



Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 3/26/2025

Return Request: 4/6/2025

Project: UAMS (CAMID)

Supplier: Comfort Systems USA (Arkansas), Inc.

Manufacturer: Various

Submittal: Plumbing Piping

Submittal Number: 22 10 00-02

Drawing # and Installation: Plumbing Drawings

ARCHITECT

Clark Kenerssen
2020 Baltimore Avenue, Suite 300
Kansas City, MO 64108
816-474-8237

ENGINEER

Clark Kenerssen
2020 Baltimore Avenue, Suite 300
Kansas City, MO 64108
816-474-8237

GENERAL CONTRACTOR

CDI Contractirs
3000 Cantrell Rd.
Little Rock, AR 72202
501-666-4300

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

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CSUSA PROJECT NO.

22-6069

sean@comfortar.com

9924 Landers Rd.
No. Little Rock, AR 72117

Bronze Ball Valves

Two-Piece Body • Full Port • Bronze Trim • 3/4" Hose Connection with Cap • Blowout-Proof Stem

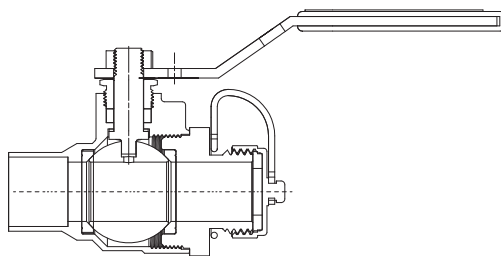
600 PSI/41.4 bar non-shock cold working pressure*

CONFORMS TO MSS SP-110

MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
3. Threaded Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing	PTFE
5. Thrust Washer	Reinforced PTFE
6. Stem	Silicon Bronze ASTM B 371 Alloy C69300 or ASTM B 99 Alloy C65100
7. Ball	Brass ASTM B 124 Alloy C37700 or ASTM B16 Alloy C36000 EACH with Hard Chrome Plate
8. Seat Ring (2)	Reinforced PTFE
9. Body	Bronze ASTM B 584 Alloy C84400
10. Hose Body End	ASTM B 124 Alloy C37700
11. ¹ Cap	Die Cast Brass
12. Gasket	EPDM Rubber
13. Retainer	Soft PVC

¹ Cap is for hose end thread protection only. Not to be used for pressure containing purposes.



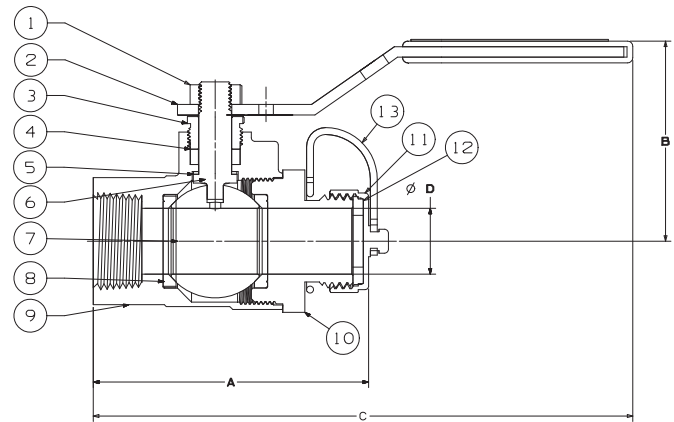
S-585-70-HC
C x Hose



T-585-70-HC
Threaded x Hose



S-585-70-HC
Solder x Hose



T-585-70-HC
NPT x Hose

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions																		
Size	T-585-70-HC		S-585-70-HC		T-585-70-HC		S-585-70-HC		D	T-585-70-HC		S-585-70-HC		Master Ctn. Qty				
	In.	mm.	In.	mm.	In.	mm.	In.	mm.		In.	mm.	Lbs.	Kg.		Lbs.	Kg.		
1/2	15	2.84	72	2.90	74	1.88	48	5.19	132	5.25	133	.50	13	.80	.36	.74	.34	100
3/4	20	3.31	84	3.47	88	2.25	57	6.25	159	6.25	159	.75	19	1.46	.66	1.42	.65	50

Note: solder end is designed to be soft-soldered into lines using solders with the melting point not exceeding 500°F. Higher temperature solders will damage the seat material. See installation sheet packaged with valves.

