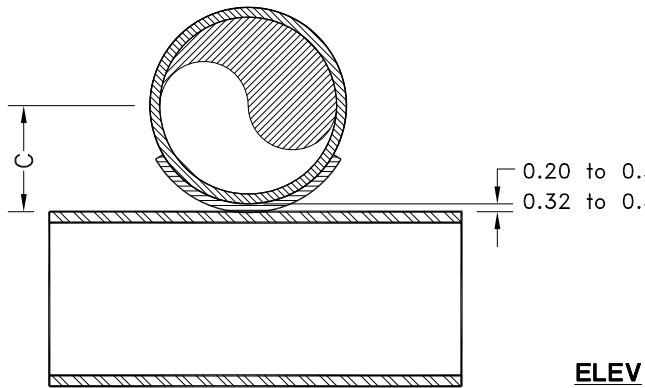
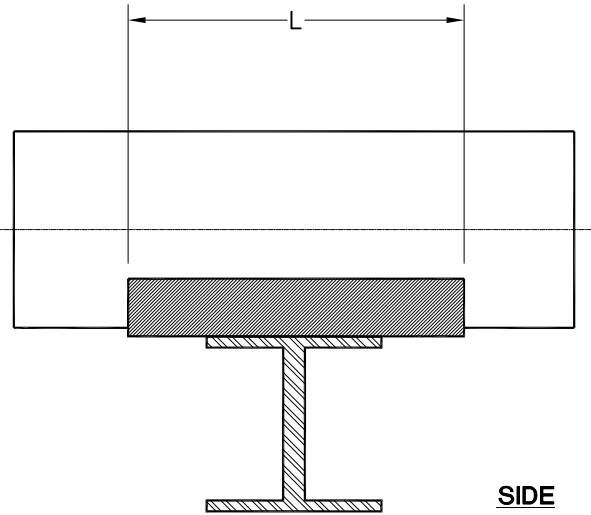


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0.20 to 0.32" (5 to 8mm) up to 24"∅  
 0.32 to 0.42" (8 to 10.5mm) 26" to 60"∅

Nominal Pipe Size	Nominal O.D.		C		L		Minimum L		Weight (lb/kg)
SERIES 110FW									
1"	1.50"	38mm	0.91"	23mm	6"	152mm	4"	102mm	0.4 0.2
1.5"	2.00"	51mm	1.16"	29mm	6"	152mm	4"	102mm	0.5 0.2
2"	2.50"	64mm	1.41"	36mm	6"	152mm	4"	102mm	0.7 0.3
3"	3.50"	89mm	1.91"	49mm	6"	152mm	4"	102mm	1.0 0.5
4"	4.50"	114mm	2.41"	61mm	6"	152mm	4"	102mm	1.3 0.6
6"	6.63"	168mm	3.47"	88mm	8"	203mm	4"	102mm	2.6 1.2
8"	8.75"	222mm	4.54"	115mm	10"	254mm	4"	102mm	4.2 1.9
10"	10.88"	276mm	5.60"	142mm	12"	305mm	4"	102mm	6.3 2.9
12"	13.00"	330mm	6.66"	169mm	12"	305mm	4"	102mm	7.5 3.4
14"	15.38"	391mm	7.95"	202mm	12"	305mm	4"	102mm	8.9 4.0
16"	17.50"	445mm	9.01"	229mm	12"	305mm	4"	102mm	10.1 4.6
18"	19.63"	498mm	10.07"	256mm	16"	406mm	6"	152mm	15.1 6.9
20"	21.75"	552mm	11.14"	283mm	16"	406mm	6"	152mm	16.7 7.6
24"	26.00"	660mm	13.26"	337mm	16"	406mm	6"	152mm	20.0 9.1
30"	31.75"	806mm	16.25"	413mm	20"	508mm	8"	203mm	46.9 21.3
36"	38.00"	965mm	19.37"	492mm	20"	508mm	8"	203mm	56.1 25.5
42"	43.38"	1102mm	22.06"	560mm	24"	610mm	10"	254mm	78.3 35.6
48"	49.50"	1257mm	25.12"	638mm	24"	610mm	10"	254mm	89.4 40.6
54"									
60"	61.75"	1568mm	31.25"	794mm	24"	610mm	10"	254mm	111.4 50.6

