

Gas Products

PRODUCT CATALOG
2016 EDITION

Meter Connections
& Accessories



More than 60 years of quality and service to the utility industry

Richards Manufacturing Company supplies a wide variety of products to utilities for overhead and underground transmission and distribution. In the following pages you will find a wide selection of our standard electrical products reflecting many years of engineering and manufacturing excellence. Many nonstandard and specialty products are designed, manufactured and tested to meet our customers' requirements. If you do not find the product you need in this catalog, please contact the factory. In addition to the products described in this catalog, Richards provides:

Gas Products

Richards supplies natural gas utilities with a wide variety of meter accessories, manifold assemblies, and prefabricated meter assemblies. Please refer to our gas products catalog for more details.

Bus Bar Fabrication

Richards Manufacturing Company maintains a large inventory of copper and aluminum bus bars. Manufacturing processes include cutting, punching, drilling, milling, bending, and welding. Complete spot network bus vaults are designed and fabricated to meet space and ampacity requirements. Hot tinning and silver plating are part of our in-house capabilities.

Network Protectors – New And Reconditioned

Richards is the largest supplier of network protectors and related equipment in the world. We manufacture several different designs of new network protectors. We also recondition utility-owned network protectors and provide a wide variety of replacement parts for most existing designs.

High Voltage Products

Richards manufactures a variety of molded primary distribution connectors, including disconnectable splices up to 35kV and 600 Ampere Elbows up to 35kV. Richards also manufactures specialized 600 Ampere elbow connectors including compound elbows integrating various plugs into the elbow body.

Electronic Technology, Inc. (ETI)

ETI is a sister company to Richards with extensive engineering and manufacturing capabilities. ETI provides network protector manufacturing, reconditioning, and replacement parts. Products include microprocessor network protector relays, microprocessor capacitor bank controls and network monitoring transmitters, and receivers. Currently more than 30 major utilities are utilizing the ETI MNPR® or RCM™ to automate their underground networks.

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METER SWIVELS

Non-Insulated, Straight, Male Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	LENGTH
BLACK	GALVANIZED	ZINC ELECTROPLATED			
SS-5LT-1 1/2	SS-5LT-1 1/2-G	SS-5LT-1 1/2-Z	5LT	1/2"	2-7/32"
SS-10LT-3/4	SS-10LT-3/4-G	SS-10LT-3/4-Z	10LT	3/4"	2-15/16"
SS-1A-3/4	SS-1A-3/4-G	SS-1A-3/4-Z	1A	3/4"	2-3/8"
SS-1A-01	SS-1A-01-G	SS-1A-01-Z	1A	1"	2-13/32"
SS-20LT-3/4	SS-20LT-3/4-G	SS-20LT-3/4-Z	20LT	3/4"	2-11/32"
SS-20LT-01	SS-20LT-01-G	SS-20LT-01-Z	20LT	1"	2-25/32"
SS-30LT-01	SS-30LT-01-G	SS-30LT-01-Z	30LT	1"	2-27/32"
SS-30LT-1 1/4	SS-30LT-1 1/4-G	SS-30LT-1 1/4-Z	30LT	1-1/4"	2-7/8"
SS-45LT-1 1/4	SS-45LT-1 1/4-G	SS-45LT-1 1/4-Z	45LT	1-1/4"	3-3/4"
SS-45LT-1 1/2	SS-45LT-1 1/2-G	SS-45LT-1 1/2-Z	45LT	1-1/2"	2-15/16"
SS-60LT-1 1/2	SS-60LT-1 1/2-G	SS-60LT-1 1/2-Z	60LT	1-1/2"	3-1/32"
SS-3&4-1 1/2	SS-3&4-1 1/2-G	SS-3&4-1 1/2-Z	SP 3 & 4	1-1/2"	3-1/16"
SS-100LT-2	SS-100LT-2-G	SS-100LT-2-Z	100LT	2"	3-13/16"

Insulated, Straight Male Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	LENGTH
BLACK	GALVANIZED	ZINC ELECTROPLATED			
SS-10LT-3/4-I	SS-10LT-3/4-GI	SS-10LT-3/4-ZI	10LT	3/4"	2-5/16"
SS-1A-3/4-I	SS-1A-3/4-GI	SS-1A-3/4-ZI	1A	3/4"	2-3/8"
SS-1A-01-I	SS-1A-01-GI	SS-1A-01-ZI	1A	1"	2-13/32"
SS-20LT-3/4-I	SS-20LT-3/4-GI	SS-20LT-3/4-ZI	20LT	3/4"	2-11/32"
SS-20LT-01-I	SS-20LT-01-GI	SS-20LT-01-ZI	20LT	1"	2-25/32"
SS-20LT-01-I4	SS-20LT-01-GI4	SS-20LT-01-ZI4	20LT	1"	3-13/16"
SS-30LT-01-I	SS-30LT-01-GI	SS-30LT-01-ZI	30LT	1"	2-27/32"
SS-30LT-1 1/4-I	SS-30LT-1 1/4-GI	SS-30LT-1 1/4-ZI	30LT	1-1/4"	2-7/8"
SS-45LT-1 1/4-I	SS-45LT-1 1/4-GI	SS-45LT-1 1/4-ZI	45LT	1-1/4"	3-3/4"
SS-45LT-1 1/2-I	SS-45LT-1 1/2-GI	SS-45LT-1 1/2-ZI	45LT	1-1/2"	2-15/16"
SS-3&4-1 1/2-I	SS-3&4-1 1/2-GI	SS-3&4-1 1/2-ZI	SP 3 & 4	1-1/2"	3-1/16"
SS-100LT-2-I	SS-100LT-2-GI	SS-100LT-2-ZI	100LT	2"	3-13/16"

Richards Swivels are also available with PRESSURE TAPS. Please specify the size and location of the tap, and the type of plug when ordering.

