



Service Saddle

Single Bale

311



Description: Single bale Ductile Iron service saddle with TaperSeal™ gasket and wraparound bales used to connect branch lines, instruments, and other appurtenances to pipe.

Application:

Tapping pipe for branch connections and to install service connections, air and vacuum valves.

Key Features:

- Meets applicable AWWA C800 Standards
- The wide saddle body provides stability on the pipe
- The gasket is fully bonded to the cavity to hold it in place
- NPT, CC and other threaded outlets available in sizes 5/8" thru 2"
- A closed lug on one side, combined with the bale, acts as a hinge for easier installation

Materials Specifications (subject to change):

BODY: Ductile Iron per ASTM A536

BALE: Carbon Steel ASTM A108 (C1018) or HSLA (C111) electro-galvanized with di-chromate seal 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: Nitrile (Buna N) NSF 61® compounded to resist oil, acids, alkalis, most (aliphatic) hydrocarbon fluids, water and other chemicals

Temperature Range: -20°F to 180°F

FINISH: Flexi-Coat® Fusion-Bonded Epoxy Finish on Saddle Body

Optional: 304 Stainless Steel hardware available upon request

Working Pressure: Up to 300 PSI, depending on size and application

Pipe Applications: Steel, Ductile Iron, Cast Iron. For other pipe materials, please contact Smith-Blair Engineering.

Taps: 5/8", 3/4" and 1", 1 1/4" and 1 1/2" CC Taps, 3/4", 1", 1 1/4", 1 1/2", and 2" NPT taps.

Sizes (in inches): Varies by tap type; see tables for size details



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

STANDARD			CATALOG NUMBER			CTN. QTY	METRIC		
NOM. SIZE 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	1.31-1.39	1	311-00013905-000	311-00013907-000	N/A	12	25	33-35	1
1-1/4-1-1/2	1.61-1.92	1	311-00019205-000	311-00019207-000	311-00019209-000	12	40	41-48	1
2	2.38	2	311-00023805-000	311-00023807-000	311-00023809-000	12	50	60	1
2	2.35-2.56	2	311-00025605-000	311-00025607-000	311-00025609-000	12	50	60-65	1
2-1/4-2-1/2	2.44-2.91	2	311-00029105-000	311-00029107-000	311-00029109-000	8	57-65	62-73	1
3	2.97-3.54	2	311-00035405-000	311-00035407-000	311-00035409-000	12	80	76-89	1
4	4.40-4.50	3	311-00045005-000	311-00045007-000	311-00045009-000	12	80-100	112-115	1
4	4.40-4.80	4	311-00048005-000	311-00048007-000	311-00048009-000	12	103	112-122	1
4-5	4.74-5.63	3	311-00056305-000	311-00056307-000	311-00056309-000	10	100-125	121-143	2
5-6	5.94-6.70	4	311-00066305-000	311-00066307-000	311-00066309-000	8	125-150	151-170	2
5-6	5.94-6.90	4	311-00069005-000	311-00069007-000	311-00069009-000	8	125-150	151-175	2
6	6.84-7.60	5	311-00076005-000	311-00076007-000	311-00076009-000	10	150	174-193	2
6-8	7.69-8.72	5	311-00087205-000	311-00087207-000	311-00087209-000	10	150-200	195-221	2
6-8	7.69-9.05	5	311-00090505-000	311-00090507-000	311-00090509-000	10	150-200	195-230	2
8-10	8.54-10-10	5	311-00101005-000	311-00101007-000	311-00101009-000	10	200-250	217-256	2
10-12	10.64-12.12	5	311-00121205-000	311-00121207-000	311-00121209-000	6	250-300	271-307	3
12-14	12.62-14.32	7	311-00143205-000	311-00143207-000	311-00143209-000	6	300-350	321-363	3

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	1.31-1.39	1	311-00013906-000	N/A	12	25-32	33-35	1
1-1/4-1 1/2	1.61-1.92	1	311-00019206-000	311-00019208-000	12	40	41-48	1
2	2.38	2	311-00023806-000	311-00023808-000	12	50	60	1
2	2.35-2.56	2	311-00025606-000	311-00025608-000	12	50	60-65	1
2-1/4-2-1/2	2.44-2.91	2	311-00029106-000	311-00029108-000	8	57-65	62-73	1
3	2.97-3.54	2	311-00035406-000	311-00035408-000	12	80	76-89	1
4	4.40-4.50	3	311-00045006-000	311-00045008-000	12	80-100	112-114	1
4	4.40-4.80	3	311-00048006-000	311-00048008-000	12	103	112-122	1
4-5	4.74-5.63	3	311-00056306-000	311-00056308-000	10	100-125	120-143	2
5-6	5.94-6.70	4	311-00066306-000	311-00066308-000	8	125-150	151-170	2
5-6	5.94-6.90	4	311-00069006-000	311-00069008-000	8	125-150	151-175	2
6	6.84-7.60	5	311-00076006-000	311-00076008-000	10	150	174-193	2
6-8	7.69-8.72	5	311-00087206-000	311-00087208-000	10	150-200	195-221	2
6-8	7.69-9.05	5	311-00090506-000	311-00090508-000	10	150-200	195-230	2
8-10	8.54-10.10	5	311-00101006-000	311-00101008-000	10	200-250	217-256	2
10-12	10.64-12.12	5	311-00121206-000	311-00121208-000	6	250-300	271-307	3
12-14	12.62-14.32	7	311-00143206-000	311-00143208-000	6	300-350	321-363	3