♦For detailed operating pressure, refer to pressure temperature chart on page 41.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**LEAD FREE*
OPTION
AVAILABLE**

*Weighted average lead content ≤ 0.25%

Visit our website for the most current information.

Low-lead Dielectric Nipple

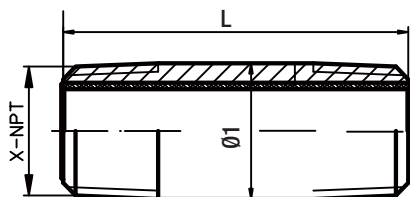
PFXDN Series

Product Features

- Zinc plated
- Polypropylene plastic liner
- Metal-to-metal design
- Pressure up to 300 psi/temperature up to 230° F (110°C)
- Materials meet the requirements of ASTM F1545-15
- Certifications: NSF/ANSI 61, NSF/ANSI 372, IAPMO/UPC listed
- TxT / GxT: Steel pipe conforming to ASTM A53 Grade B
- NPT thread meets ANSI/ASME B1.20.1
- GxG: Ductile iron ASTM A536, Grade 65-45-12 compliant

Model Series	Ø1	Ø2
PFXDNTxx	NPT	NPT
PFXDNGxx	GROOVE, IPS	GROOVE, CTS
PFXDNGTxx	GROOVE, IPS	NPT

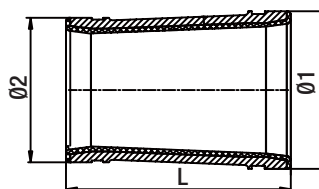
Thread x Thread



Model #	Size	X-NPT	Ø1 (in)	L (in)
PFXDNTDM	1/2" x 3"	1/2" - 14 NPT	0.84	3
PFXDNTFM	3/4" x 3"	3/4" - 14 NPT	1.05	3
PFXDNTGP	1" x 4"	1" - 11.5 NPT	1.315	4
PFXDNTHP	1-1/4" x 4"	1-1/4" - 11.5 NPT	1.66	4
PFXDNTJP	1-1/2" x 4"	1-1/2" - 11.5 NPT	1.9	4
PFXDNTKP	2" x 4"	2" - 11.5 NPT	2.375	4
PFXDNTLU	2-1/2" x 6"	2-1/2" - 8 NPT	2.875	6
PFXDNTMU	3" x 6"	3" - 8 NPT	3.5	6
PFXDNTPU	4" x 6"	4" - 8 NPT	4.5	6

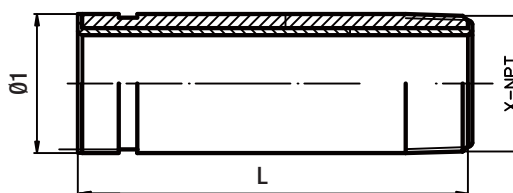


Groove x Groove



Model #	Size	Ø1 (in)	Ø2 (in)	L (in)
PFXDNGKP	2" x 4"	2.375	2.125	4.17
PFXDNGKP	2-1/2" x 6"	2.875	2.625	6.18
PFXDNGMU	3" x 6"	3.5	3.125	6.18
PFXDNGPU	4" x 6"	4.5	4.125	6.18
PFXDNGUU	6" x 6"	6.625	6.125	6.18

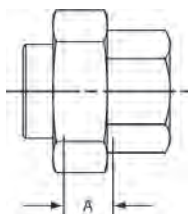
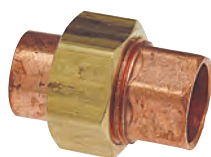
Groove x Thread



Model #	Size	X-NPT	Ø1 (in)	L (in)
PFXDNGTGP	1" x 4"	1" - 11.5 NPT	1.315	4
PFXDNGTHP	1-1/4" x 4"	1-1/4" - 11.5 NPT	1.66	4
PFXDNGTJP	1-1/2" x 4"	1-1/2" - 11.5 NPT	1.9	4
PFXDNGTKP	2" x 4"	2" - 11.5 NPT	2.375	4
PFXDNGTLU	2-1/2" x 6"	2-1/2" - 8 NPT	2.875	6
PFXDNGTMU	3" x 6"	3" - 8 NPT	3.5	6
PFXDNGTPU	4" x 6"	4" - 8 NPT	4.5	6