METER SWIVELS

Non-Insulated, Straight, Female Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
FS-1A-3/4	FS-1A-3/4-G	FS-1A-3/4-Z	1A	3/4"	—
FS-20LT-3/4	FS-20LT-3/4-G	FS-20LT-3/4-Z	20LT	3/4"	—
FS-45LT-1 1/4	FS-45LT-1 1/4-G	FS-45LT-1 1/4-Z	45LT	1-1/4"	—

Insulated, Straight, Female Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
FS-1A-3/4-I	FS-1A-3/4-GI	FS-1A-3/4-ZI	1A	3/4"	—
FS-20LT-3/4-I	FS-20LT-3/4-GI	FS-20LT-3/4-ZI	20LT	3/4"	—
FS-45LT-1 1/4-I	FS-45LT-1 1/4-G	FS-45LT-1 1/4-Z	45LT	1-1/4"	—

Non-Insulated, Swivel Elbows



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
OS-90-3/4-20LT	OS-90-3/4-20LT-G	OS-90-3/4-20LT-Z	20LT	3/4"	—
OS-90-1-20LT	OS-90-1-20LT-G	OS-90-1-20LT-Z	20LT	1"	—
MEL-1 1/4-30LT	MEL-1 1/4-30LT-G	MEL-1 1/4-30LT-Z	30LT	1-1/4"	—

Insulated, Swivel Elbows



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
OS-90-1-20LT-I	OS-90-1-20LT-GI	OS-90-1-20LT-ZI	20LT	1"	—

METER SWIVELS

Non-Insulated, Offset Male Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
OS-1/2-1 1/4-5LT	OS-1/2-1 1/4-5LT-G	OS-1/2-1 1/4-5LT-Z	5LT	1/2"	1-1/4"
OS-1/2-3-10LT	OS-1/2-3-10LT-G	OS-1/2-3-10LT-Z	10LT	1/2"	3"
OS-1/2-1 3/4-10LT	OS-1/2-1 3/4-10LT-G	OS-1/2-1 3/4-10LT-Z	10LT	1/2"	1-3/4"
OS-3/4-3/8-10LT	OS-3/4-3/8-10LT-G	OS-3/4-3/8-10LT-Z	10LT	3/4"	3/8"
OS-3/4-1-10LT	OS-3/4-1-10LT-G	OS-3/4-1-10LT-Z	10LT	3/4"	1"
OS-3/4-1 1/4-10LT	OS-3/4-1 1/4-10LT-G	OS-3/4-1 1/4-10LT-Z	10LT	3/4"	1-1/4"
OS-3/4-1 3/4-10LT	OS-3/4-1 3/4-10LT-G	OS-3/4-1 3/4-10LT-Z	10LT	3/4"	1-3/4"
OS-3/4-4-10LT	OS-3/4-4-10LT-G	OS-3/4-4-10LT-Z	10LT	3/4"	3-15/16"
OS-1/2-3-1A	OS-1/2-3-1A-G	OS-1/2-3-1A-Z	1A	1/2"	2-3/4"
OS-3/4-1-1A	OS-3/4-1-1A-G	OS-3/4-1-1A-Z	1A	3/4"	1"
OS-3/4-3-1A	OS-3/4-3-1A-G	OS-3/4-3-1A-Z	1A	3/4"	3"
OS-1-1-1A	OS-1-1-1A-G	OS-1-1-1A-Z	1A	1"	1"
OS-1/2-3-20LT	OS-1/2-3-20LT-G	OS-1/2-3-20LT-Z	20LT	1/2"	2-7/8"
OS-3/4-1 5/8-20LT	OS-3/4-1 5/8-20LT-G	OS-3/4-1 5/8-20LT-Z	20LT	3/4"	1-5/8"
OS-3/4-3-20LT	OS-3/4-3-20LT-G	OS-3/4-3-20LT-Z	20LT	3/4"	3"
OS-1-1-20LT	OS-1-1-20LT-G	OS-1-1-20LT-Z	20LT	1"	1"
OS-1-1 1/2-20LT	OS-1-1 1/2-20LT-G	OS-1-1 1/2-20LT-Z	20LT	1"	1-1/2"
OS-3/4-3-30LT	OS-3/4-3-30LT-G	OS-3/4-3-30LT-Z	30LT	3/4"	3"
OS-1-1-30LT	OS-1-1-30LT-G	OS-1-1-30LT-Z	30LT	1"	1"
OS-1-1 1/4-30LT	OS-1-1 1/4-30LT-G	OS-1-1 1/4-30LT-Z	30LT	1"	1-1/4"
OS-1-4 3/8-30LT	OS-1-4 3/8-30LT-G	OS-1-4 3/8-30LT-Z	30LT	1"	4-3/8"
OS-1 1/4-1-30LT	OS-1 1/4-1-30LT-G	OS-1 1/4-1-30LT-Z	30LT	1-1/4"	1"
OS-1 1/4-1 5/8-45LT	OS-1 1/4-1 5/8-45LT-G	OS-1 1/4-1 5/8-45LT-Z	45LT	1-1/4"	1-5/8"
OS-1 1/4-2-45LT	OS-1 1/4-2-45LT-G	OS-1 1/4-2-45LT-Z	45LT	1-1/4"	2"
OS-1 1/4-2 3/4-45LT	OS-1 1/4-2 3/4-45LT-G	OS-1 1/4-2 3/4-45LT-Z	45LT	1-1/4"	2-3/4"
OS-1 1/2-1-45LT	OS-1 1/2-1-45LT-G	OS-1 1/2-1-45LT-Z	45LT	1-1/2"	1"
OS-1 1/2-2-45LT	OS-1 1/2-2-45LT-G	OS-1 1/2-2-45LT-Z	45LT	1-1/2"	2"
OS-1 1/2-1-60LT	OS-1 1/2-1-60LT-G	OS-1 1/2-1-60LT-Z	60LT	1-1/2"	1"
OS-1 1/2-41/2-60LT	OS-1 1/2-41/2-60LT-G	OS-1 1/2-41/2-60LT-Z	60LT	1-1/2"	4-1/2"
OS-1 1/2-1-3&4	OS-1 1/2-1-3&4-G	OS-1 1/2-1-3&4-Z	3&4	1-1/2"	1"
OS-2-1-100LT	OS-2-1-100LT-G	OS-2-1-100LT-Z	100LT	2"	1"

