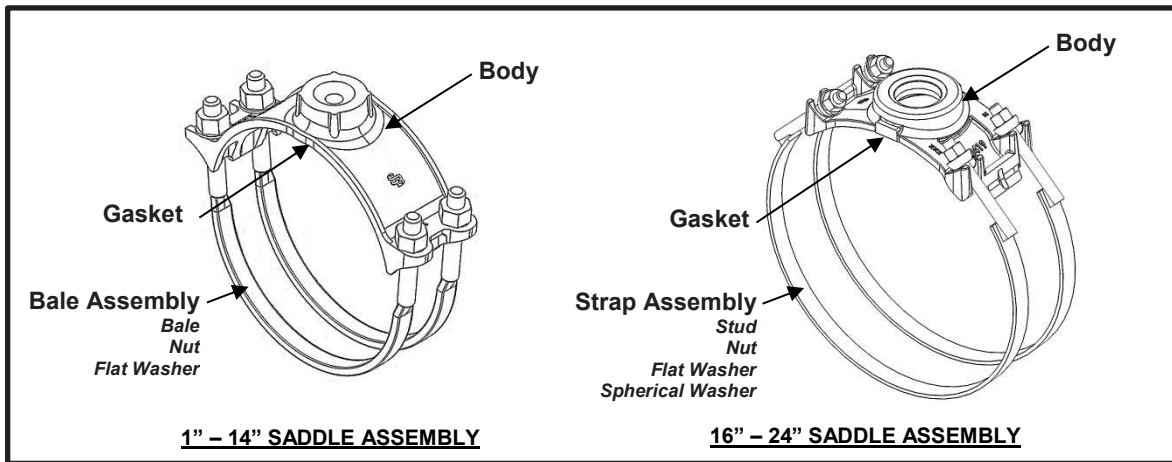


SPECIFICATION

SERVICE SADDLE DOUBLE BALE

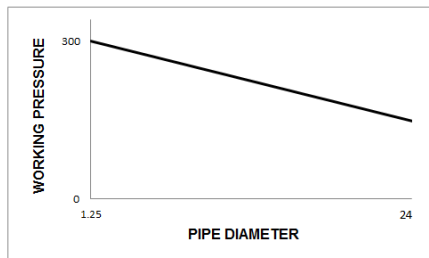
MODEL 313



APPLICATIONS

- **Typical Uses**
 - Tapping branch connections on new or existing pipe
 - Installing air/vacuum valves, pitot tubes, drain valves, or other miscellaneous service equipment
 - Installing pipe supports, hangers, or sign mounting brackets
- **Standard Pipe Sizes**
 - 1.25" to 24" nominal
- **Standard Taps**
 - NPT: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 3" and 4"
 - CC/AWWA: 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2" and 2"
 - BSP: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", and 3"

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, Ductile Iron, Asbestos Cement, Aluminum
- **Working Pressure**
 - Up to 300 psi depending on type of pipe, type of repair, pipe diameter, service conditions, and installation workmanship





SPECIFICATION

SERVICE SADDLE DOUBLE BALE

MODEL 313

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® fusion bonded epoxy finish which meets application methods AWWA C213
 - Closed ears holds nut and bale in place allowing the assembly to hinge for ease of installation around pipe
 - Open ears provide easy slip on installation and removal of nuts are not required preventing lost hardware
 - Canted ears for maximum tangential tightening of bale or strap
 - Wraparound design provides maximum pipe support, reinforcement, and sealing pressure
 - Wide skirt and heavy tapping boss provides excellent stability on the pipe
- **Body** (*Extra-Large (XLT) Tap sizes 3" and 4"*)
 - Cast using Ductile Iron 65-45-12 per ASTM A536
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
 - Open ears provide easy slip on installation and removal of nuts are not required preventing lost hardware
 - Canted ears for maximum tangential tightening of bale or strap
 - Wraparound design provides maximum pipe support, reinforcement, and sealing pressure
 - Wide skirt and heavy tapping boss provides excellent stability on the pipe
- **Gasket**
 - Nitrile (Buna-N) per ASTM D2000
 - Certified to NSF/ANSI 61-G& 372
 - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
 - Temperature range: -20°F to +180°F
 - TaperSeal™ hydro-mechanical lip enables the saddle to hold higher pressures with minimal nut torque
 - Gasket is fully cemented in a cavity to hold it in place
- **Bale Assembly** (*used only on 1.25" - ~14" nominal pipe size saddles with 1/2" thru 4" tap sizes*)
 - **Bale**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - Fe/Zn Coated per ASTM F1941-10
 - Size: 1.25" – 3" nominal pipe size = 1/2"-13UNC
4" – 14" nominal pipe size = 5/8"-11UNC
Extra-Large (XLT) Taps < 14.73" O.D. = 5/8"-11UNC
 - Pipe contact surface flattened to provide a wider bearing surface against pipe
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
 - **Nut**
 - Carbon Steel per ASTM A307
 - Fe/Zn Coated per ASTM F1941-10
 - Size: 1.25" – 3" nominal pipe size = 1/2"-13UNC Heavy Hex Semi-Finished
4" – 14" nominal pipe size = 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 = 1/2" Type A Plain
4" – 14" nominal pipe size = 5/8" Type A Plain
Extra-Large (XLT) Taps < 14.73" O.D. = 5/8" Type A Plain
 - Fe/Zn Coated per ASTM F1941-10