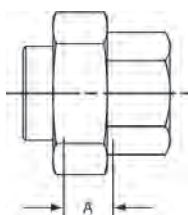


UNIONS



633-W ⚠
Union C x C – Wrot

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/4	0.13	1/2
3/8	0.12	7/16
1/2	0.12	7/16
3/4	0.28	7/16
1	0.44	1/2



733 ⚠
Union C x C – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/4	0.10	11/16
3/8	0.15	7/16
1/2	0.21	13/32
5/8	0.30	21/32
3/4	0.31	3/8
1	0.53	1/2
▲ 1 1/4	0.75	9/16
▲ 1 1/2	1.06	23/32
▲ 2	1.85	1/2
▲ 2 1/2	3.33	1
▲ 3	4.75	15/32

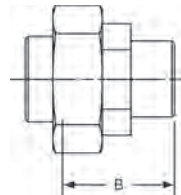
⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

▲ Also available in Lead-Free*. For additional details, see our Lead-Free* literature on www.nibco.com.

*Weighted average lead content ≤ 0.25%

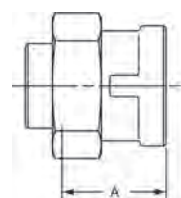
Consult price sheet for Made to Order items and for minimum order quantities.

Visit our website for the most current information.



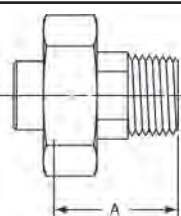
733-2 ⚠
Fitting Union Ftg x C – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. B INCHES
1/2	0.23	19/32
3/4	0.36	15/8
1	0.50	127/32



733-3 ⚠
Fitting Union C x F – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
▲ 1/4	0.14	15/32
▲ 3/8	0.19	13/32
▲ 1/2	0.27	11/8
▲ 3/4	0.40	15/16
▲ 1	0.59	113/32
▲ 1 1/4	0.93	119/32
▲ 1 1/2	1.35	113/16
▲ 2	1.89	115/16
▲ 2 1/2	3.66	—



733-4 ⚠
Union C x M – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
▲ 1/4	0.13	11/2
▲ 3/8	0.20	15/8
▲ 1/2	0.29	111/16
1/2 x 3/4	0.35	21/16
▲ 3/4	0.43	129/32
▲ 1	0.64	21/8
▲ 1 1/4	0.94	25/32
▲ 1 1/2	1.29	213/32
▲ 2	2.23	225/32
▲ 2 1/2	4.21	313/32

VENTURI

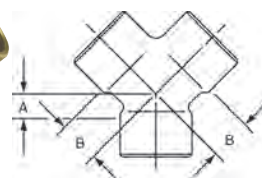


621
Venturi Insert – Wrot

Converts any tee into a special purpose venturi or scoop tee

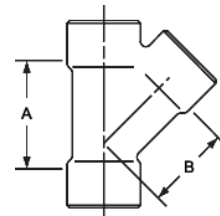
NOM. SIZE	APPROX. NET WT./LBS.
1/2	0.01
3/4	0.02
1	0.03
1 1/4	0.04

Y's



748 ⚠
90° Y C x C x C – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. B INCHES
1/2	0.11	7/32	7/16
3/4	0.25	7/16	5/8
1	0.61	1/2	13/16



749 ⚠
45° Y C x C x C – Cast

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. B INCHES
▲ 1/2	0.15	13/32	7/8
▲ 3/4	0.30	117/32	17/32
▲ 1	0.55	113/16	115/32
▲ 1 1/4	0.81	21/4	17/8
1 1/2	1.14	25/8	21/8
2	2.17	35/16	23/4