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<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D102904</b>	
<b>CH'KD:</b>	KGS	<b>D102904</b>	
		<b>DRAWING:</b>	FIG210-110FW
		<b>FILENAME:</b>	FIG210-110FW

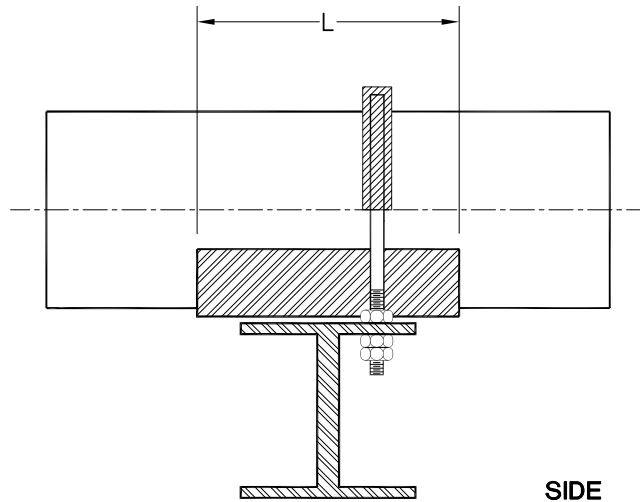
<b>SUPPORT TYPE:</b>	FRP WEAR PAD
<b>SUPPORT GROUP:</b>	ONEWAY SUPPORT
<b>FIGURE NUMBER:</b>	FIGURE 210 - 110FW

REV  
2

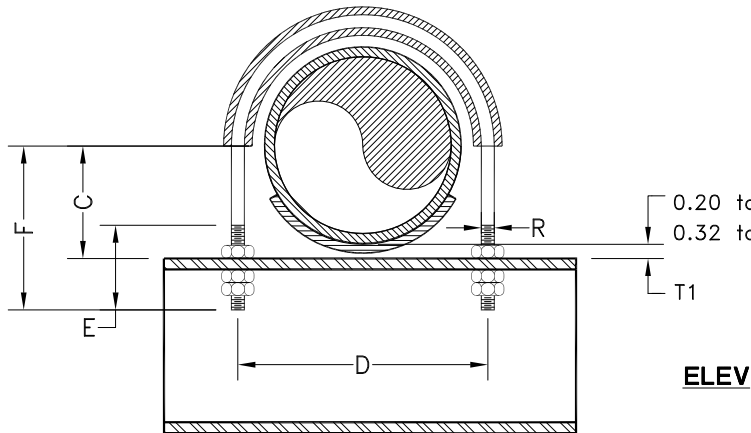
- NOTE 5.  $C = 0.5 * \text{Nominal O.D.} + T1$ .  
 NOTE 4. T1 dimension is from T.O.S. to B.O.P.  
 NOTE 3. Wear pad to be centered on structural support.  
 NOTE 2. Wear pad to have minimum 120 degrees of contact (max. 180 degrees).  
 NOTE 1. Wear pad to be of the same material as the pipe.