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Sudbury MA 01776



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SPECIFICATION

SERVICE SADDLE DOUBLE BALE

MODEL 313

- **Strap Assembly** *(used only on 16" - 24" 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 which meets application methods AWWA C213
 - Formed using 0.25" x 1.25" flat bar
 - Provides continuous circumferential support of the pipe for better performance in the tapped area (nearly 360°)
 - **Stud**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213 (threads free from epoxy coating)
 - 5/8"-11UNC, Stud welded to Strap
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
 - **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" - 24" nominal pipe size saddles)*
 - Cast using Ductile Iron 65-45-12 per ASTM A536
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
 - Provide full bearing for the strap nuts and align the straps with the saddle body
 - Distributes load for better performance



SPECIFICATION

SERVICE SADDLE DOUBLE BALE

MODEL 313

- **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 which meets application methods AWWA C213
 - Formed using 0.25" x 1.75" flat bar
 - Provides continuous circumferential support of the pipe for better performance in the tapped area (nearly 360°)
 - **Stud**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213 (threads free from epoxy coating)
 - 3/4"-10UNC, Stud welded to Strap
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
 - **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
 - **Spherical Washer**
 - Cast using Ductile Iron 65-45-12 per ASTM A536
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
 - Provide full bearing for the strap nuts and align the straps with the saddle body
 - Distributes load for better performance