MODEL SEAL WALL PENETRATION SEAL

MATERIALS OF CONSTRUCTION/DESIGN DATA				
TYPE	SEAL MATERIAL	PRESSURE PLATES	BOLTS & NUTS	TEMPERATURE RANGE (°F)
E	EPDM BLACK	GLASS REINFORCED PLASTIC	STEEL ZINC DICHROMATE	-40 TO +250
ES	EPDM BLACK	GLASS REINFORCED PLASTIC	316 STAINLESS STEEL	-40 TO +250
P	NITRILE BLACK	GLASS REINFORCED PLASTIC	STEEL ZINC DICHROMATE	-40 TO +210
PS	NITRILE BLACK	GLASS REINFORCED PLASTIC	316 STAINLESS STEEL	-40 TO +210
HT	SILICONE GRAY	STEEL ZINC DICHROMATE	STEEL ZINC DICHROMATE	-40 TO +400

NOTE: MAX SEALING PRESSURE OF 20 PSIG AND 40 FT. HEAD

ALL DIMENSIONS ARE IN INCHES

DIMENSIONAL DATA			
MODEL #	FREE STATE THICKNESS	EXPANDED STATE THICKNESS	CHORD LENGTH
MS-200	.50	.62	1.125
MS-275	.62	.78	.910
MS-300	.71	.88	1.510
MS-315	.82	1.03	1.470
MS-325	.94	1.18	3.100
MS-340	1.05	1.33	1.575
MS-360	1.29	1.65	2.106
MS-400	1.43	1.81	3.625
MS-410	1.48	1.91	2.598
MS-425	1.13	1.45	3.625
MS-475	1.62	1.90	2.625
MS-500	2.37	2.81	3.860
MS-525	2.18	2.50	3.860
MS-575	1.81	2.35	3.100
MS-600	3.20	4.00	6.000
MS-650	2.76	3.57	4.160

*FOR SIZING INFORMATION SEE METRASEAL SELECTION CHARTS

[WALL PENETRATION SEALS](#)

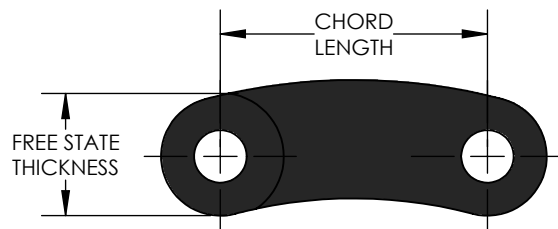
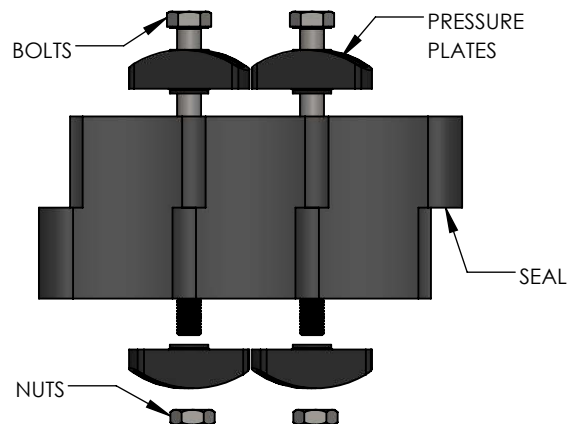
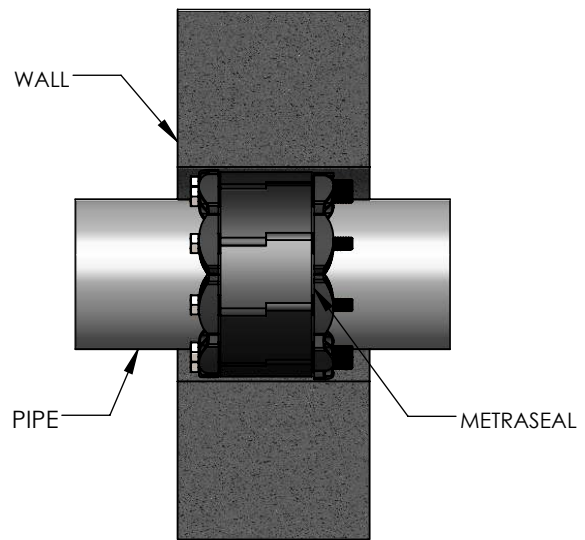
NOMINAL PIPE SIZE & TYPE OF PIPE	PIPE O.D.	INNER PIPE THROUGH A CORE DRILLED HOLE			INNER PIPE THROUGH A WALL SLEEVE			NOTES
		HOLE DIA.	MODEL NO./TYPE	QTY. OF LINKS	SLEEVE I.D.	MODEL NO./TYPE	QTY. OF LINKS	

