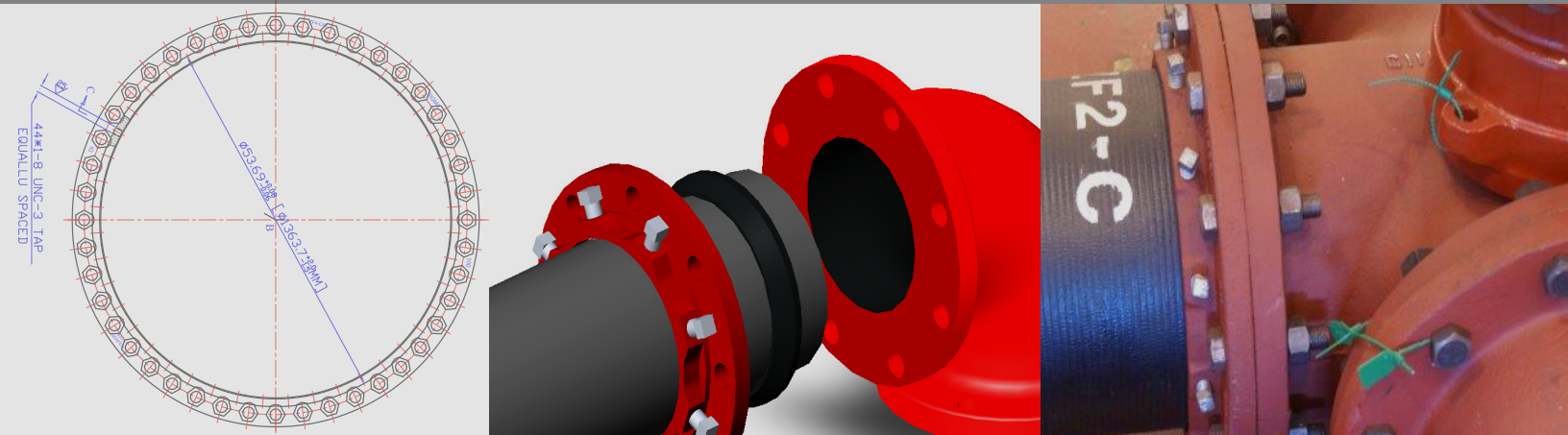


# ZIP FLANGE ZF2/ZF4 SET SCREW ADAPTER FOR DUCTILE IRON OR STEEL PIPE TO FLANGE FITTING, PUMP, VALVE



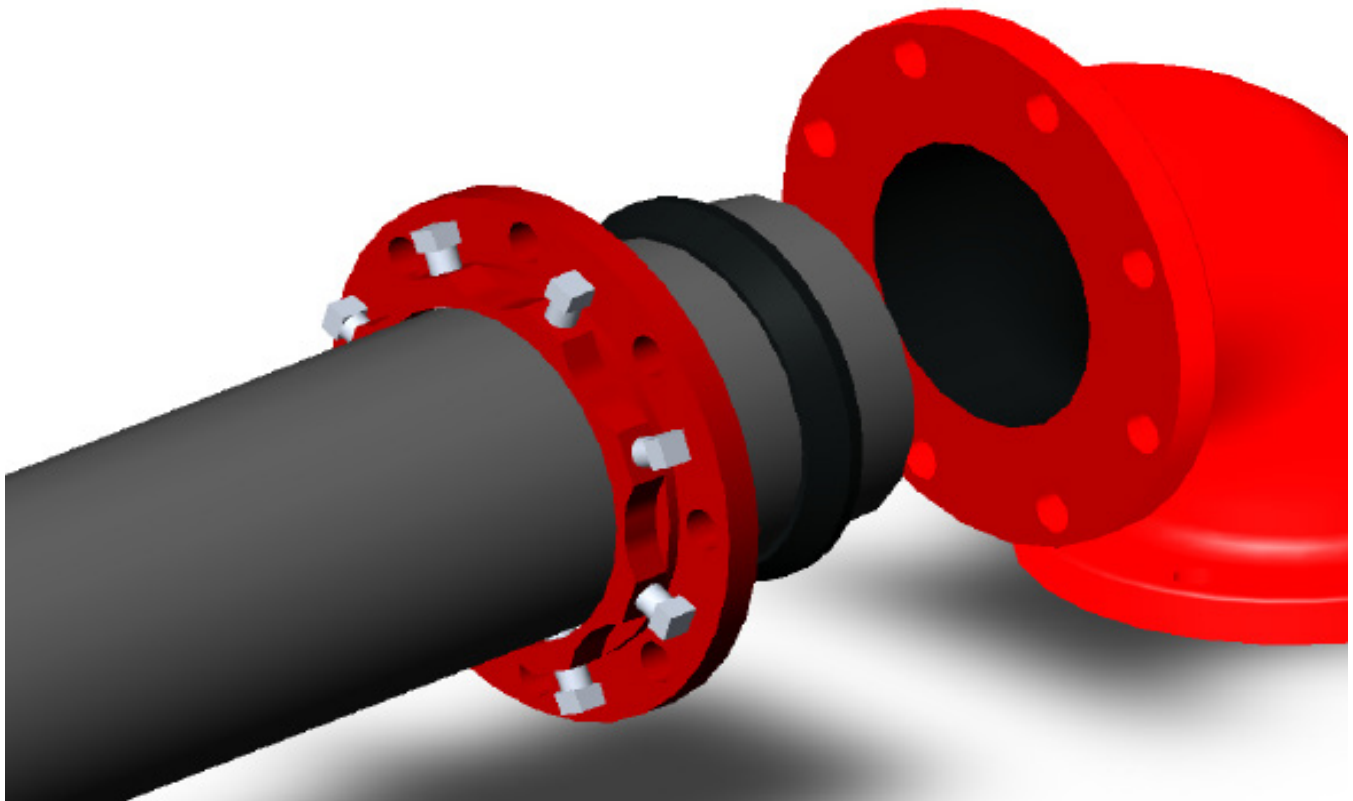
## PRODUCT SPECIFICATIONS

- MATERIAL:**
- Adapter flange sleeve is manufactured of high strength ductile iron in accordance with ASTM A536, Grade 65-45-12.
  - Gasket is manufactured of SBR and alternative materials like EPDM, NBR, and CR are available upon request.
  - Set screws are manufactured from AISI 4140 steel, heat-treated and zinc-plated.
- SIZE RANGE:**
- 2" through 48"
- DIMENSION:**
- Manufactured in accordance with ANSI/AWWA C110/A21.10 and ASME B16.1 standards.
- PRESSURE RATINGS:**
- 200 psi on sizes 2"-8", 175 psi on 10"-12", 150 psi on 14"-24" and 100 psi on 30"-48".
- COATING:**
- Red Alkyd paint
- TRACEABILITY:**
- Adapter flange is individually cast with exact heat code information.
- INSTALLATION:**
- In accordance with manufacturer's recommendation and applicable AWWA/ANSI standards.

*Note: This product is not designed to be used on plain end fittings.*

# ZIP FLANGE FIELD INSTALLED FLANGE ADAPTER

**Connects Plain End Ductile Iron or Steel Pipe  
to Flanged Fittings, Pumps, Valves ...**



**ZIP FLANGE is manufactured to  
American National Standards Institute  
(ANSI) specification ANSI B16.1**

# ZIP FLANGE FIELD INSTALLED FLANGE ADAPTER

## FLANGE

Manufactured from Ductile Iron - ASTM A536, Grade 65-45-12. Drilling to ANSI B16.1 - 125lb.

## SET SCREWS

Manufactured from AISI 4140 steel.  
Heat Treated and Zinc Plated.