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**SIDE**



**ELEV**

Nominal Pipe Size	L		R	D +/- 0.12"		E		F	
SERIES 20HV, 20FR-E, 20FR16, 20FR20, 20JF, 110FW, 20C, 20HV-D									
SERIES 20HV-C, 20FR-EC, 20FR16-C, 20FR20-C, 20JF-C, 20HV(FDA)									
1"	6"	152mm	3/8"	2.75"	70mm	3.00"	76mm	2.75"	70mm
1.5"	6"	152mm	3/8"	3.25"	83mm	3.00"	76mm	3.00"	76mm
2"	6"	152mm	3/8"	3.75"	95mm	3.00"	76mm	3.25"	83mm
3"	6"	152mm	1/2"	4.88"	124mm	3.50"	89mm	4.13"	105mm
4"	6"	152mm	1/2"	5.88"	149mm	3.50"	89mm	4.63"	118mm
6"	8"	203mm	5/8"	8.13"	206mm	4.00"	102mm	6.06"	154mm
8"	10"	254mm	5/8"	10.25"	260mm	4.00"	102mm	7.13"	181mm
10"	12"	305mm	3/4"	12.50"	317mm	4.50"	114mm	8.56"	217mm
12"	12"	305mm	7/8"	14.75"	375mm	5.00"	127mm	10.00"	254mm
14"	12"	305mm	7/8"	16.95"	430mm	5.00"	127mm	11.23"	285mm
16"	12"	305mm	7/8"	19.11"	485mm	5.00"	127mm	12.31"	313mm
18"	16"	356mm	1"	21.42"	544mm	5.50"	140mm	13.77"	350mm
20"	16"	356mm	1"	23.38"	594mm	5.50"	140mm	14.75"	375mm
24"	16"	356mm	1"	27.68"	703mm	5.50"	140mm	16.90"	429mm
30"	20"	508mm	1"	33.78"	858mm	5.50"	140mm	19.72"	501mm
36"	20"	508mm	1"	40.06"	1018mm	5.50"	140mm	22.86"	581mm
42"									
48"									

0.20 to 0.32" (5 to 8mm) up to 24"ø  
0.32 to 0.42" (8 to 10.5mm) 26" to 60"ø

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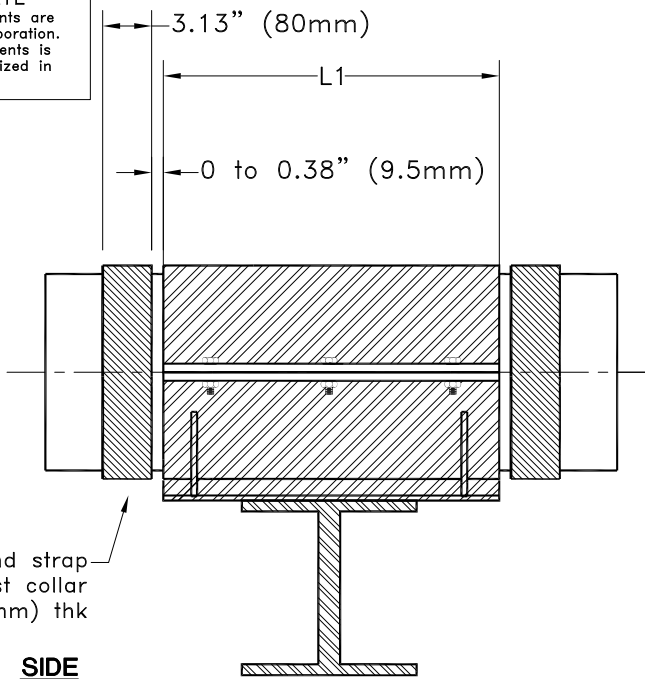
Baton Rouge, LA, U.S.A.

