.**

**Can be preloaded under cover in foul weather.**



## Preferred by Management

Because the B-1...

**Has a low maintenance cost.**

**Reduces installation time to save costs.**

**Lets you buy only the parts and tools required for your jobs.**

**Is made of strong lightweight metal alloys which hold up under stress to provide a long service life.**

## To Order

1. Order B-1 Drilling Machine
2. Order Drill/Taps per desired tap size, thread type and pipe type. Drill/Tap corresponds to body inlet threads on corporation stop
3. Order Screw Plugs with threads matching the body outlet threads of the corporation stops used
4. Order a pipe saddle for each size of pipe the B-1 will be used on.  
NOTE: One extra chain section (Item Number 353-58) required for 14" - 24" mains, two extra chain sections required for 26" - 32" mains
5. Order Power Unit if desired, Ridgid 690 (373-00) and B-1 Extended Feed Yoke (353-28E)
6. Order extra Tapping Compound if needed. (see Page TM-30)

If ordering the Ridgid 690 electric power drive unit (373-00) by itself for use with the B-1 Drilling and Tapping Machine, you must order the Extended Feed Yoke (353-28E) as well. The B-1 cannot be used under power without the Extended Feed Yoke (353-28E).





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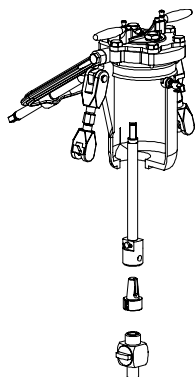
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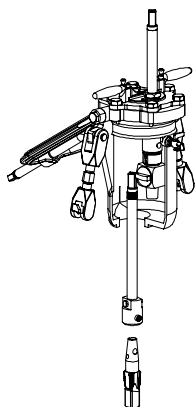
# B-1™ Drilling and Tapping Machine

## Installation of a corporation stop with pressure in the main is completed in these simple steps

### 1. Load the Machine



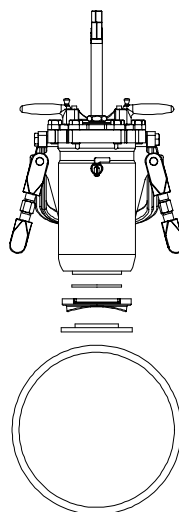
A. Insert stop holder with stop into machine.



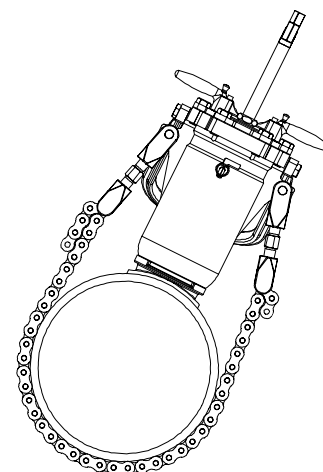
B. Swivel machine head 180°

C. Insert holder with drill/tap into machine.

### 2. Mount Machine on Main

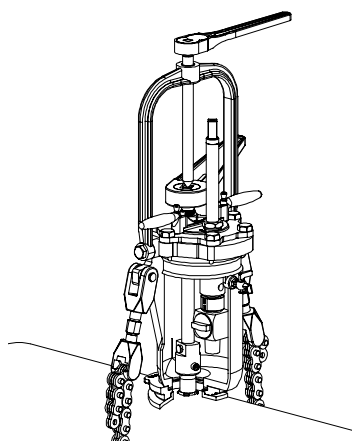


A. Place gaskets, saddle, and machine on main and partially tighten chain.

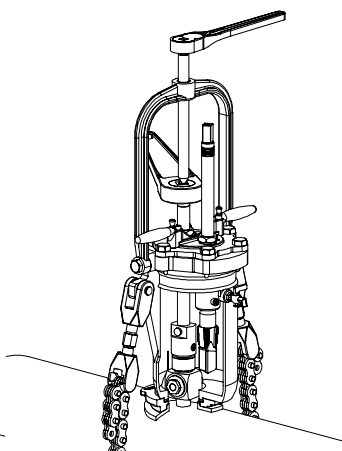


B. Position machine to desired angle and tighten chain.

### 3. Tap or Drill and Insert Stop



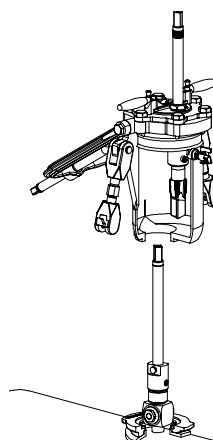
A. Drill and tap pipe wall



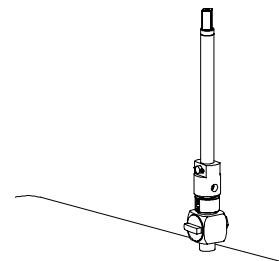
B. Swivel machine head 180°

C. Thread corporation stop into pipe.

### 4. Remove Machine from Main



A. Open pet cock to release pressure, drop yoke and remove chain.



B. Lift machine from Main, leaving stop holder on stop

C. Remove stop holder with wrench provided.

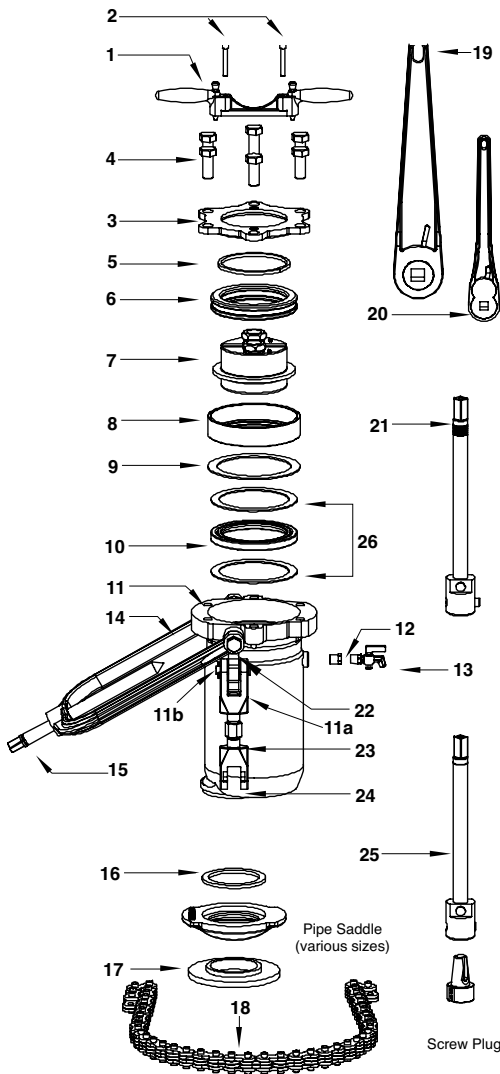


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# B-1™ Drilling and Tapping Machine



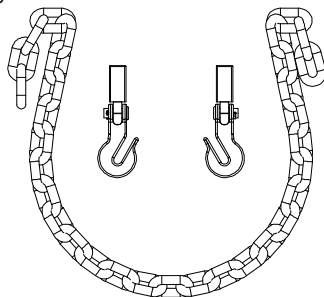
REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
<b>B-1 Drilling and Tapping Machine</b> ..... <b>353-003</b> ..... <b>\$5,224.47</b>			
Included with B1 Machine:			
1	Handle Assembly	353-29	\$256.29
	Handle .....	353-29-29.....	ea. 143.40
	Stop Pin Knobs (2) .....	353-29-49.....	ea. 38.31
	Stop Pins (2).....	353-29-501.....	ea. 38.05
	Stop Pin Springs (2) .....	353-29-55.....	ea. 3.70
2	Socket Head Cap Screws (2) .....	353-51-2	2.21
3	Aluminum Alloy Flange Assembly .....	353-27	222.49
	Flange .....	353-27-27.....	ea. 145.22
	Stop Pin Inserts (2) .....	353-27-48.....	ea. 36.22
4	Hex Head Cap Screws (6).....	353-51-1	ea.2.64
5	Felt Dirt Seal.....	353-57-4	6.35
6	Thrust Bearing.....	353-56	361.99
7	Aluminum Alloy Head Assembly.....	353-26	447.40
	Head.....	353-26-26.....	389.88
	Bronze Bushings (2) .....	353-26-62.....	ea. 22.90
	Bronze Gland Nuts (2).....	353-26-39.....	ea. 57.32
	Gland Packings (4) .....	353-26-573.....	ea. 8.04
8	Aluminum Alloy Ring .....	353-59-2	141.02
9	Ring Gasket .....	353-57-59	12.28
10	Pressure Seal .....	353-57-5	74.54
11	Aluminum Alloy Body Assembly.....	353-23	644.82
	Body.....	353-23-23.....	516.08
	11a Clevises (2) .....	353-23-42.....	ea. 102.23
	11b Clevis Pins (2) .....	353-23-4250.....	ea. 19.40
12	Brass Iron Pipe Plug.....	353-65	ea. 6.35
13	Brass Pet Cock (Replaces Brass Iron Pipe Plug)	353-64	63.02
14	Feed Yoke Assembly .....	353-28	402.72
	Feed Yoke .....	353-28-28.....	291.10
	Threaded Insert .....	353-28-48.....	78.84
	Socket Head Set Screw .....	353-28-512.....	1.30
15	Feed Screw .....	353-43	199.40
16	Top Saddle Gasket .....	353-57-080	14.27
17	Bottom Saddle Gasket 4" and Larger.....	353-57-084	42.98
	2" Size .....	353-57-082	32.90
	3" Size .....	353-57-083	18.98
18	B-1 Chain .....	353-58	389.70
	Additional 4 ft. chain section required for 14" - 24" mains, Two additional chain sections required for 26" - 32" mains Three additional chain sections required for 48" mains		
19	Ratchet Wrench (large) .....	353-60-11	255.07
20	Ratchet Wrench (small) .....	353-60-12	178.41
21	Combination Drill/Tap Holder .....	353-11-1	557.83
	Holder .....	353-11-111.....	504.70
	Knockout Pin .....	353-11-505.....	45.52
	Cotter Pin .....	353-11-506.....	1.30
	Drive Stud .....	353-11-515.....	37.57
	Socket Head Set Screw .....	353-11-514.....	1.97
22	Yoke Bolts .....	353-28-511	35.84
23	Chain Tightening Studs (2) .....	353-58-515.....	ea. 67.77
24	B-1 Chain Holder (2) .....	353-58-6	ea. 75.34
25	Stop Holder .....	353-11-2	516.36
26	Brass Rings (2) .....	353-59-1	ea. 32.07
Following Item NOT ILLUSTRATED			
	1/4" Hex Wrench .....	353-60-32	4.59
	3/16" Hex Wrench .....	353-60-31	2.83
	7/8" Open End Wrench .....	353-60-21	40.30
	1-15/16" Open End Wrench .....	353-60-22	67.77
	Steel Chest .....	353-61	518.47
	Tech Lube Tapping Compound .....	353-10-1	28.80

## NOTE: B-1 Chain Retrofit Kit

### INCLUDES:

353-58-7, B-1 Round Chain Hook Assembly (2)  
356-11 B-Too™ Chain, Round

353-58A.....\$264.08





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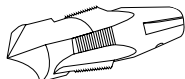
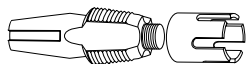
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# B-1™ Drilling and Tapping Machine Parts List

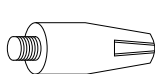
## Cutting Tools and Accessories Use for Threaded Corporation Stops

### Cutting Drill/Taps

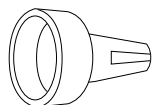


355-01-210 PVC Cutter 3/4"  
353-04-206 PVC Tap 3/4"  
353-01-206 PVC Cutter 1"  
353-04-208 PVC Tap 1"

Iron pipe thread or  
AWWA Thread



### Screw Plugs



Drive Thread

Flare Copper or  
Female Iron Pipe

## To Order

1. Order B-1 Drilling Machine.
2. Order Drill/Taps per desired tap size, thread type and pipe type. Drill/Tap corresponds to body inlet threads on corporation stop.
3. Order Screw Plugs with threads matching the body outlet threads of the corporation stops used.
4. Order a pipe saddle for each size of pipe the B-1 will be used on.  
  
NOTE: One extra chain section (Item Number 353-58) required for 14" - 24" mains, two extra chain sections required for 26" - 32" mains.
5. Order Power Unit, Ridgid 600 (373-00) and the Extended Feed Yoke (353-28E) if desired.
6. Order extra Tapping Compound if needed (see Page TM-30).

ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE	
<b>PVC Cutter and Tap (requires both)</b>			<b>Pipe Saddles</b>			
For PVC only	355-01-210	Cutter, PVC 3/4": 5957 (AWWA thread)	\$264.65	353-08-016	*Pipe Saddle: 5970 (to mount B-1 on 2" pipe)	\$64.26
	353-04-206	Tap, 3/4" PVC: 5956 (AWWA thread)	370.76	353-08-024	*Pipe Saddle: 5970 (to mount B-1 on 3" pipe)	64.26
	353-01-206	Cutter, 1" PVC: 5975-1 (AWWA thread)	265.28	353-08-032	Pipe Saddle: 5970 (to mount B-1 on 4" pipe)	64.26
	353-04-208	Tap, 1" PVC: 5956 (AWWA thread)	428.66	353-08-048	Pipe Saddle: 5970 (to mount B-1 on 6" pipe)	64.26
<b>Drill/Taps</b>						
For Ductile, Cast Iron & A/C	353-02-106	Drill/tap, 3/4" IP: 5951 (Iron Pipe thread)	388.41	353-08-064	Pipe Saddle: 5970 (to mount B-1 on 8" pipe)	64.26
	353-02-108	Drill/tap, 1" IP: 5951 (Iron Pipe thread)	411.95	353-08-080	Pipe Saddle: 5970 (to mount B-1 on 10" pipe)	64.26
	353-02-206	Drill/tap, 3/4" CC: 5950, 5952 (AWWA thread)	274.87	353-08-096	Pipe Saddle: 5970 (to mount B-1 on 12" pipe)	64.26
	353-02-208	Drill/tap, 1" CC: 5950, 5952 (AWWA thread)	375.84	353-08-112	Pipe Saddle: 5970 (to mount B-1 on 14" pipe)	64.26
<b>Screw Plugs (other thread forms available upon request)</b>						
353-06-106	Screw Plug: 5960 (3/4" Flare Copper Service)	205.36	353-08-128	Pipe Saddle: 5970 (to mount B-1 on 16" pipe)	64.26	
353-06-108	Screw Plug: 5960 (1" Flare Copper Service)	207.94	353-08-144	Pipe Saddle: 5970 (to mount B-1 on 18" pipe)	64.26	
353-06-110	Screw Plug: 5960 (1 1/4" Flare Copper Service)	273.76	353-08-160	Pipe Saddle: 5970 (to mount B-1 on 20" pipe)	64.26	
353-06-306	Screw Plug: 5960-2 (3/4" Female Iron Pipe)	272.58	353-08-192	Pipe Saddle: 5970 (to mount B-1 on 24" pipe)	64.26	
353-06-308	Screw Plug: 5960-2 (1" Female Iron Pipe)	280.15	353-08-240	Pipe Saddle: 5970 (to mount B-1 on 30" pipe)	210.72	
353-06-406	Screw Plug: 5961 (3/4" Drive Thread)	280.15	353-08-288	Pipe Saddle: 5970 (to mount B-1 on 36" pipe)	210.72	
353-06-408	Screw Plug: 5961 (1" Drive Thread)	287.72	353-08-336	Pipe Saddle: 5970 (to mount B-1 on 42" pipe)	210.72	
			<b>Tapping Compound</b>			
			353-10-1	Tapping Compound	28.80	
			353-10-3	Tapping Compound / Case (12)	332.15	
			<b>Power Option</b>			
			373-00	Rigid 690 Electric Drive with 5/8" sq. drive adapter (373-05-01)	2,613.02	
			370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82	
			353-28E	Extended Feed Yoke (required for use)	482.19	



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1-800-426-9341



# B-Too™ Drilling and Tapping Machine

## Material Specifications

- Powered by hand or under power
- High strength, modular aluminum and steel components
- Inserts any 3/4" to 1" corporation stop under pressure
- Extracts threaded corporation stops from the main and inserts a main plug
- Uses Mueller B101 saddles, drill/taps, ratchets, chain holders, chains and screw plugs

3/4" to 1" range  
of cuts



## Short Compact Design

Provides greater stability when cutting with the drill tap and easier alignment when inserting the corporation stop.

Can be used on water pressures up to 250 psi without additional fittings or components.