## GASKET

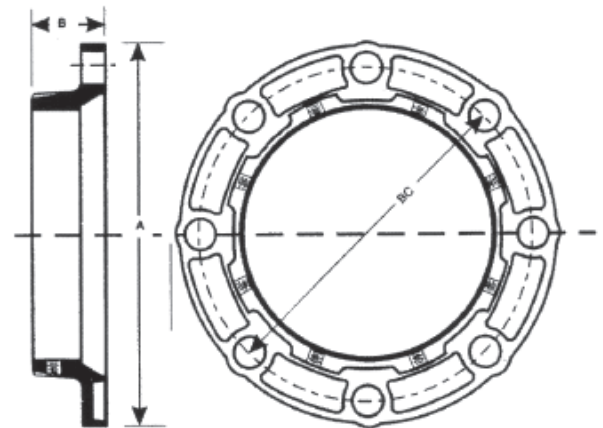
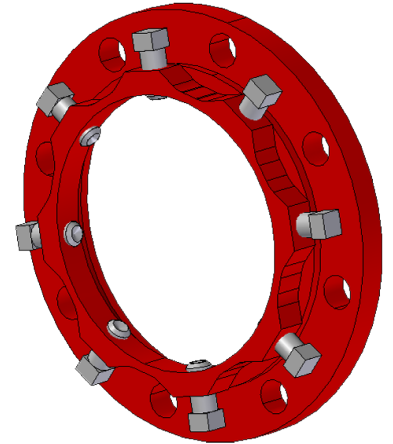
Standard Gasket supplied with SIGMA ZIP FLANGE is SBR (BUNA-S), suitable for water, wastewater, and most moderate chemicals. Temperature range: -10 - 160 degrees Fahrenheit.

Alternative Gaskets include:

EPDM - Green: -10 to 250°F (Ethylene Propylene)

CR - Yellow: -10 to 225°F (Neoprene)

NBR - Orange: 20 to 180°F (Buna-N, Nylril, Hycar)



## ZF2 Series - STANDARD (2-8" 200psi / 10-12" 175psi)

Pipe Size	for Cast Iron Pipe		for Steel Pipe		A	B	BC	Bolt Hole Diameter	Set Screw		Weight
	Item No.	Pipe O.D.	Item No.	Pipe O.D.					No.	Size	
2	ZF2-C2	2.50	ZF2-S2	2.375	6	1 4/5	4 3/4	3/4	2	1/2 X 1	4
3	ZF2-C3	3.96	ZF2-S3	3.500	7 1/2	1 4/5	6	3/4	4	1/2 X 1	5
4	ZF2-C4	4.80	ZF2-S4	4.500	9	1 7/8	7 1/2	3/4	4	1/2 X 1	8
6	ZF2-C6	6.90	ZF2-S6	6.625	11	1 7/8	9 1/2	7/8	8	1/2 X 1	10
8	ZF2-C8	9.05	ZF2-S8	8.625	13 1/2	2 1/4	11 3/4	7/8	8	5/8 X 1 1/4	16
10	ZF2-C10	11.10	ZF2-S10	10.750	16	2 1/4	14 1/4	1	12	5/8 X 1 1/4	22
12	ZF2-C12	13.20	ZF2-Z12	12.750	19	2 1/4	17	1	12	5/8 X 1 1/4	31

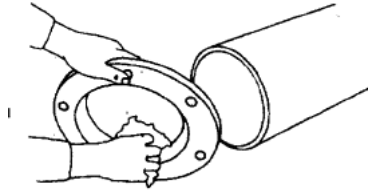
## ZF4 Series - HEAVY DUTY (14-24" 150psi / 30-48" 100psi)

