

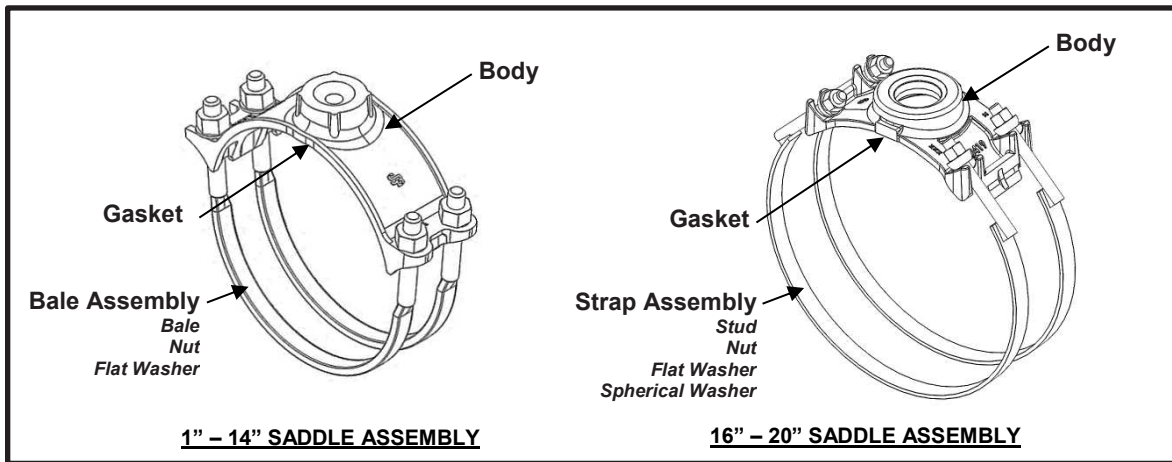


Smith-Blair  
a xylem brand

# SPECIFICATION

## SERVICE SADDLE DOUBLE BALE

### MODEL 314



#### APPLICATIONS

- **Typical Uses**
  - Tapping branch connections on new or existing pipe
  - Installing vacuum valves, pitot tubes, relief valves, or other miscellaneous service equipment
  - Installing pipe supports, hangers, or sign mounting brackets
- **Standard Pipe Size(s)**
  - 1.25" to 20" nominal
- **Standard Taps**
  - NPT: 3/4", 1", 1-1/4", 1-1/2", 2", 3" and 4"
  - *See Smith-Blair catalog for available pipe diameter and tap size combinations as some combinations are not available*
- **Type of Pipe**
  - Carbon Steel, Stainless Steel, Cast Iron
- **Working Pressure / Test Pressure**
  - 150 PSI / 300 PSI

#### MATERIALS

- **Body** (*Small (ST) and Large (LT) Tap sizes 1/2" – 2-1/2"*)
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat<sup>®</sup> fusion bonded epoxy finish
- **Body** (*Extra-Large (XLT) Tap sizes 3" and 4"*)
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat<sup>®</sup> fusion bonded epoxy finish
- **Gasket**
  - Nitrile (Buna-N) per ASTM D2000
  - Compounded to resist oil, natural gas, acids, alkalis, most (aliphatic) hydrocarbon fluids, and many other chemicals
  - Temperature range: -20°F to +180°F