ITEM NO.	DESCRIPTION	PRICE
<b>356-00</b>	<b>B-Too Tapping Machine for Direct Insertion</b>	<b>\$3,710.12</b>
353-60-32	1/4" Hex Wrench	included
353-10-1	Tapping Compound	included
356-61	Tool Box	included
see pages TM-16 and TM-17 for complete list of components		

## To Order

1. Order B-Too Drilling Machine.
2. Order Drill/Taps per desired tap size, thread type and pipe type. Drill/Tap corresponds to body inlet threads on corporation stop.
3. Order Screw Plugs with threads matching the body outlet threads of the corporation stops used. See chart to match screw plugs to bodies. (see page TM-17)
4. Order a pipe saddle for each size of pipe the B-Too will be used on. One extra chain section (Item Number 356-11) required for 18" - 30" mains, two extra chain sections required for 32" - 48" mains.
5. Order Power Unit if desired.
6. Order extra Tapping Compound if needed. (see pg. TM-30)



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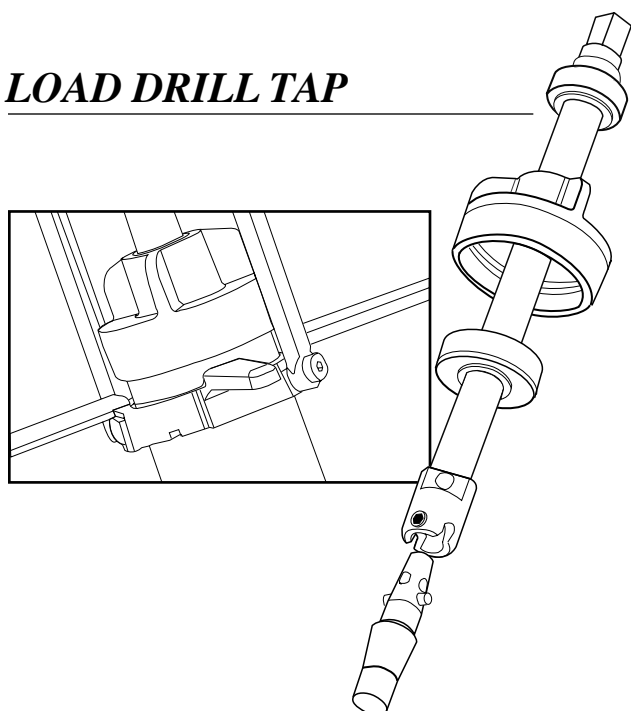
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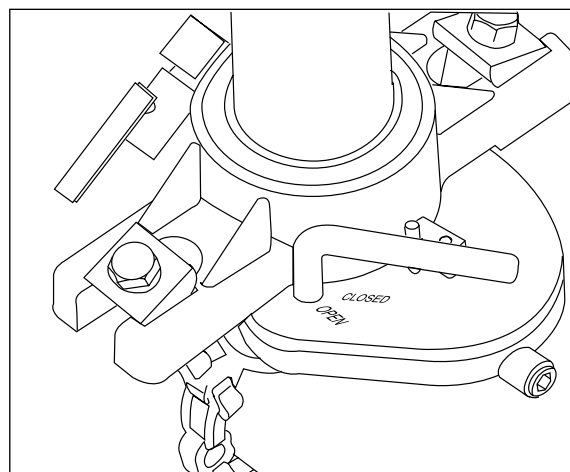
**B-Too™ Drilling and Tapping Machine**

*The rugged, lightweight **B-Too™** makes drilling and tapping a pipe as simple as these steps...*

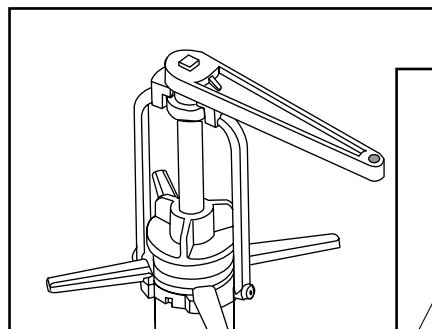
***LOAD DRILL TAP***



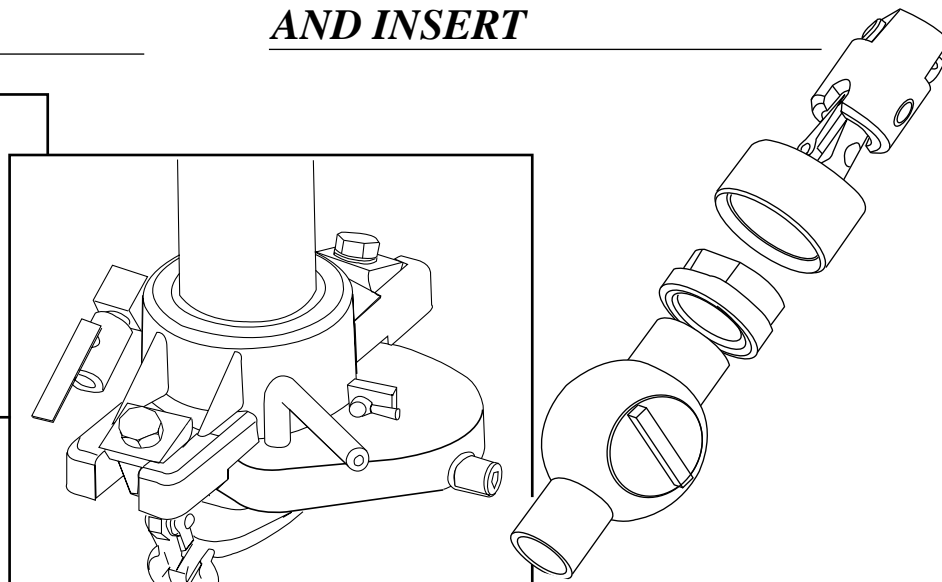
***MOUNT ON PIPE***



***DRILL / TAP***



***PREPARE CORPORATION STOP AND INSERT***





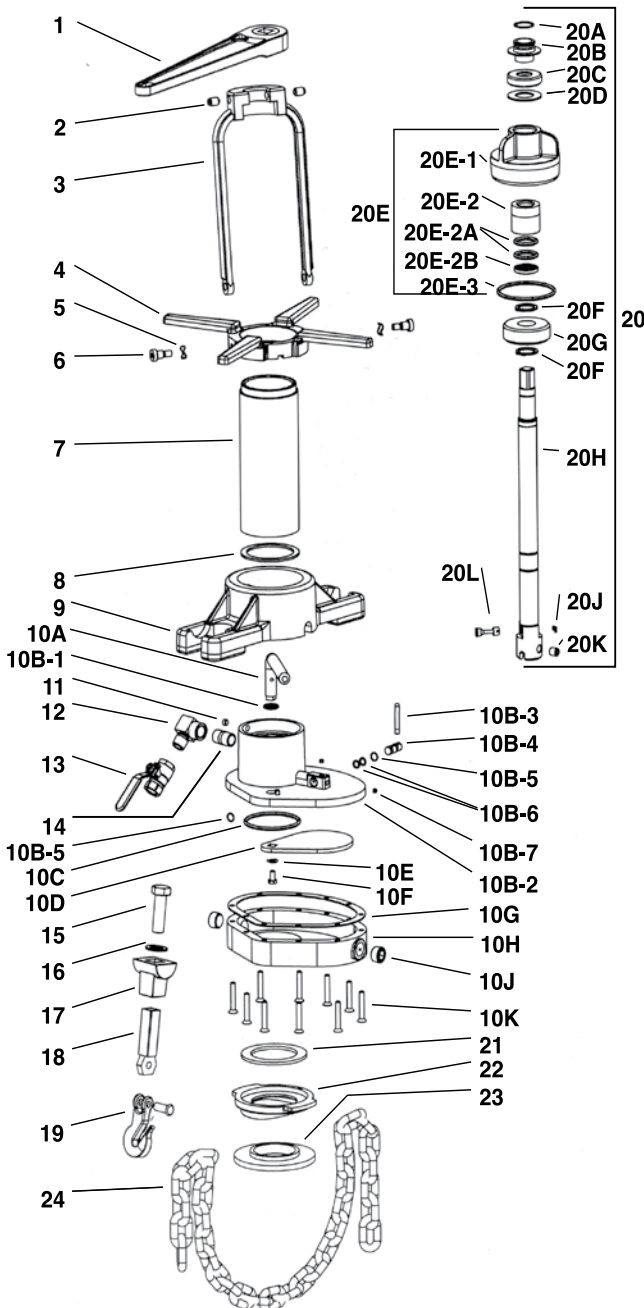
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# B-Too™ Drilling and Tapping Machine

## B-Too™ Drilling and Tapping Machine Parts Drawing & List



REF. NO.	ITEM NO.	DESCRIPTION	LIST PRICE
1	356-19	Ratchet Wrench (13/16")	\$ 255.07
2	356-06-02	Yoke Plunger, Vlier Std. (2 req'd)	ea. 14.72
3	356-06	Yoke	146.76
4	356-07	Feed Nut	142.12
5	356-06-03	Yoke Bolt Washer (2 req'd)	ea. 4.7
6	356-06-01	Yoke Bolt, 1/2" x 1/2" socket (2 req'd)	ea. 4.63
7	356-05	Barrel	176.63
8	356-08-03	Gasket, Slide Gate to Barrel	14.25
9	356-12	Clamp	169.14
10	356-01A	Slide Gate Assembly	742.82
10A	356-02	Slide Gate Disk Handle	109.15
10B	356-03A	Slide Gate Top Assembly	433.82
10B-1	356-02-01	Slide Gate Handle O-ring	3.30
10B-2	356-03	Slide Gate Top	286.29
10B-3	356-20-10	By-Pass Valve: 1/4" Spool Lever	27.96
10B-4	356-20-1	By-Pass Valve: 1/4" Spool	61.69
10B-5	356-20-09	By-Pass Valve: 1/4" Spool Retaining Ring (2 req'd)	ea. 1.13
10B-6	356-20-08	By-Pass Valve: 1/4" Spool O-ring	1.13
10B-7	356-03-01	Slide Gate Top Plug 1/16" NPT Plug (2 req'd)	ea. 1.13
10C	356-04-01	Slide Gate Disk O-ring	3.51
10D	356-04	Slide Gate Disk	100.56
10E	356-04-03	Disk Handle Washer	4.77
10F	356-04-04	Slide Gate Disk Screw	1.13
10G	356-08-02	Gasket Slide Gate	37.09
10H	356-01	Slide Gate Bottom	228.86
10J	356-01-02	Slide Gate Bottom Plug (2 req'd) 3/4" NPT	ea. 2.83
10K	356-03-05	Slide Gate Screw (10 req'd)	ea. 1.13
11	356-03-03	Slide Gate Top to Barrel Set Screw	1.13
12	356-03-04	Exhaust Elbow	15.54
13	371-02	Exhaust Valve	20.87
14	356-01-03	Slide Gate Pipe Nipple	1.97
15	356-14-02	Swivel Bolt for Rd. Link Chain (2 req'd)	ea. 5.41
16	8FW-Z12	Zinc Plated Washer 3/4" (2 req'd)	ea. 0.95
17	356-15	Hook Holder (2 req'd)	ea. 53.00
18	356-16	Hook Link (2 req'd)	ea. 68.15
19	356-11-01	Round Link Chain Hook (2 req'd)	ea. 21.35
20	356-10A	Holder Assembly	786.83
20A	356-21	Spiral Snap Ring	5.65
20B	356-17	Stop Collar	75.53
20C	355-56	Thrust Bearing	37.86
20D	356-18	Shaft Support Thrust Washer	53.00
20E	356-08A	Cap Assembly	207.43
20E-1	356-08	Cap only	150.45
20E-2	356-09A	Holder Bushing Assembly	66.06
20E-2a	356-09-01	Holder Bushing O-ring (2 req'd)	1.13
20E-2b	356-09-02	Holder Bushing Wiper	14.82
20E-3	356-08-01	Cap O-ring	1.69
20F	350-20-54	Shaft End Snap Ring (2 req'd)	10.81
20G	356-13	Holder Guide	24.33
20H	356-10	Holder	259.58
20J	353-11-506	Holder Cotter Pin	1.30
20K	353-11-514	Holder Socket Head Set Screw	1.97
20L	353-11-505	Holder Knockout Pin	45.52
21	356-08-04	Top Saddle Gasket	14.61
22	356-23-xx	B-Too Saddle xx Mueller Style (See following page)	
23	353-57-084	4" Bottom Saddle Gasket for 4" and larger	42.98
	353-57-083	3" Bottom Saddle Gasket, (Not Included)	18.98
	353-57-082	2" Bottom Saddle Gasket, (Not Included)	32.90
24	356-11	Chain, Round Link	60.90
Not Illustrated:			
	353-60-32	1/4" Hex Wrench	4.59
	353-10-1	Tapping Compound	28.80
	356-61	Tool Box	527.52





Transmate

1-800-426-9341



# B-Too™ Drilling and Tapping Machine Parts List

ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>PVC Drills and Taps (requires both Cutter and Tap)</b>			<b>Pipe Saddles</b>		
For PVC only	355-01-210	Cutter, PCV 3/4": 5957 (AWWA thread)	356-23-02	*B-Too, Saddle 2" Mueller Style	\$53.00
	353-04-206	Tap, 3/4" PVC: 5956 (AWWA thread)	356-23-03	*B-Too, Saddle 3" Mueller Style	\$53.00
	353-01-206	Cutter, 1" PVC: 5975-1 (AWWA thread)	356-23-04	B-Too, Saddle 4" Mueller Style	\$53.00
	353-04-208	Tap, 1" PVC: 5956 (AWWA thread)	356-23-06	B-Too, Saddle 6" Mueller Style	\$53.00
	353-03	Drill Tap Roll Pin	1.66	356-23-08	B-Too, Saddle 8" Mueller Style
<b>Drill/Taps</b>			356-23-10	B-Too, Saddle 10" Mueller Style	\$53.00
For Ductile, Cast Iron & A/C	353-02-106	Drill/tap, 3/4" IP: 5951 (IP thread)	356-23-12	B-Too, Saddle 12" Mueller Style	\$53.00
	353-02-108	Drill/tap, 1" IP: 5951 (IP thread)	356-23-14	B-Too, Saddle 14" Mueller Style	\$53.00
	353-02-206	Drill/tap, 3/4" CC: 5950, 5952 (AWWA thread)	356-23-16	B-Too, Saddle 16" Mueller Style	\$53.00
	353-02-208	Drill/tap, 1" CC: 5950, 5952 (AWWA thread)	356-23-20	B-Too, Saddle 20" Mueller Style	\$53.00
	353-03	Drill Tap Roll Pin	1.66	356-23-24	B-Too, Saddle 24" Mueller Style
<b>Screw Plugs (other thread forms available upon request)</b>			* must order bottom saddle gasket, see TM-16		
356-22-01	B-Too, Quick Release Screw Plug Body 1"	181.72	<b>30" - 60" SADDLES ALSO AVAILABLE</b>		
356-22-02	B-Too, Quick Release Screw Plug 1" Flare Copper	143.87	<b>Tapping Compound</b>		
356-22-03	B-Too, Quick Release Screw Plug 1" MIP	143.87	353-10-1	Tapping Compound	28.80
356-22-04	B-Too, Quick Release Screw Plug 1" Drive Thread	143.87	353-10-3	Tapping Compound / Case (12)	332.15
356-22-05	B-Too, Quick Release Screw Plug 1" FIP	143.87	<b>Power Option</b>		
356-22-06	B-Too, Quick Release Screw Plug 3/4" Flare Copper	143.87	373-356	Ridgid 690 Electric Drive w/ 13/16" sq. drive adapter	2,613.02
356-22-07	B-Too, Quick Release Screw Plug 3/4" FIP	143.87	370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82
356-22-08	B-Too, Quick Release Screw Plug 3/4" MIP	143.87			
356-22-09	B-Too, Quick Release Screw Plug 3/4" Drive Thread	143.87			
356-22-10	B-Too, Quick Release Screw Plug Body 1-1/4"	211.86			
356-22-11	B-Too, Quick Release Screw Plug 1-1/4" Flare Copper	166.58			
356-22-12	B-Too, Quick Release Screw Plug 1-1/4" FIP	166.58			
356-22-13	B-Too, Quick Release Screw Plug 1" 110 Compression Conn.	143.87			
356-22-14	B-Too, Quick Release Screw Plug 3/4" 110 Compression Conn.	143.87			



### Screw Plug Chart

Body Size	Screw Plugs that fit	
1" Body (356-22-01)	1" FC	3/4" FC
	1" FIP	3/4" FIP
	1" MIP	3/4" MIP
	1" Drive Thread	3/4" Drive Thread
	1" Mueller Thread	3/4" Mueller Thread
	1 1/4" Body	1 1/4" FC

### Cutting Drill/Taps

355-01-210 PVC Cutter 3/4"  
353-04-206 PVC Tap 3/4"

353-01-206 PVC Cutter 1"  
353-04-208 PVC Tap 1"

Iron pipe thread or AWWA Thread



**Transmate**

1-800-426-9341



# M-1™ Pipe Drilling Machine

**Material Specifications**

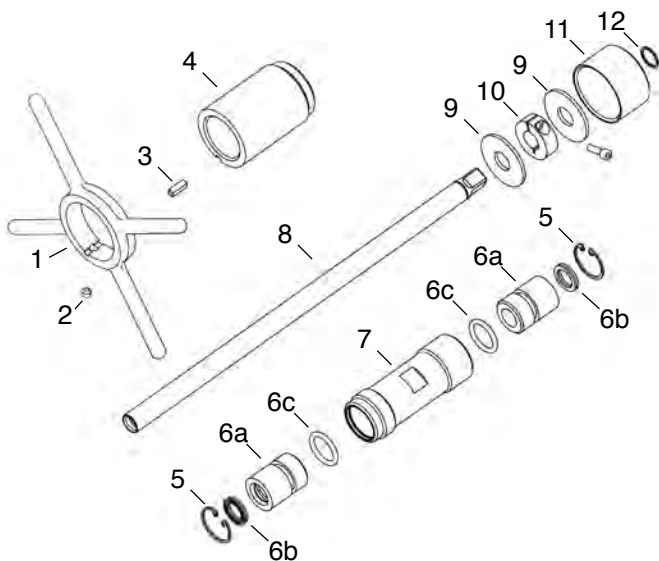
- Weighs approximately 10 lbs and easy to handle, 14" long
- 3/4" to 1" range of cuts using a separate corporation stop and saddle
- Cuts all types of water mains, wet and dry
- Easy to set up and use
- Uses TapMate Too adapters, arbor and ratchet



**3/4" to 1"  
range of cuts**

**To Order:**

1. Order Base Machine
2. Order Cutters or Spade Bits per desired cut size and pipe type
3. Order Adapters per size and corp outlet type
4. Order Small Holesaw Arbor
5. Power Option if desired



REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
1	Handle for Lead Nut	351-29-1	\$138.20
2	Arbors & Handle Set Screw	351-51-2	1.12
3	Lead Nut Key	351-24-66	4.41
4	M1 Feeder	352-24	116.50
5	Lead Tube Snap Ring	351-23-54	2.18
6	Lead Tube Bushing Complete	351-22-2A	68.51
6a	Lead Tube Bushing	351-22-2	62.77
6b	Poly Pak Seal	351-57-2	5.69
6c	Lead Tube Bushing O-Ring	351-57-1-62	1.12
7	Body	352-23	150.46
8	Shaft, Main	352-20	142.40
9	Thrust Washer	352-53-1	15.10
10	Clamp	352-63	25.17
11	Bronze Cap	352-35	120.58
12	Retaining Snap Ring	352-54	2.51