NSF 372 - LEAD FREE
The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight. Material complies with state codes and standards, where applicable, requiring reduced lead content.

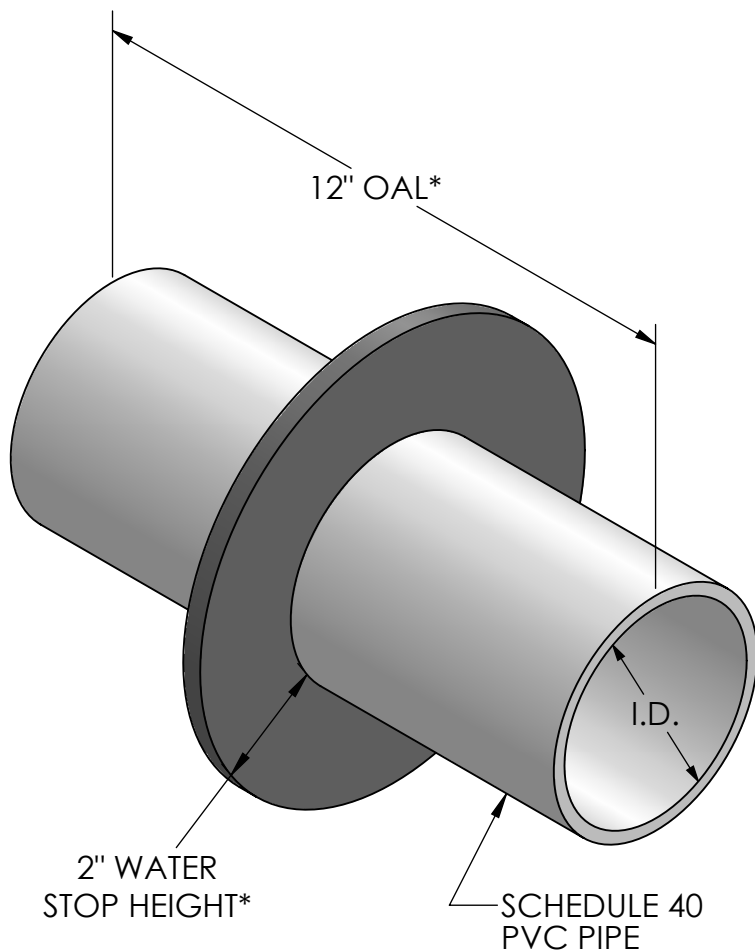
CUSTOMER: _____

PROJECT: _____

ENGINEER: _____



REV. 1	MS-650 ADDED	DATE 12/27/2018
2323 W. HUBBARD ST. CHICAGO, IL 60612 TEL: 312-738-3800 FAX: 312-738-0415 WWW.METRAFLEX.COM		
MODEL SEAL WALL PENETRATION SEAL		
DRAWN BY: DKISH		DATE: 5/22/2015
APPROVED: ZB		DATE: 5/22/2015
SCALE: N/A	DRAWING NUMBER: SEAL-1	



*OPTIONAL LENGTHS AND WATER STOP HEIGHTS ARE AVAILABLE. CONTACT YOUR METRAFLEX REPRESENTATIVE FOR MORE INFORMATION.

