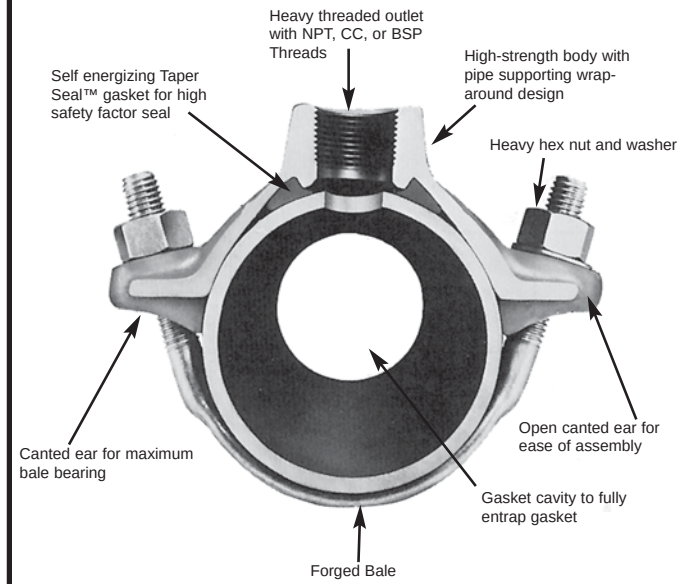




Service Saddle Features



Smith-Blair® TaperSeal™ Wrap-Around Service Saddles are designed to provide maximum support and reinforcement to the pipe; the result of nearly 360 degrees of contact.

When installed on a pipe with an outside diameter equal to or near to the top of the saddle's O.D. range, the saddle body wraps around the pipe approximately 160 degrees. On a pipe that has an O.D. equal to or near to the bottom of the saddle's O.D. range, the saddle body will wrap around the pipe approximately 180 degrees.

As the bale nuts are tightened, tangential pull directs the mechanical forces toward and around the pipe, uniformly distributing pressure around the circumference of the pipe to support and reinforce it.

Sealing Qualities

Smith-Blair® Service Saddles are designed to hold high pressures with just a few foot-pounds of torque applied to the bale nuts. The unique, pressure-energized TaperSeal™ gasket, which seals as the result of both mechanical and hydrostatic pressure, is contained within a tapered gasket cavity cast into the saddle body. This feature provides a positive hydro-mechanical seal and prevents the gasket from being blown out along the pipe.

Stability of Pipe

The wide skirt on Smith-Blair® TaperSeal™ Service Saddle bodies, combined with the wrap-around feature, results in excellent stability of the saddle on the pipe. These two features work together to prevent the saddle from rocking or creeping on the pipe, which could be caused by vibration, pressure or excessive external loading. This makes it possible to use single bale saddles instead of double bale saddles on many installations, resulting in substantial savings.

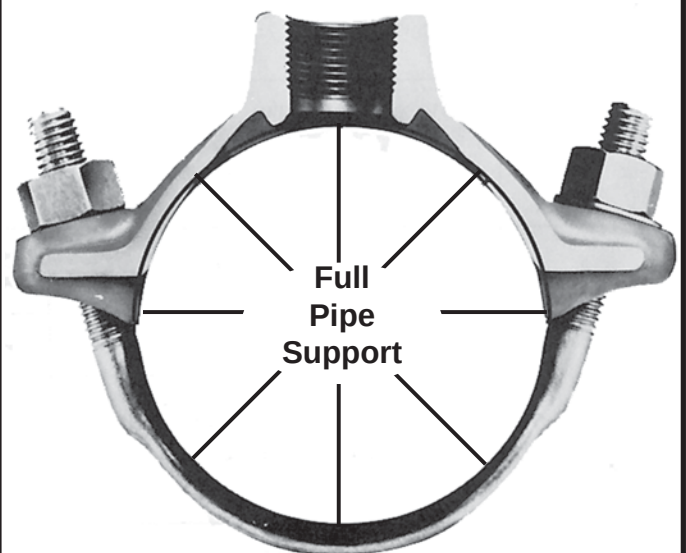
Single or Double Bale

The optimum number of bales needed is based on two factors: the pipe O.D. and the outlet size. Double straps are necessary to accommodate larger pipe O.D.'s and to equalize gasket pressure around larger outlets.