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- **Bale Assembly** *(used only on 1.25" - ~14" nominal pipe size saddles with 1/2" thru 4" tap sizes)*
  - **Bale**
    - High Strength Low Alloy (HSLA) Steel
    - FE/Zn coated per ASTM F1941-10
    - Size: 1.25" - 3" nominal pipe size(s) = 1/2"-13UNC with rolled threads  
4" - 14" nominal pipe size(s) = 5/8"-11UNC with rolled threads  
Extra-Large (XLT) Taps > 14.73" O.D. = 5/8"-11UNC with rolled threads
  - **Nut**
    - Carbon Steel per ASTM A307
    - FE/Zn coated per ASTM F1941-10
    - Size: 1.25" - 3" nominal pipe size(s) = 1/2"-13UNC Heavy Hex Semi-Finished  
4" - 14" nominal pipe size(s) = 5/8"-11UNC Heavy Hex Semi-Finished  
Extra-Large (XLT) Taps > 14.73" O.D. = 5/8"-11UNC Heavy Hex Semi-Finished
  - **Flat Washer**
    - Carbon Steel per ASTM F844
    - FE/Zn coated per ASTM F1941-10
    - Size: 1.25" - 3" nominal pipe size(s) = 1/2" Type A Plain  
4" - 14" nominal pipe size(s) = 5/8" Type A Plain  
Extra-Large (XLT) Taps > 14.73" O.D. = 5/8" Type A Plain
- **Strap Assembly** *(used only on 16" - 18" nominal pipe size saddles with 1/2" thru 2-1/2" tap sizes)*
  - **Strap**
    - Carbon Steel per ASTM A36
    - Flexi-Coat® fusion bonded epoxy finish
    - Formed using 0.25" x 1.25" flat bar
  - **Stud**
    - HSLA Steel
    - Flexi-Coat® fusion bonded epoxy finish (threads free from epoxy coating)
    - 5/8"-11UNC, Stud welded to Strap; with rolled threads
  - **Welding**
    - Welds accomplished using qualified welders
    - GMAW weld process utilized
  - **Nut**
    - Carbon Steel per ASTM A307
    - 5/8"-11UNC Heavy Hex Semi-Finished
    - FE/Zn coated per ASTM F1941-10
  - **Flat Washer**
    - Carbon Steel per ASTM F844
    - 5/8" Type A Plain
    - FE/Zn coated per ASTM F1941-10
  - **Spherical Washer** *(used only on 16" - 20" nominal pipe size saddles)*
    - Cast using Ductile Iron 65-45-12 per ASTM A536
    - Flexi-Coat® fusion bonded epoxy finish



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## SERVICE SADDLE DOUBLE BALE

### MODEL 314

- **Strap Assembly** (*used only on 14" - 18" nominal pipe size saddles with 3" and 4" tap sizes*)
  - **Strap**
    - Carbon Steel per ASTM A36
    - Flexi-Coat® fusion bonded epoxy finish
    - Formed using 0.25" x 1.75" flat bar
  - **Stud**
    - HSLA Steel
    - Flexi-Coat® fusion bonded epoxy finish (threads free from epoxy coating)
    - 3/4"-10UNC, Stud welded to Strap; with rolled threads
  - **Welding**
    - Welds accomplished using qualified welders
    - GMAW weld process utilized
  - **Nut**
    - Carbon Steel per ASTM A307
    - 3/4"-10UNC Heavy Hex Semi-Finished
    - FE/Zn coated per ASTM F1941-10
  - **Flat Washer**
    - Carbon Steel per ASTM F844
    - 3/4" Type A Plain
    - FE/Zn coated per ASTM F1941-10
    - Utilized to preserve corrosion resistance of epoxy coated surfaces and increase bearing surface
  - **Spherical Washer**
    - Cast using Ductile Iron 65-45-12 per ASTM A536
    - Flexi-Coat® fusion bonded epoxy finish

#### OPTIONS

- Type 304 or 316 Stainless Steel bale assembly with fluoropolymer coated nuts (*spherical washers remain D.I. if applicable*)
- Type 304 or 316 Stainless Steel strap assembly with fluoropolymer coated nuts (*spherical washers remain D.I.*)
- Electro-galvanized strap assembly
- Alternative gasket material (e.g. Viton, EPDM, etc.)
- Anode connector

