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COUPLINGS

LIT-044

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TERMS AND CONDITIONS

WHOLESALE DISCOUNT: Contact MIFAB® or your local representative for your applicable discount structure.

FREIGHT ALLOWANCE: Ex Works, MIFAB's Chicago, Illinois Factory or Manufacturer Representative's warehouse with full motor freight allowed on shipments of \$1,500.00 Net or more, within the continental U.S.A. or Canada, except Alaska, Hawaii and Puerto Rico. MIFAB® reserves the right to choose the carrier and route of shipment. Alaska: Ex Works, Seattle, WA. Hawaii: Freight allowed on shipments of \$1,500.00 or more only when shipped from West Coast, U.S. Puerto Rico: Ex Works, Miami, Florida. There is no allowance for United Parcel Service, Federal Express or Shipment by air service. Full motor freight is allowed on shipments of \$1,500.00 Net or more, within the continental U.S.A. and Canada for any combination of BEECO, Counterline, No Hub Coupling, Trench Drain, Access Door and Trap Seal Primer products. Shipping dates are estimates and time of delivery is not the essence of the sale of the contract. Therefore, under no circumstances will MIFAB have any responsibility on account of any delays in manufacture, transportation, or otherwise. Additional freight services such as construction site delivery, lift gate delivery service, re-consigned freight or notification charges, are not included in full freight allowance terms, and will result in additional freight charges.

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LIMITED WARRANTY: MIFAB® warrants each product against defects in material and workmanship for a period of one year from the date of original shipment. In the event of such defects within the warranty period, MIFAB® will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and MIFAB® shall not be responsible for any incidental or consequential damages, including, without limitation, damages or other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemicals, or any other circumstances over which MIFAB® has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

MIFAB MAKES NO OTHER WARRANTIES EXPRESSED OR IMPLIED AS PROVIDED IN THIS LIMITED WARRANTY.

ILLUSTRATIONS OR TYPICAL INSTALLATIONS: The typical installations for various products in each product section are intended to illustrate the products and their options. Under no circumstances are they to be construed as recommended installation procedures. Consult local codes and project specifications for proper installation instructions.

ALL SALES SUBJECT TO MIFAB's TERMS AND WARRANTIES.

NOTE: Prices and terms are subject to change without notice and supersede all previous quotations. The right is reserved to change or modify product design or construction without prior notice and without incurring any obligation to make similar changes and modifications to product previously or subsequently sold. Contact MIFAB® for any clarification.

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	OUTSIDE PIPE DIAMETERS											PIPE MATERIAL
	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	10"	12"
ABS / PVC Plastic (Schedule 40)	1.05" (27)	1.315" (33)	1.66" (42)	1.90" (48)	2.375" (60)	3.50" (89)	4.50" (114)	5.56" (141)	6.62" (168)	8.62" (219)	10.75" (273)	12.75" (324)
Asbestos Cement (Class 1500 - Transite)	-	-	-	-	-	-	4.81" (122)	5.90" (150)	6.92" (176)	9.02" (229)	11.12" (282)	13.22" (336)
Cast Iron	-	-	-	1.90" (48)	2.35" (60)	3.35" (85)	4.38" (111)	5.30" (135)	6.30" (160)	8.38" (213)	10.56" (268)	12.50" (318)
Clay	-	-	-	-	-	-	5.37" (136)	6.65" (169)	7.68" (195)	9.90" (251)	12.43" (316)	14.46" (367)
Concrete	-	-	-	-	-	-	6.00" (152)	6.50" (165)	8.00" (203)	10.25" (260)	12.75" (324)	15.10" (384)
Copper	.875" (22)	1.125" (29)	1.375" (35)	1.625" (41)	2.125" (54)	3.125" (79)	4.125" (105)	5.125" (130)	6.125" (156)	8.125" (206)	10.125" (257)	-
Ductile Iron	-	-	-	-	-	-	4.80" (122)	-	6.90" (175)	9.05" (230)	11.10" (282)	13.20" (335)
Duriron (add encircled R)	-	-	-	2.19" (56)	2.63" (67)	3.75" (95)	4.75" (121)	-	6.69" (170)	-	-	-
Extra Heavy Cast Iron	-	-	-	-	2.38" (60)	3.50" (89)	4.50" (114)	5.50" (140)	8.62" (219)	8.62" (219)	10.75" (273)	12.75" (324)
Stainless Steel	.75" (19)	1.00" (25)	1.25" (32)	1.50" (38)	2.00" (51)	3" (76)	4" (102)	5" (127)	6" (152)	8" (203)	10" (254)	-
Steel	1.05" (27)	1.315" (33)	1.66" (42)	1.90" (48)	2.375" (60)	3.50" (89)	4.50" (114)	5.56" (141)	6.62" (168)	8.62" (219)	10.75" (273)	12.75" (324)
Thinwall Plastic PVC (SDR 35)	-	-	-	-	-	-	-	-	-	-	-	12.50" (318)
-	-	-	-	-	3.25" (83)	4.215" (107)	-	6.27" (159)	8.40" (213)	10.50" (267)	-	-

MIFAB's shielded transition couplings join similar and dissimilar pipe sizes and pipe materials

Features:

- Rubber sleeve conforms to ASTM Standard C564
- Stainless steel meets ASTM Standard A240M
- All transition couplings use 5/16" hex head screws and tighten to 60 inch / lbs. torque.
- Corrosion resistant Type 300 Series stainless steel
- Couplings meet and exceed the material and performance requirements of ASTM Standard C1460

Material Guide

- CI = Cast Iron
- K = Copper
- LD = Lead
- PL = Plastic (Sch. 40)
- XH CI = Extra Heavy Cast Iron
- ST = Steel

COUPLINGS THAT JOIN CAST IRON PIPE

1 1/2" Cast Iron to...

Join	Use Coupling
1" Plastic	MI-HUB-TRC-1125
1" Steel	MI-HUB-TRC-1125
1 1/4" Copper	MI-HUB-TRC-1125
1 1/4" Plastic	MI-HUB-TRC-150
1 1/4" Steel	MI-HUB-TRC-150
1 1/2" Copper	MI-HUB-TRC-150
1 1/2" Plastic	MI-HUB-TR-150
1 1/2" Steel	MI-HUB-TR-150
1 1/2" Tubular	MI-HUB-TRT-150
2" Plastic	MI-HUB-TR-215
2" Steel	MI-HUB-TR-215

2" Cast Iron to...

Join	Use Coupling
1" Plastic	MI-HUB-TRC-2125

1" Steel	MI-HUB-TRC-2125
1 1/4" Copper	MI-HUB-TRC-2125
1 1/4" Plastic	MI-HUB-TRC-215
1 1/4" Steel	MI-HUB-TRC-215
1 1/2" Copper	MI-HUB-TRC-215
1 1/2" Plastic	MI-HUB-TR-215
1 1/2" Steel	MI-HUB-TR-215
1 1/2" Tubular	MI-HUB-TRT-215
2" Copper	MI-HUB-TRC-220
2" Plastic	MI-HUB-TR-200
2" Steel	MI-HUB-TR-200
3" Cast Iron	MI-HUB-32
4" Cast Iron	MI-HUB-42

3" Cast Iron to...

Join	Use Coupling
2" Copper	MI-HUB-TRC-320
2" Cast Iron	MI-HUB-32
2" Plastic	MI-HUB-32
2" Steel	MI-HUB-32

3" Copper	MI-HUB-TRC-330
3" Plastic	MI-HUB-TR-330
3" Steel	MI-HUB-TR-330
3" Extra Heavy Cast Iron	MI-HUB-TR-330
4" Cast Iron	MI-HUB-43

4" Cast Iron to...

Join	Use Coupling
2" Cast Iron	MI-HUB-42
2" Plastic	MI-HUB-42
2" Steel	MI-HUB-42
3" Copper	MI-HUB-TRC-430
3" Cast Iron	MI-HUB-43
3" Plastic	MI-HUB-TR-430
3" Steel	MI-HUB-TR-430
3" Extra Heavy Cast Iron	MI-HUB-TR-430
4" Copper	MI-HUB-TRC-440
4" Plastic	MI-HUB-TR-440
4" Steel	MI-HUB-TR-440
4" Extra Heavy Cast Iron	MI-HUB-TR-440

COUPLINGS THAT JOIN COPPER PIPE

1 1/4" Copper to...

Join	Use Coupling
1 1/4" Plastic	MI-HUB-TRCC-1125
1 1/2" Copper	MI-HUB-TRCC-1125
1 1/2" Cast Iron	MI-HUB-TRC-1125
1 1/2" Plastic	MI-HUB-TRC-1125
1 1/2" Steel	MI-HUB-TRC-1125
2" Cast Iron	MI-HUB-TRC-2125
2" Plastic	MI-HUB-TRC-2125
2" Steel	MI-HUB-TRC-2125

1 1/2" Copper to...

Join	Use Coupling
1" Plastic	MI-HUB-TRCC-1125
1" Steel	MI-HUB-TRCC-1125
1 1/4" Copper	MI-HUB-TRCC-1125

1 1/4" Plastic	MI-HUB-TRCC-150
1 1/4" Steel	MI-HUB-TRCC-150
1 1/2" Copper	MI-HUB-TRCC-150
1 1/2" Cast Iron	MI-HUB-TRC-150
1 1/2" Plastic	MI-HUB-TRC-150
1 1/2" Steel	MI-HUB-TRC-150
2" Copper	MI-HUB-TRCC-215
2" Cast Iron	MI-HUB-TRC-215
2" Plastic	MI-HUB-TRC-215
2" Steel	MI-HUB-TRC-215

2" Copper to...

Join	Use Coupling
1 1/4" Plastic	MI-HUB-TRCC-215
1 1/2" Copper	MI-HUB-TRCC-215
2" Copper	MI-HUB-TRCC-200
2" Cast Iron	MI-HUB-TRC-220
2" Plastic	MI-HUB-TRC-220
2" Steel	MI-HUB-TRC-220

3" Cast Iron	MI-HUB-TRC-320
--------------	----------------

3" Copper to...

Join	Use Coupling
3" Copper	MI-HUB-TRCC-330
3" Cast Iron	MI-HUB-TRC-330
3" Plastic	MI-HUB-TRS-330
3" Steel	MI-HUB-TRS-330
3" Extra Heavy Cast Iron	MI-HUB-TRS-330
4" Cast Iron	MI-HUB-TRC-430

4" Copper to...

Join	Use Coupling
4" Cast Iron	MI-HUB-TRC-440
4" Plastic	MI-HUB-TRS-440
4" Steel	MI-HUB-TRS-440
4" Extra Heavy Cast Iron	MI-HUB-TRS-440

COUPLINGS THAT JOIN EXTRA HEAVY CAST IRON PIPE

3" Extra Heavy Cast Iron to...

Join	Use Coupling
3" Copper	MI-HUB-TRS-330
3" Cast Iron	MI-HUB-TR-330
3" Plastic	MI-HUB-TRP-330
3" Steel	MI-HUB-TRP-330
3" Extra Heavy Cast Iron	MI-HUB-TRP-330
4" Cast Iron	MI-HUB-TR-430
4" Plastic	MI-HUB-TRP-430
4" Steel	MI-HUB-TRP-430
4" Extra Heavy Cast Iron	MI-HUB-TRP-430

4" Extra Heavy Cast Iron to...

Join	Use Coupling
3" Plastic	MI-HUB-TRP-430
3" Steel	MI-HUB-TRP-430
3" Extra Heavy Cast Iron	MI-HUB-TRP-430
4" Copper	MI-HUB-TRP-440
4" Cast Iron	MI-HUB-TR-440
4" Plastic	MI-HUB-TRP-440
4" Steel	MI-HUB-TRP-440
4" Extra Heavy Cast Iron	MI-HUB-TRP-440
4" Thinwall Plastic	MI-HUB-TRTW-440

5" Extra Heavy Cast Iron to...

Join	Use Coupling
5" Cast Iron	MI-HUB-TR-550

6" Extra Heavy Cast Iron to...

Join	Use Coupling
6" Cast Iron	MI-HUB-TR-660
6" Plastic	MI-HUB-TRP-660
6" Steel	MI-HUB-TRP-660
6" Extra Heavy Cast Iron	MI-HUB-TRP-660
8" Cast Iron	MI-HUB-TR-880

8" Extra Heavy Cast Iron to...

Join	Use Coupling
8" Cast Iron	MI-HUB-TR-880

COUPLINGS THAT JOIN SCHEDULE 40 PLASTIC PIPE (ABS + PVC)

1" Plastic to...

1 1/4"	Plastic	MI-HUB-TRCC-1125
1 1/4"	Steel	MI-HUB-TRCC-1125
1 1/2"	Copper	MI-HUB-TRCC-1125
1 1/2"	Cast Iron	MI-HUB-TRC-1125
1 1/2"	Plastic	MI-HUB-TRC-1125
1 1/2"	Steel	MI-HUB-TRC-1125
2"	Plastic	MI-HUB-TRC-2125
2"	Steel	MI-HUB-TRC-2125
2"	Cast Iron	MI-HUB-TRC-2125

1 1/4" Plastic to...