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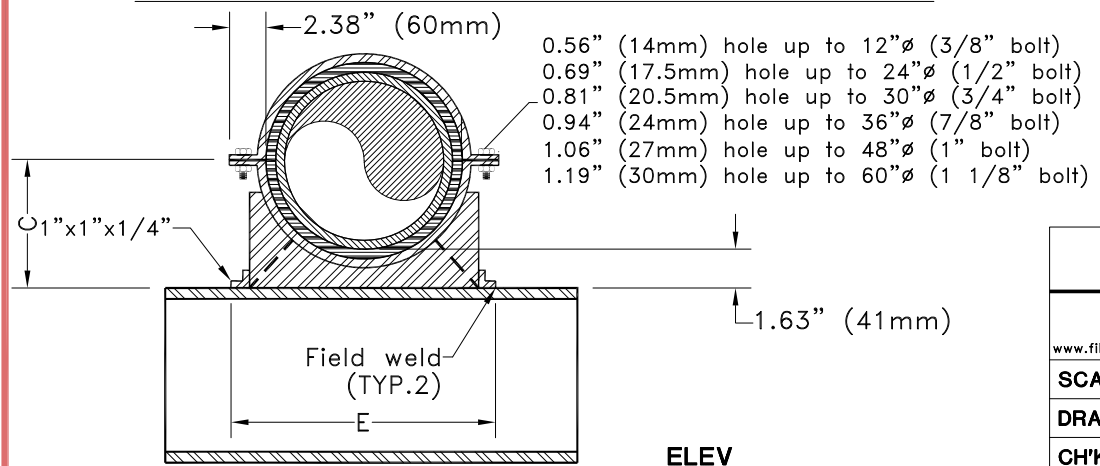
<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D072098</b>	
<b>CH'KD:</b>	KGS	<b>D072098</b>	
		<b>DRAWING:</b>	FIGURE 226
		<b>FILENAME:</b>	FIG226
<b>SUPPORT TYPE:</b>	FRP WEAR PAD W/ RUBBER COATED U-BOLT		
<b>SUPPORT GROUP:</b>	GUIDE		
<b>FIGURE NUMBER:</b>	FIGURE 226		
		<b>REV</b>	<b>10</b>

- NOTE 11. An "extra-long" L dimension of 14" (356mm) may be used up to 16"ø.  
 NOTE 10. Minimum L dimensions per Fig.210 may also be used.  
 NOTE 9.  $F = C + 1/2in. + 3 * R$  (or use values in table).  
 NOTE 8.  $E = 4 * R + 1 1/2in.$   
 NOTE 7.  $C = 0.5 * Avg O.D. + T1$  (See Fig.210 for C dimensions).  
 NOTE 6.  $D = Pipe O.D. + 2 * T1 + R + 1/4in.$  (or use values in table).  
 NOTE 5. T1 dimension is from T.O.S. to B.O.P.  
 NOTE 4. The u-bolt shall not "anchor" the pipe.  
 NOTE 3. Wear pad to be centered on structural support.  
 NOTE 2. Wear pad to have minimum 120 degrees of contact (max. 180 degrees).  
 NOTE 1. Saddle to be of the same material as the pipe.

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**SIDE**



**ELEV**

Nominal Pipe Size	Nominal O.D.		L1		C		E	
SERIES 110FW								
6"	6.63"	168mm	8"	203mm	4.95"	126mm	12.00"	305mm
8"	8.75"	222mm	10"	254mm	6.00"	152mm	14.00"	356mm
10"	10.88"	276mm	12"	305mm	7.07"	180mm	16.00"	406mm
12"	13.00"	330mm	12"	305mm	8.13"	207mm	18.00"	458mm
14"	15.38"	391mm	12"	305mm	9.32"	237mm	20.25"	514mm
16"	17.50"	445mm	12"	305mm	10.38"	264mm	22.25"	565mm
18"	19.63"	498mm	16"	406mm	11.44"	291mm	24.50"	622mm
20"	21.75"	552mm	16"	406mm	12.50"	317mm	26.50"	673mm
24"	26.00"	660mm	16"	406mm	14.63"	372mm	30.75"	781mm
30"	31.75"	806mm	20"	508mm	17.50"	444mm	37.25"	946mm
36"	38.00"	965mm	20"	508mm	20.63"	524mm	43.50"	1105mm
42"	43.38"	1102mm	24"	610mm	23.32"	592mm	49.50"	1257mm
48"	49.50"	1257mm	24"	610mm	26.38"	670mm	56.00"	1422mm
54"								
60"	61.75"	1568mm	24"	610mm	32.50"	825mm	68.00"	1727mm