Pipe Size	for Cast Iron Pipe		A	B	BC	Bolt Hole Diameter	Set Screws		Weight
	Item No.	Pipe O.D.					No.	Size	
14	ZF4-C14	15.30	21	2 5/8	18 3/4	1 1/8	12	5/8 x 1 1/4	70
16	ZF4-C16	17.40	23 1/2	2 11/16	21 1/4	1 1/8	16	5/8 x 1 1/4	79
18	ZF4-C18	19.50	25	3	22 3/4	1 1/4	16	3/4 x 2	90
20	ZF4-C20	21.60	27 1/2	3 3/16	25	1 1/4	20	3/4 x 2	145
24	ZF4-C24	25.80	32	3 3/8	29 1/2	1 3/8	20	3/4 x 2	175
30	ZF4-C30	32.00	38 3/4	4 1/2	36	1 3/8	28	1 x 2 1/4	270
36	ZF4-C36	38.30	46	4 3/4	42 3/4	1 5/8	32	1 x 2 1/4	400
42	ZF4-C42	44.50	53	5	49 1/2	1 5/8	36	1 x 2 1/4	602
48	ZF4-C48	50.80	59 1/2	5 1/8	56	1 5/8	44	1 x 2 1/4	680

Dimensions in Inches, Weights in Pounds

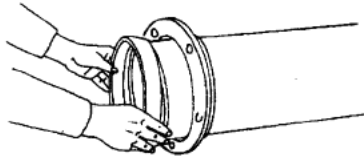
### Installation Instructions

1.



Clean the plain end pipe after making sure the pipe end is square cut and burr-free. Lubricate the plain end pipe thoroughly with a soap-based pipe gasket lubricant.

2.



Slide the ZIP FLANGE - set screw side first, onto the plain end pipe. Lubricate the gasket, and then slide it over the pipe, tapered side first.

Set Screw Size & Torque Requirements

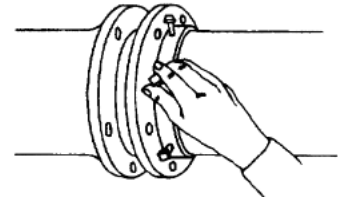
#### ZF2 Series - STANDARD

Pipe Size	Set Screw Size	Recommended Torque Values (ft-lbs.)						
		Ductile Iron Pipe Class				Steel Pipe Schedule		
		50	51	52	53+	20	30	40+
2	1/2 x 1	-	50	70	70	-	-	35
4	1/2 x 1	-	50	70	70	-	-	70
6	1/2 x 1	50	60	70	70	-	-	70
8	5/8 x 1 1/4	50	60	80	90	50	50	90
10	5/8 x 1 1/4	50	60	80	90	50	50	90
12	5/8 x 1 1/4	50	60	80	90	50	60	90

#### ZF4 Series - HEAVY DUTY

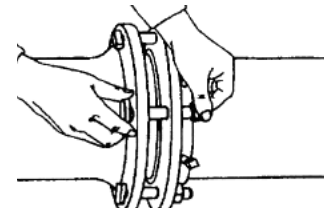
Pipe Size	Set Screw Size	Recommended Torque Values (ft-lbs.)						
		Ductile Iron Pipe Class				Steel Pipe Schedule		
		50	51	52	53+	20	30	40+
14	5/8 x 1 1/4	60	70	90	90	-	-	-
16	5/8 x 1 1/4	60	70	90	90	-	-	-
18	3/4 x 2	70	80	115	115	-	-	-
20	3/4 x 2	70	80	115	115	-	-	-
24	3/4 x 2	70	80	115	115	-	-	-
30	1 x 2 1/4	70	80	115	115	-	-	-
36	1 x 2 1/4	70	80	115	115	-	-	-
42	1 x 2 1/4	90	100	120	120	-	-	-
48	1 x 2 1/4	90	100	120	120	-	-	-

3.



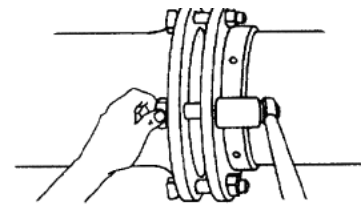
Slide the flange toward the end of the pipe, seating the gasket evenly in the flange cavity. Continue to slide the flange gasket toward the end of the pipe until the ZIP FLANGE face is flush with the end of the plain end pipe. Hand-tighten the set screws against the pipe surface.