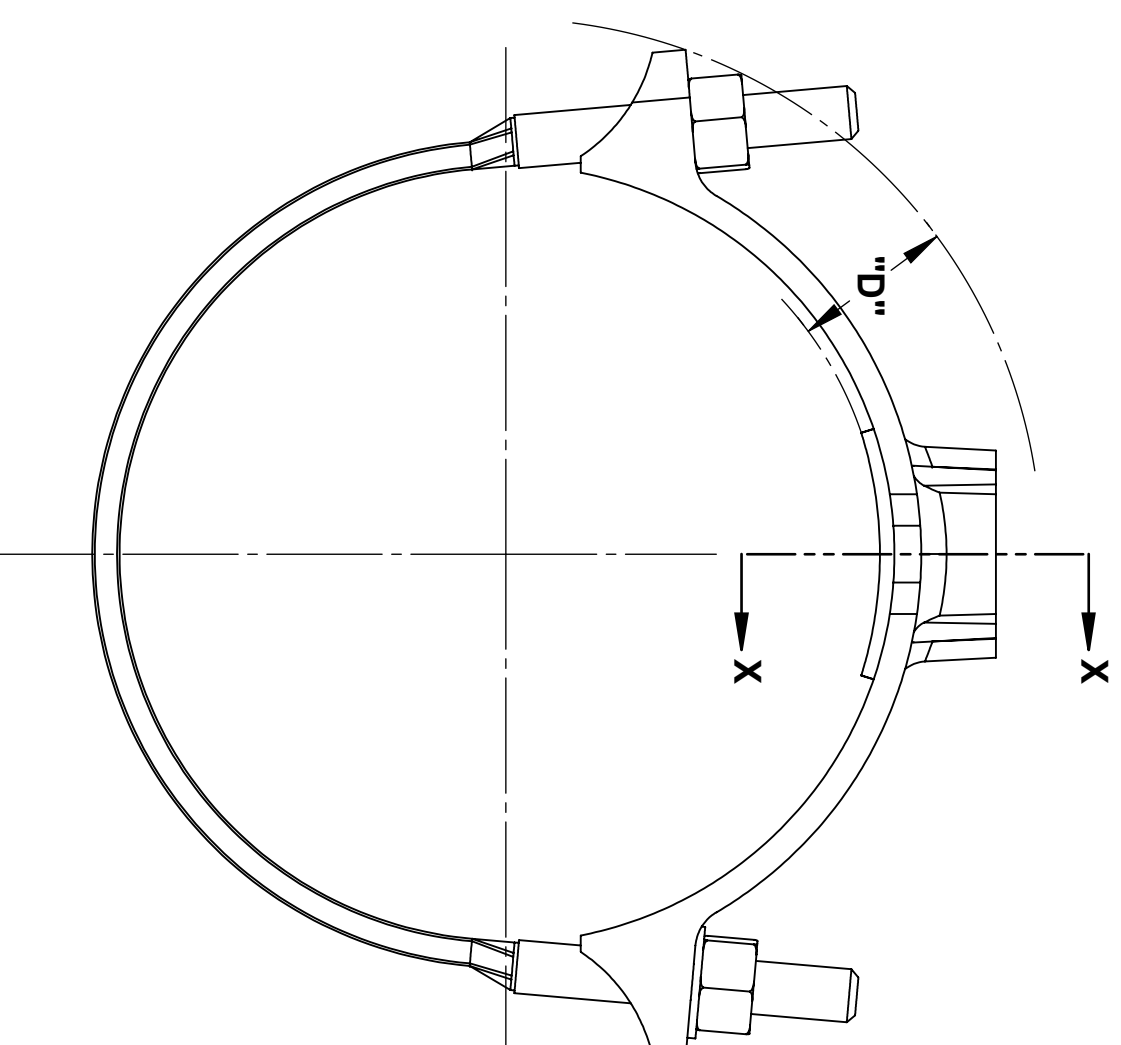
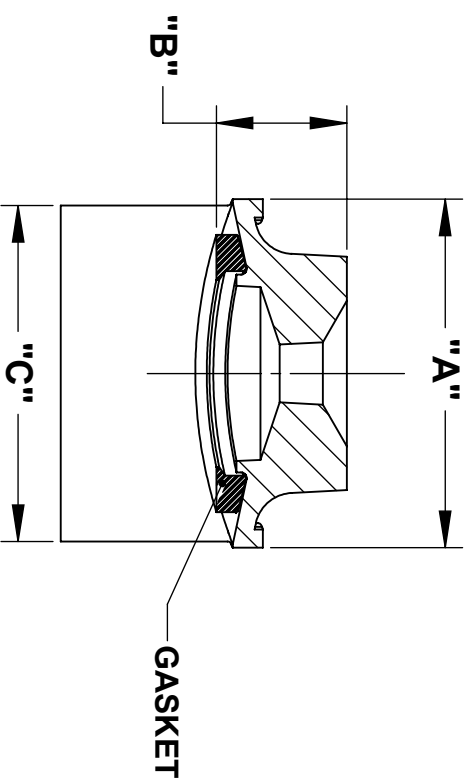
#### LISTINGS/STANDARDS