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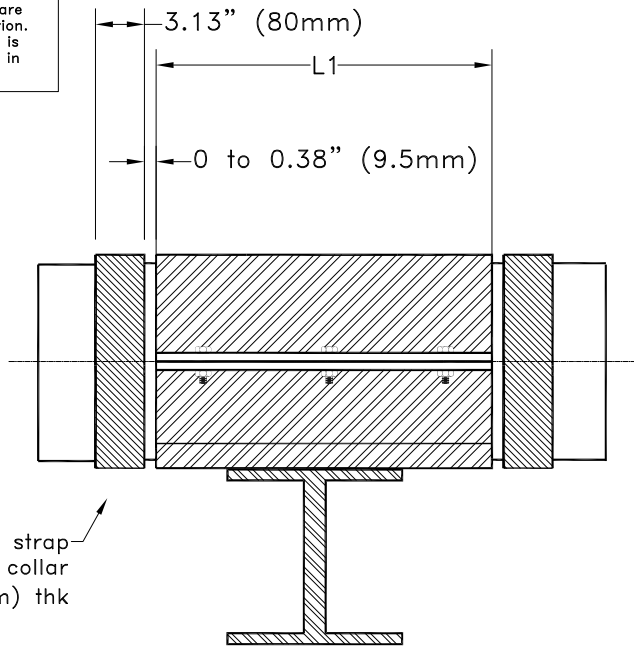
www.fiberbond.com

<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D102904</b>	
<b>CH'KD:</b>	KGS	<b>D102904</b>	
		<b>DRAWING:</b>	FIG230 - 110FW
		<b>FILENAME:</b>	FIG230 - 110FW
<b>SUPPORT TYPE:</b>	STEEL ANCHOR W/ FRP THRUST COLLARS		
<b>SUPPORT GROUP:</b>	ANCHOR		
<b>FIGURE NUMBER:</b>	FIGURE 230 - 110FW		

**REV**  
1

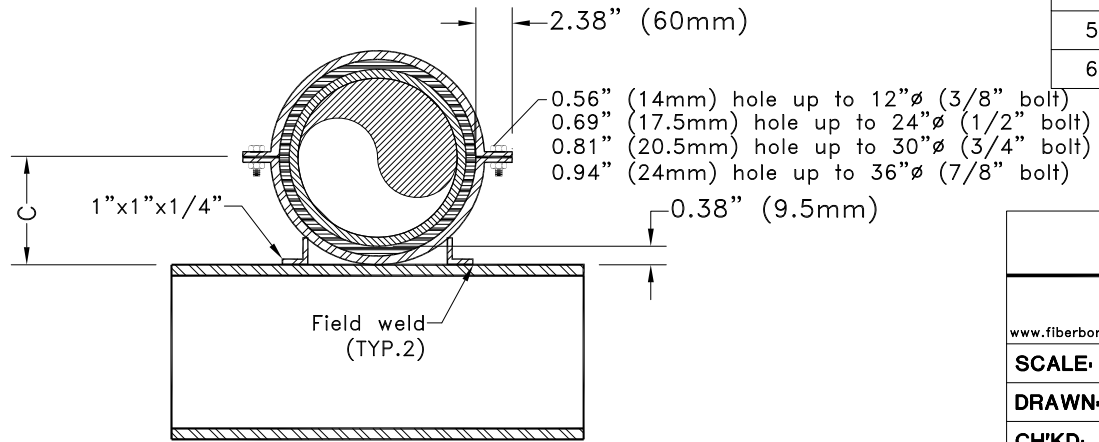
- NOTE 5. Average O.D. is typically 0.03" to 0.10" larger than the nominal O.D.
- NOTE 4. C = 0.5 \* Nominal O.D. + 1.63in.
- NOTE 3. Steel saddle includes 1/8in. thick neoprene liner.
- NOTE 2. 1.63in. (41mm) dimension is from T.O.S to B.O.P.
- NOTE 1. Thrust collar may need to be larger depending upon design conditions.

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Butt and strap thrust collar  
 0.50" (12.5mm) thk

**SIDE**



**ELEV**

- NOTE 5. Average O.D. is typically 0.03" to 0.10" larger than the nominal O.D.
- NOTE 4. C = 0.5 \* Nominal O.D. + 0.38in.
- NOTE 3. Steel saddle includes 1/8in. thick neoprene liner.
- NOTE 2. 0.38in. (9.5mm) dimension is from T.O.S. to B.O.P.
- NOTE 1. Thrust collar may need to be larger depending upon design conditions.