1"	Plastic	MI-HUB-TRCC-1125
1"	Steel	MI-HUB-TRCC-1125
1"	Copper (IPS)	MI-HUB-TRCC-1125
1 1/4"	Copper	MI-HUB-TRCC-1125
1 1/4"	Plastic	MI-HUB-TRCC-150
1 1/4"	Steel	MI-HUB-TRCC-150
1 1/2"	Copper	MI-HUB-TRCC-150
1 1/2"	Cast Iron	MI-HUB-TRC-150
1 1/2"	Plastic	MI-HUB-TRC-150
1 1/2"	Steel	MI-HUB-TRC-150

1 1/2" Plastic to...

1"	Plastic	MI-HUB-TRC-1125
1"	Steel	MI-HUB-TRC-1125
1 1/4"	Copper	MI-HUB-TRC-1125
1 1/4"	Plastic	MI-HUB-TRC-150
1 1/4"	Steel	MI-HUB-TRC-150
1 1/2"	Copper	MI-HUB-TRC-150
1 1/2"	Cast Iron	MI-HUB-TR-150
1 1/2"	Plastic	MI-HUB-TR-150
1 1/2"	Steel	MI-HUB-TR-150
1 1/2"	Tubular	MI-HUB-TRT-150
2"	Cast Iron	MI-HUB-TR-215
2"	Plastic	MI-HUB-TR-215
2"	Steel	MI-HUB-TR-215

COUPLINGS THAT JOIN STEEL PIPE

1" Steel to...

1 1/4"	Plastic	MI-HUB-TRCC-1125
1 1/4"	Steel	MI-HUB-TRCC-1125
1 1/2"	Copper	MI-HUB-TRCC-1125
1 1/2"	Cast Iron	MI-HUB-TRC-1125
1 1/2"	Plastic	MI-HUB-TRC-1125
1 1/2"	Steel	MI-HUB-TRC-1125
2"	Cast Iron	MI-HUB-TRC-2125
2"	Plastic	MI-HUB-TRC-2125
2"	Steel	MI-HUB-TRC-2125

1 1/4" Steel to...

1"	Plastic	MI-HUB-TRCC-1125
1"	Steel	MI-HUB-TRCC-1125
1"	Copper (IPS)	MI-HUB-TRCC-1125
1 1/4"	Copper	MI-HUB-TRCC-1125
1 1/4"	Plastic	MI-HUB-TRCC-150
1 1/4"	Steel	MI-HUB-TRCC-150
1 1/2"	Copper	MI-HUB-TRCC-150
1 1/2"	Cast Iron	MI-HUB-TRC-150
1 1/2"	Plastic	MI-HUB-TRC-150
1 1/2"	Steel	MI-HUB-TRC-150
2"	Copper	MI-HUB-TRCC-215
2"	Cast Iron	MI-HUB-TRC-215
2"	Plastic	MI-HUB-TRC-215
2"	Steel	MI-HUB-TRC-215

1 1/2" Steel to...

1"	Plastic	MI-HUB-TRC-1125
1"	Steel	MI-HUB-TRC-1125
1 1/4"	Copper	MI-HUB-TRC-1125

2" Plastic to...

1"	Plastic	MI-HUB-TRC-2125
1"	Steel	MI-HUB-TRC-2125
1"	Copper (IPS)	MI-HUB-TRC-2125
1 1/4"	Copper	MI-HUB-TRC-2125
1 1/4"	Plastic	MI-HUB-TRC-215
1 1/4"	Steel	MI-HUB-TRC-215
1 1/2"	Copper	MI-HUB-TRC-215
1 1/2"	Cast Iron	MI-HUB-TR-215
1 1/2"	Plastic	MI-HUB-TR-215
1 1/2"	Steel	MI-HUB-TR-215
1 1/2"	Tubular	MI-HUB-TRT-215
2"	Copper	MI-HUB-TRC-220
2"	Cast Iron	MI-HUB-TR-200
2"	Plastic	MI-HUB-TR-200
2"	Steel	MI-HUB-TR-200
3"	Cast Iron	MI-HUB-32
4"	Cast Iron	MI-HUB-42

3" Plastic to...

3"	Copper	MI-HUB-TRS-330
3"	Cast Iron	MI-HUB-TR-330
3"	Plastic	MI-HUB-TRP-330
3"	Steel	MI-HUB-TRP-330
3"	Extra Heavy Cast Iron	MI-HUB-TRP-330
4"	Cast Iron	MI-HUB-TR-430
4"	Plastic	MI-HUB-TRP-430
4"	Steel	MI-HUB-TRP-430
4"	Extra Heavy Cast Iron	MI-HUB-TRP-430

4" Plastic to...

3"	Plastic	MI-HUB-TRP-430
3"	Steel	MI-HUB-TRP-430
3"	Extra Heavy Cast Iron	MI-HUB-TRP-430
4"	Copper	MI-HUB-TRS-440
4"	Cast Iron	MI-HUB-TR-440
4"	Plastic	MI-HUB-TRP-440
4"	Steel	MI-HUB-TRP-440
4"	Extra Heavy Cast Iron	MI-HUB-TRP-440
4"	Thinwall Plastic	MI-HUB-TRTW-440

1 1/4"	Plastic	MI-HUB-TRC-150
1 1/4"	Steel	MI-HUB-TRCC-150
1 1/2"	Copper	MI-HUB-TRC-150

1 1/2" Steel to...

1 1/2"	Cast Iron	MI-HUB-TR-150
1 1/2"	Plastic	MI-HUB-TR-150
1 1/2"	Steel	MI-HUB-TR-150
1 1/2"	Tubular	MI-HUB-TRCC-150
2"	Cast Iron	MI-HUB-TR-215
2"	Plastic	MI-HUB-TR-215
2"	Steel	MI-HUB-TR-215

2" Steel to...

1"	Plastic	MI-HUB-TRC-2125
1"	Steel	MI-HUB-TRC-2125
1"	Copper (IPS)	MI-HUB-TRC-2125
1 1/4"	Copper	MI-HUB-TRC-2125
1 1/4"	Plastic	MI-HUB-TRC-215
1 1/4"	Steel	MI-HUB-TRC-215
1 1/2"	Copper	MI-HUB-TRC-215
1 1/2"	Cast Iron	MI-HUB-TR-215
1 1/2"	Plastic	MI-HUB-TR-215
1 1/2"	Steel	MI-HUB-TR-215
1 1/2"	Tubular	MI-HUB-TRT-215
2"	Copper	MI-HUB-TRC-220
2"	Cast Iron	MI-HUB-TR-200
2"	Plastic	MI-HUB-TR-200
2"	Steel	MI-HUB-TR-200
3"	Cast Iron	MI-HUB-32
4"	Cast Iron	MI-HUB-42

5" Plastic to...

5"	Cast Iron	MI-HUB-TR-550
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6" Plastic to...

6"	Cast Iron	MI-HUB-TR-660
6"	Plastic	MI-HUB-TRP-660
6"	Steel	MI-HUB-TRP-660
6"	Extra Heavy Cast Iron	MI-HUB-TRP-660

8" Plastic to...

8"	Cast Iron	MI-HUB-TR-880
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COUPLINGS THAT JOIN THINWALL PLASTIC PIPE (sewer and drain)

4" Thinwall Plastic to...

Join	Use Coupling	
4"	Plastic (Sch. 40)	MI-HUB-TRTW-440
4"	Steel	MI-HUB-TRTW-440
4"	Extra Heavy Cast Iron	MI-HUB-TRTW-440

COUPLINGS THAT JOIN TUBULAR PIPE

1 1/2" Tubular to...

Join	Use Coupling	
1 1/2"	Cast Iron	MI-HUB-TRT-150
1 1/2"	Plastic	MI-HUB-TRT-150
1 1/2"	Steel	MI-HUB-TRT-150
1 1/2"	Tubular	MI-HUB-TRT-155
2"	Cast Iron	MI-HUB-TRT-215
2"	Plastic	MI-HUB-TRT-215
2"	Steel	MI-HUB-TRT-215

3" Steel to...

3"	Copper	MI-HUB-TRS-330
3"	Cast Iron	MI-HUB-TR-330
3"	Plastic	MI-HUB-TRP-330
3"	Steel	MI-HUB-TRP-330
3"	Extra Heavy Cast Iron	MI-HUB-TRP-330
4"	Cast Iron	MI-HUB-TR-430
4"	Plastic	MI-HUB-TRP-430
4"	Steel	MI-HUB-TRP-430
4"	Extra Heavy Cast Iron	MI-HUB-TRP-430

4" Steel to...

3"	Plastic	MI-HUB-TRP-430
3"	Steel	MI-HUB-TRP-430
3"	Extra Heavy Cast Iron	MI-HUB-TRP-430
4"	Copper	MI-HUB-TRS-440
4"	Cast Iron	MI-HUB-TR-440
4"	Plastic	MI-HUB-TRP-440
4"	Steel	MI-HUB-TRP-440
4"	Extra Heavy Cast Iron	MI-HUB-TRP-440
4"	Thinwall Plastic	MI-HUB-TRTW-440

5" Steel to...

5"	Cast Iron	MI-HUB-TR-550
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6" Steel to...

6"	Cast Iron	MI-HUB-TR-660
6"	Plastic	MI-HUB-TRP-660
6"	Steel	MI-HUB-TRP-660
6"	Extra Heavy Cast Iron	MI-HUB-TRP-660

8" Steel to...

8"	Cast Iron	MI-HUB-TR-880
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MI-HUB REGULAR NO HUB COUPLINGS



Tested and certified to ASTM Standard #C1277-2009a and ASTM Standard #C564. All models are listed with IAPMO (U.P.C.). 5/16" driver required to tighten bolts.

NOTE: Tighten bolts to 60 inch lbs. min./max torque. Tested to maintain 4.3 p.s.i. maximum line pressure. (10' head pressure.) Tested by I.A.P.M.O. to comply to the CISP310-2010 and CSA B602-2010 File # 247608) Standards. Tested and certified by Intertek Testing Services to CAN/ULC S102.2-07, "Smoke Test." Stainless Steel Shield and Clamps are made from Type 301 S.S. Bolts are Type 305 Stainless Steel, 5/16" hex head.



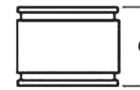
MODEL NUMBER	PIPE SIZE	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-150	1-1/2"	2.125" (54)	100	7,200	\$15.90
MI-HUB-2	2"	2.125" (54)	100	6,300	\$15.90
MI-HUB-2150	2" x 1-1/2"	2.125" (54)	100	6,300	\$18.55
MI-HUB-3	3"	2.125" (54)	100	3,200	\$19.00
MI-HUB-32	3" x 2"	2.125" (54)	100	2,400	\$28.85
MI-HUB-4	4"	2.125" (54)	100	2,400	\$22.45
MI-HUB-42	4" x 2"	2.125" (54)	64	1,536	\$40.90
MI-HUB-43	4" x 3"	2.125" (54)	64	1,536	\$34.25
MI-HUB-5	5"	3" (76)	20	960	\$54.60
MI-HUB-6	6"	3" (76)	25	875	\$56.90
MI-HUB-8	8"	4" (102)	15	360	\$107.40
MI-HUB-10	10"	4" (102)	12	288	\$141.80
MI-HUB-12	12"	5.43" (138)	8	96	\$154.50
MI-HUB-15	15"	5.43" (138)	4	48	\$216.15

MI-XHUB HEAVY DUTY NO HUB COUPLINGS



Tested and certified to ASTM Standard #C1540-2011 and ASTM Standard #C564. All models are listed with IAPMO (U.P.C.). 3/8" driver required to tighten bolts.

NOTE: Tighten bolts to 80 inch lbs. minimum torque to 100 inch lbs. maximum torque. Tested to maintain 15 p.s.i. maximum line pressure. (10' head pressure.) Tested by I.A.P.M.O. to comply to the FM1680-1989 (except for markings) and CSA B602-2010 Standards (up to 10"). Per OSHPD Code Application Notice 5-311.9 revised 6/29/2011, signed by Paul Coleman, Section 1 (a) states that: "the use of couplings that have been tested to conform to the performance requirements of FM Approvals, Approval Standard 1680, Class I, by FM Approvals or by a nationally recognized independent testing agency." are acceptable. The MI-XHUB are also tested and certified by Intertek Testing Services to CAN / ULC S102.2-10 "Smoke Test" Stainless Steel Shield and Clamps are made from Type 304 S.S. Bolts are Type 305 Stainless Steel, 3/8" hex head.



MODEL NUMBER	PIPE SIZE	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-XHUB-150	1-1/2"	3" (76)	60	2,280	\$17.15
MI-XHUB-2	2"	3" (76)	72	1,728	\$18.30
MI-XHUB-3	3"	3" (76)	24	960	\$21.10
MI-XHUB-32	3" x 2"	3" (76)	24	960	\$28.10
MI-XHUB-4	4"	3" (76)	24	576	\$24.60
MI-XHUB-42	4" x 2"	3" (76)	24	576	\$38.90
MI-XHUB-43	4" x 3"	3" (76)	24	576	\$33.30
MI-XHUB-5	5"	4" (102)	27	324	\$50.50
MI-XHUB-6	6"	4" (102)	27	324	\$59.90
MI-XHUB-8	8"	4" (102)	15	180	\$118.40
MI-XHUB-10	10"	4" (102)	9	108	\$152.25
MI-XHUB-12	12"	5.43" (138)	5	60	\$194.40
MI-XHUB-15	15"	5.43" (138)	4	32	\$248.30

CROSS REFERENCE

MIFAB	Anaco	Clamp-All	Fernco	Husky	Ideal	Mission	Tyler
MI-HUB	NH	-	NH	-	M8G	C	NH
MI-XHUB	-	Hi-Torq 125	HD	SD4000	H8G	HW	Wide Body

MI-HUB-ARC SHIELDED REPAIR COUPLINGS - CI, PL OR ST TO CI, PL OR ST



MIFAB's MI-HUB-ARC Series of shielded repair couplings are engineered for resistance to heavy earth loads and shear forces and also provide improved pipe alignment. For Cast Iron, Plastic or Steel pipe to Cast Iron, Plastic or Steel pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)

Tested and Certified to ASTM Standard 1173-2010. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1173-2010 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.