- Marked in accordance with DOT CFR 49-192.63(a)(2)

#### NOTES

- These product specifications were correct at the time of publication and are subject to change without notice
- Xylem, Smith-Blair, SB stylized, and Flexi-Coat are registered trademarks of Xylem, Inc., or one of its subsidiaries
- See the Smith-Blair website for part numbers and ordering information
- See the Smith-Blair website for warranty information
- See the Smith-Blair website for corrosion notice
- The working pressure of a Saddle decreases as pipe diameter increases (regardless of manufacturer). For a particular installation, the allowable working pressure will be determined by the **pipe size**, type of pipe, type of saddle, type and extent of damage, service conditions, environmental conditions, and installation workmanship

30 Globe Ave, Texarkana, AR 71854  
Ph: 870-773-5127 • Fax: 870-773-5212  
Toll-Free Numbers: Ph: 800-643-9705 • Fax: 800-648-6792



NOMINAL SIZE	APPROX. WT. (LB)	TAP CODE	A	B	C	D	SOCKET SIZE
1.25 - 2.50	3	ST	3.40	1.35	2.88	1.53	7/8"
	-	LT	-	-	-	-	
	4	ST	3.40	1.40	3.00	1.70	
3	5	LT	4.40	1.40	3.60	1.65	
	6	ST	3.70	1.40	3.50	1.60	
	6	LT	5.50	1.75	3.65	1.75	
4	6	ST	3.70	1.40	3.60	1.75	
	6	LT	5.50	1.75	3.65	1.75	
	9	LT	5.50	1.75	3.65	1.70	
5	7	ST	3.75	1.40	3.60	1.75	
	7	LT	5.50	1.75	3.65	1.78	
	13	XLT	6.05	1.93	4.20	1.83	
6	8	ST	3.75	1.40	3.60	1.87	1-1/16"
	11	LT	5.50	1.75	3.65	1.90	
	15	XLT	6.05	1.85	4.10	1.90	
8	10	ST	3.75	1.40	3.60	1.90	1-1/4"
	11	LT	5.50	1.75	3.60	1.90	
	14	XLT	7.20	2.00	4.20	1.85	
10	14	ST	3.75	1.45	3.60	2.00	1-1/4"
	15	LT	5.50	1.75	3.60	1.95	
	18	XLT	7.20	2.00	4.20	1.85	
12	18	ST	4.45	1.40	2.85	1.90	1-1/4"
	18	LT	4.45	1.40	3.60	1.90	
	28	XLT	7.20	2.00	4.20	1.85	
14	19	ST	4.45	1.80	5.00	2.15	1-1/16"
	19	LT	4.45	1.80	5.00	2.15	
	29	XLT	6.90	1.95	7.35	2.30	

- NOTES:**
- SEE SMITH-BLAIR CATALOG FOR AVAILABLE PIPE DIAMETER AND TAP SIZE COMBINATIONS AS SOME COMBINATIONS ARE NOT AVAILABLE
  - 9.05" SADDLE SHOWN OTHER SIZES SIMILAR
  - ABBREVIATIONS:  
ST = SMALL TAP SIZES 5/8" THRU 1-1/2"  
LT = LARGE TAP SIZES 2" THRU 2-1/2"  
XLT = EXTRA-LARGE TAP SIZES 3" AND 4"