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>352-00</b>	<b>M-1 Drilling Machine</b>	<b>\$1,093.08</b>
	Included with M1 Machine:	
351-60-1	Ratchet Wrench	included
352-60-3	5/32" Allen Wrench	included
352-61	Tool Box	included
353-10-1	Tapping Compound	included
	<b>Holesaws (require Small Holesaw Arbor)</b>	
351-01-106	3/4" Carbide Cutter (actual OD 11/16")	107.32
351-01-108	1" Carbide Cutter (actual OD 7/8")	120.97
351-01-406	3/4" HSS Carbide Tip Holesaw (actual OD 11/16")	37.66
351-01-408	1" HSS Carbide Tip Holesaw (actual OD 7/8")	44.30
351-01-506	3/4" Bimetal Holesaw <sup>1</sup>	21.19
351-01-508	1" Bimetal Holesaw <sup>1</sup>	23.97
351-01-206	3/4" Cutter for PVC (actual OD 11/16")	111.64
351-01-208	1" Cutter for PVC (actual OD 7/8")	114.16
	<b>Spade Bits</b>	
351-03-12	Spade Bit Holder	233.96
351-03-106	3/4" Spade Bit (actual OD 11/16")	65.29
351-03-108	1" Spade Bit (actual OD 23/32")	68.51
351-60-5	Torx Key Wrench	6.86

For Ductile Cast Iron & A/C  
For PVC only

ITEM NUMBER	DESCRIPTION	LIST PRICE
	<b>Adapters</b>	
351-05-406	3/4" Female Iron Pipe Adapter	\$117.70
351-05-408	1" Female Iron Pipe Adapter	117.70
351-05-506	3/4" Flare Copper Adapter	117.70
351-05-508	1" Flare Copper Adapter	117.70
351-05-606	3/4" Male Iron Pipe Adapter	117.70
351-05-608	1" Male Iron Pipe Adapter	117.70
351-05-706	3/4" 110 Compression Connection	117.70
351-05-708	1" 110 Compression Connection	117.70
	Special adapters can be made upon request	
	<b>Arbor</b>	
351-14-1	Small Holesaw Arbor, (includes Arbor Pilot Drill 351-01-402) (use with 3/4" and 1" cutters / holesaws)	73.08
351-01-402	1/4" Arbor Pilot Drill (for small holesaw arbors) included w/ large & small arbors	15.59
	<b>Power Option</b>	
373-351	Ridgid 690 Electric Drive w/1/2" sq. adapter	2,613.02
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82
	<b>Tapping Compound</b>	
353-10-1	Tapping Compound	28.80
353-10-3	Tapping Compound / Case (12)	332.15

<sup>1</sup>Recommended for Steel Pipe



**Transmate**

1-800-426-9341



# 5930™ Pipe Drilling Machine

**Material Specifications**

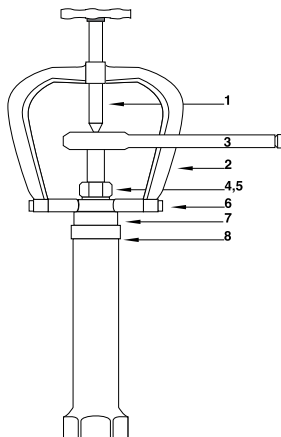
- Weighs approximately 20 lbs
- Compact and easy to handle
- 3/4" to 1" range of cuts using a corporation stop and saddle
- Cuts all types of water mains, wet and dry
- Easy to set up and use

**3/4" to 1"  
range of cuts**



**To Order**

1. Order Base Machine
2. Order Cutters and Adapters per desired cut size for PVC
3. Order Adapters per corp size and thread type
4. Order Drills per cut sizes
5. Order Drill Holders per drill sizes



REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
1	Feed Screw complete	354-43	\$173.49
2	Feed Yoke	354-28	149.96
3	Ratchet Wrench	354-60-1	325.12
4	Gland Nut	354-39	66.76
5	Gland Packing Seal (3 required)	353-26-573	ea 8.04
6	Yoke Bolt (2 required)	354-28-511	ea 1.47
7	Top Yoke	354-28-1	144.09
8	Body	354-25	334.09
	Not illustrated:		
	6" Crescent Wrench (2 required)	354-60-4	ea 49.09
	Tool Box	352-61	90.28

All items above are included with the 5930 Drilling Machine. Drill Holders, Drills, Holesaws, PVC Adapters, Cutter Adapters, Pilot Drills and Machine Adapters are ordered separately (see below).

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>354-00</b>	<b>5930 Drilling Machine</b>	<b>\$1,359.96</b>
	Included with 5930 Machine:	
354-60-4	Crescent Wrench (2)	included
354-60-1	Ratchet Wrench	included
352-61	Tool Box	included
353-10-1	Tapping Compound	included

**Drills and Drill Holders**

individual Holder required for each size drill

For Ductile, Cast Iron, A/C & Steel	354-01-06	3/4" Drill: 5933 (actual OD 11/16")	149.18
	354-01-08	1" Drill: 5933 (actual OD 15/16")	209.48
	354-12-06	3/4" Drill Holder: 5934	294.05
	354-12-08	1" Drill Holder: 5934	294.05

**PVC**

For PVC only	354-04-3	3/4" & 1" PVC Adapter: 9456 (includes 354-01-02) Required for PVC Cutters	195.90
	354-12-06	3/4" Drill Holder	294.05
	351-01-206	3/4" PVC Cutter (actual OD 11/16")	111.64
	351-01-208	1" PVC Cutter (actual OD 7/8")	114.16
	354-01-02	3/16" Pilot Drill: 9445	12.25

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>Adapters</b>		
354-05-406	3/4" Female Iron Pipe Adapter: 5931-2	183.79
354-05-408	1" Female Iron Pipe Adapter: 5931-2	191.13
354-05-410	1 1/4" Female Iron Pipe Adapter: 5931-2	198.47
354-05-506	3/4" Flare Copper Adapter: 5931	183.79
354-05-508	1" Flare Copper Adapter: 5931	191.13
354-05-510	1 1/4" Flare Copper Adapter: 5931	198.47
354-05-606	3/4" Male Iron Pipe Adapter: 5932	183.79
354-05-608	1" Male Iron Pipe Adapter: 5932	191.13
354-05-610	1 1/4" Male Iron Pipe Adapter: 5932	198.47
354-05-706	3/4" 110 Compression Connection	183.07
354-05-708	1" 110 Compression Connection	191.13

Special adapters can be made upon request



**Transmate**

1-800-426-9341

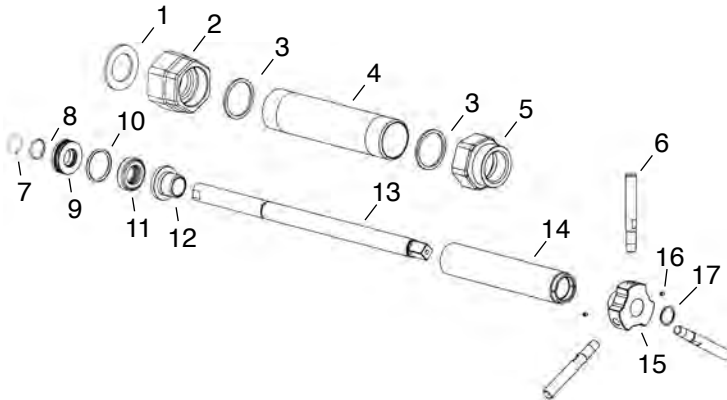


# 5935™ Pipe Drilling Machine

**Material Specifications**

- Weighs approximately 40 lbs.
- 3/4" to 2" range of cuts using a corporation stop and saddle
- Cuts all types of water mains, wet and dry

**3/4" to 2"  
range of cuts**



REF NO.	DESCRIPTION	ITEM NO.	LIST PRICE
1	Adapter Gasket	355-57-05	\$13.79
2	Bottom Cylinder Coupling	355-37	186.71
3	Top & Bottom Cylinder Gaskets (2 req.)	355-38-57	ea 9.92
4	Cylinder	355-38	178.77
5	Top Cylinder Coupling	355-36	308.75
6	Handle for Lead Nut (3 req.)	350-29	83.93
7	Shaft End Snap Ring	350-20-54	10.81
8	Collar O-Ring (inside)	355-40-5711	1.91
9	Collar	355-40	90.77
10	Collar O-Ring (outside)	355-40-5712	1.91
11	Thrust Bearing	355-56	37.86
12	Feed Screw (bottom)	355-43-2	115.51
13	Drill Holder	355-12	283.02
14	Feeder Screw	355-43	356.97
15	Tri-Handle Holder	355-29-1	176.43
16	Set Screw	351-23-512	1.12
17	Spiral Snap Ring	355-54	5.65
Not Illustrated:			
	Ratchet Wrench	355-60-1	313.86
	Adjustable Wrench	355-60-4	96.69
	1/8" Allen Wrench	355-60-3	2.55
	Tapping Compound	353-10-1	28.80
	Tool Box	355-61	189.78

All items above are included with the 5935 Drilling Machine. All other items must be ordered separately.

**To Order:**

- |  |                                  |
|--|----------------------------------|
| 1. Order Base Machine  | 3. Order Adapters                |
| 2. Order Drills or Holesaws per desired cut size and pipe type | 4. Order Power Option if desired |

ITEM NUMBER	DESCRIPTION	LIST PRICE	
<b>355-00</b>	<b>5935 Pipe Drilling Machine</b>	<b>\$2,064.19</b>	
	Included with 5935 Machine:		
355-60-4	Adjustable Wrench SPUD	included	
355-60-1	Ratchet Wrench	included	
355-61	Tool Box	included	
355-60-3	1/8" Allen Wrench	included	
353-10-1	Tapping Compound	included	
<b>Drill</b>			
For Ductile, Cast Iron, A/C & Steel	354-01-06	3/4" Drill: 5933 (actual OD 11/16") Requires Drill Adapter 355-12-06	149.18
	355-01-408	1" Drill: 5937-1 (actual OD 7/8")	374.25
	355-01-410	1 1/4" Drill: 5937-1 (actual OD 1 1/8")	378.03
	355-01-412	1 1/2" Drill: 5937 (actual OD 1 7/16")	380.82
	355-01-416	2" Drill: 5937-1 (actual OD 1 3/4")	503.38
355-04-4	2.5 Drill Extension (Used when doing a 2" tap through a threaded gate valve)	202.95	
<b>PVC</b>			
For PVC only	351-01-206	3/4" PVC Cutter (actual OD 11/16")	111.64
	351-01-208	1" PVC Cutter (actual OD 15/16")	114.16
	351-01-210	1 1/4" PVC Cutter (actual OD 1 1/8")	125.59
	351-01-212	1 1/2" PVC Cutter (actual OD 1 3/8")	136.98
	351-01-216	2" PVC Cutter (actual OD 1 7/8")	148.41
355-12-06	Adapter: 5938 (use with 3/4", 1" PVC Holesaws includes 354-04-3 Adapter)	333.72	
355-04-3	Large PVC Adapter: 9546 (use with 1 1/2" & 2" PVC Cutters)	161.72	

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>Adapters</b>		
355-05-406	3/4" Female Iron Pipe Adapter: 5936-3	220.54
355-05-408	1" Female Iron Pipe Adapter: 5936-3	220.54
355-05-410	1 1/4" Female Iron Pipe Adapter: 5936-3	220.54
355-05-412	1 1/2" Female Iron Pipe Adapter: 5936-1	220.54
355-05-416	2" Female Iron Pipe Adapter: 5936-1	220.54
355-05-420	2 1/2" Female Iron Pipe Adapter: 5936-1	220.54
355-05-506	3/4" Flare Copper Adapter: 5936-2	220.54
355-05-508	1" Flare Copper Adapter: 5936-2	220.54
355-05-510	1 1/4" Flare Copper Adapter: 5936-2	220.54
355-05-512	1 1/2" Flare Copper Adapter: 5936	220.54
355-05-706	3/4" 110 Compression Connection	235.24
355-05-708	1" 110 Compression Connection	235.24
355-05-712	1 1/2" 110 Compression Connection	235.24
355-05-716	2" 110 Compression Connection	235.24

**\* Special Adapters can be made per request \***

**Note:** Female Adapters thread into Part No. 355-37 except the 2 1/2" Female Iron Pipe Adapter which will replace Part No. 355-37. The 355-37 fits 2" Flare Copper Corporation Stops, no 2" Flare Adapter is required.

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>Tapping Compound</b>		
353-10-1	Tapping Compound	28.80
353-10-3	Tapping Compound / Case (12)	332.15
<b>Power Option</b>		
373-355	Ridgid 690 Electric Drive w/ 7/8" sq. drive adapter See pg. TM-29	2,613.02
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82



**Transmate**

1-800-426-9341



# TapMate Dry Tap™ Dry Drilling and Tapping Machine

**Material Specifications**

- Weighs approximately 28 lbs.
- Easy to use, with or without power drive
- 3/4" through 1" drill/taps through all types of mains
- Drilling shaft is completely supported at two points for rigidity
- Uses B-1 drill/tap holder and accessories
- Lightweight and sturdy construction
- Conforms to pipe sizes 3" or larger (Extra chain lengths required for 18" mains or larger)

3/4" to 1" range of cuts



**To Order:**

1. Order Base Machine
2. Order Drill/Taps per cut size, thread type and tap size
3. Order Power Option if desired

ITEM NUMBER	DESCRIPTION	LIST PRICE
357-00	<b>TapMate Dry Tap</b>	<b>\$2,168.58</b>
	Included with Dry Tap Machine:	
353-60-11	Ratchet Wrench (5/8" sq. drive)	included
357-55	Delta ring chain assembly	included
353-11-1	Drill Tap Holder	included
353-60-22	1 5/16" Open End Wrench	included
353-60-32	1/4" Allen Wrench	included
353-10-1	Tapping Compound	included
355-61	Tool Box	included

**Optional Straps Available**

357-66	48" Strap (includes Strap Ratchet)	178.00
357-100	Long Strap (for 14" to 24" diameter mains)	111.28
356-11	Chain, Round Link	60.90

**PVC Drill and Taps (require both tap and cutter)**

For PVC only	353-04-206	3/4" PVC Tap: 5956 (AWWA thread)	370.76
	355-01-210	3/4" PVC Cutter - 5957-3/4"	264.65
	353-04-208	1" PVC Tap: 5956 (AWWA thread)	428.66
	353-01-206	1" PVC Cutter: 5975-1 (makes 1 1/4" hole)	265.28

**Drill/Taps**

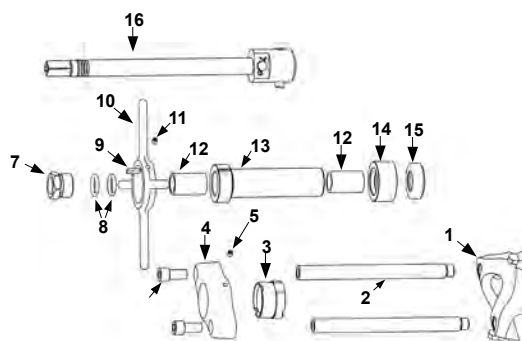
For Ductile, Cast Iron & A/C	353-02-106	3/4" Iron Pipe Drill/Tap: 5951	388.41
	353-02-108	1" Iron Pipe Drill/Tap: 5951	411.95
	353-02-206	3/4" AWWA Drill/Tap: 5952	274.87
	353-02-208	1" AWWA Drill/Tap: 5952	375.84

**Power Option**

373-357	Rigid 690 Electric Drive w/ 5/8" sq. Drive Adapter See pg TM-29	2,613.02
370-70	GF-15 Ground Fault Interrupter Plug (req.d)	111.82

**Tapping Compound**

353-10-1	Tapping Compound	28.80
353-10-3	Tapping Compound/ Case (12)	332.15

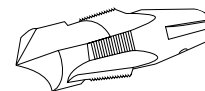
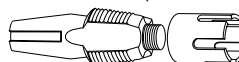


**TapMate Dry Tap Parts**

Ref. Number	Item Number	Description	List Price
1	357-08	Saddle	\$151.44
2	357-35	Column	66.15
3	357-28-1	Top Yoke Insert	117.33
4	357-28	Top Yoke	260.98
5	351-23-512	Lead Tube Set Screw	1.12
6	357-35-51	Column Bolts (Qty 2)	ea 6.15
7	353-26-39	Head Gland Nut	57.32
8	353-26-573	Head Gland Packing (Qty 2)	ea 8.04
9	351-24-66	Lead Nut Key	4.41
10	351-29-1	Handle	138.20
11	351-51-2	Arbors & Handle Set Screw	1.12
12	353-26-62	Head Bronze Bushing (Qty 2)	ea 22.90
13	357-43	Feed Screw Complete	311.70
14	357-22	Bearing Housing	111.74
15	357-56	Thrust Bearing	24.43
16	353-11-1	Drill/Tap Holder Assembly	557.83

**Cutting Drill/Taps**

355-01-210 PVC Cutter 3/4"  
353-04-206 PVC Tap 3/4"



353-01-206 PVC Cutter 1"  
353-04-208 PVC Tap 1"

Iron Pipe Drill / Tap  
AWWA Drill / Tap





**Transmate**

1-800-426-9341



# DeChlorinator

**Material Specifications**

Aluminum, brass valves and stainless steel fasteners.