4.



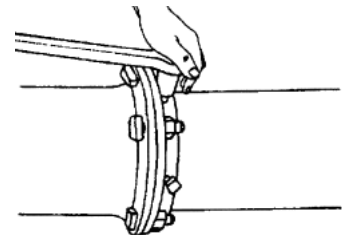
Use standard flange bolts to connect the flanges.

5.



Tighten the flange bolts alternately to keep the flange faces square to each other. When flange faces meet, torque flange bolts to specification.

6.



Tighten all set screws evenly to values shown in the chart on the left.

## LOCATIONS

### Northeast Region

#### Cream Ridge, New Jersey (HQ)

700 Goldman Drive  
 Cream Ridge, NJ 08514  
 Phone (800) 999-2550  
 Fax (609) 758-1158  
 crmcsr@sigmaco.com

### REPCO

970 DE LA Bastican  
 Victoriaville, Quebec G6T 1Y2  
 Phone (888) 744-6262  
 Fax (819) 758-1153  
 jboucher@repcocan.ca

### Concord Supply

2353 Bowman Street  
 Innisfil, Ontario L9S 3V6  
 Phone (877) 436-3800  
 Fax (705) 436-6338  
 tanya@concordsupply.ca

### Midwest Region

#### Sauk Village, Illinois

21699 Torrence Avenue  
 Sauk Village, IL 60411  
 Phone (888) 999-0420  
 Fax (708) 758-6790  
 chicsr@sigmaco.com

### Southeast Region

#### Alexander City, Alabama

1500 Highway 22 W  
 Alexander City, AL 35010  
 Phone (800) 824-4513  
 Fax (256) 234-4956  
 alxcsr@sigmaco.com

### Southwest Region

#### Houston, Texas

5000 Askins Lane  
 Houston, TX 77093  
 Phone (800) 999-0109  
 Fax (281) 987-0200  
 htncsr@sigmaco.com

### Western Region

#### Ontario, California

4652 E. Guasti Road  
 Ontario, CA 91761  
 Phone (800) 688-6230  
 Fax (909) 391-2033  
 ontcsr@sigmaco.com

### Auburn, Washington (Branch)

902 W Main Street  
 Auburn, WA 98001  
 Phone (800) 688-6230  
 Fax (909) 391-2033  
 ontcsr@sigmaco.com

[www.sigmaco.com](http://www.sigmaco.com)

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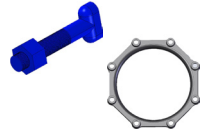
## AWWA Ductile Iron Fittings



- 2-64" C153 Ductile Iron Mechanical Joint Fittings
- 2-48" C110 Ductile Iron Mechanical Joint Fittings
- 2-64" C110 Ductile Iron Flanged Fittings
- 3-24" C153 Ductile Iron Push-On Fittings
- 4-24" C110 Ductile Iron Push-On Fittings
- 4-12" Ductile Iron Mechanical Joint Connector
- C116 Fusion Bonded Epoxy Lining Available
- PROTECTO 401® Ceramic Epoxy Lining Available

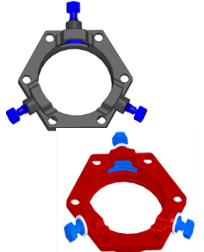
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## Mechanical Joint Accessories



- Prepackaged and Loose Mechanical Joint Accessories
- SIGMASEAL™ Improved Mechanical Joint Gasket
- Snap-On Multi-Purpose Gasket for Ductile Iron or PVC Pressure Pipes
- OMNI-SLEEVE™ Improved Wall Penetration Sleeve
- Specialty Bolts and Nuts for Mechanical Joint Assemblies