METER SWIVELS

Insulated, Offset Male Swivels



RICHARDS PART NUMBER			PILOT SIZE	THREAD SIZE	OFFSET
BLACK	GALVANIZED	ZINC ELECTROPLATED			
OS-1-1-20LT-I	OS-1-1-20LT-GI	OS-1-1-20LT-ZI	20LT	1"	1"
OS-1-1-30LT-I	OS-1-1-30LT-GI	OS-1-1-30LT-ZI	30LT	1"	1"
OS-1 1/4-1-30LT-I	OS-1 1/4-1-30LT-GI	OS-1 1/4-1-30LT-ZI	30LT	1-1/4"	1"
OS-1 1/4-2-45LT-I	OS-1 1/4-2-45LT-GI	OS-1 1/4-2-45LT-ZI	45LT	1-1/4"	2"
OS-1 1/2-1-45LT-I	OS-1 1/2-1-45LT-GI	OS-1 1/2-1-45LT-ZI	45LT	1-1/2"	1"
OS-1 1/2-2-45LT-I	OS-1 1/2-2-45LT-GI	OS-1 1/2-2-45LT-ZI	45LT	1-1/2"	2"

METER ACCESSORIES

Meter Connection Nuts

RICHARDS PART NUMBER			PILOT SIZE
BLACK	GALVANIZED	ZINC ELECTROPLATED	
N5LT	N5LT-G	N5LT-Z	5LT
N10LT	N10LT-G	N10LT-Z	10LT
N1A	N1A-G	N1A-Z	1A
NEMCO	NEMCO-G	NEMCO-Z	0 EMCO
N20LT	N20LT-G	N20LT-Z	20LT
N30LT	N30LT-G	N30LT-Z	30LT
N45LT	N45LT-G	N45LT-Z	45LT
N60LT	N60LT-G	N60LT-Z	60LT
N3&4	N3&4-G	N3&4-Z	SP 3&4
N100LT	N100LT-G	N100LT-Z	100LT



Meter Nut Plugs

RICHARDS PART NUMBER				PILOT SIZE
PLASTIC	BLACK	GALVANIZED	ZINC ELECTROPLATED	
PP-5LT	P5LT	P5LT-G	P5LT-Z	5LT
PP-10LT	P10LT	P10LT-G	P10LT-Z	10LT
PP-1A	P1A	P1A-G	P1A-Z	1A
PP-20LT	P20LT	P20LT-G	P20LT-Z	20LT
PP-30LT	P30LT	P30LT-G	P30LT-Z	30LT
PP-45LT	P45LT	P45LT-G	P45LT-Z	45LT



METER ACCESSORIES

Meter Connection Adaptors

Meter connection adaptors allow you to change the size of your meter connection without changing swivels. For instance, you can turn an existing 10LT connection into a 20LT connection, or you can use one of our adaptors to attach a new connection swivel to an existing one. Special needs can be accommodated as well — call us with your particular request..