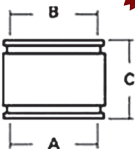


MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-ARC-33	3" Cast Iron, Plastic or Steel Pipe to 3" Cast iron, Plastic or Steel Pipe.	3.38" (86)	3.38" (86)	4.02" (102)	24	768	\$21.00
MI-HUB-ARC-43	4" Cast Iron, Plastic or Steel Pipe to 3" Cast Iron, Plastic or Steel pipe.	4.58" (116)	3.38" (86)	4.02" (102)	24	768	\$38.00
MI-HUB-ARC-44	4" Cast Iron, Plastic or Steel Pipe to 4" Cast Iron, Plastic or Steel pipe.	4.58" (116)	4.58" (116)	4.02" (102)	24	768	\$26.75
MI-HUB-ARC-55	5" Cast Iron, Plastic or Steel Pipe to 5" Cast Iron, Plastic or Steel pipe.	5.52" (140)	5.52" (140)	3.97" (101)	18	450	\$38.00
MI-HUB-ARC-66	6" Cast Iron, Plastic or Steel Pipe to 6" Cast Iron, Plastic or Steel pipe.	6.60" (168)	6.60" (168)	5.74" (146)	10	300	\$51.00
MI-HUB-ARC-64	6" Cast Iron, Plastic or Steel Pipe to 4" Cast Iron, Plastic or Steel Pipe	6.60" (168)	4.50" (114)	5.74" (146)	10	300	\$66.00
MI-HUB-ARC-88	8" Cast Iron, Plastic or Steel Pipe to 8" Cast Iron, Plastic or Steel Pipe	8.64" (219)	8.64" (219)	6.04" (153)	10	300	\$76.00
MI-HUB-ARC-1010	10" Cast Iron, Plastic or Steel Pipe to 10" Cast Iron, Plastic or Steel Pipe	10.63" (270)	10.63" (270)	5.89" (150)	10	300	\$98.50
MI-HUB-ARC-1212	12" Cast Iron, Plastic or Steel Pipe to 12" Cast Iron, Plastic or Steel Pipe	12.52" (318)	12.52" (318)	6.32" (161)	10	300	\$120.50

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-ARC-33	-	1056-33RC	-	MR56 33 ARC	5633PRC
MI-HUB-ARC-43	-	1056-44RC	-	MR56 43 ARC	5643PRC
MI-HUB-ARC-44	-	1056-43RC	-	MR56 44 ARC	5644PRC
MI-HUB-ARC-55	-	1056-55RC	-	MR56 55 ARC	5655PRC
MI-HUB-ARC-64	-	1056-64RC	-	MR56 64 ARC	5664PRC
MI-HUB-ARC-66	-	1056-66RC	-	MR56 66 ARC	5666PRC
MI-HUB-ARC-88	-	1056-88RC	-	MR56 88 ARC	5688PRC
MI-HUB-ARC-1010	-	1056-1010RC	-	MR56 1010 ARC	561010PRC
MI-HUB-ARC-1212	-	1056-1212RC	-	MR56 1212 ARC	561212PRC

MI-HUB-ARC-CL SHIELDED REPAIR COUPLINGS - CL to CI / PL / LD / ST



MIFAB's MI-HUB-ARC-CL Series of shielded repair couplings are used to connect clay to cast iron, plastic, lead or steel pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)

Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2012 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-ARC-CL-400	4" Clay TO 4" CI / PL / LD / ST	5.36" (136)	4.51" (114)	4.07" (103)	24	768	\$39.25
MI-HUB-ARC-CL-500	5" Clay TO 5" CI / PL / LD / ST	6.60" (167)	5.50" (140)	5.74" (146)	18	450	\$128.25
MI-HUB-ARC-CL-600	6" Clay TO 6" CI / PL / LD / ST	7.50" (191)	6.56" (167)	5.89" (150)	10	300	\$66.50
MI-HUB-ARC-CL-640	6" Clay TO 4" CI / PL / LD / ST	7.50" (191)	4.50" (114)	6.02" (153)	10	300	\$97.50
MI-HUB-ARC-CL-860	8" Clay TO 6" CI / PL / LD / ST	9.65" (245)	6.63" (168)	6" (152)	10	300	\$67.25
MI-HUB-ARC-CL-880	8" Clay TO 8" CI / PL / LD / ST	9.76" (248)	8.57" (218)	5.96" (151)	10	300	\$76.00

SHIELDED NO HUB REPAIR COUPLINGS

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-ARC-CL-400	-	1002-44RC	-	MR02 44 ARC	56244
MI-HUB-ARC-CL-500	-	1002-55RC	-	MR02 55 ARC	-
MI-HUB-ARC-CL-600	-	1002-66RC	-	MR02 66 ARC	56266
MI-HUB-ARC-CL-640	-	1002-64RC	-	MR02 64 ARC	56264
MI-HUB-ARC-CL-860	-	1002-86RC	-	MR02 86 ARC	-
MI-HUB-ARC-CL-880	-	1002-88RC	-	MR02 88 ARC	56288

Design and dimensions are subject to modification. Prices do not include applicable taxes. Visit www.mifab.com for the most recent product information.

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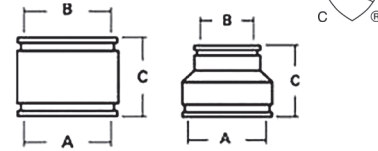
MI-FLEX FLEXIBLE COUPLINGS CI, PL, ST or LD to CI, PL, ST, or LD



MIFAB's MI-FLEX Series of flexible rubber couplings are used to connect cast iron, plastic, steel or lead pipe to cast iron, plastic, steel or lead pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure) Tested and Certified to ASTM Standard 1173-2010. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts.

All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity. All models are manufactured in compliance with ASTM 1173-2010 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.

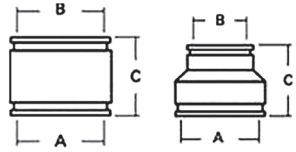


MODEL NUMBER	PIPE SIZE	A		B		C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
		MIN	MAX	MIN	MAX				
MI-FLEX-125	1 1/2" Tubing / Copper or 1 1/4" PL / ST / LD x 1 1/4" PL / ST / LD Flex coupling	1.42" (36)	1.69" (43)	1.42" (36)	1.69" (43)	3.50" (89)	100	4,500	\$8.75
MI-FLEX-15125	1 1/2" CI / PL / ST / LD x 1 1/2" Tubing, Copper or 1 1/4" PL / ST / LD Flex coupling	1.73" (44)	1.97" (50)	1.34" (34)	1.69" (43)	3.50" (89)	100	4,500	\$9.75
MI-FLEX-150	1 1/2" CI / PL / ST / LD x 1 1/2" CI / PL / ST / LD Flex coupling	1.73" (44)	2" (52)	1.73" (44)	2" (52)	3.50" (89)	100	4,500	\$9.50
MI-FLEX-200	2" CI / PL / ST / LD x 2" CI / PL / ST / LD Flex coupling	2.20" (56)	2.50" (64)	2.20" (56)	2.50" (64)	3.50" (89)	100	2,200	\$10.00
MI-FLEX-215	2" CI / PL / ST / LD x 1 1/2" CI / PL / ST / LD Flex coupling	2.13" (54)	2.50" (64)	1.70" (43)	1.97" (50)	3.50" (89)	100	3,200	\$10.75
MI-FLEX-300	3" CI / PL / ST / LD x 3" CI / PL / ST / LD Flex coupling	2.60" (66)	3.18" (81)	2.60" (66)	3.18" (81)	2.75" (70)	80	1,920	\$13.75
MI-FLEX-320	3" CI / PL / ST / LD x 2" CI / PL / ST / LD Flex coupling	2.60" (66)	3.18" (81)	2.20" (56)	2.50" (64)	2.75" (70)	90	2,160	\$12.50
MI-FLEX-400	4" CI / PL / ST / LD x 4" CI / PL / ST / LD Flex coupling	4.02" (102)	4.65" (118)	4.02" (102)	4.65" (118)	4" (102)	60	1,320	\$17.00
MI-FLEX-415	4" CI / PL / ST / LD x 1 1/2" CI / PL / ST / LD Flex coupling	4.02" (102)	4.50" (114)	1.73" (44)	1.97" (50)	4" (102)	60	1,800	\$26.00
MI-FLEX-420	4" CI / PL / ST / LD x 2" CI / PL / ST / LD Flex coupling	4.02" (102)	4.50" (114)	2.20" (56)	2.50" (64)	4" (102)	60	1,800	\$24.00
MI-FLEX-430	4" CI / PL / ST / LD x 3" CI / PL / ST / LD Flex coupling	4.02" (102)	4.50" (114)	2.60" (66)	3.18" (81)	4" (102)	60	1,440	\$18.50
MI-FLEX-500	5" CI / PL / ST / LD x 5" CI / PL / ST / LD Flex coupling	5.20" (132)	5.70" (145)	5.20" (132)	5.70" (145)	4" (102)	30	720	\$29.00
MI-FLEX-540	5" CI / PL / ST / LD x 4" CI / PL / ST / LD Flex coupling	5.25" (133)	5.66" (144)	3.87" (98)	4.33" (110)	4" (102)	30	720	\$32.00
MI-FLEX-600	6" CI / PL / ST / LD x 6" CI / PL / ST / LD Flex coupling	6.30" (160)	6.69" (170)	6.30" (160)	6.69" (170)	6" (152)	18	432	\$36.50
MI-FLEX-640	6" CI / PL / ST / LD x 4" CI / PL / ST / LD Flex coupling	6.29" (160)	6.75" (171)	4.08" (104)	4.55" (116)	5.75" (146)	30	720	\$43.00
MI-FLEX-650	6" CI / PL / ST / LD x 5" CI / PL / ST / LD Flex coupling	5.97" (152)	6.54" (166)	5.15" (131)	5.65" (144)	5.75" (146)	30	720	\$45.50
MI-FLEX-800	8" CI / PL / ST / LD x 8" CI / PL / ST / LD Flex coupling	8" (203)	8.74" (222)	8" (203)	8.74" (222)	6" (152)	10	240	\$56.00
MI-FLEX-840	8" CI / PL / ST / LD x 4" CI / PL / ST / LD Flex coupling	8" (203)	8.74" (222)	4.02" (102)	4.65" (118)	6" (152)	10	240	\$92.75
MI-FLEX-860	8" CI / PL / ST / LD x 6" CI / PL / ST / LD Flex coupling	8.05" (204)	8.60" (218)	5.85" (149)	6.38" (162)	6" (152)	10	240	\$68.00
MI-FLEX-1000	10" CI / PL / ST / LD x 10" CI / PL / ST / LD Flex coupling	10.10" (257)	10.78" (274)	10.24" (260)	10.78" (274)	6" (152)	8	192	\$84.25
MI-FLEX-1008	10" CI / PL / ST / LD x 8" CI / PL / ST / LD Flex coupling	9.60" (244)	10.40" (264)	7.75" (197)	8.56" (217)	6" (152)	8	192	\$92.25
MI-FLEX-1200	12" CI / PL / ST / LD x 12" CI / PL / ST / LD Flex coupling	12.05" (306)	12.65" (321)	12.05" (306)	12.65" (321)	6" (152)	4	44	\$98.50

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-FLEX-125	-	1056-125	-	MR 56 125	56125
MI-FLEX-15125	-	1056-15125	-	MR 56 15125	5615125
MI-FLEX-150	6011	1056-150	6011	MR 56 15	5615
MI-FLEX-200	6023	1056-22	6023	MR 56 22	5622
MI-FLEX-215	6021	1056-215	6021	MR 56 215	56215
MI-FLEX-300	6035	1056-33	6035	MR 56 33	5633
MI-FLEX-320	6033	1056-32	6033	MR 56 32	5632
MI-FLEX-400	6043	1056-44	6043	MR 56 44	5644
MI-FLEX-415	-	1056-415	-	MR 56 415	56415
MI-FLEX-420	6040	1056-42	6040	MR 56 42	5642
MI-FLEX-430	6041	1056-43	6041	MR 56 43	5643
MI-FLEX-500	-	1056-55	-	MR 56 55	5655
MI-FLEX-540	-	1056-540	-	MR 56 54	5654
MI-FLEX-600	-	1056-66	-	MR 56 66	5666
MI-FLEX-640	-	1056-64	-	MR 56 64	5664
MI-FLEX-650	-	1056-65	-	MR 56 65	5665
MI-FLEX-800	-	1056-88	-	MR 56 88	5688
MI-FLEX-840	-	1056-84	-	MR 56 84	5684
MI-FLEX-860	-	1056-86	-	MR 56 86	5686
MI-FLEX-1000	-	1056-1010	-	MR 56 1010	561010
MI-FLEX-1008	-	1056-1008	-	MR 56 1008	561008
MI-FLEX-1200	-	1056-1212	-	MR 56 1212	561212

MI-FLEX-CL FLEXIBLE COUPLINGS - CLAY TO CI OR PLASTIC



MIFAB'S MI-FLEX-CL Series of flexible rubber couplings are used to connect clay pipe to cast iron or plastic pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure) Tested and Certified to ASTM Standard 1173-2010. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts.