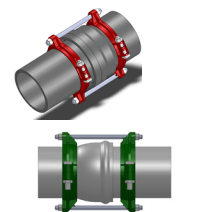
## ONE-LOK™ Wedge Action Restraints



- 3-48" ONE-LOK D-SLDE Domestic Wedge Restraint for Ductile Iron Pipe
- 3-64" ONE-LOK SLDE Wedge Restraint for Ductile Iron Pipe (Import)
- 4-48" ONE-LOK T-SLDE Tandem Wedge Restraint for High Pressure Ductile Iron Pipe
- 3-36" ONE-LOK D-SLCE Domestic Wedge Restraint for PVC Pipe
- 3-36" ONE-LOK SLCE Wedge Restraint for PVC Pipe (Import)
- 3-36" ONE-LOK SLDEH Wedge Harness Restraint for Ductile Iron Pipe
- 4-12" / 20" ONE-LOK SLDM Wedge Restraint for Oversized Cast Iron Pipe
- 4-36" ONE-LOK SSLD Split Wedge Restraint for Installed Ductile Iron Pipe & Fitting
- 4-36" ONE-LOK SSLDH Split Wedge Harness Restraint for Installed Ductile Iron Pipe
- 4-12" ONE-LOK SLCEH Wedge Harness Restraint for AWWA C900 PVC Pipe

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<http://www.sigmaco.com/pipe-restraint-product-coatings-linings/>

## PV-LOK™ Serration Lock Restraints



- 4-48" PV-LOK PWM Serrated Restraint for Ductile Iron Fitting & AWWA C900/905 PVC Pipe
- 4-48" PV-LOK PWP Serrated Bell Joint Restraint for AWWA C900/905 PVC Pipe
- 4-12" PV-LOK D-PWP Domestic Serrated Bell Joint Restraint for AWWA C900 PVC Pipe
- 4-48" PV-LOK PVPF Restraint for AWWA C900/905 PVC Pipe & PVC Fitting
- 4-12" PV-LOK PWH Serrated Harness Restraint for AWWA C900 PVC Pipe
- 2-12" PV-LOK PVM Serrated Restraint for Ductile Iron & IPS OD PVC pipe
- 2-12" PV-LOK PVP Serrated Bell Joint Restraint for IPS OD PVC Pipe
- 4-8" PV-LOK PVPF Serrated Restraint for IPS OD PVC Pipe & PVC Fitting
- 4-12" PV-LOK PWP Serrated Bell Joint Restraint for Ductile Iron Pipe

Visit our website for available special coatings.  
<http://www.sigmaco.com/pipe-restraint-product-coatings-linings/>

## Flange Adapters



- 3-36" SIGMAFLANGE Flange Adapter Sleeve for PVC and Ductile Iron Pipe
- 2-48" ZIP FLANGE Set Screw Style Flange Adapter

## Municipal Construction Castings



- Manhole Rings and Covers
- Curb and Meter Boxes
- Frames and Grates
- Storm Inlets
- Valve Boxes, Risers, and Extensions

## Products for the Ductile Iron Fabricator



- 3-64" High Hub Threaded Flanges
- 3-48" Tapped High Hub Threaded Flanges
- 3-36" Extra Heavy 250lb Drilled Threaded Flanges
- 3-48" Threaded MJ Bell Adapters
- 3-48" MJ x PE Bell adapter
- 3-48" Anchor Flanges
- 3-16" Filler Flanges

## Extended Range Products



- Flange-Pak™ Prepackaged Flange Accessory Sets
- Polyethylene Encasement for Ductile Iron Pipe
- Copper Tubing Products
- Tracer Wire & Detectable/Non-Detectable Marking Tape
- Pipe Joint Lubricant & Hydraulic Cement
- Socket Clamps and Tie Rod Accessories
- BoxLok Valve Box Alignment Device
- Cast Iron Companion Flanges