- Use existing connections
- No need to repipe existing meter installations
- Upsize or downsize meters with minimal effort



Meter Connection Blinds

RICHARDS PART NUMBER	PILOT SIZE
B5LT	5LT
B10LT	10LT
B1A	1A
B1A	0 EMCO
B20LT	20LT
B30LT	30LT
B45LT	45LT
B3&4	SPRAGUE 3&4
B100LT	100LT
B5A	SPRAGUE #5



Meter Connection Washers

RICHARDS PART NUMBER		DIMENSIONS ID X OD	PILOT SIZE
0.100" THICK	1/8" THICK		
W5LT		3/4" X 1"	5LT
W10LT		31/32" X 1-5/16"	10LT
W1A	W1A - 1/8	31/32" X 1-3/8"	1A
W1A	W1A - 1/8	31/32" X 1-3/8"	0 EMCO
W20LT	W20LT - 1/8	1-9/32" X 1-21/32"	20LT
W30LT	W30LT - 1/8	1-15/32" X 1-7/8"	30LT
W45LT	W45LT - 1/8	1-21/32" X 2-7/32"	45LT
W3&4		1-15/32" X 2-1/8"	SPRAGUE 3&4
W100LT		2-3/16" X 2-13/16"	100LT
W5A		2-7/32" X 3-3/16"	SPRAGUE 5A



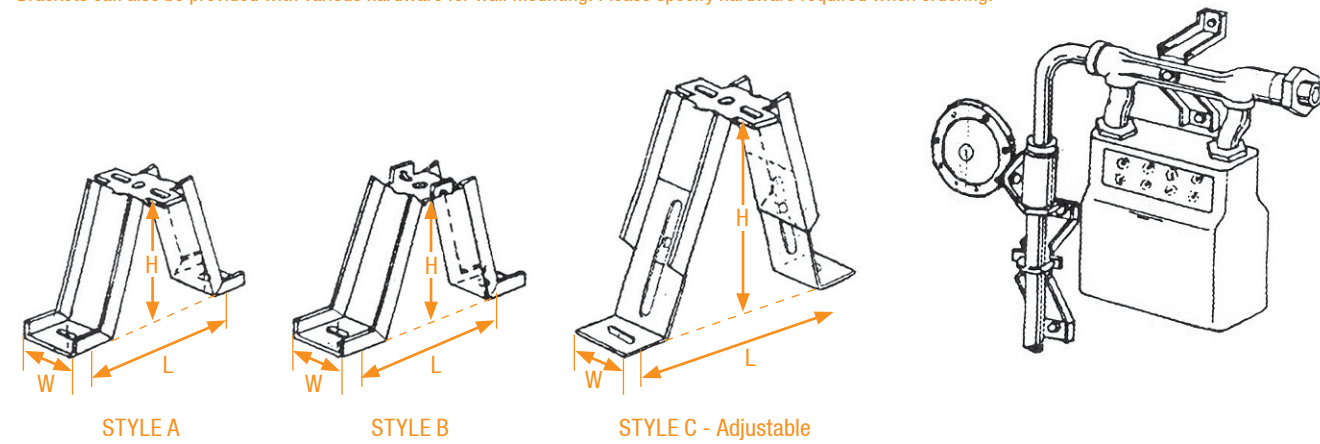
Meter Support Brackets

- Keep your meter installations looking good and performing properly
- Prevent problems due to ground settlement
- Support meters and associated piping
- Prevent possible leaks and costly call backs



RICHARDS PART NUMBER			STYLE	DESCRIPTION	H	L	W
BLACK	GALVANIZED	ZINC ELECTROPLATED					
BR-F	BR-F-G	BR-F-Z	A	FLAT TABS, RISER OR BAR MOUNT	5-3/4"	7-1/2"	2-1/4"
BR-U	BR-U-G	BR-U-Z	B	TABS UP, BAR MOUNT	5-3/4"	7-1/2"	2-1/4"
BR-A	BR-A-G	BR-A-Z	C	ADJUSTABLE	7-1/2" - 14"	9" - 14"	2-1/4"

Meter brackets can be packaged with a "U" bolt for mounting on service risers and with hardware for meter bar attachment. Brackets can also be provided with various hardware for wall mounting. Please specify hardware required when ordering.



Dust Caps

RICHARDS PART NUMBER	PILOT SIZE
DC-1	1"
DC-5LT	5LT
DC-1A	10LT
DC-10LT	1A
DC-EMCO	0 EMCO
DC-20LT	20LT
DC-30LT	30LT
DC-45LT	45LT
DC-100LT	100LT
DC-3&4	3&4
DC-5A	5A



Gas Relief Vents

- Keeps water, insects and debris out of your relief piping
- Non corrosive aluminum
- 16" x 16", 0.018 gauge screen
- Made for use on all relief piping
- Screen designed to blow out in relief if the screen has become blocked



RICHARDS PART NUMBER	PIPE SIZE
GV-3/4	3/4"
GV-1	1"
GV-1 1/4	1-1/4"
GV-1 1/2	1-1/2"
GV-2	2"

O-Ring Insulating Unions

- Insulating unions protect against stray or induced currents to prevent galvanic and electrolytic corrosion
- 150-175 lb working pressure
- Confined O-Ring seal make Richards unions reusable — only light torque creates a gas-tight seal
- Integral insulation makes this union easy to install, no loose parts to align or lose
- Malleable iron nut and body
- Nylon insulation provides dielectric strength beyond the toughest requirements
- Available in black or galvanized