All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1173-2010 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A		B		C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
		MIN	MAX	MIN	MAX				
MI-FLEX-CL-400	4" Clay x 4" CI / PL Flexible coupling	4.75" (121)	5.38" (137)	4" (102)	4.63" (118)	4" (102)	60	1,200	\$17.00
MI-FLEX-CL-500	5" Clay x 5" CI / PL Flexible coupling	5.61" (142)	6.20" (157)	5.15" (131)	5.65" (144)	5" (127)	30	360	\$29.00
MI-FLEX-CL-640	6" Clay x 4" CI / PL Flexible coupling	7" (178)	7.56" (192)	3.87" (98)	4.41" (112)	5 1/2" (140)	20	500	\$43.00
MI-FLEX-CL-600	6" Clay x 6" CI / PL Flexible coupling	7.05" (179)	7.56" (192)	6.15" (156)	6.69" (170)	6" (152)	20	400	\$36.50
MI-FLEX-CL-860	8" Clay x 6" CI / PL Flexible coupling	8.80" (224)	9.43" (240)	5.90" (150)	6.31" (160)	6" (152)	8	192	\$67.75
MI-FLEX-CL-800	8" Clay x 8" CI / PL Flexible coupling	9.10" (231)	9.90" (251)	7.87" (200)	8.75" (222)	6" (152)	8	192	\$56.25
MI-FLEX-CL-1000	10" Clay x 10" CI / PL Flexible coupling	11.75" (298)	12.70" (323)	9.75" (248)	10.75" (273)	5.75" (146)	8	88	\$84.25

CROSS REFERENCE

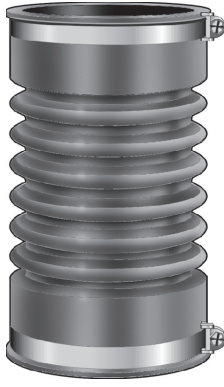
MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-FLEX-CL-400	-	1002-44	-	MR 02 44	56244
MI-FLEX-CL-500	-	1002-55	-	MR 02 55	-
MI-FLEX-CL-640	-	1002-64	-	MR 02 64	56264
MI-FLEX-CL-600	-	1002-66	-	MR 02 66	56266
MI-FLEX-CL-860	-	1002-86	-	MR 02 86	-
MI-FLEX-CL-800	-	1002-88	-	MR 02 88	56288
MI-FLEX-CL-1000	-	1002-1010	-	MR 02 1010	5621010

Design and dimensions are subject to modification. Prices do not include applicable taxes. Visit www.mifab.com for the most recent product information.

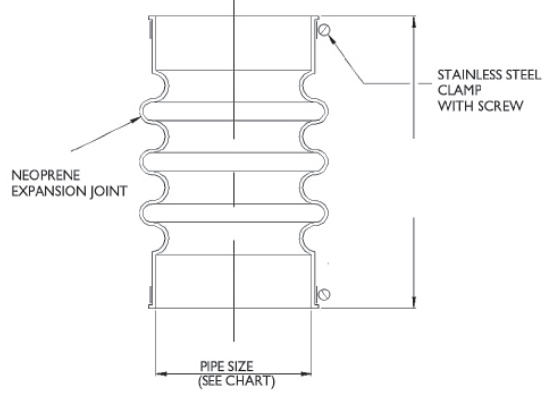
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R1900-NH EXPANSION JOINTS



MIFAB's R1900-NH Series of expansion joints are used to connect cast iron or plastic to cast iron or plastic pipe.
 Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)
 5/16" driver required to tighten bolts.



MODEL NUMBER	PIPE SIZE	C HEIGHT	LIST PRICE, Each Piece
R1902-NH	2" x 2"	7 1/8"	\$16.75
R1903-NH	3" x 3"	8 1/8"	\$18.00
R1904-NH	4" x 4"	8 5/8"	\$22.75
R1906-NH	6" x 6"	8 5/8"	\$30.00
R1908-NH	8" x 8"	11"	\$50.00

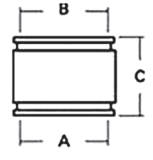
CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
R1902-NH	-	XJ-2	-	MR56 22EXP	-
R1903-NH	-	XJ-3	-	MR56 33EXP	-
R1904-NH	-	XJ-4	-	MR56 44EXP	-
R1906-NH	-	-	-	-	-
R1908-NH	-	-	-	-	-

MI-HUB-TRS SHIELDED TRANSITION COUPLINGS - PL / ST OR XHCI TO COPPER



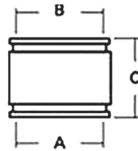
MIFAB's MI-HUB-TRS Series of shielded transition couplings are used to connect plastic, steel, or extra heavy cast iron pipe to copper pipe.
 Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)
 Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2010 and CSA B602-2010. Non constant temperature rating is 140 F.
 Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRS-330	3" Plastic, Steel or Extra Heavy Cast Iron TO 3" Copper	3.37" (86)	3.52" (89)	2.13" (54)	100	2,400	\$12.00
MI-HUB-TRS-440	4" Plastic, Steel or Extra Heavy Cast Iron TO 4" Copper	4.36" (111)	4.44" (113)	2.13" (54)	100	2,400	\$15.75

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRS-330	-	3007-33	-	PK-33	5833-PK
MI-HUB-TRS-440	-	3007-44	-	PK-44	5844-PK

MI-HUB-TR
SHIELDED TRANSITION COUPLINGS - CI, PL OR ST TO CI, PL OR ST.


MIFAB's MI-HUB-TR Series of shielded transition couplings are used to connect cast iron, plastic or steel pipe to cast iron, plastic or steel pipe.

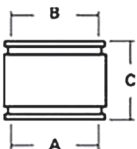
Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure). Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2012 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TR-150	1 1/2" CI / PL / ST x 1 1/2" CI / PL / ST- Shielded Transition coupling	1.95" (50)	1.95" (50)	2.13" (54)	100	7,200	\$6.75
MI-HUB-TR-200	2" CI / PL / ST x 2" CI / PL / ST- Shielded Transition coupling	2.28" (58)	2.34" (59)	2.13" (54)	100	4,800	\$6.75
MI-HUB-TR-215	2" CI / PL / ST x 1 1/2" CI / PL / ST- Shielded Transition coupling	1.93" (49)	2.40" (61)	2.13" (54)	100	4,800	\$9.00
MI-HUB-TR-330	3" CI / PL / ST x 3" CI / PL / ST- Shielded Transition coupling	3.37" (86)	3.52" (89)	2.13" (54)	100	2,400	\$10.50
MI-HUB-TR-430	4" CI / PL / ST x 3" CI / PL / ST - Shielded Transition Coupling	4.46" (113)	3.46" (88)	2.13" (54)	100	2,400	\$15.00
MI-HUB-TR-440	4" CI x 4" CI / PL / ST- Shielded Transition coupling	4.36" (111)	4.44" (113)	2.13" (54)	100	2,400	\$11.25
MI-HUB-TR-550	5" CI x 5" CI / PL / ST- Shielded Transition coupling	5" (127)	5.18" (132)	3" (76)	30	720	\$24.50
MI-HUB-TR-660	6" CI x 6" CI / PL / ST- Shielded Transition coupling	6.52" (166)	6.15" (156)	3" (76)	30	720	\$32.50
MI-HUB-TR-880	8" CI x 8" CI / PL / ST- Shielded Transition coupling	8.50" (216)	8.31" (211)	3.81" (97)	20	320	\$44.25

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TR-150	5010-C	3000-150	5010-C	CP150	58150CP
MI-HUB-TR-200	5020-C	3000-22	5020-C	CP200	58200CP
MI-HUB-TR-215	5023-C	3000-215	5023-C	CP215	58215CP
MI-HUB-TR-330	5030-C	3000-33	5030-C	CP33	5833CP
MI-HUB-TR-430	5041-C	3000-43	5041-C	CP43	-
MI-HUB-TR-440	5040-C	3000-44	5040-C	CP44	5844CP
MI-HUB-TR-550	5050-C	3000-55	5050-C	CP55	5855CP
MI-HUB-TR-660	5060-C	3000-66	5060-C	CP66	5866CP
MI-HUB-TR-880	5080-C	3000-88	5080-C	CP88	5888CP

MI-HUB-TRC
SHIELDED TRANSITION COUPLINGS - CI, PL OR ST TO COPPER OR PL.


MIFAB's MI-HUB-TRC Series of shielded transition couplings are used to connect cast iron, plastic or steel pipe to copper or plastic pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure). Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2012 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRC-1125	1 1/2" CI / PL / ST x 1 1/2" Copper or 1 1/4" PL - Shielded Transition coupling	1.91" (49)	1.35" (34)	2.13" (54)	100	7,200	\$10.75
MI-HUB-TRC-150	1 1/2" CI / PL / ST x 1" Copper or 3/4" PL - Shielded Transition coupling	1.95" (50)	1.64" (42)	2.13" (54)	100	7,200	\$9.50
MI-HUB-TRC-2125	2" CI / PL / ST x 1 1/4" Copper or 1" PL - Shielded Transition coupling	2.36" (60)	1.29" (33)	2.13" (54)	100	4,800	\$16.00
MI-HUB-TRC-215	2" CI / PL / ST x 1 1/2" Copper or 1 1/4" PL- Shielded Transition coupling	1.93" (49)	2.40" (61)	2.13" (54)	100	4,800	\$9.50
MI-HUB-TRC-220	2" CI / PL / ST x 2" Copper - Shielded Transition coupling	2.28" (58)	2.34" (59)	2.13" (54)	100	4,800	\$12.50
MI-HUB-TRC-320	3" CI x 2" Copper - Shielded Transition coupling	3.37" (86)	2.34" (59)	2.13" (54)	100	2,400	\$14.00
MI-HUB-TRC-330	3" CI x 3" Copper - Shielded Transition coupling	3.37" (86)	3.52" (89)	2.13" (54)	100	2,400	\$13.50
MI-HUB-TRC-430	4" CI x 3" Copper - Shielded Transition coupling	4.46" (113)	3.46" (88)	2.13" (54)	100	2,400	\$14.50
MI-HUB-TRC-440	4" CI x 4" Copper - Shielded Transition coupling	4.36" (111)	4.44" (113)	2.13" (54)	100	2,400	\$14.25

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRC-1125	5010-C	3001-1125	5010-C	CK1125	581125CK
MI-HUB-TRC-150	5011-C	3001-150	5011-C	CK115	58115CK
MI-HUB-TRC-2125	5024-C	3001-2125	5024-C	CK2125	582125CK
MI-HUB-TRC-215	5022-C	3001-215	5022-C	CK215	58215CK
MI-HUB-TRC-220	5021-C	3001-22	5021-C	CK22	5822CK
MI-HUB-TRC-320	5031-C	3001-32	5031-C	CK32	5832CK
MI-HUB-TRC-330	5032-C	3001-33	5032-C	CK33	5833CK
MI-HUB-TRC-430	5043-C	3001-43	5043-C	CK43	5843CK
MI-HUB-TRC-440	5044-C	3001-44	5044-C	CK44	5844CK

Design and dimensions are subject to modification. Prices do not include applicable taxes. Visit www.mifab.com for the most recent product information.

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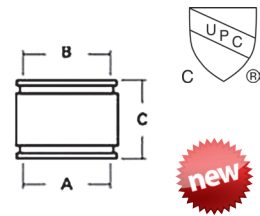
MI-HUB-TRP SHIELDED TRANSITION COUPLINGS - PL, ST, XHCI TO PL, ST OR XHCI



MIFAB's MI-HUB-TRP Series of shielded transition couplings are used to connect plastic, steel or extra heavy cast iron pipe to plastic, steel or extra heavy cast iron pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure).

Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2012 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRP-330	3" PL / ST or XH CI x 3" PL / ST, or XH CI - Shielded Transition coupling	3.37" (86)	3.52" (89)	2.13" (54)	100	2,400	\$11.00
MI-HUB-TRP-430	4" PL / ST or XH CI x 3" PL / ST, or XH CI - Shielded Transition coupling	4.46" (113)	3.46" (88)	2.13" (54)	100	2,400	\$14.00
MI-HUB-TRP-440	4" PL / ST or XH CI x 4" PL / ST, or XH CI - Shielded Transition coupling	4.36" (111)	4.44" (113)	2.13" (54)	100	2,400	\$12.75
MI-HUB-TRP-660	6" PL / ST or XH CI x 6" PL / ST, or XH CI - Shielded Transition coupling	6.52" (166)	6.15" (156)	3" (76)	100	2,400	\$32.25

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRP-330	5304-C	3005-33	5304-C	P-300	58300P
MI-HUB-TRP-430	5406-C	3005-43	5406-C	P-430	58430P
MI-HUB-TRP-440	5405-C	3005-44	5405-C	P-400	58400P
MI-HUB-TRP-660	5601-C	3005-66	5601-C	P-600	58600P

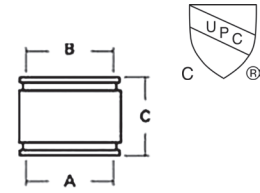
MI-HUB-TRT SHIELDED TRANSITION COUPLINGS - CI, PL OR ST TO TUBULAR



MIFAB's MI-HUB-TRT Series of shielded transition couplings are used to connect cast iron, plastic or steel pipe to tubular pipe.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)

Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2012 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.