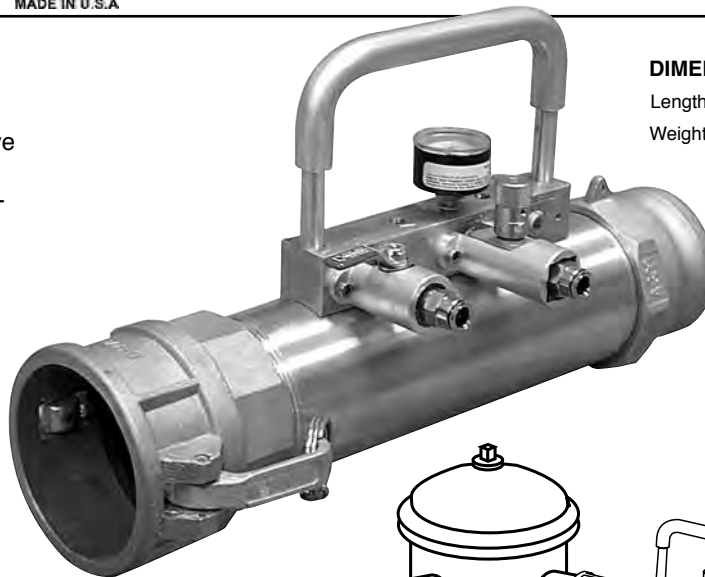
**Connection inlet:** Type A cam and groove hydrant adapter (FNST) and Type D cam and groove adapter. Other hydrant adapters available on request.

**Connection outlet:** Type A and D cam and groove adapter.

**Porting Connections:** 1/4" valves with quick disconnects.

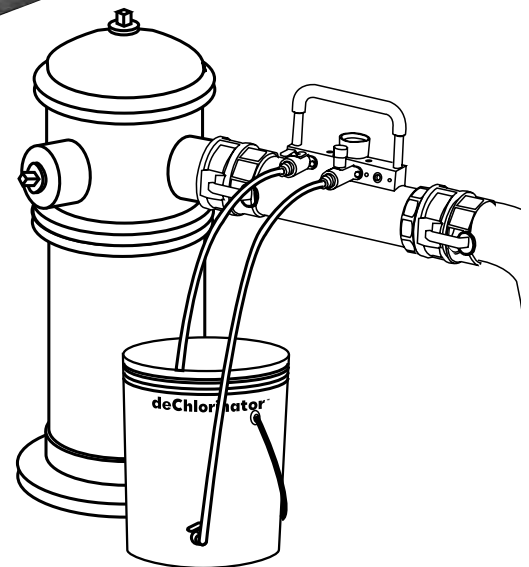
**Reagents:** Can use all commonly available disinfection and dechlorination reagents.

**Flows:** 200 - 900 GPM

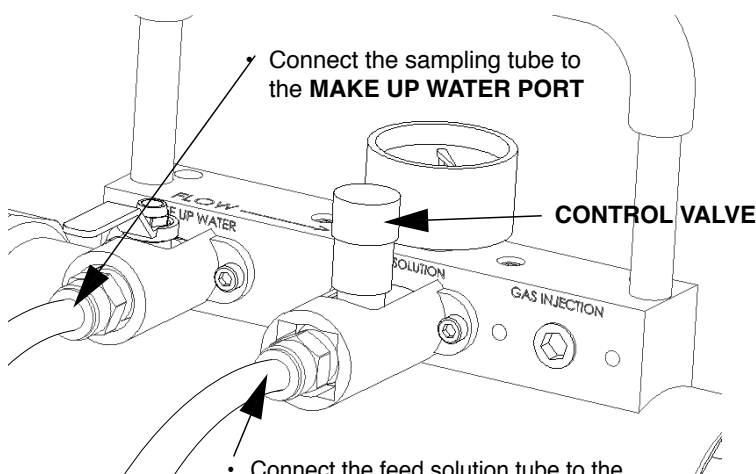


**DIMENSIONS**

Length - 16 3/8"  
Weight - 9.3 lbs.



**Connections are easy ...**



• Connect the sampling tube to the **MAKE UP WATER PORT**

• Connect the feed solution tube to the **FEED SOLUTION PORT**, and connect the opposite end into the **SOLUTION CONTROL VALVE** located at the bottom of the bucket

**Vita-D-Chlor Feed Solution and Mixing and Feed Solution Valve Settings**

If Chlorine value (pm, mg/l)	Then add... Vita-D-Chlor cups per 5 gal water	Set Control Valve on... for maximum Chlorine
0 - .5	1/4 cup	2 Turns Open
.5 - 1	1/2 cup	2 Turns Open
1 - 1.5	1/2 cup	3 Turns Open
1.5 - 10	5 cups	2 Turns Open
10 - 30	15 cups	2 Turns Open
30 - 50	15 cups	3 Turns Open
50 - 150	25 cups	Full open
150 - 200	34 cups	Full open

## Why Dechlorinate?

- Quickly dechlorinates and neutralizes pH of release water.
- Allows water utilities to meet regulations for residual chlorine concentration in released water.
- Enables contractors to quickly flush highly concentrated chlorinated water in new construction situations.
- Helps meet EPA, CWA, and SDWA legislation for released water entering receiving streams.



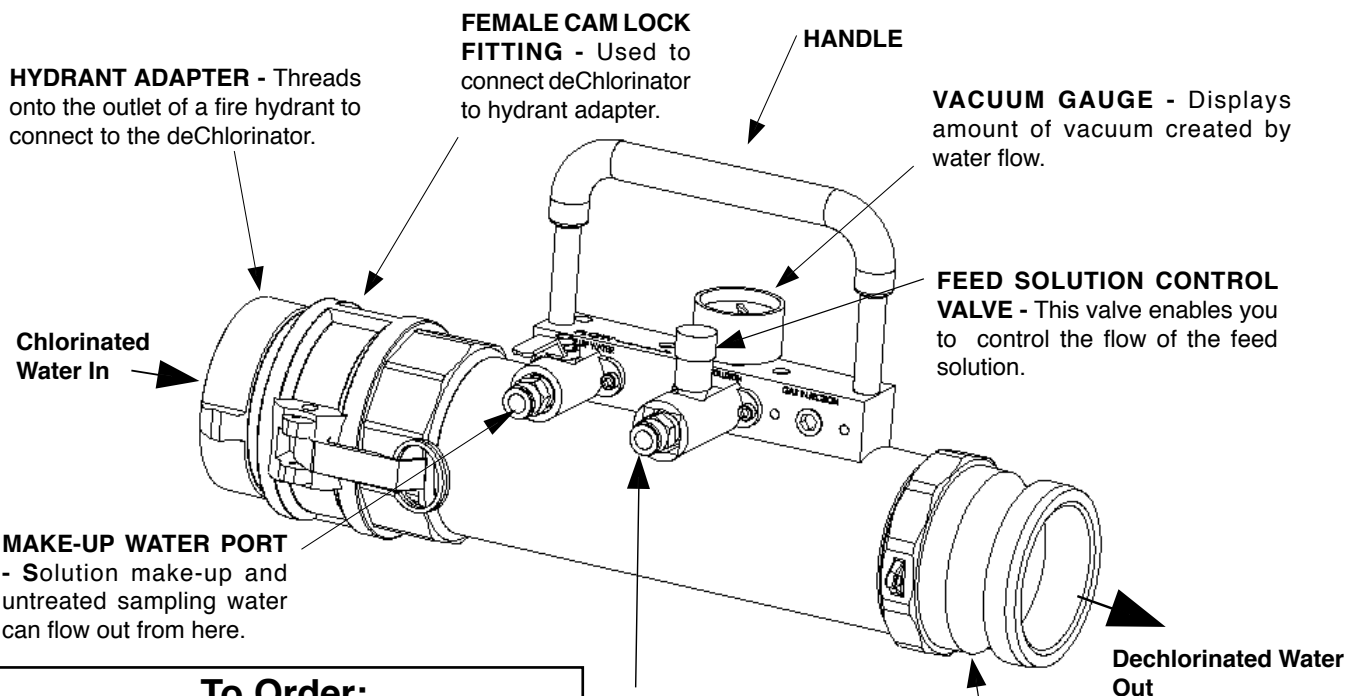


Transmate

1-800-426-9341



# DeChlorinator



### To Order:

1. Order deChlorinator (378-032)
2. Order 3" Discharge Hose (378-06-03)
3. Order Diffuser (378-05-03)
4. Order Accessories (optional)
5. Order Analyzers (color wheel or test strips)
6. Order Analyzer reagents
  - Determine whether the system is "free" or "total"
  - free = chlorine only
  - total = chlorine & ammonia
7. Order dechlorinating chemicals
  - Vita-D-Chlor™ if you're dechlorinating only
  - Vita-D-Chlor™ neutral if the pH levels need to be maintained

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>378-032</b>	<b>DC, Dechlorinator Kit</b> <b>3" with 2" venturi</b>	<b>\$2,378.98</b>
	Included with DC Kit	
378-030-17	Carrying Bucket	included
378-030-06	Male x Fire Hydrant Camlock Adapter	included
378-02-2	Test Strips	included
378-01-01-4	Dechlorinating Chemical (one cup)	included
378-030-10	Tubing (2 tubes, 4 feet long)	included
378-032M	deChlorinator Unit	included
<b>Accessories</b>		
378-05-03	Diffuser	553.08
378-06-03	3" Discharge Hose (20ft. long w/camlock fittings)	175.03
<b>Analyzers</b>		
378-02-1	Hach Free & Total Chlorine Color Disc	89.62
<b>Hach Chlorine Test Strips</b>		
378-02-2	0 - 10 PPM Range	20.16
378-02-3	10 - 200 PPM Range	80.84

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>Analyzer Reagents</b>		
378-03-1	Hach DPD Free Chlorine 100 5ml Pillows	POA
378-03-2	Hach DPD Total Chlorine 100 5ml Pillows	POA
378-04-1	DPD Dispenser for Free Chlorine 5ml (400 doses)	POA
378-04-2	DPD Dispenser for Total Chlorine 5ml (400 doses)	POA
<b>Dechlorination Chemicals</b>		
<b>Vita-D-Chlor™ (Ascorbic Acid, NSF)</b>		
378-01-01-1	2.5 kg (5.5 lbs.)	POA
378-01-01-2	12 kg (26.4 lbs.)	POA
378-01-01-3	25 kg (55 lbs.)	POA
<b>Vita-D-Chlor™, Neutral (Sodium Ascorbate, NSF)</b>		
378-01-02-1	2.5 kg (5.5 lbs.)	POA
378-01-02-2	12 kg (26.4 lbs.)	POA
378-01-02-3	25 kg (55 lbs.)	POA
<b>Vita-D-Chlor™, Tablets</b>		
Treats 8500 gallons per tablet (85g of Ascorbic Acid per 2 <sup>5</sup> / <sub>8</sub> " tablet)		
378-01-03-1	6 tablets	POA
378-01-03-2	20 tablets	POA
378-01-03-3	40 tablets	POA
<b>Vita-D-Chlor™, Tablet Sock (Coarse or Fine)</b>		
(24" sock for holding tablets)		
378-01-04-1	Coarse	POA
378-01-04-2	Fine	POA



**Transmate**

1-800-426-9341



# Sewer Pipe Tapping Machine

**Material Specifications**

- Power:** 1.75 HP Air Motor
- Air Consumption:** 60-75 cfm @ 80 - 100 psi
- Weight:** Machine less holesaw/cutter - 30lb.
- Width:** 8" x 8"
- Height:** Machine less holesaw/cutter - 14"

## 1.75 Horsepower Air Motor



**To Order:**

1. Order Base Machine
2. Order Holesaw / Cutters per size and type of pipe
3. Order Accessories depending on the type of pipe to be cut

Cutting Clay or Cement Pipe	Cutting PVC / HDPE Pipe
<ul style="list-style-type: none"> <li>• 2 gallon Pressurized Water Tank required 377-14</li> <li>• Diamond Tipped Holesaw</li> <li>• 3/4" Diamond Tipped Pilot. 377-10</li> </ul>	<ul style="list-style-type: none"> <li>• PVC Adapter 377-12</li> <li>• PVC Pilot Complete 377-15</li> <li>• TM Jam Nut 350-52</li> <li>• PVC Cutter</li> </ul>






ITEM NO.	DESCRIPTION	LIST PRICE
377-01	<b>Air Powered Sewer Pipe Tapping Machine</b>	<b>3,166.05</b>
377-11-1032	4" Diamond Tipped Holesaw	618.52
377-11-1036	4 1/2" Diamond Tipped Holesaw	628.31
377-11-1040	5" Diamond Tipped Holesaw	676.50
377-11-1044	5 1/2" Diamond Tipped Holesaw	714.05
377-11-1048	6" Diamond Tipped Holesaw	750.42
377-11-1052	6 1/2" Diamond Tipped Holesaw	835.00
377-11-1054	6 3/4" Diamond Tipped Holesaw	835.00
377-11-1056	7" Diamond Tipped Holesaw	881.41
377-11-1060	7 1/2" Diamond Tipped Holesaw	881.41
377-11-1064	8" Diamond Tipped Holesaw	921.15
377-11-1068	8 1/2" Diamond Tipped Holesaw	1,159.72
377-11-1070	8 3/4" Diamond Tipped Holesaw	1,172.62
377-10	3/4" Diamond Tipped Pilot Complete	447.23
377-14	Water Tank Complete	156.72

**PCV ACCESSORIES REQUIRED**

377-12	PVC Adapter	185.67
377-15	PVC Pilot Complete	224.24
350-03-08	1" Spade Bit (included with PVC Pilot)	87.38
350-52	TM Jam Nut	50.41
350-01-2032	3 1/2" Cutter For PVC Pipe	601.72
377-11-2032	4" Cutter For PVC Pipe	617.93
377-11-2036	4 1/2" Cutter For PVC Pipe	641.47
377-11-2040	5" Cutter For PVC Pipe	706.20
350-01-2048	5 1/2" Cutter For PVC Pipe	891.79
377-11-2048	6" Cutter For PVC Pipe	906.29
377-11-2052	6 1/2" Cutter For PVC Pipe	941.60
377-11-2054	6 3/4" Cutter For PVC Pipe	988.68
377-11-2056	7" Cutter For PVC Pipe	1,055.36
350-01-2064	7 1/2" Cutter For PVC Pipe	1,177.29
377-11-2064	8" Cutter For PVC Pipe	1,294.70
377-11-2068	8 1/2" Cutter For PVC Pipe	1,420.66
377-11-2070	8 3/4" Cutter For PVC Pipe	1,459.74

**377-01**

**AIR DRIVEN SEWER PIPE TAPPING MACHINE**

Included with machine:

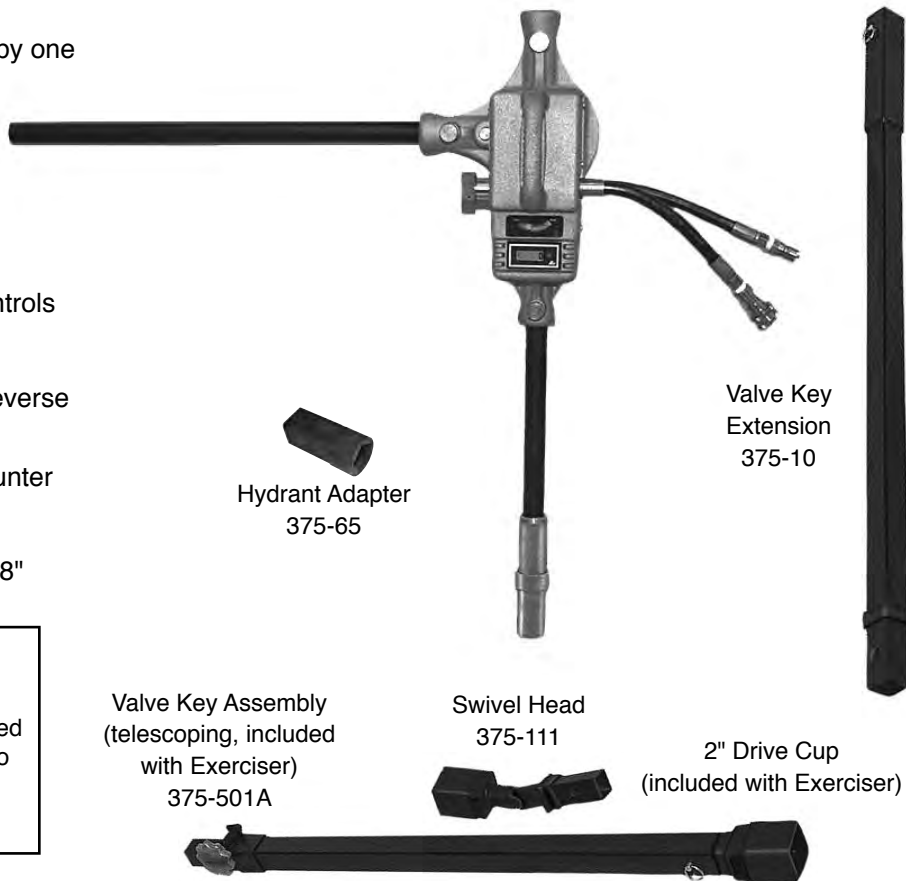
- Steel Storage box
- Operations and Maintenance Manual
- Air Control Handle
- Dead Handle
- Main Swivel Housing (Cutter Adapter) and Bearing Housing (Water Jacket)
- Water Valve and Male Quick Disconnect
- Air Silencer

AIR HOSE AND AIR FITTINGS TO BE PROVIDED BY END USER



**Material Specifications**

- Weighs approximately 40 lbs
- Compact, and easily handled by one person
- Takes up to 15 gpm hydraulic flow rate
- Up to 250 ft-lbs of torque
- Variable torque and speed controls
- Quick kill safety collar
- Motorcycle grip forward and reverse control handle
- Easy-to-read up and down counter
- Maximum speed 57 rpm
- Standard Key telescoping to 38"



- To Order:**
1. Order Base Machine
  2. Determine depth of valves to be exercised  
Extra Valve Key Extensions may need to be ordered (see chart below)
  3. Order power option



**The Exerciser** from Transmate provides a cost effective way to maintain water valves and hydrants in your system. Easily handled by one person, the Exerciser is designed for in-city valve maintenance programs.

This lightweight valve turning device will deliver up to 250 ft-lbs of torque to any rough operating valve in your system.