1¼" and 1½" CC Taps

STANDARD			CATALOG NUMBER		CTN. QTY	METRIC		
NOM. SIZE INCHES	O.D. RANGE INCHES	WT. EACH LBS.	1-1/4" CC/32 MM	1 1/2" - 40MM		NOM. SIZE MM	O.D. RANGE MM	WT. EACH KG.
2 2-1/4-2-1/2	2.35-2.56 2.44-2.91	2 3	311-00025611-000 311-00029111-000	- 311-00029113-000	6 6	50 57-65	60-65 62-73	1 1
3	2.97-3.54	3	311-00035411-000	311-00035413-000	6	80	76-89	1
4 4	4.40-4.50 4.40-4.80	3 4	311-00045011-000 311-00048011-000	311-00045013-000 311-00048013-000	6 6	80-100 103	112-115 112-122	2 1
4-5 5-6 5-6	4.74-5.63 5.94-6.70 5.94-6.90	5 5 5	311-00056311-000 311-00066311-000 311-00069011-000	311-00056313-000 311-00066313-000 311-00069013-000	6 6 6	100-125 125-150 125-150	121-143 151-170 151-175	2 2 2
6 6-8 6-8	6.84-7.60 7.69-8.72 7.69-9.05	6 6 6	311-00076011-000 311-00087211-000 311-00090511-000	311-00076013-000 311-00087213-000 311-00090513-000	6 6 6	150 150-200 150-200	174-193 195-221 195-230	3 3 3
8-10	8.54-10.10	6	311-00101011-000	311-00101013-000	6	200-250	217-256	3
10-12	10.64-12.12	6	311-00121211-000	311-00121213-000	6	250-300	271-307	3
12-14	12.62-14.32	7	311-00143211-000	311-00143213-000	6	300-350	321-363	3

1¼", 1½" and 2" NPT Taps

STANDARD			CATALOG NUMBER			CTN. QTY	METRIC		
NOM. SIZE INCHES	O.D. RANGE INCHES	WT. EACH LBS.	1-1/4" NPT/32MM	1-1/2" NPT/40MM	2" NPT/50 MM		NOM. SIZE MM	O.D. RANGE MM	WT. EACH KG.
2 2-1/4-2-1/2	2.35-2.56 2.44-2.91	2 3	311-00025610-000 311-00029110-000	311-00025612-000 311-00029112-000	- -	6 6	50 57-65	60-65 62-73	1 1
3	2.97-3.54	3	311-00035410-000	311-00035412-000	-	6	80	76-89	1
4 4	4.40-4.50 4.40-4.80	4 4	311-00045010-000 311-00048010-000	311-00045012-000 311-00048012-000	311-00045014-000 311-00048014-000	6 6	80-100 103	112-114 112-122	2 2
4-5 5-6 5-6	4.74-5.63 5.94-6.70 5.94-6.90	5 5 5	311-00056310-000 311-00066310-000 311-00069010-000	311-00056312-000 311-00066312-000 311-00069012-000	311-00056314-000 311-00066314-000 311-00069014-000	6 6 6	100-125 125-150 125-150	121-143 151-175 151-175	2 2 2
6 6-8 6-8	6.84-7.60 7.69-8.72 7.69-9.05	6 6 6	311-00076010-000 311-00087210-000 311-00090510-000	311-00076012-000 311-00087212-000 311-00090512-000	311-00076014-000 311-00087214-000 311-00090514-000	6 6 6	150 150-200 150-200	174-193 195-221 195-230	3 3 3
8-10	8.54-10.10	6	311-00101010-000	311-00101012-000	311-00101014-000	6	200-250	217-256	3
10-12	10.64-12.12	6	311-00121210-000	311-00121212-000	311-00121214-000	6	250-300	271-307	3
12-14	12.62-14.32	7	311-00143210-000	311-00143212-000	311-00143214-000	6	300-350	321-363	3

BSP Thread Tap Codes

SIZE	CODE NUMBER	EXAMPLE
1/2"	59	3/4" BSP 311-00013950-000
3/4"	50	
1"	51	
1 1/4"	54	
1 1/2"	52	
2"	53	
2 1/2"	55	
3"	56	