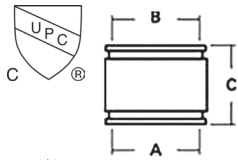


MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRT-150	1 1/2" CI / PL / ST x 1 1/2" Tubular - Shielded Transition coupling	1.95" (50)	1.64" (42)	2.13" (54)	100	4,800	\$11.00
MI-HUB-TRT-155	1 1/2" Tubular x 1 1/2" Tubular - Shielded Transition coupling	1.95" (50)	1.64" (42)	2.13" (54)	100	4,800	\$12.50
MI-HUB-TRT-215	2" CI / PL / ST x 1 1/2" Tubular - Shielded Transition coupling	1.93" (49)	2.40" (61)	2.13" (54)	100	4,800	\$11.00

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRT-150	5108-C	3002-150	5108-C	T-150	58150T
MI-HUB-TRT-155	5109-C	3002-155	5109-C	BWT-150	58150BWT
MI-HUB-TRT-215	5210-C	3002-215	5210-C	T-215	58215T

MI-HUB-TRCC SHIELDED TRANSITION COUPLINGS - Copper to Copper or PL



MIFAB's MI-HUB-TRCC Series of shielded transition couplings are used to connect copper pipe to copper or plastic pipe.
 Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)
 Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2010 and CSA B602-2010. Non constant temperature rating is 140 F.
 Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.

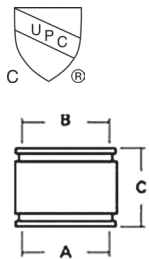


MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRCC-1125	1 1/2" Copper or 1 1/4" Plastic TO 1 1/4" Copper or 1" Plastic	1.91" (49)	1.35" (34)	2.13" (54)	100	7,200	\$16.75
MI-HUB-TRCC-150	1 1/2" Copper or 1 1/4" Plastic TO 1 1/2" Copper or 1 1/4" Plastic	1.95" (50)	1.64" (42)	2.13" (54)	100	7,200	\$10.25
MI-HUB-TRCC-215	2" Copper TO 1 1/2" Copper or 1 1/4" Plastic	1.93" (49)	2.40" (61)	2.13" (54)	100	7,200	\$11.00
MI-HUB-TRCC-220	2" Copper TO 2" Copper	2.28" (58)	2.34" (59)	2.13" (54)	100	7,200	\$11.00
MI-HUB-TRCC-330	3" Copper TO 3" Copper	3.37" (86)	3.52" (89)	2.13" (54)	100	7,200	\$12.50

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRCC-1125	-	-	-	K1125	-
MI-HUB-TRCC-150	-	3003-150	-	K150	58150K
MI-HUB-TRCC-215	-	3003-215	-	K215	58215K
MI-HUB-TRCC-220	-	3003-22	-	K200	58200K
MI-HUB-TRCC-300	-	3003-33	-	K300	58300K

MI-HUB-TRTW SHIELDED TRANSITION COUPLINGS - THINWALL PL TO SCH. 40 PL OR ST



MIFAB's MI-HUB-TRTW Series of shielded transition couplings are used to connect thinwall plastic to Schedule 40 plastic or steel pipe.
 Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)
 Tested and Certified to ASTM Standard 1460-2012. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1460-2010 and CSA B602-2010. Non constant temperature rating is 140 F.
 Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-HUB-TRTW-440	4" Thinwall Plastic TO 4" Schedule 40 Plastic or Steel	4.36" (111)	4.44" (113)	2.13" (54)	100	2,400	\$12.00

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-HUB-TRTW-440	-	3009-33	-	TWP-44	5844TWP

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MI-FLEX-DISH **DISHWASHER CONNECTOR**

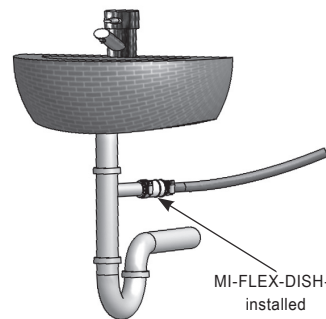


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MIFAB's MI-FLEX-DISH connects a dishwasher hose to a sink drain or garbage disposer. They are made out of flexible PVC.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)

5/16" driver required to tighten bolts.



(Typical Installation underneath a sink)

MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	LIST PRICE, Each Piece
MI-FLEX-DISH-1	.75" or 1" x 1"	.64" (16)	.92" (23)	2.70" (69)	100	\$3.50

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-FLEX-DISH-1	-	DWC-100	-	MRDWC 150	496

MI-FLEX-DTC **FLEXIBLE COUPLINGS - TUBULAR TO DRAIN PIPE**



MIFAB's MI-FLEX-DTC Series of flexible rubber couplings are used to connect tubular traps to common household drain pipe for new installation, repairs and alterations.

Note: Tighten bolts to 60 inch lbs. min. / max torque. Tested to maintain 4.3 p.s.i. maximum line pressure (10' head pressure)

Tested and Certified to ASTM Standard 1173-2010. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity®. All models are manufactured in compliance with ASTM 1173-2010 and CSA B602-2010. Non constant temperature rating is 140 F.

Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A		B		C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
		MIN	MAX	MIN	MAX				
MI-FLEX-DTC-150	1 1/4" or 1 1/2" tubular traps to 1 1/4" or 1 1/2" drain piping	1.46" (37)	1.69" (43)	1.95" (50)	2.16" (55)	2.25" (57)	100	6,300	\$5.75
MI-FLEX-DTC-215	1 1/4" or 1 1/2" tubular traps to 2" drain piping (except copper. For 2" copper, use MI-FLEX-DTC-150).	1.46" (37)	1.70" (43)	2.38" (61)	2.62" (67)	2.31" (59)	100	6,300	\$9.50

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-FLEX-DTC-150	-	DTC-150	-	MRTC 150	5915
MI-FLEX-DTC-215	-	DTC-215	-	MRDTC 215	5925

C1440-NH EXPANDABLE MECHANICAL STOPPERS



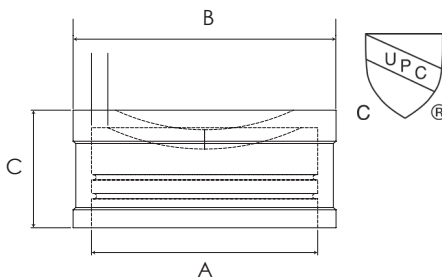
MIFAB's C1440-NH Series of expandable mechanical stoppers are used to test gravity flow, non pressure DWV and sewer systems. The plastic plug will expand into the pipe opening as it is tightened. The C1440-NH Series meet and exceed the ASTM Standard C425 requirements.

MODEL NUMBER	PIPE SIZE	LIST PRICE, Each Piece
C1441.5-NH	1 1/2" Cast Iron, Schedule 40 Plastic or Steel	\$2.65
C1442-NH	2" Cast Iron, Schedule 80 Plastic or 1 1/2" Schedule 40 Plastic Hub	\$2.90
C1443-NH	3" Cast Iron, Schedule 40 Plastic, Steel, SDR 35 Plastic, Copper (DWV), Clay	\$3.65
C1444-NH	4" Cast Iron, Schedule 40 Plastic, Steel, SDR 35 Plastic, Copper (DWV), Clay	\$5.95

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
C1441.5-NH	-	-	-	ST-152	4803
C1442-NH	-	-	-	ST-201	4804
C1443-NH	-	-	-	ST-301	4806
C1444-NH	-	-	-	ST-402	4808

MI-EC END CAPS



MIFAB's flexible rubber end caps are used to cap pipe ends, cleanouts and open pipes. They are suitable for above ground or underground use on cast iron, steel, PVC or ABS pipes. Tested and Certified to I.A.P.M.O. Standard PS 90-06. All models are listed with I.A.P.M.O. (U.P.C.) 5/16" driver required to tighten bolts. All models are listed to the National Plumbing Code of Canada and relevant Canadian Standard(s) and bear the cUPC mark of conformity. All models are manufactured in compliance with IAPMO PS 90-06 and CSA B602-2010. Non constant temperature rating is 140 F. Stainless Steel Clamp and 5/16" hex head bolt are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-EC-150	1 1/2"	1.61" (41)	1.95" (50)	1.15" (29)	160	11,520	\$4.50
MI-EC-200	2"	1.94" (49)	2.48" (63)	1.25" (32)	150	10,350	\$5.15
MI-EC-300	3"	3.09" (79)	3.63" (92)	1.39" (35)	100	4,800	\$6.50
MI-EC-400	4"	3.96" (101)	4.60" (117)	1.65" (42)	80	3,200	\$8.50
MI-EC-500	5"	5.03" (128)	5.85" (149)	2.09" (53)	40	-	\$11.15
MI-EC-600	6"	5.73" (146)	6.62" (168)	2.20" (56)	40	-	\$11.50
MI-EC-800	8"	7.70" (196)	8.85" (225)	2.95" (75)	40	-	\$23.25

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-EC-150	9329	QC-101	9329	0701 011	4417
MI-EC-200	9330	QC-102	9330	0702 019	4418
MI-EC-300	9331	QC-103	9331	0703 017	4419
MI-EC-400	9332	QC-104	9332	0704 015	4422
MI-EC-500	-	QC-105	-	0705 020	4840
MI-EC-600	-	QC-106	-	0706 028	4841
MI-EC-800	-	QC-108	-	0708 016	4842

MI-ELB ELBOWS

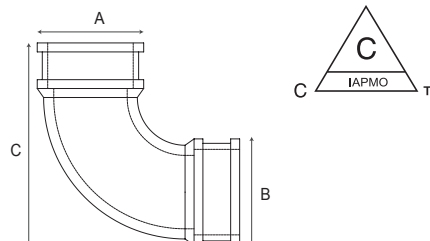


MIFAB's MI-ELB Series of flexible rubber Elbows are used to connect all common household drain, waste and vent pipes quickly. They are extra long to replace fittings cut out at the joint during alteration or repair.

All models are listed with I.A.P.M.O.

Non constant temperature rating is 140 F.

Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-ELB-150	1 1/2" Elbow	1.90" (48)	1.90" (48)	4.46" (113)	50	2,700	\$12.75
MI-ELB-200	2" Elbow	2.31" (59)	2.31" (59)	5.17" (131)	20	1,680	\$13.50
MI-ELB-300	3" Elbow	3.44" (87)	3.44" (87)	7.87" (200)	20	560	\$20.00
MI-ELB-400	4" Elbow	4.44" (113)	4.44" (113)	9.63" (245)	6	294	\$30.00

CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-ELB-150	-	QL-150	-	M9OL 150	5815
MI-ELB-200	-	QL-200	-	M9OL 200	5822
MI-ELB-300	-	QL-300	-	M9OL 300	5833
MI-ELB-400	-	QL-400	-	M9OL 400	5844

MI-TEE TEES

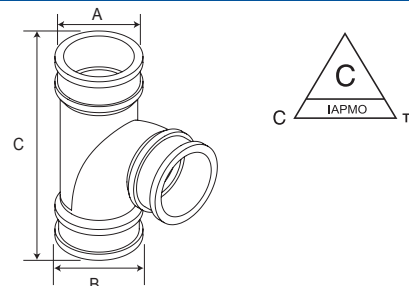


MIFAB's MI-TEE Series of flexible rubber Tees are used to connect all common household drain, waste and vent pipes quickly. They are extra long to replace fittings cut out at the joint during alteration or repair.

All models are listed with I.A.P.M.O.

Non constant temperature rating is 140 F.

Stainless Steel Clamps and 5/16" hex head bolts are made from Type 300 Stainless Steel.



MODEL NUMBER	PIPE SIZE	A WIDTH	B WIDTH	C HEIGHT	CARTON QUANTITY	PALLET QUANTITY	LIST PRICE, Each Piece
MI-TEE-150	1 1/2" Tee	1.88" (48)	1.88" (48)	1.88" (48)	50	1,500	\$16.00
MI-TEE-200	2" Tee	2.31" (59)	2.31" (59)	2.31" (59)	20	1,200	\$17.25
MI-TEE-300	3" Tee	3.40" (86)	3.40" (86)	3.40" (86)	20	400	\$26.25
MI-TEE-400	4" Tee	4.52" (115)	4.52" (115)	4.52" (115)	6	168	\$37.00

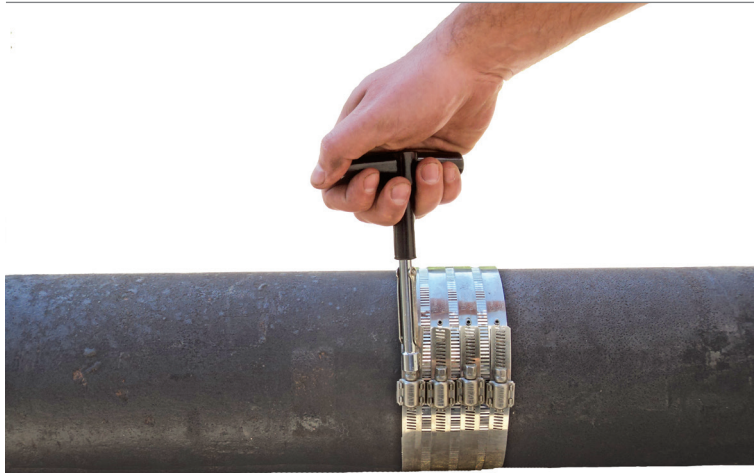
CROSS REFERENCE

MIFAB	ANACO	FERNCO	HUSKY	MISSION	PASCO
MI-TEE-150	-	QT-150	-	MTY 150	5715
MI-TEE-200	-	QT-200	-	MTY 200	5722
MI-TEE-300	-	QT-300	-	MTY 300	5733
MI-TEE-400	-	QT-400	-	MTY 400	5744

MI-TORQUE TORQUE WRENCH 60 IN. - LBS.