**Hydrant Sockets made to specifications**

**VALVE DEPTH TO TOP OF VALVE**  
for Valve Key Extension (375-10)

1 Extension	39"	to	77"	Depth
2 Extensions	78"	to	116"	Depth
3 Extensions	117"	to	155"	Depth
4 Extensions	156"	to	194"	Depth

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>375-00</b>	<b>Hydraulic Valve Exerciser</b> includes Carry Box and Valve Key Assembly	<b>\$6,549.87</b>
375-501A	Valve Key Assembly (includes 2" Drive Cup)	766.27
375-10	Valve Key Extension	157.10
375-111	Swivel Head, U Joint	330.54
<b>*372-99</b>	<b>Valve Exerciser Hydraulic Drive</b> (includes 372-01 and 372-02) <small>Note: The Hydraulic Unit 372-01 used with the TapMate may be used as the hydraulic system for the Valve Exerciser. See Page TM-26 for details.</small>	<b>4,262.36</b>
372-02	Set of 20' Valve Exerciser Hoses (includes Quick Disconnect)	536.59
<b>*372-991</b>	Valve Exerciser Hydraulic Drive with Electric Starter (372-02) Inc.	5,021.64

We suggest you use a PTO on your truck for Hydraulic Power

\*Considered Hazardous Material When Shipped by Air



**Transmate**

1-800-426-9341



# Multi-Purpose Hydraulic Drive

**Material Specifications**

- Weighs approximately 80 lbs
- 6 h.p. Kohler gasoline engine
- Hydraulic pump delivering 4 gpm to 2,000 psi
- 2.5 gallon hydraulic fluid reservoir with drain plug
- By pass valve for cold weather starting or tool change while unit is running.



**Hydraulic Power Unit  
372-01**



Additional item required:  
372-05

= 372-00 for use  
with 350-00



**TapMate**



Additional item required:  
372-351-05

= 372-351 for use  
with 351-00



**TapMate Too**



Additional item required:  
372-02

= 372-99 for use  
with 375-00



**The Exerciser**

## Higher RPM

Turning the TapMate motor at 60 RPM, you'll have more than three times the cutter speed available on the electric drive. This means faster, smoother cuts with much less effort expended. The TapMate Too motor is turned at 105 RPM and the Exerciser is turned at 57 RPM.

ITEM NUMBER	DESCRIPTION	LIST PRICE
* 372-00	TM Hydraulic Power Unit, complete	\$5,590.75
* 372-01	Base Unit	included
372-05	Motor and 3/8" Hoses	"
*372-01	Multi Purpose Base Unit only	3,974.53
*372-98	Multi Purpose Base Unit w/ electric start	4,736.13
<b>Additional items optional:</b>		
372-05	TapMate Motor and Hose assembly (two uses) 1- Adapts 372-01 to TapMate 2- Adapts alternative power unit to TapMate; requires 3.3-10 gpm flow regulator, 1750-2300 psi hydraulic power system	1,883.20
372-351-05	TapMate Too Drive Head assembly (see Page TM-29) (Includes motor, hoses, control valve, drive coupling adapter with clamps, 2 sets of 1/4" I.D. hoses 372-02-03 and 1 set of 3/8" Q.D.s (372-13-0 and 372-13-1)	1,765.50
372-02	Valve Exerciser Hoses (see Page TM-25) (Includes 2-20' 3/8" I.D. hoses 372-02-02 and 2-3/8" male Q.D.s 372-13-2 and 2-3/8" female Q.D.s 372-13-3)	536.59
372-06-01	Hydraulic Adapter Latch (2 req.) includes bolts and nuts	ea 12.54
372-80	Hydraulic Drive Adapter	214.53
372-81	Hydraulic Drive Coupling	173.47

## Lightweight

The entire system weighs about 80 pounds, light enough to hand carry to the ditch. This is the perfect option for making taps anywhere, especially in remote areas away from roads or in muddy terrain.

## Utility

The hydraulic drive motors mount directly to the back of the TapMate and TapMate Too. This allows the motor to hold the counter torque created by the cutting tools so there is no lever arm to control. This means easier and faster operation for your crews.

## Safety

Hydraulic power means safe operation in the routinely wet environment of a waterworks tap. The drive, while delivering 4 gpm up to 2000 psi, is quiet in the ditch to aid communication.

\*Considered Hazardous Material When Shipped by Air



**Transmate**

1-800-426-9341



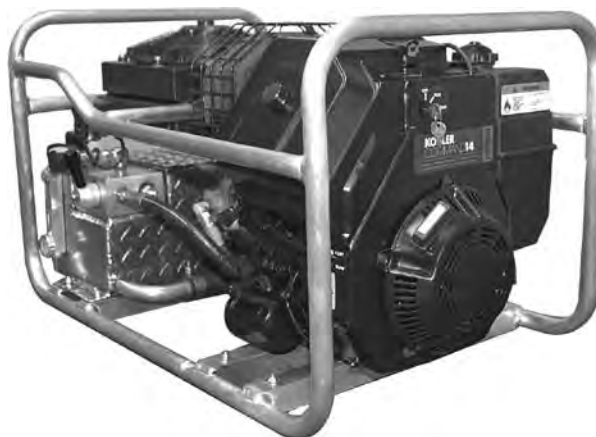
# 82000 HPU Hydraulic Power Unit

**Material Specifications**

- Weighs approximately 200 lbs
- 15 h.p. Kohler gasoline engine
- Hydraulic pump delivering 8 gpm to 2,000 psi
- 4 1/2 gallon hydraulic fluid reservoir
- 12V electric air-to-oil heat exchanger

**Benefits to Users:**

- Full duty cycle hydraulic power system
- Able to run most hydraulic tools that require 7-9 gpm to 2,000 psi
- Electric start with recoil start backup
- By-pass valve for cold weather starting or to switch out tools while system is running



ITEM NUMBER	DESCRIPTION	LIST PRICE
*372-82000-01	<b>82000 HPU Hydraulic Base Power Unit</b> (Must order Motor and Hoses)	<b>\$8,597.88</b>

\*Considered Hazardous Material When Shipped by Air

Motor and Hose Kits		
ITEM NUMBER	DESCRIPTION	LIST PRICE
372-05-25	Motor and 1/2" Hoses (includes Motor, two Hoses and two sets of Quick Disconnects) For TapMate™ Machine	\$2,910.03
360-72-02	Motor and 1/2" Hoses For QuikValve Machine	\$2,910.03
372-02-05	1/2" Hose Kit (includes two Hoses and two sets of Quick Disconnects)	710.20
372-13-10	1/2" x 3/8" NPT Bushing	7.22

If using the Valve Exerciser with the 1/2" Quick Disconnects and Hoses, you need to order: (1) 372-13-6, (1) 372-13-7 (2) 372-13-10

## Hydraulic Hoses and Fittings

Select the appropriate hoses and fittings for powering your Transmate equipment

ITEM NUMBER	DESCRIPTION	LIST PRICE	ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>Hoses</b>			<b>Fittings</b>		
372-02-03	Also Required: Quick Disconnect Fittings 1/4" Hydraulic Hose, 20' Long, 2250WP (for TapMate Too -2 required)	ea \$144.75	372-13-2	3/8" Male QD Flush Face FF372-6FP	\$50.72
372-02-02	3/8" Hydraulic Hose, 20' Long, 2250WP (for TapMate and Valve Exerciser -2 required)	ea 122.91	372-13-3	3/8" Female QD Flush Face FF371-6FP (Standard Dripless option for use with TapMate Drive Head, TapMate Too Drive Head, Multi-Purpose Power Unit and Exerciser)	147.70
372-02-01	1/2" Hydraulic Hose, 20' Long, 2250WP (for 82000 HPU and QuikValve machine -2 required)	ea 160.13	372-13-6	1/2" Male QD Flush Face FF502-8FP	81.54
			372-13-7	1/2" Female QD Flush Face FF501-8FP (Standard Dripless option for use with 82000 HPU Power Unit)	200.62





**Transmate**

1-800-426-9341



# Ridgid 700

## Electric Drive for the TapMate

**Material Specifications**

- Weighs just 25 pounds
- Threads pipe from 1/8" to 2" with added thread dies
- Oversize gearset for maximum performance
- Deadman switch with forward and reverse control
- One piece aluminum frame
- Includes 1" square drive adapter
- Measures 28 1/2" long
- 115 V



ITEM NUMBER	DESCRIPTION	LIST PRICE
370-000	<b>Ridgid 700 Electric Drive</b>	<b>\$4,579.56</b>
370-000-05	1" Square Drive Adapter	included

ITEM NUMBER	DESCRIPTION	LIST PRICE
370-001	<b>Ridgid 700 Electric Drive (only)</b>	<b>\$4,323.47</b>
370-000-05	1" Square Drive Adapter	256.86
370-000-10	Hex Head Drive Adapter	240.99
370-70	GF 15 Ground Fault Interrupter Plug (required)	111.82

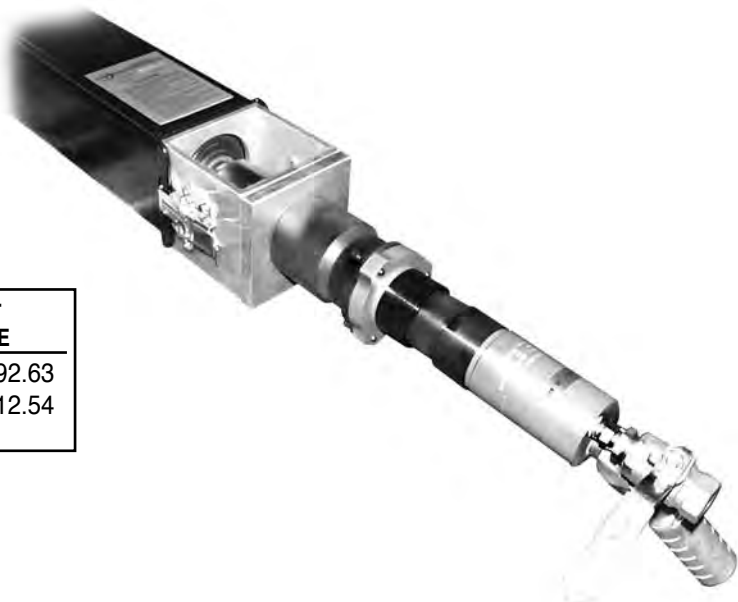
Drive requires electric generator capable of 3KW output or better. Ground fault protection is required.

# Air Drive

## Air Drive for the TapMate

**Material Specifications**

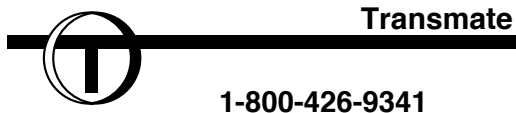
- Lightweight – just 11 pounds
- Unidirectional drive clips directly to the back of the TapMate
- Maximum .76 h.p. delivers 47 RPM
- 191 ft-lbs. running torque, 254 ft-lbs. stall torque



ITEM NUMBER	DESCRIPTION	LIST PRICE
371-00	Air Drive	\$6,092.63
372-06-01	Hydraulic Adapter Latch (2 req.) includes bolts & nuts	ea 12.54

Air drive requires connection to an air compressor capable of producing at least 36 CFM at 90 psi





**Transmate**

1-800-426-9341



# Hydraulic Drive for the TapMate Too™ Pipe Drilling Machine

**Material Specifications**

- Weighs approximately 73 lbs
- 3 h.p. Honda gasoline engine
- Hydraulic pump delivering 2 gpm @ 1,200 psi
- 1 gallon hydraulic fluid reservoir
- 90 rpm hydraulic motor
- 20 feet of connecting hoses



Specially created for the TapMate Too

Get the most out of your TapMate Too with this self-contained power source

ITEM NUMBER	DESCRIPTION	LIST PRICE
<b>*372-351</b>	<b>TapMate Too Hydraulic - Drive System, complete</b>	<b>\$4,708.00</b>
*372-351-01	Base Unit	included
372-351-05	TapMate Too Hyd. Drive Head - Assembly with 1/4" Hoses	included
<b>372-351-05</b>	<b>TapMate Too Hydraulic Motor and Drive Head Assembly w/ 1/4" Hoses</b> (For adapting the Multi-Purpose Hydraulic Drive 372-01 or alternative power unit to the TapMate Too see Page TM-4)	<b>\$1,765.50</b>

\*Considered Hazardous Material When Shipped by Air

## Ridgid 690 Electric Drive

**Material Specifications**

- Weighs approximately 22 lbs
- 115 V Universal AC motor
- 50 to 60 cycle, 15 amps reversible
- Delivers 100 ft-lbs. at 15 amps - 32 rpm
- Delivers 200 ft-lbs. at stall
- Bump proof, momentary on operating switch
- Length of 24", width of 6"
- Can be used to thread pipe with addition of thread dies



NOTE: Drive requires electric generator capable of 3KW output or better.

### For Use on TM Too, M1, Dry Tap & 5935 with existing Ridgid 690

ITEM #	DESCRIPTION	LIST PRICE
<b>373-01</b>	<b>Ridgid 690 Drive Only*</b> *Must order adapter for specific machine.	<b>\$2,410.51</b>
373-05-356	13/16" Adapter for B-Too	321.53
373-05-351	1/2" Adapter for TM-Too & M-1	321.53
373-05-357	5/8" Adapter for Dry Tap	321.53
373-05-355	7/8" Adapter for 5935	321.53
373-05-1	5/8" Adapter for B-1	321.53
373-05-1S	Special Square Adapters	429.32
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

### For Use on B-1 Machine

ITEM #	DESCRIPTION	LIST PRICE
<b>373-00</b>	<b>Ridgid 690 Electric Drive Complete</b> w/ 5/8" sq. drive adapter	<b>2,613.02</b>
353-28E	Extended Feed Yoke (required for use)	482.19
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

### For Use on B-Too Machine

ITEM #	DESCRIPTION	LIST PRICE
<b>373-356</b>	<b>Ridgid 690 Electric Drive Complete</b> w/ 13/16" sq. drive adapter	<b>2,613.02</b>
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

### For Use on TapMate Too and M-1 Machine

ITEM #	DESCRIPTION	LIST PRICE
<b>373-351</b>	<b>Ridgid 690 Electric Drive Complete</b> w/ 1/2" sq. drive adapter	<b>2,613.02</b>
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

### For Use on TapMate Dry Tap Machine

ITEM #	DESCRIPTION	LIST PRICE
<b>373-357</b>	<b>Ridgid 690 Electric Drive Complete</b> w/ 5/8" sq. drive adapter	<b>2,613.02</b>
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82

### For Use on 5935 Machine

ITEM #	DESCRIPTION	LIST PRICE
<b>373-355</b>	<b>Ridgid 690 Electric Drive Complete</b> w/ 7/8" sq. drive adapter	<b>2,613.02</b>
370-70	GF-15 Ground Fault Interrupter Plug (required)	111.82



**Transmate**

1-800-426-9341



# Test Gauge

**Material Specifications**

- Designed to pressure test for leaks prior to tapping and during valve insertions.
- Pressure test any 3/4" NPT outlet.
- Compact design (8" x 6" x 1.25")
- Range: 0 - 200 PSIG

ITEM NUMBER	DESCRIPTION	LIST PRICE
359-60	3/4 Inch Pressure Test Gauge	\$146.88



# Tapping Compound

**Material Specifications**

- Ideal for tapping, drilling, etc.
- 100% environmentally safe
- 16 oz. containers
- MSDS upon Request

Dramatically improves tool life

ITEM NUMBER	DESCRIPTION	LIST PRICE
353-10-1	Tapping Compound	ea. 28.80
353-10-3	Tapping Compound / Case (12)	332.15



# Flaring Tools

**Material Specifications**

- Available in 1/2" to 2"
- Machined to exacting specifications at our factory
- An excellent result every time
- No lip to curl the copper tube back, thus assuring the proper fit

ITEM NUMBER	DESCRIPTION	LIST PRICE
359-001	1/2" Flaring Tool	\$54.52
359-002	3/4" Flaring Tool	69.65
359-003	1" Flaring Tool	77.24
359-004	1 1/4" Flaring Tool	105.28
359-005	1 1/2" Flaring Tool	118.25
359-006	2" Flaring Tool	145.39





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1-800-426-9341



## Double Socket Ratchet Wrench

### Material Specifications

- Heavy duty, double socket ratchet wrench can tighten nuts on long bolts or all-thread rod without bottoming out and has a simple lever operated reverse feature.
- The heavy-duty mechanism is sandwiched between steel plates for strength and protection.
- One socket fits heavy hex nuts on  $\frac{3}{4}$ " bolts, used on 4" through 24" mechanical joints.
- One socket fits heavy hex nuts on  $\frac{5}{8}$ " bolts used on clamps, couplings, saddles and 3" mechanical joints.
- The handle is covered with a resilient material to improve the grip and help resist slippage during use.
- Weighs 2 lb. 6 oz.



ITEM NUMBER	DESCRIPTION	LIST PRICE
359-3649982	1 $\frac{1}{16}$ " fits $\frac{5}{8}$ " heavy hex nut 1 $\frac{1}{4}$ " fits $\frac{3}{4}$ " heavy hex nut	\$106.34

## Ratchet Box Wrench

### Material Specifications

Heavy-duty, ratcheting box end wrench can tighten nuts on long bolts or all-thread rod without bottoming out and has a simple flip-over reverse feature

They have no loose sockets that can be misplaced and the enclosed design prevents rocks, pebbles or debris from entering the mechanism.

The small end has a  $\frac{1}{16}$ " socket which fits heavy hex nuts on  $\frac{5}{8}$ " bolts, used on clamps, couplings, saddles and 3" mechanical joints.

The large end has a  $\frac{1}{4}$ " socket which fits heavy hex nuts on  $\frac{3}{4}$ " bolts on 4" through 24" mechanical joints.

Enclosed design keeps debris from jamming the mechanism

Triple rivets keep plates from spreading under your heaviest tightening job.