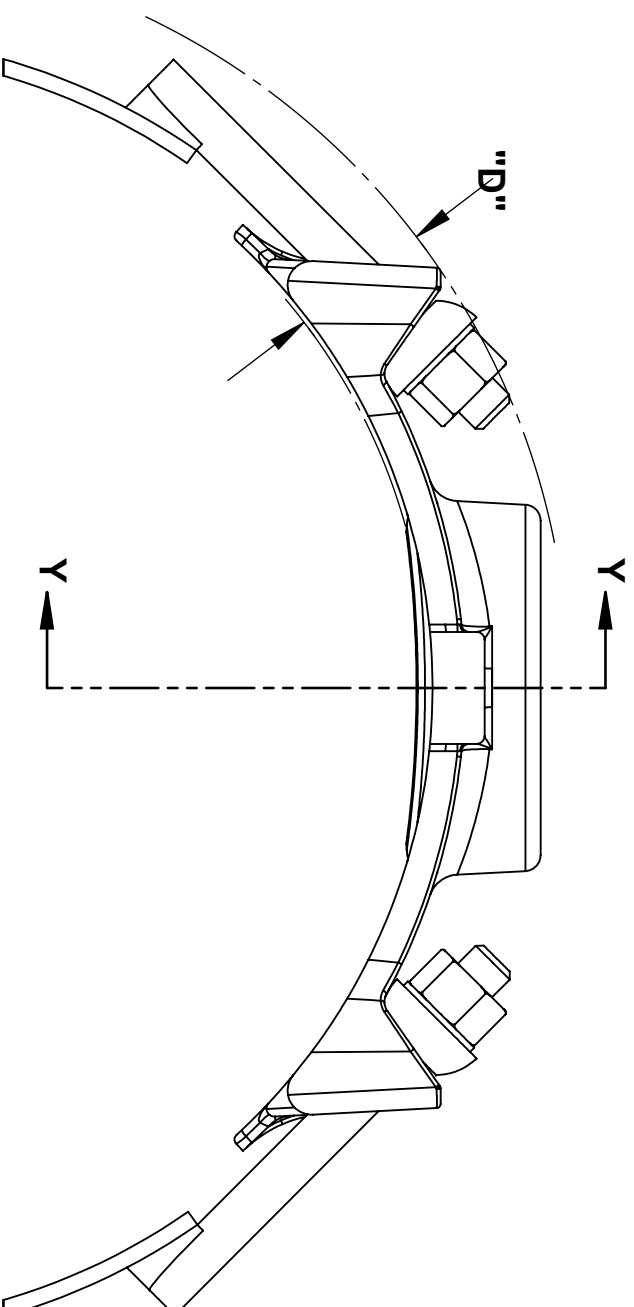
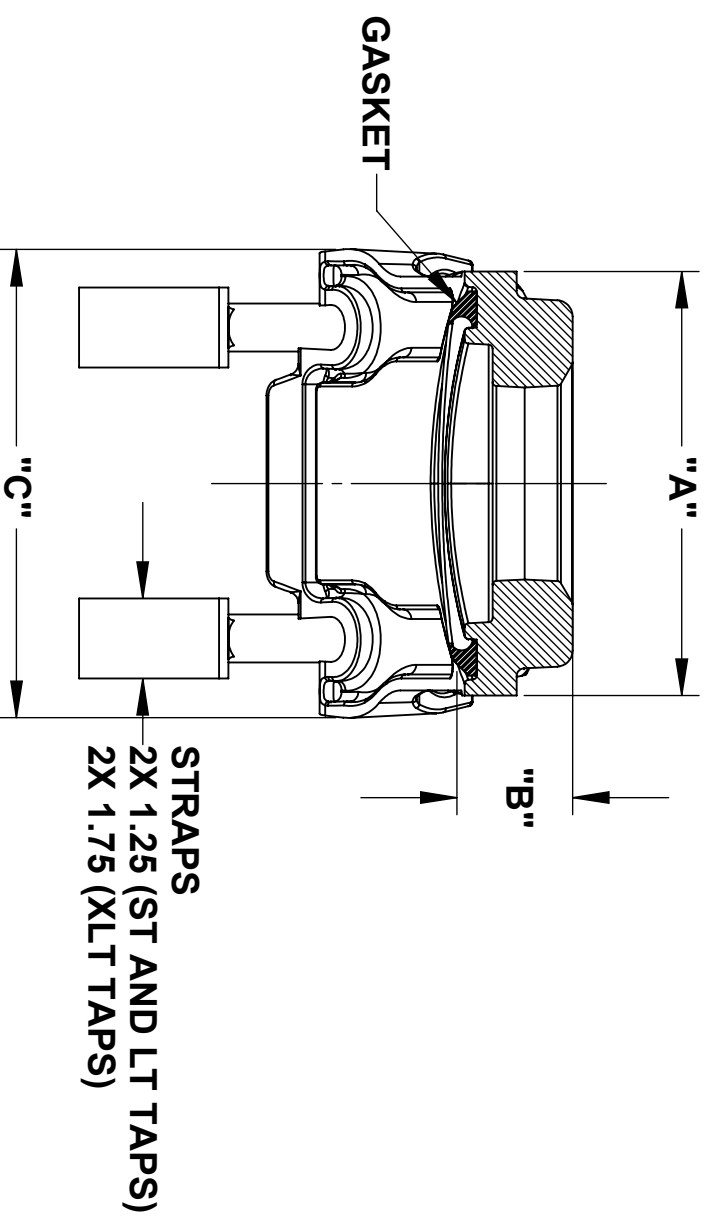
TOLERANCES U.N.O.		NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.		APP'D	DATE
XX = ±.03	XXX = ±.015	SCALE: N/A	SCALE: N/A	CKD	DATE
FRACTIONS =	MACH. FIN =			DRN	DATE
ALL DIMENSIONS ARE IN INCHES.				CHD	DATE
TITLE					
<b>SPECIFICATION</b>					
<b>SERVICE SADDLE DOUBLE BALE</b>					
<b>MODEL 314</b>					