Easy to Install

For fast, easy installation, Smith-Blair® TaperSeal™ Service Saddles feature a closed lug on one side of the body that holds one end of the strap and its nut in place and acts as a hinge. The other side features an open canted lug, where the other end of the bale and its nut and washer can be slipped. Thus, no loose parts get lost.

Full Pipe Support Design Superiority



313 Service Saddles

Flexi-Coat® Epoxy, Ductile Iron Body, Double Bale

Certified to NSF®/ANSI 61



Smith-Blair® 313 Double Bale Service Saddles have the same important design features as the 311 Service Saddles.

The 313 is especially recommended where large taps are required and where greater than normal transverse loading on the service line is anticipated.

For unusually corrosive or aggressive environments, Smith-Blair 317, 325, 357, 372 or 397 Service Saddles should be used.

Material Specifications

- BODIES:** Ductile Iron ASTM-A536.
- BALES:** Carbon Steel ASTM-A108 (C1018) or HSLA (C111) electro-galvanized with di-chromate steel ASTM-B633.
- NUTS:** Cold formed semi-finished heavy hex steel A563 electro-galvanized with di-chromate seal ASTM-B633.
- WASHERS:** Carbon Steel ASTM-A108, electro-galvanized with a di-chromate seal ASTM-B633.
- GASKET:** Smith-Blair® Nitrile (Buna N) NSF 61® compounded to resist - oil, acids alkalies, most (aliphatic) hydrocarbon fluids, water and many chemicals.
(Contact Smith-Blair® engineers on applications involving chemicals).
Temperature -20°F to 180°F.
- FINISH:** Fusion bonded Flexi-Coat® Epoxy per AWWA C213.
- OPTIONAL:** Stainless steel hardware available upon request.

*Large diameter saddles (15.98-25.80) with 3" & 4" NPT taps have bales made of ASTM-A285, studs ASTM-A325 with fusion bonded Flexi-Coat® Epoxy per AWWA C213 and nuts made of carbon steel ASTM-A536.

Material specifications subject to change.

3/4" and 1" NPT Taps

Standard			Catalog Number		Ctn. Qty	Metric		
Nom. Size Inches	O.D. Range Inches	Wt. Each Lbs.	3/4" NPT/20 mm	1" NPT/25 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
1-1/4-1-1/2	1.61-1.92	3	313-00019206-000	313-00019208-000	6	32-40	41-48	1
2	2.35-2.56	3	313-00025606-000	313-00025608-000	6	50	60-65	1
2-1/4-2-1/2	2.44-2.91	3	313-00029106-000	313-00029108-000	6	57-65	62-73	2
3	2.97-3.54	4	313-00035406-000	313-00035408-000	6	80	76-89	2
3-4	3.74-4.13	6	313-00041306-000	313-00041308-000	6	80-100	95-105	3
4	4.40-4.50	6	313-00045006-000	313-00045008-000	6	100	112-114	3
4	4.40-4.80	6	313-00048006-000	313-00048008-000	6	100	112-122	3
4-5	5.00-5.63	6	313-00056306-000	313-00056308-000	6	100-125	121-143	3
6	5.94-6.70	6	313-00066306-000	313-00066308-000	4	150	151-170	3
6	5.94-6.90	6	313-00069006-000	313-00069008-000	4	150	151-175	3
6	6.84-7.60	7	313-00076006-000	313-00076008-000	4	150	174-193	3
6-8	7.69-8.72	8	313-00087206-000	313-00087208-000	4	150-200	195-221	4
6-8	7.69-9.05	8	313-00090506-000	313-00090508-000	4	150-200	195-230	4
8-10	8.54-10.10	8	313-00101006-000	313-00101008-000	4	200-250	217-256	4
10	10.75-11.10	10	313-00111006-000	313-00111008-000	4	250	273-282	4
10-12	10.64-12.12	10	313-00121206-000	313-00121208-000	4	250-300	271-307	4
12	12.75-13.20	14	313-00132006-000	313-00132008-000	4	300	324-335	7
12-14	12.62-14.32	15	313-00143206-000	313-00143208-000	4	300-350	321-363	7
12-14	14.73-15.65	18	313-00156506-000	313-00156508-000	1	300-350	375-397	8
14-16	15.95-17.25	19	313-00172506-000	313-00172508-000	1	350-400	406-438	9
16	17.25-17.80	19	313-00178006-000	313-00178008-000	1	410	438-452	9
16-18	17.40-18.88	19	313-00188806-000	313-00188808-000	1	400-450	442-479	9
*18	19.38-19.68	20	313-00195006-000	313-00195008-000	1	450	492-499	9
*20	21.55-21.65	20	313-00216006-000	313-00216008-000	1	500	547-550	9
*24	25.75-25.85	20	313-00258006-000	313-00258008-000	1	600	654-657	9

*Fabricated straps, epoxy coated carbon steel.