Nominal Pipe Size	Nominal O.D.		L1		C	
SERIES 110FW						
2"	2.50"	64mm	6"	152mm	1.63"	41mm
3"	3.50"	89mm	6"	152mm	2.13"	54mm
4"	4.50"	114mm	6"	152mm	2.63"	67mm
6"	6.63"	168mm	8"	203mm	3.70"	94mm
8"	8.75"	222mm	10"	254mm	4.76"	121mm
10"	10.88"	276mm	12"	305mm	5.82"	148mm
12"	13.00"	330mm	12"	305mm	6.88"	175mm
14"	15.38"	391mm	12"	305mm	8.07"	205mm
16"	17.50"	445mm	12"	305mm	9.13"	232mm
18"	19.63"	498mm	16"	406mm	10.19"	259mm
20"	21.75"	552mm	16"	406mm	11.25"	286mm
24"	26.00"	660mm	16"	406mm	13.38"	340mm
30"	31.75"	806mm	20"	508mm	16.25"	413mm
36"	38.00"	965mm	20"	508mm	19.38"	492mm
42"	43.38"	1102mm				
48"	49.50"	1257mm				
54"						
60"	61.75"	1568mm				

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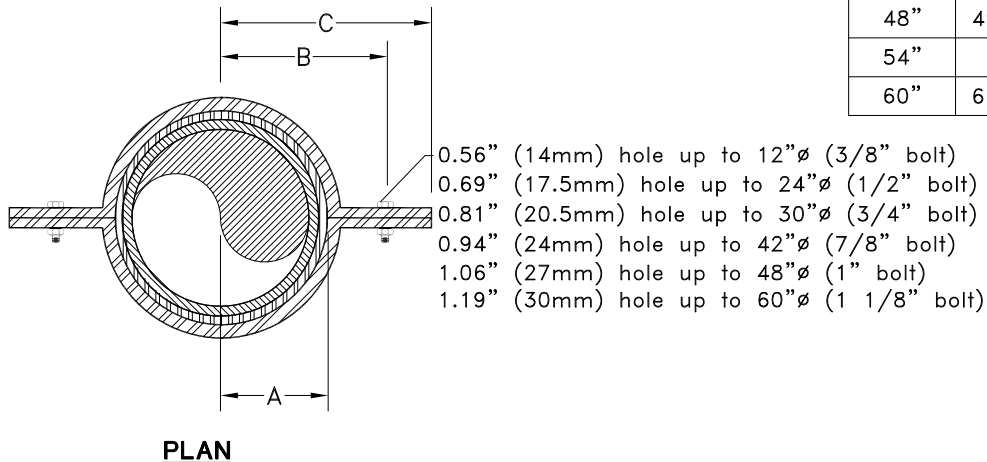
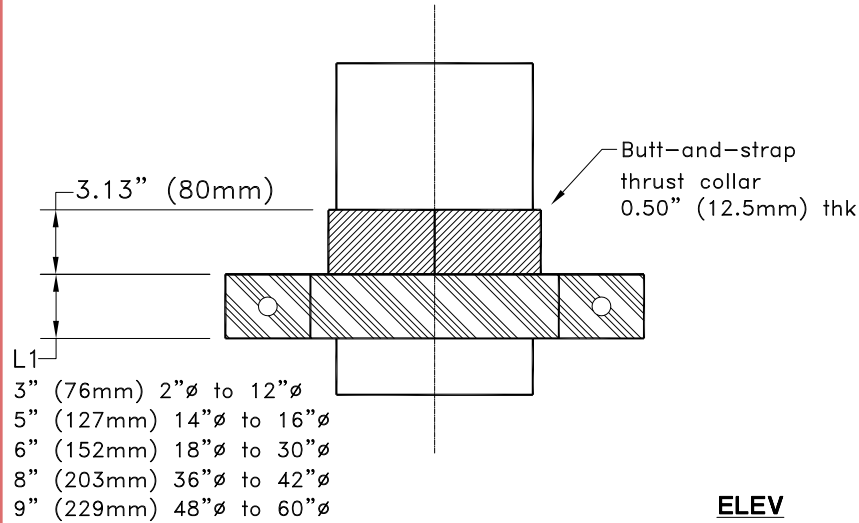
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<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D102904</b>	
<b>CH'KD:</b>	KGS	<b>D102904</b>	
		<b>DRAWING:</b>	FIG232 - 110FW
		<b>FILENAME:</b>	FIG232 - 110FW
<b>SUPPORT TYPE:</b>	SMALL STEEL SHOE W/ THRUST COLLARS		
<b>SUPPORT GROUP:</b>	ANCHOR		
<b>FIGURE NUMBER:</b>	FIGURE 232 - 110FW		