SPECIFICATION: MIFAB® MI-TORQUE black handled 60 in. – lbs. steel torque wrench with 5/16" hex drive.

FUNCTION: The MI-TORQUE wrench is used to tighten MIFAB’s MI-HUB Series of regular duty no hub couplings and any other brand of regular duty no hub couplings to 60 in. - lbs. in order to connect No-Hub soil pipe. The MI-TORQUE wrench tightens with a ratchet action and slips at the 60 in. - lbs. preset torque limit to avoid over tightening. The T-shaped handle provides good leverage for the operator and fast and easy one - handed tightening in the right hand direction.



MI-TORQUE

MI-TORQUE - List Price - \$40.00

CROSS REFERENCE

MIFAB	Wheeler Rex	Ideal	Lowell	Ridgid
MI-TORQUE	1967	8-9995	3T000	902

TESTING AND INSPECTION OF NO HUB COUPLINGS

It is important to test all cast iron piping installations for leaks after the roughing in has been completed. Before testing, the installer should notify the inspector of the local administrative authority having jurisdiction over plumbing installations. Leave concealed work uncovered until the required tests are performed and the system receives approval.

Note: In all installations, installers should be aware of local conditions, codes and regulations. Comply with all local codes, regulations, manufacturers’ instructions and architect engineer specifications.

WATER OR HYDROSTATIC TESTING

This is the most common type of test used to test a completed cast iron soil pipe installation, and it is the test most often recommended by plumbing codes. Its purpose is to check the installation for leaks and to correct these prior to putting the system into service. Use the following steps to perform a water test: (Note: MIFAB does not recommend an air test)

1. Since visual inspection of the system is required, conduct this test prior to enclosing above ground installations, or backfilling below-ground installations.
2. Isolate each floor or section being tested by inserting plugs into the test tees in the stacks.
3. Plug or cap all other openings with test plugs or test caps.
4. Fill the system with water at its highest point. Do this slowly to allow any trapped air to escape as the water level rises. Note: Failure to remove entrapped air may cause faulty test results, so be sure all entrapped air has been removed to obtain reliable test results.
5. As water fills a vertical pipe, it creates hydrostatic pressure. This pressure increases as the height of the water in the vertical pipe increases. MIFAB® recommends water testing with ten feet of hydrostatic pressure (4.3 pounds per square inch).
6. After filling the stack to ten feet of head, visually inspect the section you are testing for any leaks around its joints with: the no hub couplings.
7. In hub less systems, leaks can often be traced to no hub couplings that were not tightened properly to the recommended torque and / or with the correct tools such as a calibrated torque wrench. In these cases, correctly tightening the couplings should eliminate the leak.
8. Water test each portion of the system for 15 minutes. This is sufficient time for any problems to be detected.
9. After a successful test, drain the system and prepare the next section for testing.

Design and dimensions are subject to modification. Prices do not include applicable taxes. Visit www.mifab.com for the most recent product information.

MIFAB®, Inc., 1321 West 119th Street, Chicago, Illinois 60643-5109, USA
All sales subject to MIFAB’s® Terms and Warranties. Please refer to inside front cover.

Toll Free: 1-800-465-2736, Fax: 1-773-341-3049
sales@mifab.com • Canada Toll Free: 1-800-387-3880

Location: _____



MI-HUB

**SHIELDED
NO HUB COUPLINGS**

Specification: MIFAB® Series MI-HUB (specify size) shielded no hub couplings are manufactured with gaskets made from an elastomeric compound that meets the requirements of ASTM C-564 housed inside a Type 301 stainless steel corrugated shield. Two (2" through 4" size), four (6" through 10" size) or six (12" and 15" sizes) Type 301 stainless steel clamps tightened with 5/16" Type 305 stainless steel hex head screws surround the shield to provide the sealing force. MI-HUB Series Couplings are tested and certified to the ASTM-C1277-2009a, CISPI 310-2010, and CSA B602-2010 (File # 247608) Standards and are listed with IAPMO. Also tested and certified by Intertek Testing Services to CAN/ULC S102.2-07 "Smoke Test."

Function: Used to provide a positive and significant seal between no hub cast iron pipe and fittings.

Material Specifications:

Bands - Type 301 AISI stainless steel (Minimum tensile 165,000 psi).

Eyelets - T ype 301 AISI stainless steel.

Gasket - Elastomeric compound meeting the requirements of ASTM C-564.

Screw Housing - Type 304 AISI stainless steel.

Screws - Type 305 AISI stainless steel, 5/16" Hex head / Shoulder.

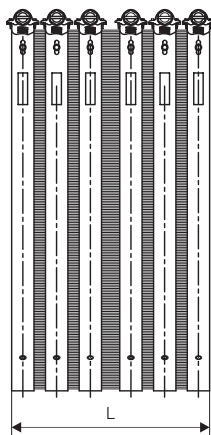
Shield - Type 301 AISI stainless.



Performance Specifications:

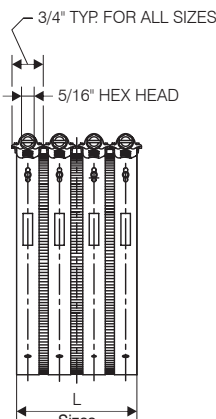
- Tested to maintain 4.3 psi of water pressure (typical 10' head).
- Requires a 5/16" hex head

MODEL NUMBER	PIPE SIZE (NOMINAL DIA.)	(L) LENGTH (COUPLING)	INSTALLATION TORQUE (IN. - LBS)	NUMBER OF CLAMPS PER COUPLING	BAND WIDTH (CLAMP)
MI-HUB-150	1 1/2"	2 1/8"	60	2	9/16"
MI-HUB-2150	2 x 1 1/2"	2 1/8"	60	2	9/16"
MI-HUB-2	2"	2 1/8"	60	2	9/16"
MI-HUB-3	3"	2 1/8"	60	2	9/16"
MI-HUB-32	3" x 2"	2 1/8"	60	2	9/16"
MI-HUB-4	4"	2 1/8"	60	2	9/16"
MI-HUB-42	4" x 2"	2 1/8"	60	2	9/16"
MI-HUB-43	4" x 3"	2 1/8"	60	2	9/16"
MI-HUB-5	5"	3"	60	4	9/16"
MI-HUB-6	6"	3"	60	4	9/16"
MI-HUB-8	8"	4"	60	4	9/16"
MI-HUB-10	10"	4"	60	4	9/16"
MI-HUB-12	12"	5.43"	60	6	9/16"
MI-HUB-15	15"	5.43"	60	6	9/16"



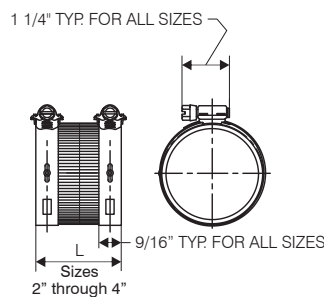
12", 15" Sizes

Tighten inside bands first, then outside bands.



Sizes 5" through 10"

Tighten inside bands first, then outside bands.



Sizes 2" through 4"

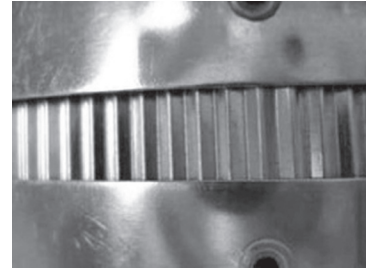
Tighten bands alternately to recommended torque.



MIFAB MI-HUB NO HUB COUPLINGS FEATURES AND BENEFITS

1) Stainless Steel Shield

A corrugated stainless steel shield provides a solid surface for the bands to tighten against to ensure a uniform grip around the pipe / fittings.



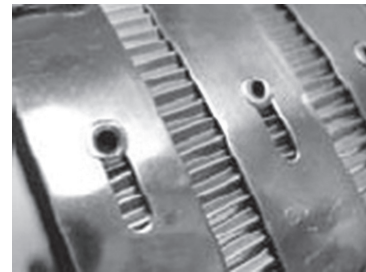
2) Mechanical Interlocking Clamp Design

A one piece stainless steel screw housing mechanically interlocks the housing to the stainless steel band. This one piece housing eliminates leak paths than can develop with welded or staked clamps.



3) Floating Eyelet Design

The stainless steel clamp bands can move independently from the corrugated stainless steel shield. This independence prevents the shield from crimping during tightening which can lead to leaks.



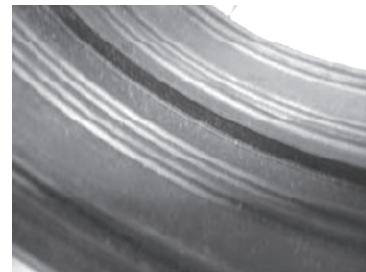
4) 5/16" Hex Head Screw

The stainless steel 5/16" hex head screw is engineered to accept 60-inch pounds of installation torque to ensure a secure band / shield assembly around the pipe / fittings.



5) Formed Gasket Design

The gasket is designed to form fit around the pipe and the inside of the shield so that when the clamping forces are applied, a superior sealing pressure and holding power is achieved. MIFAB's gaskets are made from a virgin elastomeric compound that meets the requirements of ASTM C564.



6) Approvals

MIFAB's MI-HUB Series of no hub couplings are tested and certified to the following Standards:

ASTM C-564, ASTM C1277-2009a, CISPI 310-2010, CSA B602-2010 and CAN/ULC S102.2-07 "Smoke Test."

They are also listed with I.A.P.M.O.

MIFAB NO HUB COUPLINGS INSTALLATION INSTRUCTIONS

The following installation instructions provide guidelines for joining MIFAB's MI-HUB Series of shielded no hub couplings to no hub pipe and fittings in accordance with standard industry practice.

Note that each City, State, Province or Region may have governing codes, engineering requirements and local practices of the plumbing trade that must be followed.

A correctly calibrated torque wrench set at 60-inch pounds should always be used when installing MIFAB's no hub couplings. If power tools are used, they should be calibrated to torque only to 60-inch pounds.

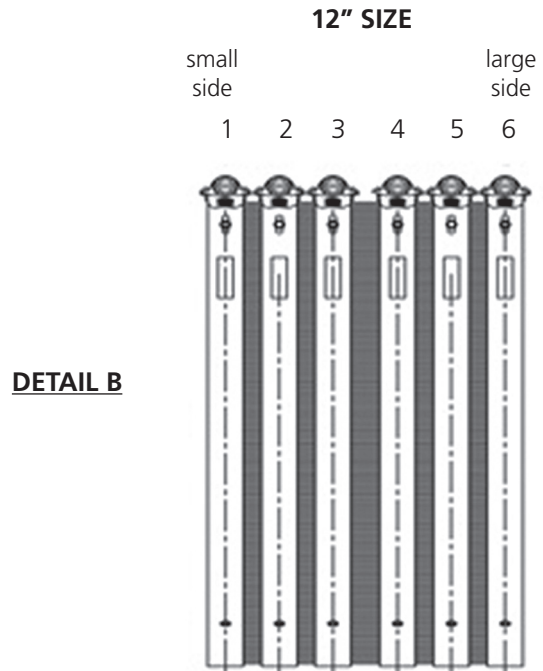
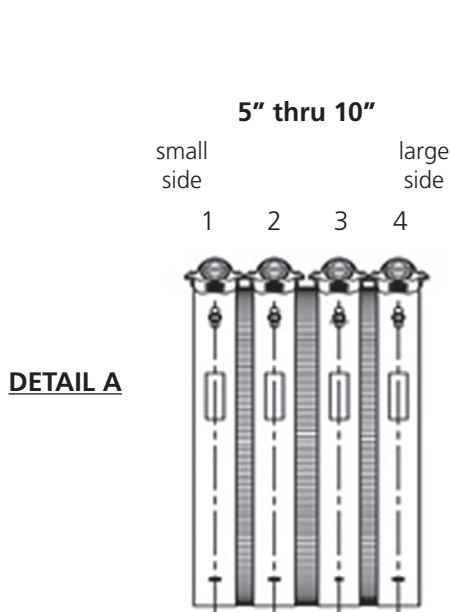
- 1) Ensure that the pipe ends are cut square.
- 2) Place the neoprene gasket onto the end of one piece of pipe / fitting and the stainless steel clamp assembly over the other piece of pipe / fitting to be joined.
- 3) Place the second piece of pipe end into gasket, firmly placing both ends against the rib or shoulder in the center of the gasket.
- 4) Ensure that the pipe / fittings to be joined are aligned, then slide the loose coupling over the gasket so that the gasket is completely covered.
- 5) For MIFAB's 2", 3" and 4" no hub couplings with two sealing bands, use a torque wrench to tighten the stainless steel screws alternately to 60 inch pounds torque.