313 Service Saddles

Flexi-Coat® Epoxy, Ductile Iron Body, Double Bale

Certified to NSF®/ANSI 61



BSP Thread Tap Codes

Size	Code Number	Example
1/2"	59	1-1/4" NPT 313-00025610-000 1-1/4" BSP 313-00025654-000
3/4"	50	
1"	51	
1 1/4"	54	
1 1/2"	52	
2"	53	
2 1/2"	55	
3"	56	

313 Service Saddles, Ductile Iron, Double Bale

1-1/4", 1-1/2", 2" and 2-1/2" NPT Taps

Standard			Catalog Number				Ctn. Qty	Metric		
Nom. Size Inches	O.D. Range Inches	Wt. Each Lbs.	1-1/4" NPT/32 mm	1-1/2" NPT/40 mm	2" NPT/50 mm	2-1/2" NPT/65 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
2	2.35-2.56	3	313-00025610-000	313-00025612-000	N/A	N/A	6	50	60-65	1
3	2.97-3.54	5	313-00035410-000	313-00035412-000	313-00035414-000	N/A	6	80	76-89	3
3-4	3.74-4.13	8	313-00041310-000	313-00041312-000	313-00041314-000	313-00041316-000	6	80-100	95-104	3
4	4.40-4.50	6	313-00045010-000	313-00045012-000	313-00045014-000	313-00045016-000	6	100	112-114	3
4	4.40-4.80	6	313-00048010-000	313-00048012-000	313-00048014-000	313-00048016-000	6	100	112-122	3
4-5	4.74-5.14	8	313-00051410-000	313-00051412-000	313-00051414-000	313-00051416-000	6	100-125	120-130	3
4-5	5.00-5.63	9	313-00056310-000	313-00056312-000	313-00056314-000	313-00056316-000	4	100-125	127-143	4
6	5.94-6.70	9	313-00066310-000	313-00066312-000	313-00066314-000	313-00066316-000	4	150	151-170	4
6	5.94-6.90	9	313-00069010-000	313-00069012-000	313-00069014-000	313-00069016-000	4	150	151-175	4
6	6.84-7.60	7	313-00076010-000	313-00076012-000	313-00076014-000	313-00076016-000	4	150	174-193	3
6-8	7.69-8.72	11	313-00087210-000	313-00087212-000	313-00087214-000	313-00087216-000	4	150-200	195-221	5
6-8	7.69-9.05	11	313-00090510-000	313-00090512-000	313-00090514-000	313-00090516-000	4	150-200	195-230	5
8-10	8.54-10.10	9	313-00101010-000	313-00101012-000	313-00101014-000	313-00101016-000	4	200-250	217-256	4
10	10.75-11.10	10	313-00111010-000	313-00111012-000	313-00111014-000	313-00111016-000	4	250	273-282	4
10-12	10.64-12.12	11	313-00121210-000	313-00121212-000	313-00121214-000	313-00121216-000	4	250-300	271-307	5
12	12.75-13.20	15	313-00132010-000	313-00132012-000	313-00132014-000	313-00132016-000	4	300	324-355	7
12-14	12.62-14.32	14	313-00143210-000	313-00143212-000	313-00143214-000	313-00143216-000	4	300-350	321-363	6
12-14	14.73-15.65	18	313-00156510-000	313-00156512-000	313-00156514-000	313-00156516-000	1	300-350	375-397	8
14-16	15.95-17.25	19	313-00172510-000	313-00172512-000	313-00172514-000	313-00172516-000	1	350-400	406-438	9
16	17.25-17.80	19	313-00178010-000	313-00178012-000	313-00178014-000	313-00178016-000	1	410	438-452	9
16-18	17.40-18.88	19	313-00188810-000	313-00188812-000	313-00188814-000	313-00188816-000	1	400-450	442-479	9
*18	19.38-19.68	20	313-00195010-000	313-00195012-000	313-00195014-000	313-00195016-000	1	450	479-495	9
*20	21.55-21.65	20	313-00216010-000	313-00216012-000	313-00216014-000	313-00216016-000	1	500	547-550	9
*24	25.75-25.85	20	313-00258010-000	313-00258012-000	313-00258014-000	313-00258016-000	1	600	654-657	9

*Fabricated straps, epoxy coated carbon steel.