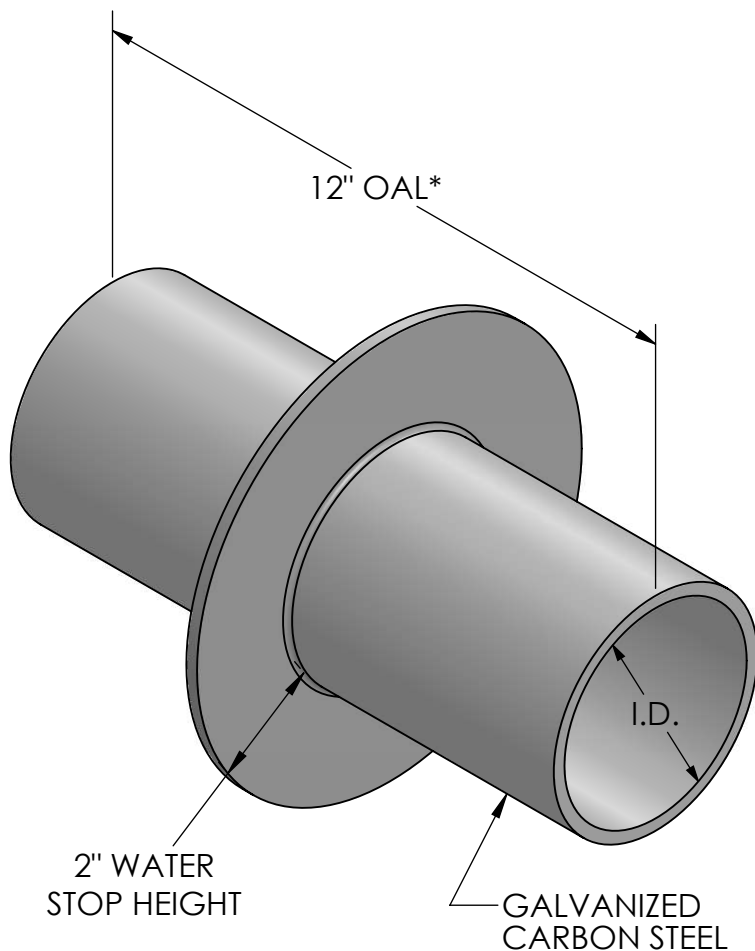
PIPE SIZE	ACTUAL I.D.
2"	2.067"
2.5"	2.469"
3"	3.068"
3.5"	3.548"
4"	4.026"
5"	5.047"
6"	6.065"
8"	7.981"
10"	10.02"
12"	12.00"
14"	13.25"
16"	15.25"
18"	17.25"
20"	19.25"
22"	21.25"
24"	23.25"
26"	25.25"
28"	27.25"
30"	29.25"
32"	31.25"
34"	33.25"
36"	35.25"
38"	37.25"
40"	39.25"
42"	41.25"
44"	43.25"
46"	45.25"
48"	47.25"
50"	49.25"
52"	51.25"
54"	53.25"

CUSTOMER: _____

PROJECT: _____

ENGINEER: _____

REV.	DATE	
 2323 W. HUBBARD ST. CHICAGO, IL 60612 TEL: 312-738-3800 FAX: 312-738-0415 WWW.METRAFLEX.COM		
PVC WALL SLEEVE		
DRAWN BY: DKISH		DATE: 7/31/2015
APPROVED:		DATE:
SCALE: N/A	DRAWING NUMBER: WALLSLV	



PIPE SIZE	ACTUAL I.D.
2"	2.087"
2.5"	2.559"
3"	3.150"
4"	4.134"
5"	5.157"
6"	6.142"
8"	8.110"
10"	10.039"
12"	12.008"
14"	13.110"
16"	15.118"
18"	17.323"
20"	19.213"
22"	21.260"
24"	23.228"
26"	24.882"
30"	28.898"

*OPTIONAL LENGTHS AND SIZES ARE AVAILABLE.
CONTACT YOUR METRAFLEX REPRESENTATIVE
FOR MORE INFORMATION.

CUSTOMER: _____

PROJECT: _____

ENGINEER: _____

REV.	DATE
 2323 W. HUBBARD ST. CHICAGO, IL 60612 TEL: 312-738-3800 FAX: 312-738-0415 WWW.METRAFLEX.COM	
GALVANIZED STEEL WALL SLEEVE	
DRAWN BY: DKISH	DATE: 9/18/2015
APPROVED:	DATE:
SCALE: N/A	DRAWING NUMBER: GALVWALLSLV