MIFAB's 5", 6", 8", and 10" no hub couplings have four sealing bands. Tighten the bands to 60-inch pounds torque in the following sequence: Start on the side of the joint with the smaller diameter (see detail A) and torque as follows:

2,1 - 2,1 - 3,4 - 3,4 - 2,1 - 3,4

MIFAB's 12" no hub couplings have six sealing bands. Tighten the bands to 60-inch pounds torque in the following sequence: Start on the side of the joint with the smaller diameter (see detail B) and torque as follows:

3,2,1 - 3,2,1 - 4,5,6 - 4,5,6 - 3,2,1 - 4,5,6



IAPMO RESEARCH AND TESTING, INC.

5001 East Philadelphia Street, Ontario, California 91761-2816 • (909) 472-4100 Fax (909) 472-4244 • www.iapmo.org



CERTIFICATE OF LISTING

IAPMO Research and Testing, Inc. is a product certification body which tests and inspects samples taken from the supplier's stock or from the market or a combination of both to verify compliance to the requirements of applicable codes and standards. This activity is coupled with periodic surveillance of the supplier's factory and warehouses as well as the assessment of the supplier's Quality Assurance System. This listing is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO Research and Testing, Inc. of the product acceptance by Authorities Having Jurisdiction.

The most updated information on this Certificate of Listing is available online at pld.iapmo.org

Effective Date: June 2015 Void After: June 2016

Product: Hubless Cast Iron Pipe Couplings File No. 5226

Issued To: Mifab, Inc.
1321 West 119th Street
Chicago, IL 60643

Identification: Gasket shall be marked with raised letters with pipe size, country of origin, manufacturer's name or trademark, "C564", and "CSA B602" with latest revision. The band of coupling shall be marked with the pipe size. The screw housing shall be marked with manufacturer's name or trademark, country of origin and the words "ALL STAINLESS" or "ALL SS". The coupling assembly shall also be permanently marked with the pipe material for which the coupling is designed. The gasket and bands shall also bear the cUPC® certification mark.

Characteristics: An elastomeric coupling and 300 series stainless steel shield & bands for use in joining hubless cast iron soil pipe and fittings in drainage, waste and vent systems. To be installed with IAPMO listed pipe and fittings and in accordance with the manufacturer's instructions and the requirements of the latest edition of the Uniform Plumbing Code.

Products listed on this certificate have been tested by an IAPMO R&T recognized laboratory. This recognition has been granted based upon the laboratory's compliance to the applicable requirements of ISO/IEC 17025.

- MODELS:
- MI-HUB-2
 - MI-HUB-3
 - MI-HUB-4
 - MI-HUB-5
 - MI-HUB-6
 - MI-HUB-8
 - MI-HUB-10
 - MI-HUB-12
 - MI-HUB-1.5
 - MI-HUB-3X2
 - MI-HUB-4X3
 - MI-HUB-15


Chairman, Product Certification Committee


CEO, The IAPMO Group



This listing period is based upon the last date of the month indicated on the Effective Date and Void After Date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of the Product Certification Committee, or any evidence of non-compliance with applicable codes and standards or of inferior workmanship, may be deemed sufficient cause for revocation of this listing. Production of or reference to this form for advertising purposes may be made only by specific written permission of IAPMO Research and Testing, Inc. Any alteration of this certificate could be grounds for revocation of the listing.



Certificate of Compliance

Certificate: 2199383

Master Contract: 247608

Project: 2199383

Date Issued: November 17, 2011

MIFAB, Inc.
1321 West 119th St
Chicago, IL 60643
USA

Attention: Mr. Mike Whiteside

The products listed below are eligible to bear the CSA Mark shown



Issued by: Kelly Yaremko

PRODUCTS

CLASS – 7021 01 PIPE AND PIPE FITTINGS Mechanical Joints (Non-Transition Type)

CLASS – 7021 02 PIPE AND PIPE FITTINGS Mechanical Coupling

Mechanical Joint (MJ) couplings, for use with plain-end cast iron soil pipe and pipe fittings: Same size pipe fittings; 1-1/2, 2, 3, 4, 5, 6, 8, 10 inch. Reduced size pipe fittings; 2 x 1-1/2, 3 x 2, 4 x 3, 4 x 2 inch.

APPLICABLE REQUIREMENTS

CSA Standard CSA-B70-02 Cast Iron Soil Pipe, Fittings and Means of Joining

CSA Standard CSA-B602-05 Mechanical Couplings for Drain, Waste, and Vent Pipe and Sewer Pipe

MARKINGS

Submittor's name and/or CSA file number 247608, model designation and the CSA Mark appear in a permanent manner on each unit.



Supplement to Certificate of Compliance

Certificate: 2199383

Master Contract: 247608

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
2475972	Nov 17, 2011	Update report to update Applicable Requirements
2199383	Aug 6, 2009	Original Certification.

Listee
MIFAB
247608

MI-HUB-150
MI-HUB-2
MI-HUB-3
MI-HUB-4
MI-HUB-5
MI-HUB-6
MI-HUB-8
MI-HUB-10
MI-HUB-2150
MI-HUB-32
MI-HUB-43
MI-HUB-42

Location: _____



MI-XHUB

HEAVY DUTY SHIELDED NO HUB COUPLINGS

Specification: MIFAB Series MI-XHUB (specify size) heavy duty shielded no hub couplings are manufactured with gaskets made from an elastomeric compound that meets the requirements of ASTM C-564 housed inside a Type 304 stainless steel corrugated shield. Four (2" through 4" size), six (5" through 15" size) Type 304 stainless steel clamps tightened with 3/8" Type 305 stainless steel hex head screws surround the shield to provide the sealing force. MI- XHUB Series Couplings are tested and certified to the ASTM-C1540-2011 and CSA B602-2010 Standards and are listed with IAPMO. The MI-XHUB are also tested and certified by Intertek Testing Services to the CAN/ULC S102.2-10 "Smoke Test". The MI-XHUB are tested by I.A.P.M.O. to comply to the FM 1680-1989 Standard (except for markings).

Function: Used to provide a positive and significant seal between no hub cast iron pipe and fittings.



Material Specifications:

Bands - Type 304 AISI stainless steel (Minimum tensile 165,000 psi). Eyelets - Type 304 AISI stainless steel.

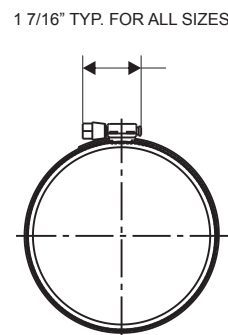
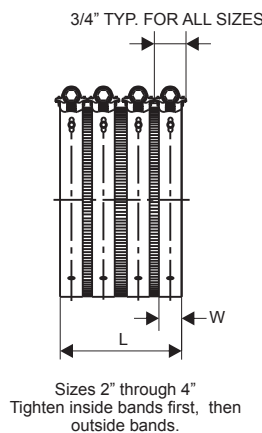
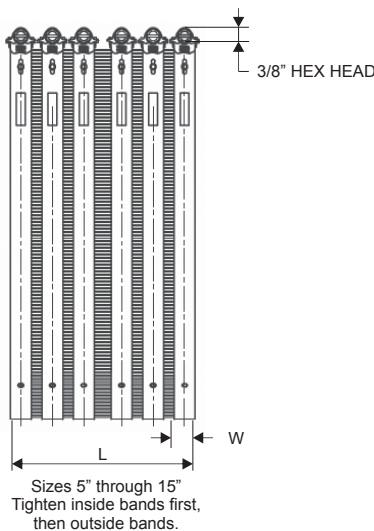
Gasket - Elastomeric compound meeting the requirements of ASTM C-564. Screw Housing - Type 304 AISI stainless steel.

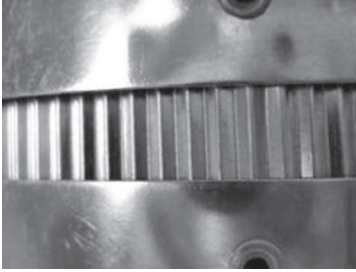
Eyelets - Type 304 AISI stainless steel.

Screws - Type 305 AISI stainless steel, 3/8" Hex head / Shoulder.

Shield - Type 304 AISI stainless steel painted red for easy identification.

MODEL NUMBER	PIPE SIZE (NOMINAL DIA.)	(L) LENGTH (COUPLING)	INSTALLATION TORQUE (IN. - LBS)	NUMBER OF CLAMPS PER COUPLING	(W) BAND WIDTH (CLAMP)
MI-XHUB-1.5	1 1/2"	3"	80 - 100	4	9/16"
MI-XHUB-2	2"	3"	80 - 100	4	9/16"
MI-XHUB-3	3"	3"	80 - 100	4	29/64"
MI-XHUB-3x2	3" x 2"	3"	80 - 100	4	29/64"
MI-XHUB-4	4"	3"	80 - 100	4	9/16"
MI-XHUB-4x2	4" x 2"	3"	80 - 100	4	9/16"
MI-XHUB-4x3	4" x 3"	3"	80 - 100	4	9/16"
MI-XHUB-5	5"	4"	80 - 100	6	9/16"
MI-XHUB-6	6"	4"	80 - 100	6	9/16"
MI-XHUB-8	8"	4"	80 - 100	6	9/16"
MI-XHUB-10	10"	4"	80 - 100	6	9/16"
MI-XHUB-12	12"	5.43"	80 - 100	6	5/8"
MI-XHUB-15	15"	5.43"	80 - 100	6	5/8"



MIFAB MI-XHUB NO HUB COUPLINGS FEATURES AND BENEFITS**1) Red Shield**

A distinctive red stainless steel shield easily identifies MIFAB's heavy duty MI-XHUB no hub couplings.

**2) Mechanical Interlocking Clamp Design**

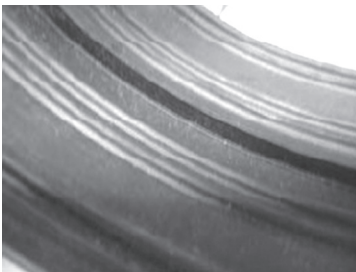
A one piece stainless steel screw housing mechanically interlocks the housing to the stainless steel band. This one piece housing eliminates leak paths that can develop with welded or staked clamps.

**3) Floating Eyelet Design**

The stainless steel clamp bands can move independently from the corrugated stainless steel shield. This independence prevents the shield from crimping during tightening which can lead to leaks.

**4) 3/8" Hex Head Screw**

The stainless steel 3/8" hex head screw is engineered to accept 80-inch pounds of installation torque to ensure a secure band / shield assembly around the pipe / fittings.

**5) Formed Gasket Design**

The gasket is designed to form fit around the pipe and the inside of the shield so that when the clamping forces are applied, a superior sealing pressure and holding power is achieved. MIFAB's gaskets are made from a virgin elastomeric compound that meets the requirements of ASTM C564.

6) Approvals

MIFAB's MI-XHUB Series of no hub couplings are tested and certified to the following Standards: ASTM C-564, ASTM C1540-2011 and CSA B602-2010 and are also listed with I.A.P.M.O. The MI-XHUB are also tested and certified by Intertek Testing Services to the CAN/ULC S102.2-10 "Smoke Test". The MI-XHUB are tested by I.A.P.M.O. to comply to the FM 1680-1989 Standard (except for markings).

MIFAB XHUB COUPLINGS INSTALLATION INSTRUCTIONS

The following installation instructions provide guidelines for joining MIFAB's MI-XHUB Series of shielded no hub couplings to no hub pipe and fittings in accordance with standard industry practice.

Note that each City, State, Province or Region may have governing codes, engineering requirements and local practices of the plumbing trade that must be followed.

A correctly calibrated torque wrench set at 80-inch pounds should always be used when installing MIFAB's no hub couplings. If power tools are used, they should be calibrated to torque only to 80-inch pounds.