<b>REV</b>	<b>1</b>
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- NOTE 5. 'A' dimension is from pipe centerline to neoprene/steel interface.  
 NOTE 4.  $A = 0.5 * \text{Nominal O.D.} + 0.13\text{in.}$   
 NOTE 3.  $B = 0.5 * \text{Nominal O.D.} + 1.75\text{in.}; C = B + 1.25\text{in.}$   
 NOTE 2. Steel saddle includes 1/8in. thick neoprene liner.  
 NOTE 1. A separate bonded collar (two halves) may also be used.

Nominal Pipe Size	Nominal O.D.		A		B		C	
SERIES 110FW								
2"	2.50"	64mm	1.38"	35mm	3.00"	76mm	4.25"	108mm
3"	3.50"	89mm	1.88"	48mm	3.50"	89mm	4.75"	121mm
4"	4.50"	114mm	2.38"	60mm	4.00"	102mm	5.25"	133mm
6"	6.63"	168mm	3.44"	88mm	5.06"	128mm	6.31"	160mm
8"	8.75"	222mm	4.50"	114mm	6.12"	155mm	7.37"	187mm
10"	10.88"	276mm	5.57"	141mm	7.19"	183mm	8.44"	214mm
12"	13.00"	330mm	6.63"	168mm	8.25"	209mm	9.50"	241mm
14"	15.38"	391mm	7.82"	199mm	9.44"	240mm	10.69"	271mm
16"	17.50"	445mm	8.88"	252mm	10.50"	267mm	11.75"	298mm
18"	19.63"	498mm	9.94"	252mm	11.56"	294mm	12.81"	325mm
20"	21.75"	552mm	11.00"	279mm	12.62"	320mm	13.87"	352mm
24"	26.00"	660mm	13.13"	333mm	14.75"	375mm	16.00"	406mm
30"	31.75"	806mm	16.00"	406mm	17.63"	448mm	18.88"	479mm
36"	38.00"	965mm	19.13"	486mm	20.75"	527mm	22.00"	559mm
42"	43.38"	1102mm	21.82"	554mm	23.44"	595mm	24.69"	627mm
48"	49.50"	1257mm	24.88"	632mm	26.50"	673mm	27.75"	705mm
54"								
60"	61.75"	1568mm	31.00"	787mm	32.62"	829mm	33.87"	860mm

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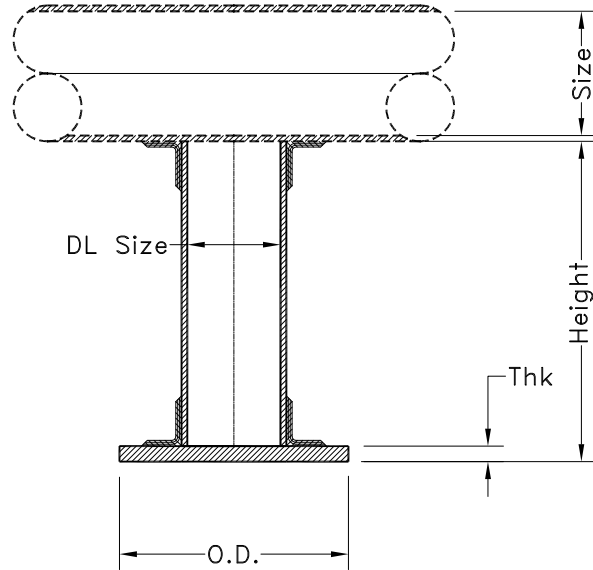
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<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D061095</b>	
<b>CH'KD:</b>	KGS	<b>C061195</b>	
		<b>DRAWING:</b>	FIG240-110FW
		<b>FILENAME:</b>	FIG240-110FW
<b>SUPPORT TYPE:</b>	RISER CLAMP W/ THRUST COLLARS		
<b>SUPPORT GROUP:</b>	VERTICAL RISER		
<b>FIGURE NUMBER:</b>	FIGURE 240-110FW		