3" and 4" NPT Taps

Standard			Catalog Number		Ctn. Qty	Metric		
Nom. Size Inches	O.D. Range Inches	Wt. Each Lbs.	3" NPT/80 mm	4" NPT/100 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
6	5.94-6.70	10	313-00066317-000	N/A	4	150	151-171	5
6	6.84-7.60	13	313-00076017-000	313-00076018-000	4	150	174-193	6
8-10	8.54-10.10	15	313-00101017-000	313-00101018-000	3	200-250	217-256	7
10	10.75-11.10	14	See 357's page 22	See 357's page 22	-	-	-	-
10-12	10.64-12.12	14	313-00121217-000	313-00121218-000	2	250-300	271-307	6
12	12.75-13.20	18	See 357's page 22	See 357's page 22	-	-	-	-
12-14	12.62-14.32	18	313-00143217-000	313-00143218-000	2	300-350	321-363	8
12-14	14.73-15.65	28	313-00156517-000	313-00156518-000	2	300-350	375-397	13
14-16	15.98-16.59	28	313-00165917-000	313-00165918-000	1	350-400	406-421	13
16	17.25-17.80	29	313-00178017-000	313-00178018-000	1	400	439-452	13
16-18	17.81-18.88	30	313-00188817-000	313-00188818-000	1	400-450	452-479	13
*18	19.38-19.68	30	313-00195017-000	313-00195018-000	1	450	492-500	14

*Fabricated straps, epoxy coated carbon steel.

1/2" I.P. Taps can be accommodated by inserting a bushing in the 3/4" taps.

313 Service Saddles

Flexi-Coat® Epoxy, Ductile Iron Body, Double Bale

Certified to NSF®/ANSI 61



5/8", 3/4" and 1" CC Taps

Standard			Catalog Number			Ctn. Qty	Metric		
Nom. Sizes Inches	O.D. Range Inches	Wt. Each Lbs.	5/8" CC/16 mm	3/4" CC/20 mm	1" CC/25 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
1-1/4-1-1/2	1.61-1.92	3	313-00019205-000	313-00019207-000	313-00019209-000	6	32-40	41-48	1
2	2.35-2.56	3	313-00025605-000	313-00025607-000	313-00025609-000	6	50	60-65	1
2-1/4-2-1/2	2.44-2.91	3	313-00029105-000	313-00029107-000	313-00029109-000	6	57-63	62-73	2
3	2.97-3.54	4	313-00035405-000	313-00035407-000	313-00035409-000	6	80	76-89	2
3-4	3.74-4.13	6	313-00041305-000	313-00041307-000	313-00041309-000	6	80-100	95-105	3
4	4.40-4.50	6	313-00045005-000	313-00045007-000	313-00045009-000	6	100	112-114	3
4	4.40-4.80	6	313-00048005-000	313-00048007-000	313-00048009-000	6	100	112-122	3
4-5	5.00-5.63	6	313-00056305-000	313-00056307-000	313-00056309-000	6	100-125	121-143	3
6	5.94-6.70	6	313-00066305-000	313-00066307-000	313-00066309-000	4	150	151-170	3
6	5.94-6.90	6	313-00069005-000	313-00069007-000	313-00069009-000	4	150	151-175	3
6	6.84-7.60	7	313-00076005-000	313-00076007-000	313-00076009-000	4	150	174-193	3
6-8	7.69-8.72	7	313-00087205-000	313-00087207-000	313-00087209-000	4	150-200	195-221	4
6-8	7.69-9.05	8	313-00090505-000	313-00090507-000	313-00090509-000	4	150-200	195-230	4
8-10	8.54-10.10	8	313-00101005-000	313-00101007-000	313-00101009-000	4	200-250	217-256	4
10	10.75-11.10	10	313-00111005-000	313-00111007-000	313-00111009-000	4	250	273-282	4
10-12	10.64-12.12	10	313-00121205-000	313-00121207-000	313-00121209-000	4	250-300	271-307	4
12	12.75-13.20	14	313-00132005-000	313-00132007-000	313-00132009-000	4	300	324-335	7
12-14	12.62-14.32	15	313-00143205-000	313-00143207-000	313-00143209-000	4	300-350	321-363	7
12-14	14.73-15.65	18	313-00156505-000	313-00156507-000	313-00156509-000	1	300-350	375-397	8
14-16	15.95-17.25	19	313-00172505-000	313-00172507-000	313-00172509-000	1	350-400	406-438	9
16	17.25-17.80	19	313-00178005-000	313-00178007-000	313-00178009-000	1	410	438-452	9
16-18	17.40-18.88	19	313-00188805-000	313-00188807-000	313-00188809-000	1	400-450	442-479	9
*18	19.38-19.68	20	313-00195005-000	313-00195007-000	313-00195009-000	1	450	492-500	9
*20	21.55-21.65	20	313-00216005-000	313-00216007-000	313-00216009-000	1	500	547-550	9
*24	25.75-25.85	20	313-00258005-000	313-00258007-000	313-00258009-000	1	600	654-657	9