**Enclosed Heavy  
Duty Design**



ITEM NUMBER	DESCRIPTION	LIST PRICE
359-3649980	1 $\frac{1}{16}$ " fits $\frac{5}{8}$ " heavy hex nut 1 $\frac{1}{4}$ " fits $\frac{3}{4}$ " heavy hex nut	\$59.96





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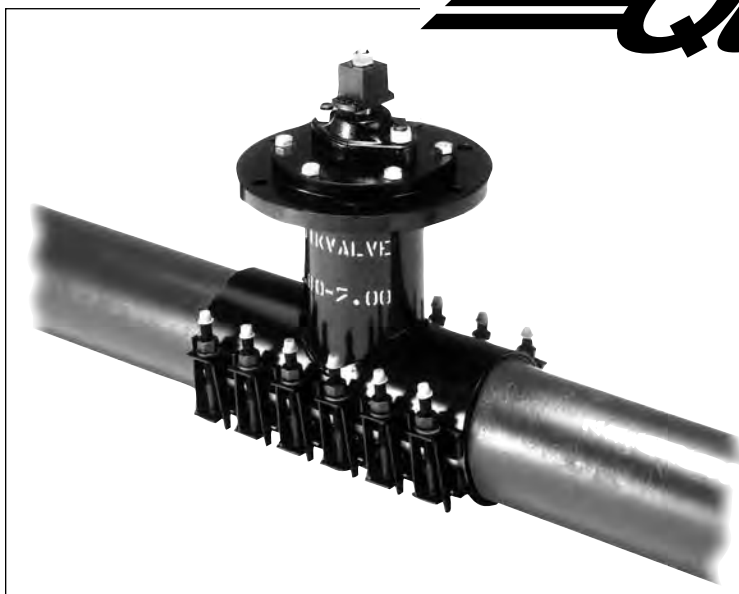
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# Valve Insertion

***“When you are under pressure to install  
a valve in an operating line”***

## ***QuikValve***<sup>TM</sup>



### PAGE QV-2

- 4", 6" or 8" installations in cast iron, ductile iron, A/C and some classes of PVC pipe
- Uses modern resilient gate technology
- Can be used in water lines with up to 150 psi ambient pressure
- Installed valve has the same number of turns as any other comparable valve in your system

## ***InsertaValve***<sup>TM</sup>

### PAGE QV-7

- 10" - 12" installations in cast iron, ductile iron, A/C, PVC C-900 and steel pipe
- No loss of pressure
- Minimal water loss
- Completion time is less than 2 hours





Transmate

1-800-426-9341



# Quik Valve Insertion Machine

## QuikValve™

“When you are under pressure to install a valve in an operating line”

### QuikValve Tapping Sleeve

**General:** The sleeve is fabricated to assure a 360° seal around the pipe under working pressures up to 150 psi. (Test pressure: 225 psi.) It is designed to accommodate the equipment and fixtures necessary to drill and ream the pipe and install the QuikValve insertion valve without any interruption in water service.

**Materials:** The sleeve is made of ASTM A-36 steel, epoxy coated to 10 - 12 mils.

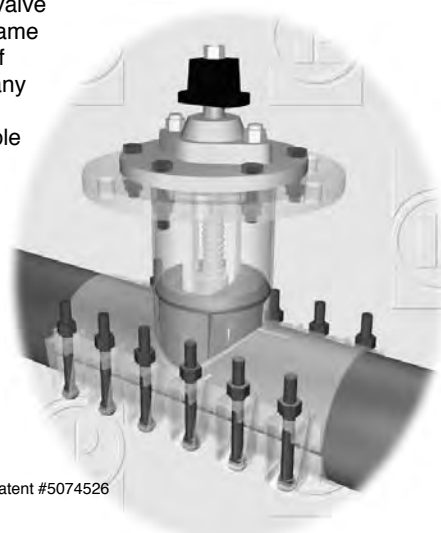
**Flange:** A special flange is used that mates with the QuikValve installation equipment and insertion valve.

**Neck:** The neck is manufactured to precision tolerances that assure proper alignment, support, and sealing of the QuikValve insert.

**Bolts and Nuts:** High strength low alloy steel (Corten) bolts and nuts meeting AWWA standard C-111. Type 304 stainless steel bolts with SDC nuts are optional.

**Gaskets:** All gaskets are made of Styrene Butadiene Rubber (SBR) compounded for potable water service in accordance with ASTM D2000 3 BA715. The gaskets provide a positive 360° seal on the pipe and assure a tight, durable, and resilient seal at the pipe sleeve - valve insert junction.

- 4", 6" or 8" installations in cast iron, ductile iron, A/C and some classes of PVC pipe
- Uses modern resilient gate technology
- Can be used in water lines with up to 150 psi ambient pressure
- Installed valve has the same number of turns as any other comparable valve in your system



Patent #5074526

**Coating:** The sleeve is lined and coated with fusion bonded epoxy. Epoxy meets the requirements of AWWA-C213.

**Armors:** Heavy gauge type 304 stainless steel armor plates are used to bridge the gap between the sleeve halves.

**Lugs:** Lugs on the sleeve are configured to properly align the sleeve halves during installation, provide a bolting surface, and assure a 360° seal. The lugs are designed to prevent excessive stress on the pipe, and minimize distortion of soft (PVC) pipe.

Material Specifications

### QuikValve Valve Assembly

**General:** The valve assembly, when installed in a QuikValve sleeve, performs as a water control device with an effective shutoff of the flow of water. The valve is installed in the open position, under water pressure without any interruption of water service. The QuikValve gives a full unobstructed full flow waterway after installation.

**Insert:** The insert consists of a ductile iron casting coated with SBR rubber compounded for water service with a durometer of 55 Shore A. The insert seals on the inside diameter of the QuikValve sleeve neck and the lower half of the water main.

**Valve Stem:** The stem and nut assembly are in accordance with AWWA C-500-80, section 3.12.

**Flange:** A special flange, made of ASTM A-36 steel is used that holds the valve assembly together and acts to seal against the valve sleeve flange.

**Gasket:** The valve flange gasket is made of SBR rubber, compounded for water service in accordance with ASTM D2000 3 BA715, with a durometer of 70 Shore A. The gasket acts as the sealing interface between the valve flange and the sleeve flange.

**Bolts and Nuts:** Grade 3 Alloy steel, zinc plated for corrosion protection. Type 304 stainless steel bolts, nuts and washers are optional.

**For more information on the QuikValve™ Machine, please contact your regional Romac/Transmate representative at 1-800-258-7448**

Material Specifications





Transmate

1-800-426-9341



# QuikValve Insertion Machine

*Installing the QuikValve is as easy as*

**1 • 2 • 3 • 4**

### 1. Install the QuikValve sleeve

The QuikValve Sleeve supports and strengthens the pipe. The full all around gasket assures water containment for the life of the valve.

The sleeve acts as the valve body and is designed to withstand additional temporary stresses during the QuikValve installation.

Epoxy coated A-36 sleeve

Full all around gridded gasket with stainless steel armors

Corten or stainless steel bolts and nuts



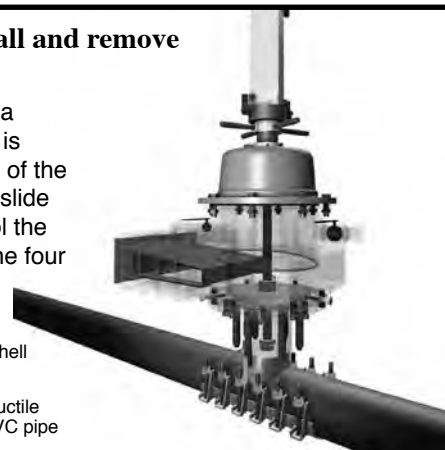
### 2. Drill the pipe wall and remove the coupon

Drilling proceeds like a lateral tap. A coupon is removed from the top of the pipe. The temporary slide gate is used to control the water flow between the four installation steps.

Temporary slide gate

Drill bushing stabilizes the shell cutter

Works with A/C, cast iron, ductile iron and some classes of PVC pipe

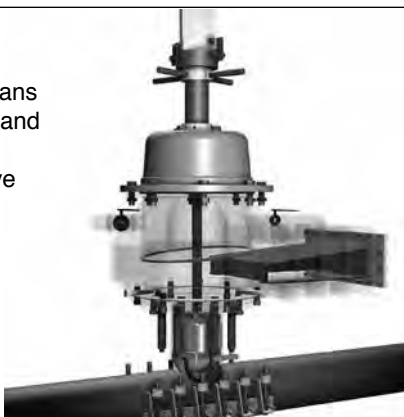


### 3. Ream the pipe

A ball nosed reamer cleans away any tuberculation and forms a smooth sealing surface for the QuikValve insert.

QuikValve Insertion Machine also doubles as a 3" to 12" lateral tapping machine

Reamer blades are M-4 tool steel

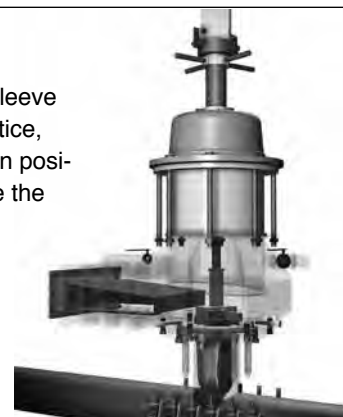


### 4. Insert the valve

The valve is pressed into the sleeve neck and bolted into place. Notice, the valve is inserted in the open position. You decide when to close the valve.

Spacer spool gives additional room for the valve insert before it is pressed into place

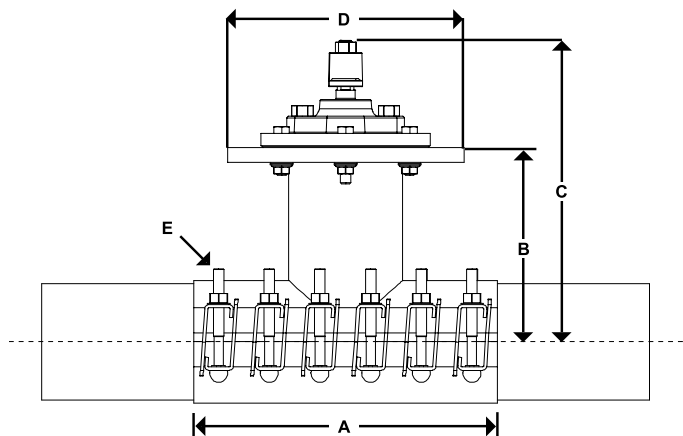
Remove the water caps and thread nuts onto insert flange bolts



## **QuikValve™** Sleeve Dimensions

SLEEVE DIMENSIONS					
FLANGE SIZE	DIMENSIONS / QUANTITY				
	A	B	C	*D	E
4"	18.0	6.75	12.65	12.35	12
6"	18.0	8.50	14.40	14.00	12
8"	24.0	10.50	16.40	16.50	16

\*OD to accept QuikValve Installation Equipment





Transmate

1-800-426-9341



# Quik Valve™ Insertion Machine

## Quik Valve™

“When you are under pressure to install a valve in an operating line”



**Item Number / Description** **List Price**

**364-00\* QuikValve Package (Base Machine, Storage Box and All Accessories) \$39,116.39**

The following are included:

- Base Machine (360-00)
- Slide Gate
- 6" and 8" Reamers, Blades and Sizing Rings
- Shell Cutters: 5.5", 6", 6.325", 7.5", 8" and 8.425"
- Shaft Nose and PVC Pilot
- Spacer Assembly
- Hydraulic Power System 15 HP
- Assorted fasteners, cap screws and nuts
- 6" and 8" Blind Flanges
- Job-site training

**364-02 4" QuikValve™ Add-On 5,708.43**

- The 4" Add-On Package includes:
- 4" Reamer, Blades and Sizing Ring
  - Shell Cutters 3.5", 4", 4.275"
  - Assorted Fasteners
  - 4" Blind Flange

**360-00 QuikValve™ Base Machine 10,859.96**

For lateral tapping, QuikValve™ & InsertaValve™ installations

- The Q.V. Base Machine includes:
- Q.V. Shaft Nose included (360-22 )
  - 1" Spade Bit (350-03-08)
  - Q.V. PVC Pilot (360-24)
  - Storage Box (350-61)
  - Tapping Compound (353-10-1)

**For more information on the QuikValve™ Machine, please contact Romac Customer Service 1-800-426-9341**

\*Requires purchase of a sleeve and valve. Not included in 364-00

Item Number	Description	List Price
<b>SLEEVES with alloy bolts &amp; nuts</b>		
4" {	310-0450010 QVS-4.50 (4.48 - 4.55)*	1,058.85
	310-0490010 QVS-4.90 (4.70 - 4.90)	1,058.85
	310-0510010 QVS-5.10 (4.91 - 5.10)	1,058.85
	310-0530010 QVS-5.30 (5.11 - 5.30)	1,058.85
	310-0550010 QVS-5.50 (5.31 - 5.50)	1,058.85
6" {	310-0663010 QVS-6.63 (6.61 - 6.68)*	1,237.73
	310-0700010 QVS-7.00 (6.81 - 7.00)	1,237.73
	310-0720010 QVS-7.20 (7.01 - 7.20)	1,237.73
	310-0740010 QVS-7.40 (7.21 - 7.40)	1,237.73
	310-0760010 QVS-7.60 (7.41 - 7.60)	1,237.73
8" {	310-0863010 QVS-8.63 (8.61 - 8.68)*	1,515.27
	310-0915010 QVS-9.15 (8.95 - 9.15)	1,515.27
	310-0935010 QVS-9.35 (9.16 - 9.35)	1,515.27
	310-0955010 QVS-9.55 (9.36 - 9.55)	1,515.27
	310-0975010 QVS-9.75 (9.56 - 9.75)	1,515.27
<b>SLEEVES with 304 S.S. bolts &amp; nuts</b>		
4" {	310-0450011 QVS-4.50 (4.48 - 4.55)*	1,107.01
	310-0490011 QVS-4.90 (4.70 - 4.90)	1,107.01
	310-0510011 QVS-5.10 (4.91 - 5.10)	1,107.01
	310-0530011 QVS-5.30 (5.11 - 5.30)	1,107.01
	310-0550011 QVS-5.50 (5.31 - 5.50)	1,107.01
6" {	310-0663011 QVS-6.63 (6.61 - 6.68)*	1,325.42
	310-0700011 QVS-7.00 (6.81 - 7.00)	1,325.42
	310-0720011 QVS-7.20 (7.01 - 7.20)	1,325.42
	310-0740011 QVS-7.40 (7.21 - 7.40)	1,325.42
	310-0760011 QVS-7.60 (7.41 - 7.60)	1,325.42
8" {	310-0863011 QVS-8.63 (8.61 - 8.68)*	1,632.25
	310-0915011 QVS-9.15 (8.95 - 9.15)	1,632.25
	310-0935011 QVS-9.35 (9.16 - 9.35)	1,632.25
	310-0955011 QVS-9.55 (9.36 - 9.55)	1,632.25
	310-0975011 QVS-9.75 (9.56 - 9.75)	1,632.25
<small>*For IPS size steel pipe and PVC (Class 160) or greater</small>		
<b>INSERTION VALVES</b>		
4" {	361-04 4", Left Open, Mang. Stem	956.12
	361-04R 4", Right Open, Mang. Stem	956.12
	361-04-N 4", Left Open, NDZ Stem	1,020.25
	361-04R-N 4", Right Open, NDZ Stem	1,020.25
	361-04SS 4", Left Open, Mang. Stem w/S.S. B&N	1,049.40
	361-04RSS 4", Right Open, Mang. Stem w/S.S. B&N	1,049.40
	361-04SS-N 4", Left Open, NDZ w/S.S. B&N	1,078.55
	361-04RSS-N 4", Right Open, NDZ Stem w/S.S. B&N	1,078.55
6" {	361-06 6", Left Open, Mang. Stem	1,058.90
	361-06R 6", Right Open, Mang. Stem	1,058.90
	361-06-N 6", Left Open, NDZ Stem	1,119.31
	361-06R-N 6", Right Open, NDZ Stem	1,119.31
	361-06SS 6", Left Open, Mang. Stem w/S.S. B&N	1,232.57
	361-06RSS 6", Right Open, Mang. Stem w/S.S. B&N	1,232.57
	361-06SS-N 6", Left Open, NDZ Stem w/S.S. B&N	1,428.85
	361-06RSS-N 6", Right Open, NDZ Stem w/S.S. B&N	1,428.85
8" {	361-08 8", Left Open, Mang. Stem	1,266.12
	361-08R 8", Right Open, Mang. Stem	1,266.12
	361-08-N 8", Left Open, NDZ Stem	1,369.14
	361-08R-N 8", Right Open, NDZ Stem	1,369.14
	361-08SS 8", Left Open, Mang. Stem w/S.S. B&N	1,439.88
	361-08RSS 8", Right Open, Mang. Stem w/S.S. B&N	1,439.88
	361-08SS-N 8", Left Open, NDZ Stem w/S.S. B&N	1,678.61
	361-08RSS-N 8", Right Open, NDZ Stem w/S.S. B&N	1,678.61



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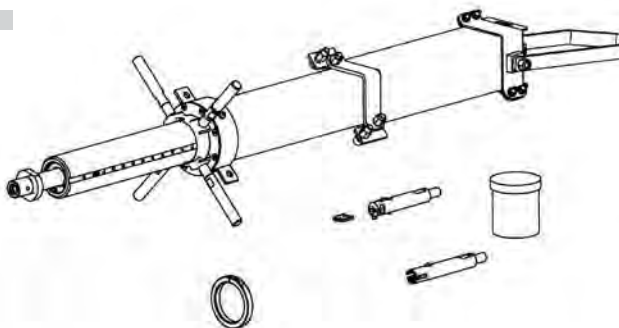
1-800-426-9341



# Quik Valve™ Insertion Machine

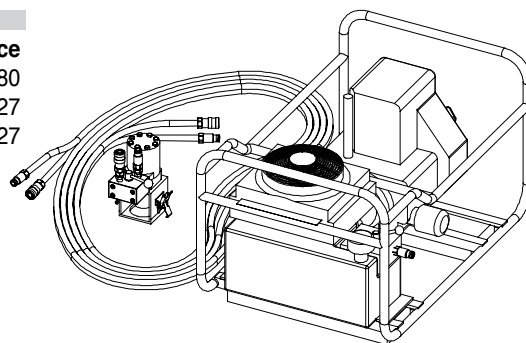
## BASE MACHINE

Item Number	Description	List Price
360-00	QuikValve, Base Machine	\$10,859.96
360-22	QuikValve, Shaft Nose	362.81
360-24	QuikValve, PVC Pilot	278.05
350-03-08	Spade Bit	82.75
360-01	QuikValve, Main Shaft	561.85
360-06-01	QuikValve, Posi-Brake Clip, High	41.02
360-06-03	QuikValve, Posi-Brake Clip, Low	41.02
360-31	QuikValve, Lead Tube Split Collar	253.98