RICHARDS PART NUMBER		PIPE SIZE
BLACK	GLAVANIZED	
IU-1/2	IU-1/2-G	1/2"
IU-3/4	IU-3/4-G	3/4"
IU-1	IU-1-G	1"
IU-3/4X1	IU-3/4X1-G	3/4" X 1"
IU-1 1/4	IU-1 1/4-G	1-1/4"
IU-2	IU-2-G	2"

METER BARS

MBSS

- Side Inlet
- Side Outlet
- Insulated Union Outlet
- Flat Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSS6-1-1-1-FI	MBSS6-1-1-1-FI-G	MBSS6-1-1-1-FI-Z	1"	1"	1"	6"
MBSS6-1-3/4-1-FI	MBSS6-1-3/4-1-FI-G	MBSS6-1-3/4-1-FI-Z	1"	3/4"	1"	6"
MBSS6-1-1-3/4-FI	MBSS6-1-1-3/4-FI-G	MBSS6-1-1-3/4-FI-Z	1"	1"	3/4"	6"
MBSS6-1-3/4-3/4-FI	MBSS6-1-3/4-3/4-FI-G	MBSS6-1-3/4-3/4-FI-Z	1"	3/4"	3/4"	6"
MBSS6-3/4-1-1-FI	MBSS6-3/4-1-1-FI-G	MBSS6-3/4-1-1-FI-Z	3/4"	1"	1"	6"
MBSS6-3/4-3/4-1-FI	MBSS6-3/4-3/4-1-FI-G	MBSS6-3/4-3/4-1-FI-Z	3/4"	3/4"	1"	6"
MBSS6-3/4-1-3/4-FI	MBSS6-3/4-1-3/4-FI-G	MBSS6-3/4-1-3/4-FI-Z	3/4"	1"	3/4"	6"
MBSS6-3/4-3/4-3/4-FI	MBSS6-3/4-3/4-3/4-FI-G	MBSS6-3/4-3/4-3/4-FI-Z	3/4"	3/4"	3/4"	6"
MBSS-1-1-1-FI	MBSS-1-1-1-FI-G	MBSS-1-1-1-FI-Z	1"	1"	1"	6-1/2"
MBSS-1-3/4-1-FI	MBSS-1-3/4-1-FI-G	MBSS-1-3/4-1-FI-Z	1"	3/4"	1"	6-1/2"
MBSS-1-1-3/4-FI	MBSS-1-1-3/4-FI-G	MBSS-1-1-3/4-FI-Z	1"	1"	3/4"	6-1/2"
MBSS-1-3/4-3/4-FI	MBSS-1-3/4-3/4-FI-G	MBSS-1-3/4-3/4-FI-Z	1"	3/4"	3/4"	6-1/2"
MBSS-3/4-1-1-FI	MBSS-3/4-1-1-FI-G	MBSS-3/4-1-1-FI-Z	3/4"	1"	1"	6-1/2"
MBSS-3/4-3/4-1-FI	MBSS-3/4-3/4-1-FI-G	MBSS-3/4-3/4-1-FI-Z	3/4"	3/4"	1"	6-1/2"
MBSS-3/4-1-3/4-FI	MBSS-3/4-1-3/4-FI-G	MBSS-3/4-1-3/4-FI-Z	3/4"	1"	3/4"	6-1/2"
MBSS-3/4-3/4-3/4-FI	MBSS-3/4-3/4-3/4-FI-G	MBSS-3/4-3/4-3/4-FI-Z	3/4"	3/4"	3/4"	6-1/2"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBSS

- Side Inlet
- Side Outlet
- Insulated Union Outlet
- O-Ring Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSS6-1-1-1-OI	MBSS6-1-1-1-OI-G	MBSS6-1-1-1-OI-Z	1"	1"	1"	6"
MBSS6-1-3/4-1-OI	MBSS6-1-3/4-1-OI-G	MBSS6-1-3/4-1-OI-Z	1"	3/4"	1"	6"
MBSS6-1-1-3/4-OI	MBSS6-1-1-3/4-OI-G	MBSS6-1-1-3/4-OI-Z	1"	1"	3/4"	6"
MBSS6-1-3/4-3/4-OI	MBSS6-1-3/4-3/4-OI-G	MBSS6-1-3/4-3/4-OI-Z	1"	3/4"	3/4"	6"
MBSS6-3/4-1-1-OI	MBSS6-3/4-1-1-OI-G	MBSS6-3/4-1-1-OI-Z	3/4"	1"	1"	6"
MBSS6-3/4-3/4-1-OI	MBSS6-3/4-3/4-1-OI-G	MBSS6-3/4-3/4-1-OI-Z	3/4"	3/4"	1"	6"
MBSS6-3/4-1-3/4-OI	MBSS6-3/4-1-3/4-OI-G	MBSS6-3/4-1-3/4-OI-Z	3/4"	1"	3/4"	6"
MBSS6-3/4-3/4-3/4-OI	MBSS6-3/4-3/4-3/4-OI-G	MBSS6-3/4-3/4-3/4-OI-Z	3/4"	3/4"	3/4"	6"
MBSS-1-1-1-OI	MBSS-1-1-1-OI-G	MBSS-1-1-1-OI-Z	1"	1"	1"	6-1/2"
MBSS-1-3/4-1-OI	MBSS-1-3/4-1-OI-G	MBSS-1-3/4-1-OI-Z	1"	3/4"	1"	6-1/2"
MBSS-1-1-3/4-OI	MBSS-1-1-3/4-OI-G	MBSS-1-1-3/4-OI-Z	1"	1"	3/4"	6-1/2"
MBSS-1-3/4-3/4-OI	MBSS-1-3/4-3/4-OI-G	MBSS-1-3/4-3/4-OI-Z	1"	3/4"	3/4"	6-1/2"
MBSS-3/4-1-1-OI	MBSS-3/4-1-1-OI-G	MBSS-3/4-1-1-OI-Z	3/4"	1"	1"	6-1/2"
MBSS-3/4-3/4-1-OI	MBSS-3/4-3/4-1-OI-G	MBSS-3/4-3/4-1-OI-Z	3/4"	3/4"	1"	6-1/2"
MBSS-3/4-1-3/4-OI	MBSS-3/4-1-3/4-OI-G	MBSS-3/4-1-3/4-OI-Z	3/4"	1"	3/4"	6-1/2"
MBSS-3/4-3/4-3/4-OI	MBSS-3/4-3/4-3/4-OI-G	MBSS-3/4-3/4-3/4-OI-Z	3/4"	3/4"	3/4"	6-1/2"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBSS