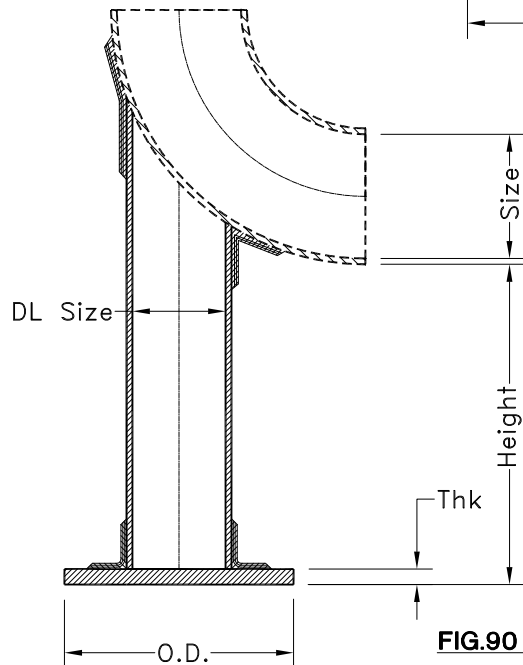
**REV**  
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**FIG.91 (shop fab'd to a tee or pipe)**



**FIG.90 (shop fab'd to an elbow)**

Nominal Pipe Size	DL Size	O.D.		Thk	
2"	2"	5"	127mm	1/2"	12.5mm
3"	2"	5"	127mm	1/2"	12.5mm
4"	3"	6"	152mm	1/2"	12.5mm
6"	4"	7"	178mm	1/2"	12.5mm
8"	6"	9"	229mm	1/2"	12.5mm
10"	6"	9"	229mm	1/2"	12.5mm
12"	8"	12"	305mm	1/2"	12.5mm
14"	10"	14"	356mm	1/2"	12.5mm
16"	12"	16"	406mm	1/2"	12.5mm
18"	14"	18"	457mm	1/2"	12.5mm
20"	18"	22"	559mm	1/2"	12.5mm
24"	18"	22"	559mm	1/2"	12.5mm
30"	24"	28"	711mm	3/4"	19mm
36"	24"	28"	711mm	3/4"	19mm
42"	36"	40"	1016mm	3/4"	19mm
48"	36"	40"	1016mm	3/4"	19mm
54"					
60"	48"	52"	1321mm	3/4"	19mm

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<b>SCALE:</b>	NONE	<b>BATCH:</b>	
<b>DRAWN:</b>	KGS	<b>D102904</b>	
<b>CH'KD:</b>	KGS	<b>D102904</b>	
		<b>DRAWING:</b>	FIGURE 90
		<b>FILENAME:</b>	FIG90

**SUPPORT TYPE:** FRP "DUMMY LEG"

**SUPPORT GROUP:** DUMMY LEG

**FIGURE NUMBER:** FIGURE 90 - ALL SERIES

**REV**  
**1**

- NOTE 4. Fig.90 and Fig.91 are identical except Fig.91 is on a tee or pipe.
- NOTE 3. Maximum recommended length of dummy leg is 3'-0" (914mm).
- NOTE 2. Plate to be shipped loose and field installed. 6" of trim to be included.
- NOTE 1. Dummy leg to be of the same material as the pipe.