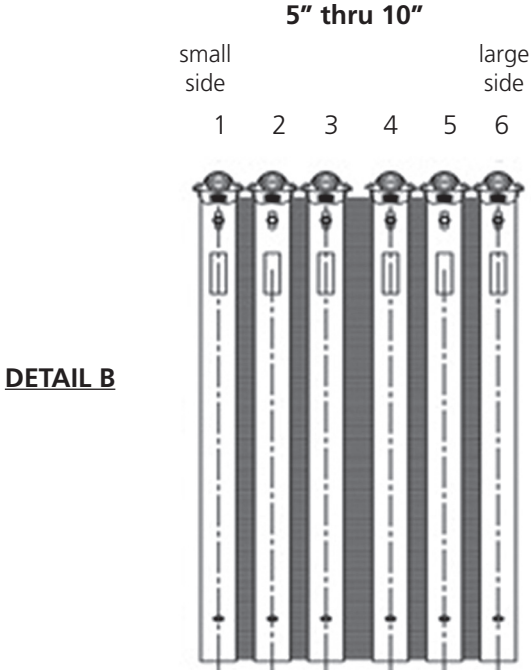
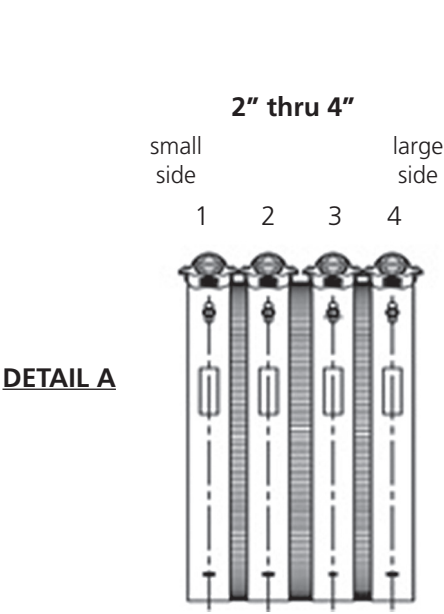
- 1) Ensure that the pipe ends are cut square.
- 2) Place the neoprene gasket onto the end of one piece of pipe / fitting and the stainless steel clamp assembly over the other piece of pipe / fitting to be joined.
- 3) Place the second piece of pipe end into gasket, firmly placing both ends against the rib or shoulder in the center of the gasket.
- 4) Ensure that the pipe / fittings to be joined are aligned, then slide the loose coupling over the gasket so that the gasket is completely covered.
- 5) For MIFAB's 2", 3" and 4" no hub couplings with four sealing bands, use a torque wrench to tighten the bands to 80-inch pounds torque in the following sequence:

Start on the side of the joint with the smaller diameter (see detail A) and torque as follows:

2,1 - 2,1 - 3,4 - 3,4 - 2,1 - 3,4

MIFAB's 5", 6", 8", 10" and 12" no hub couplings have six sealing bands. Tighten the bands to 80-inch pounds torque in the following sequence: Start on the side of the joint with the smaller diameter (see detail B) and torque as follows:

3,2,1 - 3,2,1 - 4,5,6 - 4,5,6 - 3,2,1 - 4,5,6



IAPMO RESEARCH AND TESTING, INC.

5001 E. Philadelphia Street, Ontario, CA 91761-2816 • (909) 472-4100 • Fax (909) 472-4244 • www.iapmort.org



CERTIFICATE OF LISTING

IAPMO Research and Testing, Inc. is a product certification body which tests and inspects samples taken from the supplier's stock or from the market or a combination of both to verify compliance to the requirements of applicable codes and standards. This activity is coupled with periodic surveillance of the supplier's factory and warehouses as well as the assessment of the supplier's Quality Assurance System. This listing is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO Research and Testing, Inc. of the product acceptance by Authorities Having Jurisdiction.

The most updated information on this Certificate of Listing is available online at pld.iapmo.org

Effective Date: June 2015 Void After: June 2016

Product: Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings File No. 5225

Issued To: MIFAB, INC.
1321 WEST 119TH STREET
CHICAGO, IL 60643

Identification: Each clamp assembly shall be permanently marked with the manufacturer's name or U.S. registered trademark, the country of origin, "all stainless" and the pipe size for which it is designed. Gaskets shall be marked with the manufacturer's name or symbol, the pipe size and material and class (such as NH, SV, XH), the year of manufacture, country of origin and the ASTM specification designation. Each major component shall be permanently marked with "CSA B602". The product shall also bear the cUPC® certification mark.

Characteristics: Heavy Duty Shielded Couplings to be installed in accordance with the manufacturer's instructions and the latest edition of the Uniform Plumbing Code.

Products listed on this certificate have been tested by an IAPMO R&T recognized laboratory. This recognition has been granted based upon the laboratory's compliance to the applicable requirements of ISO/IEC 17025.

Products are in compliance with the following code(s):

- Uniform Plumbing Code (UPC®)
- National Plumbing Code of Canada
- International Plumbing Code (IPC®)

Products are in compliance with the following standard(s):

- ASTM C1540-2011 (excluding Annex A1)
- CSA B602-2010

MODELS:

- MI-XHUB-2
- MI-XHUB-3
- MI-XHUB-4
- MI-XHUB-5
- MI-XHUB-6
- MI-XHUB-8
- MI-XHUB-10
- MI-XHUB-12
- MI-XHUB-1.5
- MI-XHUB-3X2

Design and dimensions are subject to modification. Prices do not include applicable taxes. Visit www.mifab.com for the most recent product information.

MIFAB®, Inc., 1321 West 119th Street, Chicago, Illinois 60643-5109, USA

All sales subject to MIFAB's® Terms and Warranties. Please refer to inside front cover.

Toll Free: 1-800-465-2736, Fax: 1-773-341-3049

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TEST REPORT



Ph: 909.472.4100 • Fax 909.472.4243 • Web: www.iapmo.org
5001 East Philadelphia Street • Ontario, California 91761-2816 - USA

Report Number: 321-11031 Project No.: 18826

Report Issued: June 8, 2011

Client: Mifab
1321 West 119th street
Chicago, IL 60643
Contact: Michael Whiteside

Source of Samples: The samples were shipped by the manufacturer, and received by IAPMO R&T Lab in good condition on March 31, 2011.

Date of Testing: April 08, 2011 to June 8, 2011

Sample Description: Heavy Duty Hubless Couplings

Model nos: MI-XHUB-150, MI-XHUB-2, MI-XHUB-3, MI-XHUB- 4", MI-XHUB-5, MI-XHUB-6, MI-XHUB-8 and MI-XHUB-10.

Each unit consisted of a rubber gasket, a corrugated stainless steel shield, and stainless steel bands / clamp assembly.

Scope of Testing: The purpose of the testing was to determine if the samples tested of the hubless couplings met the applicable requirements of FM 1680-1989, entitled "Approval Standard for Couplings Used in Hubless Cast Iron Systems for Drain, Waste or Vent, Sewer, Rainwater or Storm Drain Systems Above and Below Ground, Industrial/Commercial and Residential".

Conclusion: The samples tested of the heavy duty hubless couplings models shown above, from Mifab, complied with all the applicable requirements of FM 1680-1989, Except for 4.1 Markings.

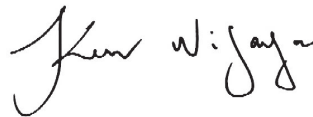
By our signatures below, we certify that all the testing and sample preparation for this report was performed under continuous, direct supervision of IAPMO R&T Lab, unless otherwise noted.

Tested by:

Reviewed by:



Hanks Ninh, Project Engineer



Ken Wijaya, Sr. Laboratory Director

REGULAR DUTY (MI-HUB) VS. HEAVY DUTY (MI-XHUB NO HUB COUPLINGS)

MIFAB's Series of MI-HUB and MI-XHUB no hub couplings are designed and engineered to connect cast iron pipe and fittings together. MIFAB's flexible stainless steel shield provides adjustability to the installing contractor when working with cast iron pipe and fittings that are over or undersized to ensure a quality system and labor savings.

MIFAB's MI-HUB Series is a "regular duty" no hub coupling tested and certified to the ASTM # C1277-2009a, ASTM C564, CISPI 310-2010 and CSA B602-2010 Standards and listed with IAPMO. They are also tested by Intertek Testing Services to CAN / ULC S102.2-07 "smoke test".

Storm and Sanitary drainage systems are generally considered to be "low pressure" systems under normal conditions. This changes when a blockage in the line occurs and the resulting build up of water can greatly increase the pressure within the system.

High pressures can also occur in plumbing systems when lower level parking garages and multistory lobbies are built. Often, the design of these structures does not allow for relief in the sanitary systems for four floors or more. The condition known as "Hydraulic Jump" can lead to surges and pressure at any change of direction; especially at the base of the stack. Storm systems have even a greater risk of high line pressure occurrences since they are often not relieved for the total height of the structure.

Underground piping systems have different issues and risks not found above ground. Movement of the earth during back filling and settling of trench beddings is common. In addition, areas of seismic activity, unstable soil conditions caused by thermal effects (expansion and contraction), environments of high corrosion and high groundwater tables can lead to separation of joints without visibility to the installer.

Failure of the piping system due to high line pressures and faulty underground installations can lead to pipes leaking /breaking at their joints. The resulting water leaks can cause damage within the building, affecting equipment, furniture, machinery and the building structure. Plumbing Engineers should consider specifying MIFAB's "heavy duty" no hub couplings to minimize these risks.

MIFAB's MI-XHUB Series is a "heavy duty" no hub coupling tested and certified to the ASTM # C1540-2011, ASTM C564 and CSA B602-2010 Standards and listed with IAPMO. The MI-XHUB Series has also been tested by IAPMO to the FM1680-1989 Standard (except for markings).

The MI-XHUB Series provides a more rigid joint connection than the MI-HUB Series because it has a wider shield and a greater number of stainless steel clamps. These additional clamps, which need to be torqued to 80/100 inch pounds, make a more uniformly rigid joint with the load supported at the outer edges of the coupling and the centerline of the joint. The additional clamps also increase the surface bearing contact between the coupling and the pipe / fittings to reduce joint movement at high internal line pressures. In comparison, the industry's "regular duty" no hub couplings have two fewer clamps and are torqued only to 60 inch pounds.

MIFAB's MI-XHUB Series of heavy duty no hub couplings is the specifier's ideal choice for the most demanding conditions.

REQUIRED USE OF HANGERS AND SUPPORTS

To ensure optimum performance of a no hub cast iron pipe and fittings connected with MIFAB's no hub couplings, please consider the following:

1. UNDERGROUND INSTALLATIONS:

No hub cast iron pipe in trenches should be continuously supported on undisturbed earth, compacted fill or on masonry blocks at each joint connection. The line and grade of the pipe must be correct. Each vertical unsupported branch of pipe must be securely staked in order to maintain stability during backfilling and pouring of concrete. The pipe should be stabilized in the correct position by partial backfilling and cradling to ensure the proper alignment during backfilling. Ensure that large rocks and / or other large objects are not dropped into the trench on top of the piping system.

2. VERTICAL PIPE INSTALLATIONS:

No hub cast iron pipe and fittings installed vertically should be secured with floor clamps at each stack base and at each story height or at intervals close enough to maintain system alignment.

3. HORIZONTAL PIPE INSTALLATIONS:

No hub cast iron pipe and fittings installed horizontally should have pipe hangers installed per the local plumbing code to ensure proper alignment and grade to prevent shear. Horizontal piping should be supported at five foot intervals except that pipe exceeding five feet in length may be supported at ten foot intervals. Hangers should be installed at each horizontal branch connection. Hangers and supports should be installed within 18" of the no hub coupling. The bases of cast iron stacks should be supported on concrete, on brick laid in cement, by metal brackets attached to the building or by local plumbing code approved installations. Large diameter pipe (six inches and larger) should be braced at changes of direction to prevent horizontal movement.

Closet bends, traparms, traps and other branches should be securely supported by a clevis type hanger, strapping or cradled underneath by earth and secured above by a suitable material to provide a firm contact between the pipe and the building in order to prevent movement in any direction and to ensure the stability of the piping system.

Note: All pipe connections should be made and supported in accordance to local plumbing codes.

PROJECT REFERENCE LIST - MI-HUB AND MI-XHUB NO HUB COUPLINGS

PROJECT NAME	LOCATION	DESCRIPTION
Aldine High School	Houston, TX	High School
Aldine Jr. High School	Houston, TX	High School
Alivin Elementary School	Alivin, TX	Elementary School
Alvin Elementary Jr. High School	Alivin, TX	High School
Baylor Medical Center	McKinney, TX	Large Hospital project
Baylor Research Innovation Collaborative	Baylor University, Waco, TX	Large Hospital / Research project
Beaumont ISD High School	Orange County, TX	High School
Capella	San Francisco, CA	Multi-Family Housing
Centennial High School	Corona, CA	School
Central Dupage Hospital	Dupage, IL	7 story tower addition - Hospital
Cerano Apartments	San Jose, CA	Multi-Family Housing
Claremont @ Colton Plaza	Colton, CA	Multi-Family Housing
Conroe Elementary School	Conroe, TX	Elementary School
Conroe High School, Renovation	Conroe, TX	High School, Renovation
Conroe Jr. High School, Renovation	Conroe, TX	High School, Renovation
Douglasville High School	Douglas County, GA	High School
El Monte Public Works	El Monte, CA	City Facilities
Fairfield Suites	Salt Lake City, UT	Hotel
Gurnee School Grades K Thru 5	Gurnee, IL	Elementary School
Hollywood Casino	Columbus, OH	Casino
Jonesboro High School Tara Stadium	Jonesboro, GA	High School Sports Stadium
Kaiser Hospital San Raphael SMUD	San Raphael, CA	Medical Offices
Katy ISD Elementary School (3 Schools)	Katy, TX	Elementary School
Kelley Mill Elementary School	Cumming, GA	Elementary School
Legoland Hotel	Carlsbad, CA	Hotel
Maxwell High School	Atlanta, GA	High School
MD Anderson Hospital	Houston, TX	Hospital
Nong Shim	Rancho Cucamonga, CA	Food Processing
Palos Hospital	Palos Heights, IL	7 story tower addition - Hospital
San Antonio Hospital	Upland, CA	Hospital Renovation
San Jacinto College - North, Central and Maintenance	Houston, TX	College Building
Shiloh High School	Snellville, GA	High School
Silver Cross Medical Office Building	New Lenox, IL	Medical Office Building
Sugarhouse Suites	Salt Lake City, UT	Hotel
University of Florida	Gainesville, FL	University Building
University of Texas, Dental Branch Building	Houston, TX	University Building
University of Texas Medical School Building	Galveston, TX	Medical School Building
Verdant	Santa Clara, CA	Multi-Family Housing

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COUPLINGS

LIT-044

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