- Side Inlet
- Side Outlet
- Standard Union Outlet
- Flat Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSS6-1-1-1-F	MBSS6-1-1-1-F-G	MBSS6-1-1-1-F-Z	1"	1"	1"	6"
MBSS6-1-3/4-1-F	MBSS6-1-3/4-1-F-G	MBSS6-1-3/4-1-F-Z	1"	3/4"	1"	6"
MBSS6-1-1-3/4-F	MBSS6-1-1-3/4-F-G	MBSS6-1-1-3/4-F-Z	1"	1"	3/4"	6"
MBSS6-1-3/4-3/4-F	MBSS6-1-3/4-3/4-F-G	MBSS6-1-3/4-3/4-F-Z	1"	3/4"	3/4"	6"
MBSS6-3/4-1-1-F	MBSS6-3/4-1-1-F-G	MBSS6-3/4-1-1-F-Z	3/4"	1"	1"	6"
MBSS6-3/4-3/4-1-F	MBSS6-3/4-3/4-1-F-G	MBSS6-3/4-3/4-1-F-Z	3/4"	3/4"	1"	6"
MBSS6-3/4-1-3/4-F	MBSS6-3/4-1-3/4-F-G	MBSS6-3/4-1-3/4-F-Z	3/4"	1"	3/4"	6"
MBSS6-3/4-3/4-3/4-F	MBSS6-3/4-3/4-3/4-F-G	MBSS6-3/4-3/4-3/4-F-Z	3/4"	3/4"	3/4"	6"
MBSS-1-1-1-F	MBSS-1-1-1-F-G	MBSS-1-1-1-F-Z	1"	1"	1"	6-1/2"
MBSS-1-3/4-1-F	MBSS-1-3/4-1-F-G	MBSS-1-3/4-1-F-Z	1"	3/4"	1"	6-1/2"
MBSS-1-1-3/4-F	MBSS-1-1-3/4-F-G	MBSS-1-1-3/4-F-Z	1"	1"	3/4"	6-1/2"
MBSS-1-3/4-3/4-F	MBSS-1-3/4-3/4-F-G	MBSS-1-3/4-3/4-F-Z	1"	3/4"	3/4"	6-1/2"
MBSS-3/4-1-1-F	MBSS-3/4-1-1-F-G	MBSS-3/4-1-1-F-Z	3/4"	1"	1"	6-1/2"
MBSS-3/4-3/4-1-F	MBSS-3/4-3/4-1-F-G	MBSS-3/4-3/4-1-F-Z	3/4"	3/4"	1"	6-1/2"
MBSS-3/4-1-3/4-F	MBSS-3/4-1-3/4-F-G	MBSS-3/4-1-3/4-F-Z	3/4"	1"	3/4"	6-1/2"
MBSS-3/4-3/4-3/4-F	MBSS-3/4-3/4-3/4-F-G	MBSS-3/4-3/4-3/4-F-Z	3/4"	3/4"	3/4"	6-1/2"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBSS

- Side Inlet
- Side Outlet
- Standard Union Outlet
- O-Ring Gasket on Union Outlet