**SMITH-BLAIR**  
TEXARKANA, ARKANSAS

P/N N/A  
**SPEC\_314.DRW**

DWG. NO.

4 OF 5 SHEET  
7/19/18 REV.



SECTION Y-Y

NOMINAL SIZE	APPROX. WT. (LB)	TAP CODE	A	B	C	D	SOCKET SIZE
18	20	ST	4.45	1.85	4.95	2.15	1-1/16"
	20	LT	6.90	1.85	7.25	2.15	1-1/16"
	30	XLT	3.90	1.85	7.25	2.15	1-1/4"
20	20	ST	4.45	1.85	5.00	2.30	1-1/16"
	20	LT	4.46	1.90	5.00	2.10	1-1/16"
	-	XLT	-	-	-	-	-

**NOTES:**

1. SEE SMITH-BLAIR CATALOG FOR AVAILABLE PIPE DIAMETER AND TAP SIZE COMBINATIONS AS SOME COMBINATIONS ARE NOT AVAILABLE
2. 19.50" XLT SADDLE SHOWN OTHER SIZES SIMILAR
3. ABBREVIATIONS:  
 ST = SMALL TAP SIZES 5/8" THRU 1-1/2"  
 LT = LARGE TAP SIZES 2" THRU 2-1/2"  
 XLT = EXTRA-LARGE TAP SIZES 3" AND 4"

TOLERANCES U.N.O.		NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.		APP'D	DATE
XX = ±.03	XXX = ±.015	SCALE: N/A		CK'D	DATE
FRACTIONS =	ANGLES = ±1°			DRN	DATE
MACH. FIN =	ALL DIMENSIONS ARE IN INCHES.			CHD	7/1/15

TITLE  
**SPECIFICATION**  
 SERVICE SADDLE DOUBLE BALE  
 MODEL 314

SMITH-BLAIR		P/N	N/A
TEXARKANA, ARKANSAS		DWG. NO.	5 OF 5
		REV.	7/19/18