LISTINGS

- Certified to NSF/ANSI 61-G & 372
- Meets applicable AWWA C800 standards

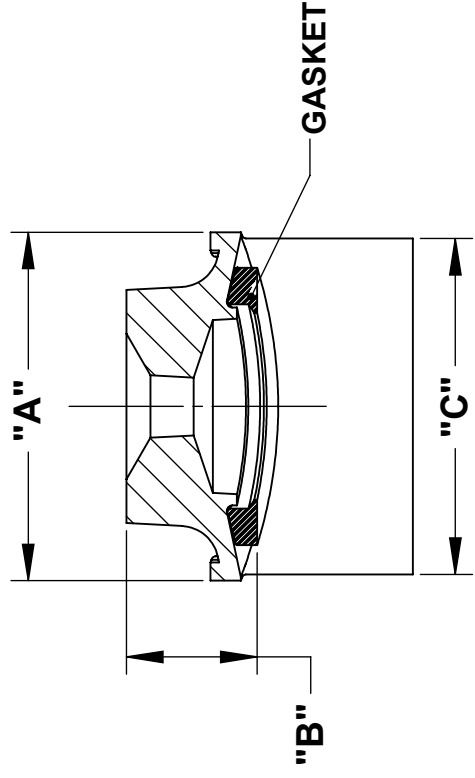
OPTIONS

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

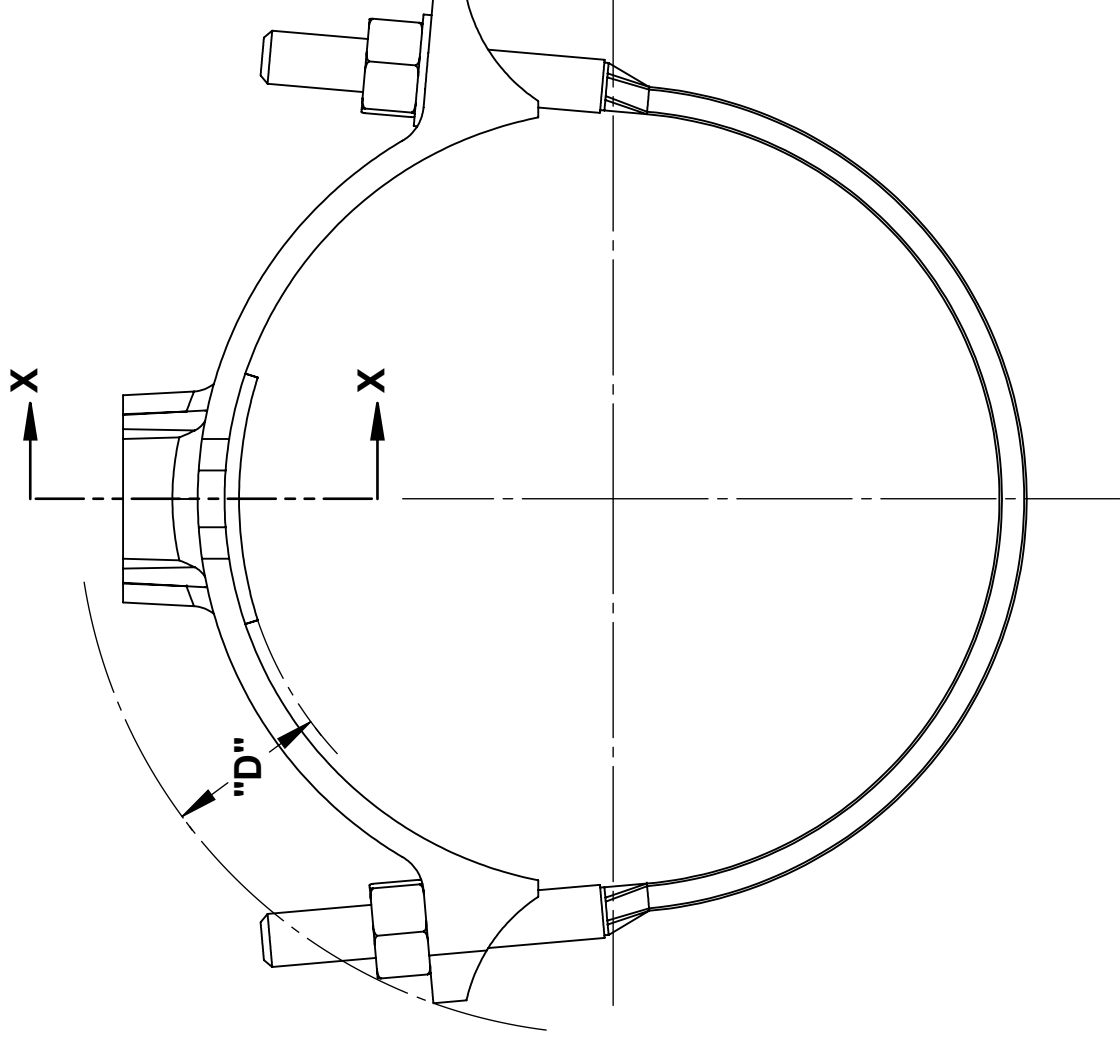
NOTES

- These product specifications were correct at the time of publication and are subject to change without notice
- Flexi-Coat® is a registered trademark of Smith-Blair, Inc.
- Taperseal™ is a trademark of Smith-Blair, Inc.
- See the Smith-Blair® web site for part numbers and ordering information
- See the Smith-Blair® web site for warranty information
- See the Smith-Blair® web site for corrosion warnings