## HYDRAULIC DRIVE

Item Number	Description	List Price
360-72	QuikValve 15 HP Hydraulic Unit w/Motor & Hoses	\$9,094.80
372-82000-01	82000 HPU Hydraulic Base Power Unit	see pg. TM-27
360-72-02	Motor & Hose	see pg. TM-27



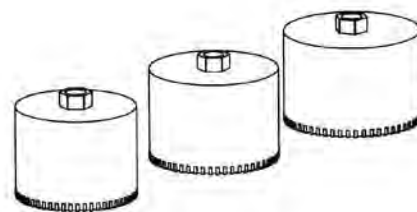
## REAMERS

Item Number	Description	List Price
362-04	QuikValve, 4" Reamer	\$3,914.98
362-04-08	QuikValve, 4" Reamer Roller	157.08
362-04-09	QuikValve, 4" Reamer Sizing Ring	475.54
362-04-11	QuikValve, 4" Reamer Blade	108.60
362-06	QuikValve, 6" Reamer	4,077.96
362-06-08	QuikValve, 6" Reamer Roller	160.60
362-06-09	QuikValve, 6" Reamer Sizing Ring	547.88
362-06-11	QuikValve, 6" Reamer Blade	119.89
362-08	QuikValve, 8" Reamer	5,393.29
362-08-08	QuikValve, 8" Reamer Roller	161.77
362-08-09	QuikValve, 8" Reamer Sizing Ring	620.22
362-08-11	QuikValve, 8" Reamer Blade	154.15



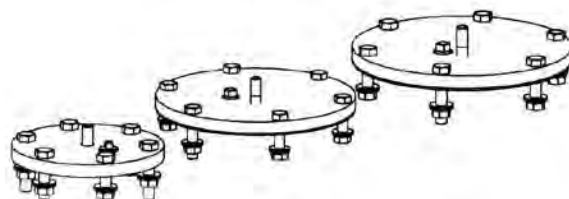
## CUTTERS

Item Number	Description	List Price
350-01-1032	Cutter, 3.5" O.D.	\$603.13
360-29-40	Cutter, 4" O.D.	612.15
360-29-42	Cutter, 4.25" O.D.	648.88
350-01-1048	Cutter, 5.5" O.D.	846.57
360-29-60	Cutter, 6" O.D.	918.23
360-29-63	Cutter, 6.325" O.D.	954.95
350-01-1064	Cutter, 7.5" O.D.	1,182.42
360-29-80	Cutter, 8" O.D.	1,199.81
360-29-84	Cutter, 8.425" O.D.	1,236.54



## BLIND FLANGES

Item Number	Description	List Price
360-30-04	QuikValve, 4" Blind Flange	\$308.32
360-30-06	QuikValve, 6" Blind Flange	308.32
360-30-08	QuikValve, 8" Blind Flange	342.58





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1-800-426-9341



# QuikValve Insertion Machine

## Some Advantages of the QuikValve...

- The valve is inserted in the open position, so no matter how the water flow is configured, there is no loss of water pressure.
- The process is quick, usually much faster than alternative methods of line stopping or cut-ins. The average installation time is between two and three hours.
- There is only one cut in the main, and the main is never severed. The pipe retains its structural integrity just as it would with a size on size lateral tap.
- The insert uses a standard valve stem and nut. Any QuikValve installation will have the same number of turns to open and close as any valve in the system.
- Should the need arise, the QuikValve insert is replaceable under pressure.
- The insert uses the newest valve technology, the rubber coated wedge. This gives the QuikValve good sealing characteristics with an installation pressure rating of up to 150 psi.
- Due to the small envelope of the installed QuikValve, it has been installed in places where other pipelines and conduits precluded a valve cut-in.
- The QuikValve insertion machine doubles as a 3" through 12" lateral tapping machine. With 27" of travel, the equipment easily handles a size on size 12" tap. Incidentally, the manual feed on the machine has proved to give the operator a real feel for the cut, allowing him to stop if trouble arises before damage to the main occurs.
- The QuikValve gives a new method to easily isolate hydrants, water towers or spurs.

## Frequently Asked Questions...

**Q** Does the valve have the same number of turns as a standard valve?

**A** Yes, and the same height.

**Q** What are the differences between the QuikValve sleeve and a standard fabricated tapping sleeve?

**A** There are three main differences:

1. The QuikValve sleeve has a machined neck due to the tolerances required to allow the insert to seal.
2. The QuikValve sleeve uses an all-around full seal gasket and armors instead of just a neck ring.
3. The QuikValve sleeve has a narrow range, just  $\pm 0.10$ , again to optimize sealing characteristics.

**Q** Why do you use an all around gasket instead of a neck ring on the QuikValve sleeve?

**A** We felt that sealing all the way around the pipe added significantly to the stability of the product. This is the design we have always used in our clamp products. The all around seal gives an increased safety margin against any leaking around the edges of the QuikValve sleeve, supports the pipe, and applies a more even pressure gradient to the outside diameter of the pipe wall.

**Q** What is the valve insert made of?

**A** The insert is a ductile iron cast plug that is encased with 55 durometer SBR rubber. The rubber is bonded to the casting during the rubber molding process.

**Q** Does this valve meet the AWWA valve specification?

**A** No, there is no AWWA specification that covers the QuikValve. If it ever does have an AWWA specification, it will be under a new category, separate from the standard cast valve specifications. The QuikValve's operating mechanism, the stem and nut, are standard and meet AWWA requirements.

**Q** Will the QuikValve always give a 100% seal?

**A** We don't guarantee a 100% seal. Our installations thus far have given a 100% seal. We do guarantee a seal that will allow work to be completed on your line.

**Q** What is the warranty period on the QuikValve?

**A** One year.

**Q** What does "NDZ Stem" mean?

**A** NDZ – Stands for "Non-Dezincification". One of the elements in most brass stems is zinc, and "Dezincification" is the leaching out of this zinc by corrosion. The following factors can lead to dezincification; warm water temperatures, high levels of acidity, chlorides and sulfides, in conjunction with high electrical conductivity. NDZ Bronze Stems address this phenomenon and still maintain AWWA standards.



Transmate

1-800-426-9341



Inserta Valve

# Inserta Valve™

## Valve Insertion, simplified

### Inserta Valve™ Sleeve

**Intended Use:** Provides attachment to pipe for drilling and final assembly of the Inserta Valve™ Water Control Valve. May be used on cast iron, ductile iron, asbestos cement and C900 PVC pipe.

**General:** The fabricated sleeve will assure a 360 degree seal around the pipe under working pressures up to 150 psi. It will accommodate the equipment and fixtures necessary to drill the pipe and install the Inserta Valve™ valve assembly without any interruption in water service.

**Materials:** Made of ASTM A-36 steel, epoxy coated to 10 -12 mils.

**Flange:** A special flange will mate with the Inserta Valve™ installation equipment and valve assembly.

**Neck:** The precision manufacturing tolerances of the neck will assure proper alignment, and support, of the Inserta Valve™ valve assembly. The neck will incorporate a slide gate body that will provide a connecting flange and sealing surface for the slide gate housing. The slide gate body will also provide a sealing surface for the slide gate disk o-ring.

**Bolts and Nuts:** High strength low alloy steel bolts and nuts meeting AWWA standard C-111. Type 304 stainless steel bolts with Xylan coated nuts to prevent galling, are optional.

### Inserta Valve™ Valve Assembly

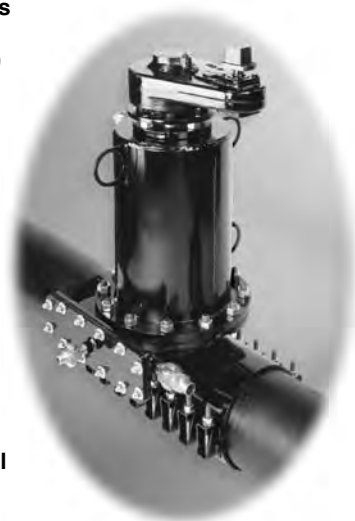
**General:** Designed to be inserted into the Inserta Valve™ Sleeve after the drilling procedure is performed, the Valve Assembly shall perform as a water control device giving an effective shutoff of the flow of water. The valve will be installed in the open position, under pressure and under flow conditions without any interruption of water service. The Inserta Valve™ shall give a full flow waterway after installation.

**Plug:** Constructed of urethane rubber, with a durometer of 65 Shore A. The plug shall seal on the on the inside diameter of the pipe and inside diameter to the drilled hole.

**Valve Stem and Stem Nut:** Manufactured of high strength bronze suitable for valve stems and nuts.

**Gearbox:** The gearbox (inline style for vertical installations, or a 90° style for horizontal installations) will provide the force necessary to compress the plug to shut off the flow

- 10" - 12" installations in cast iron, ductile iron, A/C, PVC C-900 and steel pipe
- No Loss of Pressure
- Minimal Water Loss
- Completion time is less than 2 hours
- Much Faster Than Traditional Line Stopping And Cut-ins
- Horizontal or Vertical Installations



**Lugs:** Sleeve sidebar lugs will properly align the sleeve halves during installation, provide a bolting surface, and assure a 360 degree seal. The lugs will prevent excessive stress on the pipe, and minimize distortion of soft (PVC) pipe.

**Mat Gaskets:** Made of Styrene Butadiene Rubber (SBR) compounded for potable water service in accordance with ASTM D2000 3 BA715. The gaskets provide a positive 360 degree seal on the pipe and assure a tight, durable, and resilient seal.

**Coating:** The sleeve will be lined and coated with fusion bonded epoxy. Epoxy to meet the requirements of AWWA C-213.

**Armors:** Heavy gauge type 304 stainless steel armor plates will bridge the gap between the sleeve halves.

of water in the pipeline.

**Gaskets:** Made of SBR rubber, compounded for potable water service in accordance with ASTM D-2000 3 BA715, with a durometer of 70 Shore A. The gasket shall act as the sealing interface between the valve flange and the sleeve flange.

**Bolts and Nuts:** Grade 3 or better alloy steel, zinc plated for corrosion protection. Type 304 stainless steel bolts, nuts and washers are optional. Stainless steel nuts are Xylan coated to prevent galling.

The Inserta Valve™ requires a minimum depth of bury from the topside of the pipe of 40" in vertical installations. For the horizontal installations, a 24" bury depth is recommended. The physical height of the sleeve and valve assembly is 35" off the top of the pipe.

The Inserta Valve™ requires approximately 215 turns to completely open and close the valve.

Material Specifications

Material Specifications





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# InsertaValve™

Valve Insertion, simplified

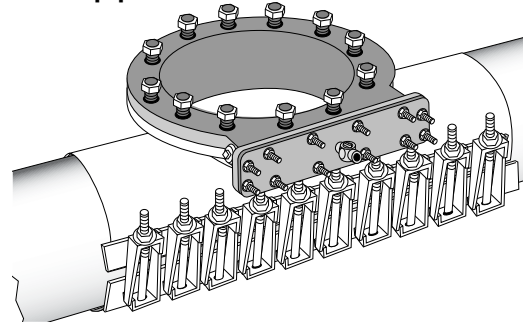


Note: This equipment is an add-on package to the QuikValve™ Base Machine (360-00) and requires the use of a hydraulic power supply.

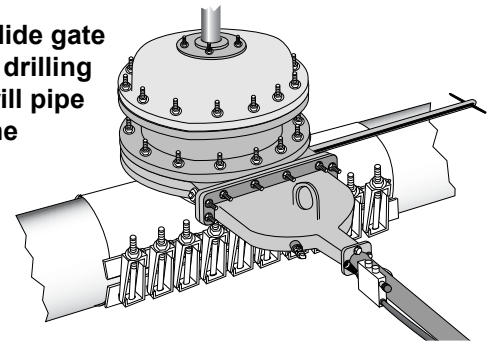
For more information on the  
InsertaValve™ Machine,  
contact Romac Customer Service  
1-800-426-9341

## Easy Installation

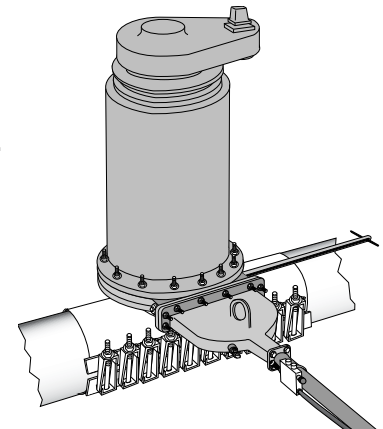
Install the InsertaValve™ sleeve on to the pipe



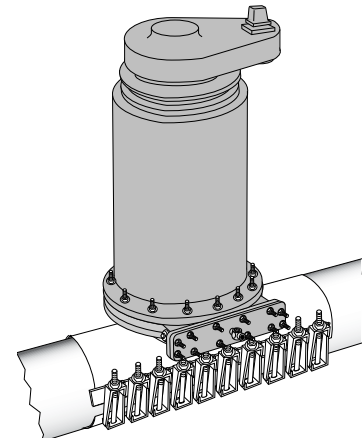
Mount the slide gate assembly & drilling machine. Drill pipe and close the slide gate.



Remove drilling machine & replace with valve canister.



Open slide gate. Remove slide gate assembly & seal rod.







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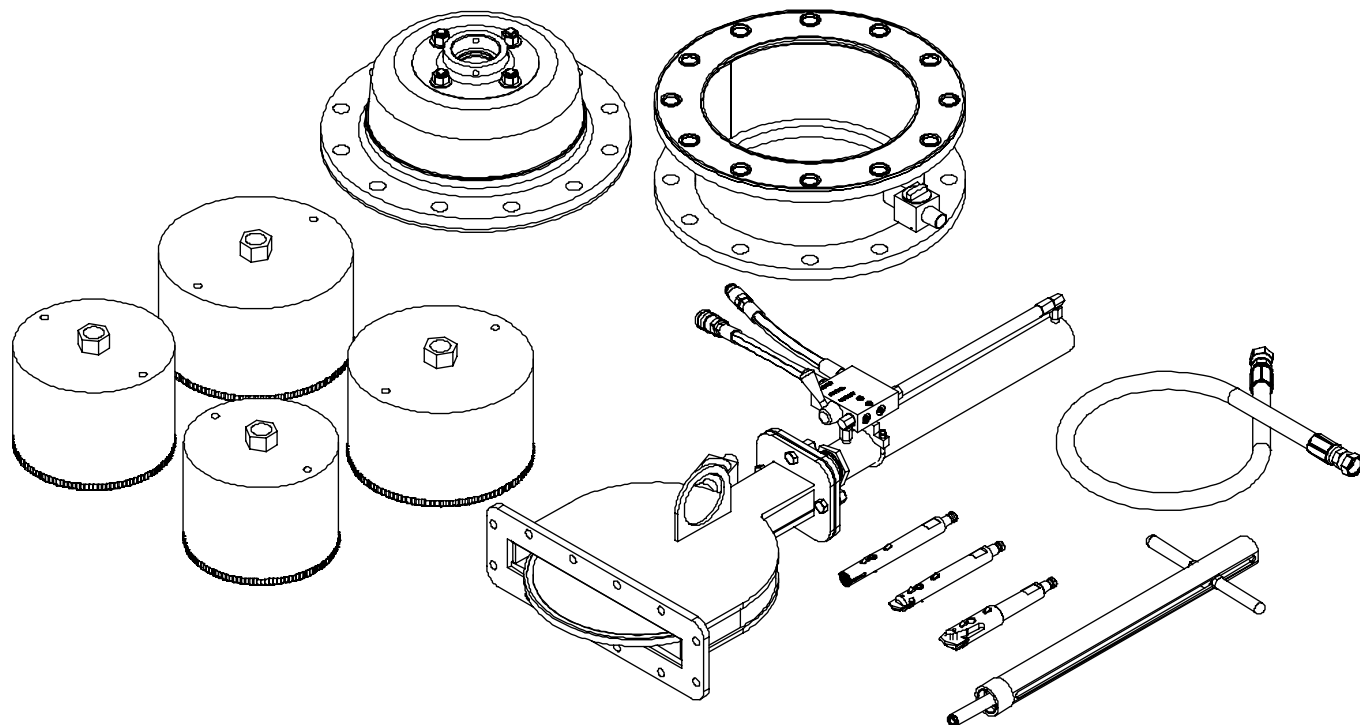


Inserta Valve

# Inserta Valve™

## Valve Insertion, simplified

**Note:** This equipment is an add-on package to the QuikValve™ Base Machine (360-00) and requires the use of a hydraulic power supply.