*Fabricated straps, epoxy coated carbon steel.

1-1/4", 1-1/2" and 2" CC Taps

Standard			Catalog Number			Ctn. Qty	Metric		
Nom. Sizes Inches	O.D. Range Inches	Wt. Each Lbs.	1-1/4" CC/32 mm	1-1/2" CC/40 mm	2" CC/50 mm		Nom. Size mm	O.D. Range mm	Wt. Each kg.
2	2.35-2.56	3	313-00025611-000	N/A	N/A	6	50	60-65	1
	2.97-3.54	5	313-00035411-000	313-00035413-000	N/A	6	80	76-89	2
3-4	3.74-4.13	8	313-00041311-000	313-00041313-000	313-00041315-000	6	80-100	95-104	3
4	4.40-4.50	6	313-00045011-000	313-00045013-000	313-00045015-000	6	100	112-114	3
4	4.40-4.80	6	313-00048011-000	313-00048013-000	313-00048015-000	6	100	112-122	3
4-5	4.74-5.14	8	313-00051411-000	313-00051413-000	313-00051415-000	6	100-125	120-130	3
4-5	5.00-5.63	9	313-00056311-000	313-00056313-000	313-00056315-000	4	100-125	127-143	4
6	5.94-6.70	9	313-00066311-000	313-00066313-000	313-00066315-000	4	150	151-170	4
6	5.94-6.90	9	313-00069011-000	313-00069013-000	313-00069015-000	4	150	151-175	4
6	6.84-7.60	7	313-00076011-000	313-00076013-000	313-00076015-000	4	150	174-193	3
6-8	7.69-8.72	11	313-00087211-000	313-00087213-000	313-00087215-000	4	150-200	195-221	5
6-8	7.69-9.05	11	313-00090511-000	313-00090513-000	313-00090515-000	4	150-200	195-230	5
8-10	8.54-10.10	9	313-00101011-000	313-00101013-000	313-00101015-000	4	200-250	217-256	4
10	10.75-11.10	10	313-00111011-000	313-00111013-000	313-00111015-000	4	250	273-282	5
10-12	10.64-12.12	11	313-00121211-000	313-00121213-000	313-00121215-000	4	250-300	271-307	5
12	12.75-13.20	14	313-00132011-000	313-00132013-000	313-00132015-000	4	300	324-335	6
12-14	12.62-14.32	14	313-00143211-000	313-00143213-000	313-00143215-000	4	300-350	321-363	6
12-14	14.73-15.65	18	313-00156511-000	313-00156513-000	313-00156515-000	1	300-350	375-397	8
14-16	15.95-17.25	19	313-00172511-000	313-00172513-000	313-00172515-000	1	350-400	406-438	9
16	17.25-17.80	19	313-00178011-000	313-00178013-000	313-00178015-000	1	410	438-452	9
16-18	17.40-18.88	19	313-00188811-000	313-00188813-000	313-00188815-000	1	400-450	442-479	9
*18	19.38-19.68	20	313-00195011-000	313-00195013-000	313-00195015-000	1	450	492-500	9
*20	21.55-21.65	20	313-00216011-000	313-00216013-000	313-00216015-000	1	500	547-550	9
*24	25.75-25.85	20	313-00258011-000	313-00258013-000	313-00258015-000	1	600	654-657	9

*Fabricated straps, epoxy coated carbon steel.