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SECTION X-X



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	-	-	-	-	
3	4	ST	3.40	1.40	3.00	1.70	7/8"
	5	LT	4.40	1.40	3.60	1.65	
4	6	ST	3.70	1.40	3.50	1.60	1-1/16"
	6	LT	5.50	1.75	3.65	1.75	
5	6	ST	3.70	1.40	3.60	1.75	1-1/16"
	9	LT	5.50	1.75	3.65	1.70	
6	7	ST	3.75	1.40	3.60	1.75	1-1/16"
	7	LT	5.50	1.75	3.65	1.78	
8	13	XLT	6.05	1.93	4.20	1.83	1-1/16"
	8	ST	3.75	1.40	3.60	1.87	
10	11	LT	5.50	1.75	3.65	1.90	1-1/16"
	15	XLT	6.05	1.85	4.10	1.90	
12	10	ST	3.75	1.40	3.60	1.90	1-1/16"
	11	LT	5.50	1.75	3.60	1.90	
14	14	XLT	7.20	2.00	4.20	1.85	1-1/4"
	14	ST	3.75	1.45	3.60	2.00	
15-16	15	LT	5.50	1.75	3.60	1.95	1-1/4"
	18	XLT	7.20	2.00	4.20	1.85	
14	18	ST	4.45	1.40	2.85	1.90	1-1/4"
	18	LT	4.45	1.40	3.60	1.90	
15-16	28	XLT	7.20	2.00	4.20	1.85	1-1/4"
	19	ST	4.45	1.80	5.00	2.15	
15-16	19	LT	4.45	1.80	5.00	2.15	1-1/4"
	29	XLT	6.90	1.95	7.35	2.30	

NOTES:

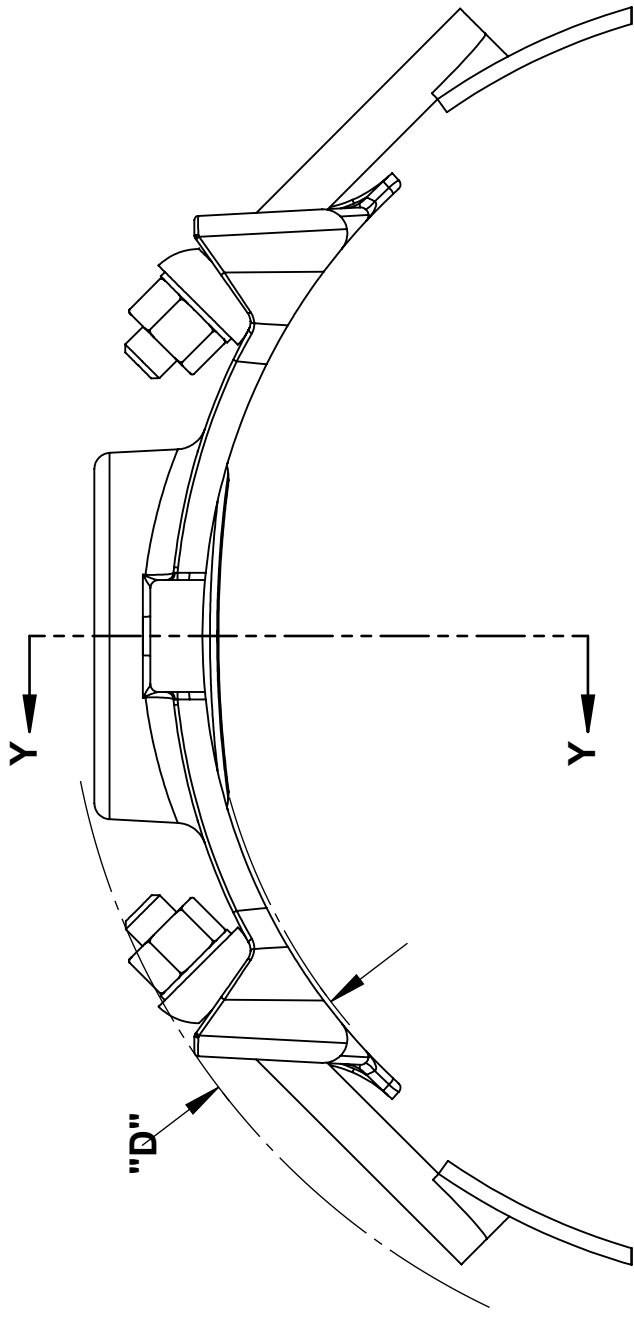
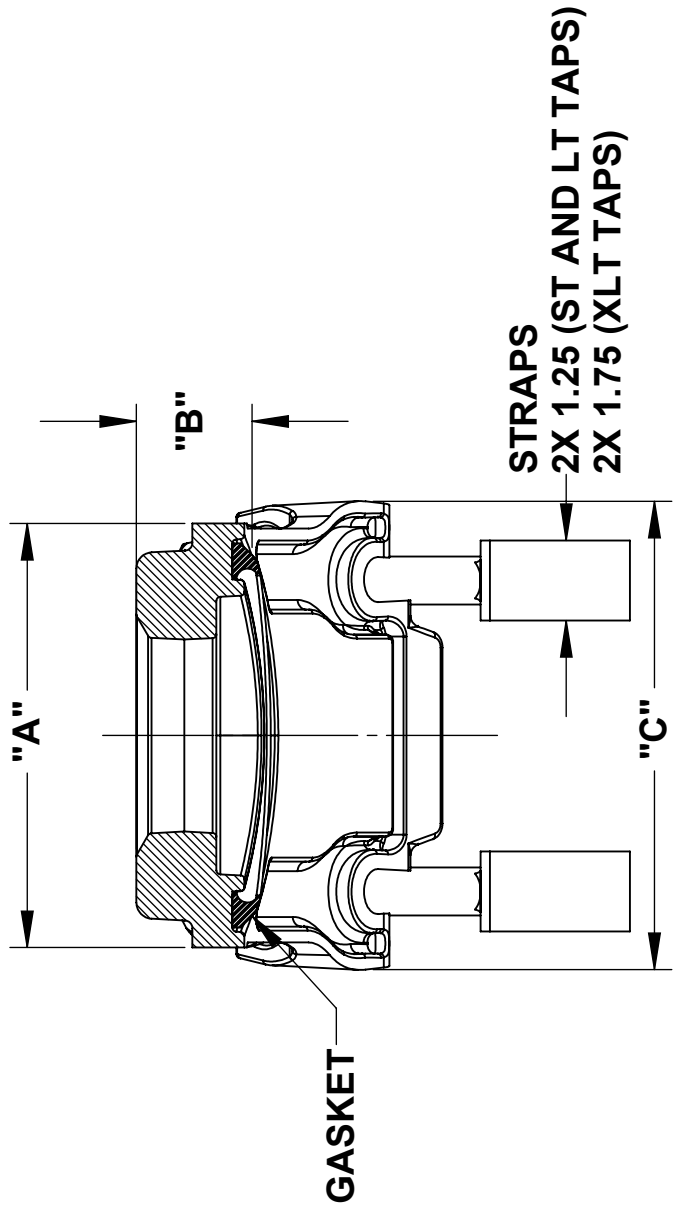
- SEE SMITH-BLAIR CATALOG FOR AVAILABLE PIPE DIAMETER AND TAP SIZE COMBINATIONS AS SOME COMBINATIONS ARE NOT AVAILABLE
- 9.05" SADDLE SHOWN OTHER SIZES SIMILAR
- ABBREVIATIONS:
ST = SMALL TAP SIZES 1/2" THRU 1-1/2"
LT = LARGE TAP SIZES 1-1/2" THRU 2-1/2"
XLT = EXTRA-LARGE TAP SIZES 3" AND 4"