Item Number	Description	List Price
358-00	InsertaValve™ Equipment for 10 & 12-inch Valve Insertion .....	\$11,347.27
	<b>The following accessories are included:</b>	
	• Slide Gate (Hydraulically Powered)	
	• Seal Rod	
	• Drilling Machine Adapter Bell For I.V.S. (fits QuikValve™ drilling machine)	
	• (4) Holesaws that fit QuikValve™ Drilling Machine	
	• Machine Spacer	
	• By-Pass Hose	
	• Shaft Nose - for DI, CI and Steel	
	• PVC Pilot - for PVC and Plastic Pipe	
	• Assorted Fasteners and Gaskets	
	• Operations Manual	



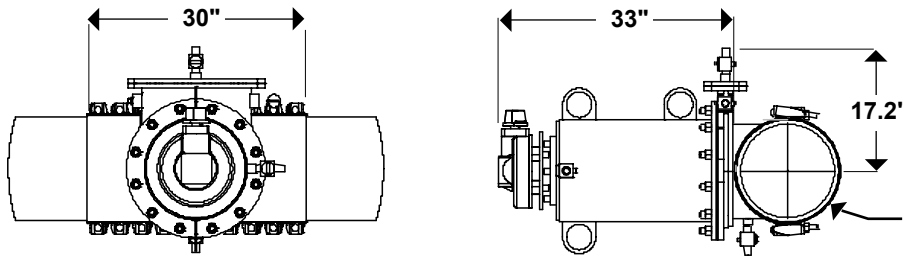
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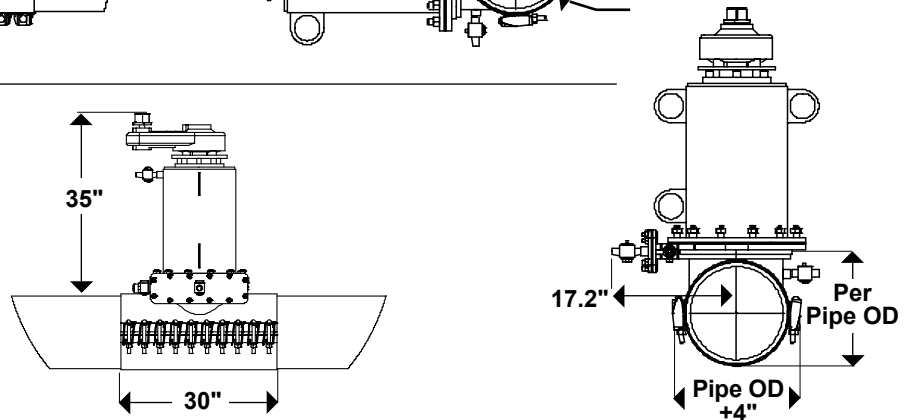


# Inserta Valve

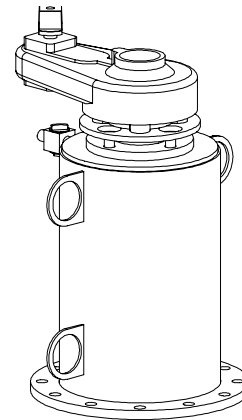
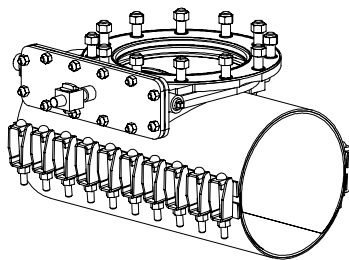
## Horizontal Installations



## Vertical Installations



Note: Sleeve and Canister dimensions are the same for 10 inch and 12 inch installations



### SLEEVES with alloy bolts & nuts

10"	311-1095010	IVS-10.95 (10.75 - 10.95)	2,457.48
	311-1125010	IVS-11.25 (10.85 - 11.25)	2,457.48
	311-1145010	IVS-11.45 (11.05 - 11.45)	2,457.48
	311-1180010	IVS-11.80 (11.40 - 11.80)	2,457.48
	311-1220010	IVS-12.20 (11.80 - 12.20)	2,457.48
12"	311-1295010	IVS-12.95 (12.75 - 12.95)	2,457.48
	311-1320010	IVS-13.20 (12.90 - 13.20)	2,457.48
	311-1350010	IVS-13.50 (13.10 - 13.50)	2,457.48
	311-1380010	IVS-13.80 (13.40 - 13.80)	2,457.48
	311-1440010	IVS-14.40 (14.00 - 14.40)	2,457.48
	311-1470010	IVS-14.70 (14.30 - 14.70)	2,457.48

### SLEEVES Epoxy coated with 304 SS bolts & nuts

10"	311-1095011	IVS-10.95 (10.75 - 10.95)	2,780.25
	311-1125011	IVS-11.25 (10.85 - 11.25)	2,780.25
	311-1145011	IVS-11.45 (11.05 - 11.45)	2,780.25
	311-1180011	IVS-11.80 (11.40 - 11.80)	2,780.25
	311-1220011	IVS-12.20 (11.80 - 12.20)	2,780.25
12"	311-1295011	IVS-12.95 (12.75 - 12.95)	2,780.25
	311-1320011	IVS-13.20 (12.90 - 13.20)	2,780.25
	311-1350011	IVS-13.50 (13.10 - 13.50)	2,780.25
	311-1380011	IVS-13.80 (13.40 - 13.80)	2,780.25
	311-1440011	IVS-14.40 (14.00 - 14.40)	2,780.25
	311-1470011	IVS-14.70 (14.30 - 14.70)	2,780.25

### CANISTER (plug included)

358-01-0938	IVS Canister D 9 3/8"	6,522.19
358-01-0938-SS	IVS Canister D 9 3/8" W/304SS B&N	6,758.75
358-01-0975	IVS Canister D 9 3/4"	6,522.19
358-01-0975R	IVS Canister D 9 3/4" Open Right	6,522.19
358-01-0975-SS	IVS Canister D 9 3/4" W/304SS B&N	6,758.75
358-01-0975R-SS	IVS Canister D 9 3/4" Open Right, W/304SS B&N	6,758.75
358-01-0975-90GB	IVS 90 Deg. Canister 9 3/4"	6,522.19
358-01-1138	IVS Canister D 11 3/8"	6,522.19
358-01-1138R	IVS Canister D 11 3/8" Open Right	6,522.19
358-01-1138-SS	IVS Canister D 11 3/8", W/304SS B&N	6,758.75
358-01-1138R-SS	IVS Canister D 11 3/8", Open Right, W/304SS B&N	6,758.75
358-01-1175	IVS Canister D 11 3/4"	6,522.19
358-01-1175R	IVS Canister D 11 3/4" Open Right	6,522.19
358-01-1175-SS	IVS Canister D 11 3/4" W/304SS B&N	6,758.75
358-01-1175R-SS	IVS Canister D 11 3/4" Open Right, W/304SS B&N	6,758.75
358-01-1175-90GB	IVS 90 Deg Canister D 11 3/4"	6,522.19



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# Inserta Valve Sleeve & Plug Chart

		Sleeve Size Pipe and Class		Part Number
		Nominal	Diameter	
<b>SLEEVE CHART</b> SLEEVE SPECIFIED BY LARGE OD	10.75 - 10.95	PVC 10" (10.75) ASTM D 2241CL 100,125,160,200 Steel 10 (10.75) Sch. 40, 80		311-1095010
	10.85 - 11.25	DI 10" (11.10) 50 - 56 CI 10" (11.10) 50 CC & PC; 100 CC & PC; 150 CC & PIT; 200 CC & PIT; 250 CC; A, B. PVC C-900 10" (11.10) 100,150, 200		311-1125010
	11.05 - 11.45	DI (11.10) 50 - 56 CI (11.10,11.40) PVC C-900 (11.10); 100, 150, 200 SIMPLEX (11.43); AC 150, AC 100 J-M (11.37)		311-1145010
	11.40 - 11.80	CI 250 PIT (11.40), C (11.40),D (11.40) E, F (11.60) AC 100 CERTAIN-TEED (11.46), SIMPLEX (11.43)		311-1180010
	11.80 - 12.20	CI G, H (11.84) AC 150 J-M (11.92) SIMPLEX (11.95); AC 200 J-M (11.92) CERTAIN-TEED (11.88)		311-1220010
	12.20 - 12.60	AC 200 SIMPLEX (12.45)		Non-stocked item, please call for special quote
	12.75 - 12.95	PVC 12" (12.75) ASTM D 2241CL 100, 125, 160, 200 Steel 12" (12.75) Sch. 40, 80		311-1295010
	12.90 - 13.20	DI 12" (13.20) 50 - 56 CI 12" (13.20) 50 CC & PC; 100 CC & PC; 150 CC & PIT; 200 CC & PIT; 250 CC; A, B PVC C-900 12" (13.20) 100,150, 200		311-1320010
	13.10 - 13.50	DI 12" (13.20) 50 - 56 CI 12" (13.20) 50 CC & PC; 100 CC & PC; 150 CC & PIT; 200 CC & PIT; 250 CC; A, B; A,B;CI (13.50) 250 PIT, C, D PVC C-900 12" (13.20) 100,150, 200 AC 100 J-M (13.49)		311-1350010
	13.40 - 13.80	CI (13.50) 250 PIT, C, D, (13.76) E, F AC 100 J-M (13.49) CERTAIN-TEED (13.70) SIMPLEX (13.61)		311-1380010
	13.70 - 14.10	CI G, H (14.08)		311-1410010
	14.00 - 14.40	AC 150 J-M (14.18) CERTAIN-TEED (14.11) SIMPLEX (14.21) AC 200 J-M (14.18) CERTAIN-TEED (14.11)		311-1440010
	14.40 - 14.80	AC 200 SIMPLEX (14.72)		Non-stocked item, please call for special quote
	<b>PLUG CHART</b>	<b>Plug Size</b>		<b>Pipe and Class</b>
10"		9 3/8"	PVC C-900 CL 200 AC JM CL 200, CERTAIN-TEED CL 200; Steel Sch. 80	358-01-0938
		9 3/4"	DI 50 - 56 CI - All types C-900 CL 100,150; ASTM D 2241 PVC CL 100,125, 160, 200 AC100,150, SIMPLEX 200 Steel Sch. 40	358-01-0975
12"		11 3/8"	PVC C-900 CL 200 ASTM D 2241 PVC CL 200 AC JM CL 100, 200, CERTAIN-TEED CL 200 Steel Sch. 80	358-01-1138
	11 3/4"	DI 50 - 56 CI - All types C-900 CL 100,150; ASTM D 2241 PVC CL 100,125, 160, 200 AC100,150, SIMPLEX 200 Steel Sch. 40	358-01-1175	



PIPE SIZE	STEEL & PLASTIC		CAST IRON			ASBESTOS-CEMENT				SIMPLEX-A/C			COPPER	PIPE SIZE
	TYPE	TYPE	CURRENT D.I. PIPE SIZE	AWWA 1908	O.D.	TYPE	M.E. O.D.	R.B. O.D. Min. Max.		TYPE	M.E. O.D.	R.B. O.D.	O.D.	
1/2"	STD.	.840											.625	1/2"
5/8"													.750	5/8"
3/4"	STD.	1.05											.875	3/4"
1"	STD.	1.315											1.125	1"
1 1/4"	STD.	1.66											1.375	1 1/4"
1 1/2"	STD.	1.90											1.625	1 1/2"
2"	STD.	2.375			2.50								2.125	2"
2 1/2"	STD.	2.875											2.625	2 1/2"
3"	O.D.	3.00	3.96	A	3.80	cl 100	3.74	4.00		cl 100	3.70	3.95	3.125	3"
	STD.	3.50		B, C, D	3.96	cl 150	3.84	4.10		cl 150	3.88	4.13		
						cl 200	3.84	4.29		cl 200	4.20	4.45		
3 1/2"	STD.	4.00											3.625	3 1/2"
4"	O.D.	4.00	4.80	A	4.80	cl 100	4.64	4.79	5.14	cl 100	4.70	4.95	4.125	4"
	STD.	4.50		B, C, D	5.00	cl 150	4.81	4.97	5.27	cl 150	4.85	5.10		
						cl 200	4.81	5.22	5.57	cl 200	5.20	5.45		
4 1/2"	STD.	5.00												4 1/2"
5"	STD.	5.563											5.125	5"
6"	O.D.	6.00	6.90	A	6.90	cl 100	6.91	7.05	7.40	cl 100	6.76	7.01	6.125	6"
	RIV.	6.25		B, C, D	7.10	cl 150	6.91	7.07	7.37	cl 150	6.95	7.20		
	STD.	6.625		E, F	7.22	cl 200	6.91	7.26	7.56	cl 200	7.50	7.75		
				G, H	7.38									
7"	RIV.	7.25												7"
STD.	7.625													
8"	O.D.	8.00	9.05	A, B	9.05	cl 100	9.11	9.22	9.57	cl 100	8.88	9.13		8"
	RIV.	8.25		C, D	9.30	cl 150	9.11	9.27	9.57	cl 150	9.15	9.40		
	STD.	8.625		E, F	9.42	cl 200	9.11	9.39	9.74	cl 200	9.76	10.01		
				G, H	9.60									
9"	STD.	9.625												9"
10"	O.D.	10.00	11.10	A, B	11.10	cl 100	11.24	11.42	11.77	cl 100	11.18	11.43		10"
	RIV.	10.25		C, D	11.40	cl 150	11.66	11.82	12.12	cl 150	11.70	11.95		
	STD.	10.75		E, F	11.60	cl 200	11.66	11.77	12.12	cl 200	12.20	12.45		
				G, H	11.84									
12"	O.D.	12.00	13.20	A, B	13.20	cl 100	13.44	13.69	14.04	cl 100	13.36	13.61		12"
	RIV.	12.25		C, D	13.50	cl 150	13.92	14.08	14.38	cl 150	13.96	14.21		
	STD.	12.75		E, F	13.76	cl 200	13.92	14.03	14.38	cl 200	14.46	14.72		
				G, H	14.08									
14"	STD.	14.00	15.30	A, B	15.30	cl 100	15.07	15.40	15.80	cl 100	15.56	15.94		14"
				C, D	15.65	cl 150	16.22	16.38	16.73	cl 150	16.26	16.64		
				E, F	15.98	cl 200	16.22	16.48	16.88	cl 200	16.88	17.26		
				G, H	16.32									
16"	STD.	16.00	17.40	A, B	17.40	cl 100	17.15	17.54	17.94	cl 100	17.76	18.14		16"
				C, D	17.80	cl 150	18.46	18.62	18.97	cl 150	18.50	18.88		
				E, F	18.16	cl 200	18.46	18.79	19.19	cl 200	19.30	19.68		
				G, H	18.54									
18"	STD.	18.00	19.50	A, B	19.50	cl 100	19.90	20.44						18"
				C, D	19.92	cl 150	20.94	21.20						
20"	STD.	20.00	21.60	A, B	21.60	cl 100	22.12	22.50						20"
				C, D	22.06	cl 150	23.28	23.54						
				G, H	23.02									
22"	STD.	22.00												22"
24"	STD.	24.00	25.80	A, B	25.80	cl 100	26.48	27.17						24"
				C, D	26.32	cl 150	27.96	28.22						

**Note:** Due to variation in outside diameters and specifications, dimensions listed above are approximate. For this reason, the O.D. of pipe being used should be determined before ordering Romac products.

# ROMAC INDUSTRIES, INC.

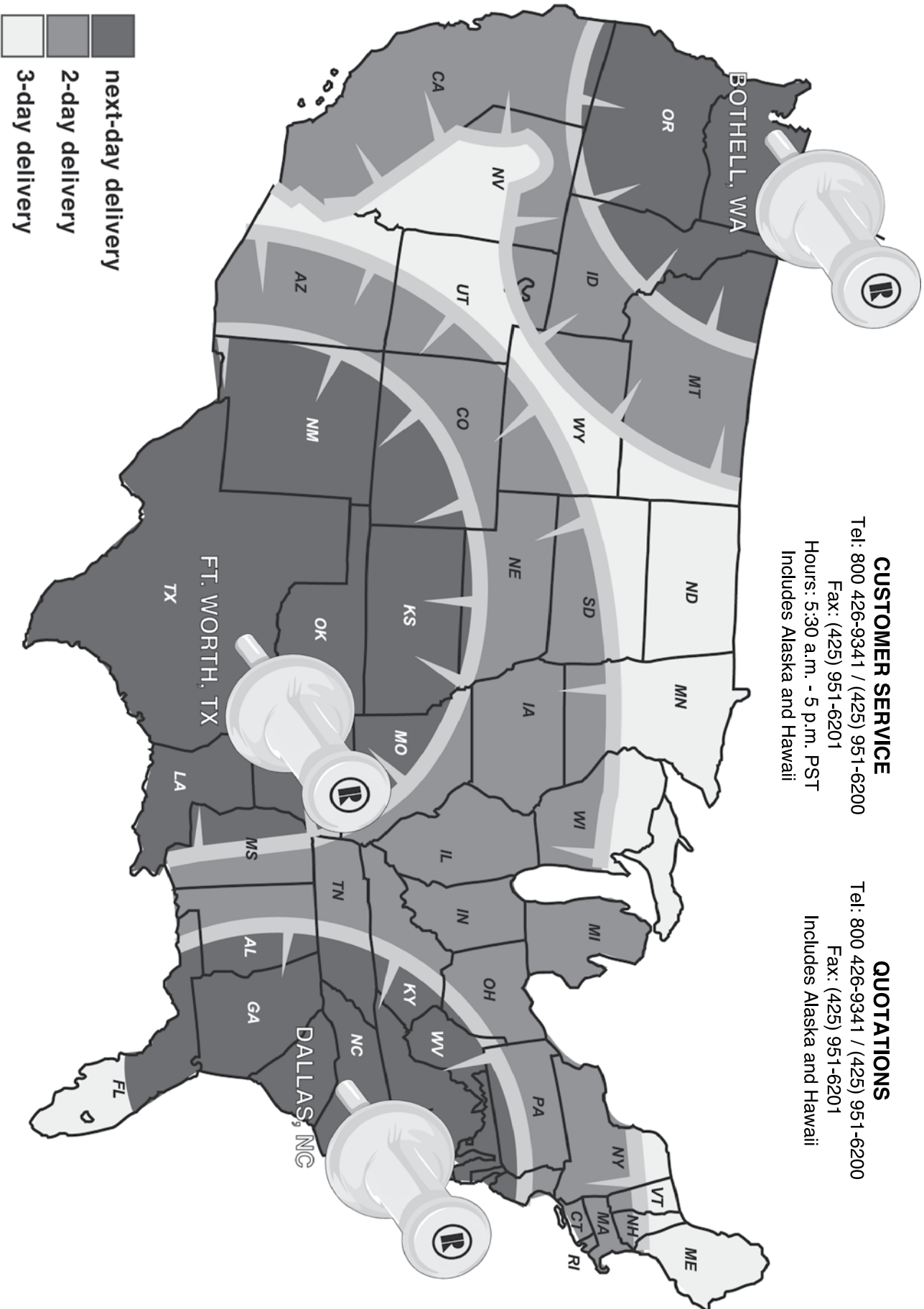
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 Fax: (425) 951-6201  
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