CERTIFIED TO NSF/ANSI 61-G & 372

TOLERANCES U.N.O. XX= ±.03 XXX= ±.015 FRACTIONS=1/16 ANGLES=1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.	APP'D	DATE
SCALE: N/A	DRN	CK'D	DATE
ALL DIMENSIONS ARE IN INCHES.	CHD		DATE

TITLE
SPECIFICATION
SERVICE SADDLE DOUBLE BALE
MODEL 313

SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS	P/N N/A	1 OF 2 SHEET
SPEC_313.DRW	DWG. NO.	3/8/16 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	
	30	XLT	3.90	1.85	7.25	2.15	
20	20	ST	4.45	1.85	5.00	2.30	1-1/16"
	20	LT	4.46	1.90	5.00	2.10	
	-	XLT	-	-	-	-	
24	20	ST	4.45	1.85	5.00	2.30	1-1/16"
	20	LT	4.45	1.85	5.00	2.30	
	-	XLT	-	-	-	-	

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

CERTIFIED TO NSF/ANSI 61-G & 372

TOLERANCES U.N.O. XX= ±.03 XXX= ±.015 FRACTIONS= 1/16 ANGLES= ±1° MACH. FIN=	APP'D	DATE
	CK'D	DATE
	DRN	CHD
NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG. SCALE: N/A		
ALL DIMENSIONS ARE IN INCHES.		
TITLE SPECIFICATION SERVICE SADDLE DOUBLE BALE MODEL 313		
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS		P/N N/A DWG. NO. SPEC_313.DRW
		2 OF 2 SHEET 3/8/16 REV.