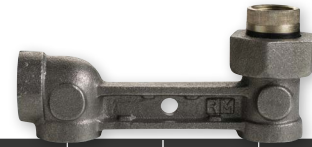
RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSS6-1-3/4-1-0	MBSS6-1-3/4-1-0-G	MBSS6-1-3/4-1-0-Z	1"	3/4"	1"	6"
MBSS6-1-1-3/4-0	MBSS6-1-1-3/4-0-G	MBSS6-1-1-3/4-0-Z	1"	1"	3/4"	6"
MBSS6-1-3/4-3/4-0	MBSS6-1-3/4-3/4-0-G	MBSS6-1-3/4-3/4-0-Z	1"	3/4"	3/4"	6"
MBSS6-3/4-1-1-0	MBSS6-3/4-1-1-0-G	MBSS6-3/4-1-1-0-Z	3/4"	1"	1"	6"
MBSS6-3/4-3/4-1-0	MBSS6-3/4-3/4-1-0-G	MBSS6-3/4-3/4-1-0-Z	3/4"	3/4"	1"	6"
MBSS6-3/4-1-3/4-0	MBSS6-3/4-1-3/4-0-G	MBSS6-3/4-1-3/4-0-Z	3/4"	1"	3/4"	6"
MBSS6-3/4-3/4-3/4-0	MBSS6-3/4-3/4-3/4-0-G	MBSS6-3/4-3/4-3/4-0-Z	3/4"	3/4"	3/4"	6"
MBSS-1-1-1-0	MBSS-1-1-1-0-G	MBSS-1-1-1-0-Z	1"	1"	1"	6-1/2"
MBSS-1-3/4-1-0	MBSS-1-3/4-1-0-G	MBSS-1-3/4-1-0-Z	1"	3/4"	1"	6-1/2"
MBSS-1-1-3/4-0	MBSS-1-1-3/4-0-G	MBSS-1-1-3/4-0-Z	1"	1"	3/4"	6-1/2"
MBSS-1-3/4-3/4-0	MBSS-1-3/4-3/4-0-G	MBSS-1-3/4-3/4-0-Z	1"	3/4"	3/4"	6-1/2"
MBSS-3/4-1-1-0	MBSS-3/4-1-1-0-G	MBSS-3/4-1-1-0-Z	3/4"	1"	1"	6-1/2"
MBSS-3/4-3/4-1-0	MBSS-3/4-3/4-1-0-G	MBSS-3/4-3/4-1-0-Z	3/4"	3/4"	1"	6-1/2"
MBSS-3/4-1-3/4-0	MBSS-3/4-1-3/4-0-G	MBSS-3/4-1-3/4-0-Z	3/4"	1"	3/4"	6-1/2"
MBSS-3/4-3/4-3/4-0	MBSS-3/4-3/4-3/4-0-G	MBSS-3/4-3/4-3/4-0-Z	3/4"	3/4"	3/4"	6-1/2"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBST

- Side Inlet
- Top Outlet
- Insulated Union Outlet
- Flat Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBST6-1-1-1-FI	MBST6-1-1-1-FI-G	MBST6-1-1-1-FI-Z	1"	1"	1"	6"
MBST6-1-3/4-1-FI	MBST6-1-3/4-1-FI-G	MBST6-1-3/4-1-FI-Z	1"	3/4"	1"	6"
MBST6-1-1-3/4-FI	MBST6-1-1-3/4-FI-G	MBST6-1-1-3/4-FI-Z	1"	1"	3/4"	6"
MBST6-1-3/4-3/4-FI	MBST6-1-3/4-3/4-FI-G	MBST6-1-3/4-3/4-FI-Z	1"	3/4"	3/4"	6"
MBST6-3/4-1-1-FI	MBST6-3/4-1-1-FI-G	MBST6-3/4-1-1-FI-Z	3/4"	1"	1"	6"
MBST6-3/4-3/4-1-FI	MBST6-3/4-3/4-1-FI-G	MBST6-3/4-3/4-1-FI-Z	3/4"	3/4"	1"	6"
MBST6-3/4-1-3/4-FI	MBST6-3/4-1-3/4-FI-G	MBST6-3/4-1-3/4-FI-Z	3/4"	1"	3/4"	6"
MBST6-3/4-3/4-3/4-FI	MBST6-3/4-3/4-3/4-FI-G	MBST6-3/4-3/4-3/4-FI-Z	3/4"	3/4"	3/4"	6"
MBST-1-1-1-FI	MBST-1-1-1-FI-G	MBST-1-1-1-FI-Z	1"	1"	1"	6-1/2"
MBST-1-3/4-1-FI	MBST-1-3/4-1-FI-G	MBST-1-3/4-1-FI-Z	1"	3/4"	1"	6-1/2"
MBST-1-1-3/4-FI	MBST-1-1-3/4-FI-G	MBST-1-1-3/4-FI-Z	1"	1"	3/4"	6-1/2"
MBST-1-3/4-3/4-FI	MBST-1-3/4-3/4-FI-G	MBST-1-3/4-3/4-FI-Z	1"	3/4"	3/4"	6-1/2"
MBST-3/4-1-1-FI	MBST-3/4-1-1-FI-G	MBST-3/4-1-1-FI-Z	3/4"	1"	1"	6-1/2"
MBST-3/4-3/4-1-FI	MBST-3/4-3/4-1-FI-G	MBST-3/4-3/4-1-FI-Z	3/4"	3/4"	1"	6-1/2"
MBST-3/4-1-3/4-FI	MBST-3/4-1-3/4-FI-G	MBST-3/4-1-3/4-FI-Z	3/4"	1"	3/4"	6-1/2"
MBST-3/4-3/4-3/4-FI	MBST-3/4-3/4-3/4-FI-G	MBST-3/4-3/4-3/4-FI-Z	3/4"	3/4"	3/4"	6-1/2"
MBST7-1 1/4-FI	MBST7-1 1/4-FI-G	MBST7-1 1/4-FI-Z	1-1/4"	1-1/4"	1-1/4"	7"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBST

- Side Inlet
- Top Outlet
- Insulated Union Outlet
- O-Ring Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBST6-1-1-1-OI	MBST6-1-1-1-OI-G	MBST6-1-1-1-OI-Z	1"	1"	1"	6"
MBST6-1-3/4-1-OI	MBST6-1-3/4-1-OI-G	MBST6-1-3/4-1-OI-Z	1"	3/4"	1"	6"
MBST6-1-1-3/4-OI	MBST6-1-1-3/4-OI-G	MBST6-1-1-3/4-OI-Z	1"	1"	3/4"	6"
MBST6-1-3/4-3/4-OI	MBST6-1-3/4-3/4-OI-G	MBST6-1-3/4-3/4-OI-Z	1"	3/4"	3/4"	6"
MBST6-3/4-1-1-OI	MBST6-3/4-1-1-OI-G	MBST6-3/4-1-1-OI-Z	3/4"	1"	1"	6"
MBST6-3/4-3/4-1-OI	MBST6-3/4-3/4-1-OI-G	MBST6-3/4-3/4-1-OI-Z	3/4"	3/4"	1"	6"
MBST6-3/4-1-3/4-OI	MBST6-3/4-1-3/4-OI-G	MBST6-3/4-1-3/4-OI-Z	3/4"	1"	3/4"	6"
MBST6-3/4-3/4-3/4-OI	MBST6-3/4-3/4-3/4-OI-G	MBST6-3/4-3/4-3/4-OI-Z	3/4"	3/4"	3/4"	6"
MBST-1-1-1-OI	MBST-1-1-1-OI-G	MBST-1-1-1-OI-Z	1"	1"	1"	6-1/2"
MBST-1-3/4-1-OI	MBST-1-3/4-1-OI-G	MBST-1-3/4-1-OI-Z	1"	3/4"	1"	6-1/2"
MBST-1-1-3/4-OI	MBST-1-1-3/4-OI-G	MBST-1-1-3/4-OI-Z	1"	1"	3/4"	6-1/2"
MBST-1-3/4-3/4-OI	MBST-1-3/4-3/4-OI-G	MBST-1-3/4-3/4-OI-Z	1"	3/4"	3/4"	6-1/2"
MBST-3/4-1-1-OI	MBST-3/4-1-1-OI-G	MBST-3/4-1-1-OI-Z	3/4"	1"	1"	6-1/2"
MBST-3/4-3/4-1-OI	MBST-3/4-3/4-1-OI-G	MBST-3/4-3/4-1-OI-Z	3/4"	3/4"	1"	6-1/2"
MBST-3/4-1-3/4-OI	MBST-3/4-1-3/4-OI-G	MBST-3/4-1-3/4-OI-Z	3/4"	1"	3/4"	6-1/2"
MBST-3/4-3/4-3/4-OI	MBST-3/4-3/4-3/4-OI-G	MBST-3/4-3/4-3/4-OI-Z	3/4"	3/4"	3/4"	6-1/2"
MBST7-1 1/4-OI	MBST7-1 1/4-OI-G	MBST7-1 1/4-OI-Z	1-1/4"	1-1/4"	1-1/4"	7"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBST

- Side Inlet
- Top Outlet
- Standard Union Outlet
- Flat Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBST6-1-1-1-F	MBST6-1-1-1-F-G	MBST6-1-1-1-F-Z	1"	1"	1"	6"
MBST6-1-3/4-1-F	MBST6-1-3/4-1-F-G	MBST6-1-3/4-1-F-Z	1"	3/4"	1"	6"
MBST6-1-1-3/4-F	MBST6-1-1-3/4-F-G	MBST6-1-1-3/4-F-Z	1"	1"	3/4"	6"
MBST6-1-3/4-3/4-F	MBST6-1-3/4-3/4-F-G	MBST6-1-3/4-3/4-F-Z	1"	3/4"	3/4"	6"
MBST6-3/4-1-1-F	MBST6-3/4-1-1-F-G	MBST6-3/4-1-1-F-Z	3/4"	1"	1"	6"
MBST6-3/4-3/4-1-F	MBST6-3/4-3/4-1-F-G	MBST6-3/4-3/4-1-F-Z	3/4"	3/4"	1"	6"
MBST6-3/4-1-3/4-F	MBST6-3/4-1-3/4-F-G	MBST6-3/4-1-3/4-F-Z	3/4"	1"	3/4"	6"
MBST6-3/4-3/4-3/4-F	MBST6-3/4-3/4-3/4-F-G	MBST6-3/4-3/4-3/4-F-Z	3/4"	3/4"	3/4"	6"
MBST-1-1-1-F	MBST-1-1-1-F-G	MBST-1-1-1-F-Z	1"	1"	1"	6-1/2"
MBST-1-3/4-1-F	MBST-1-3/4-1-F-G	MBST-1-3/4-1-F-Z	1"	3/4"	1"	6-1/2"
MBST-1-1-3/4-F	MBST-1-1-3/4-F-G	MBST-1-1-3/4-F-Z	1"	1"	3/4"	6-1/2"
MBST-1-3/4-3/4-F	MBST-1-3/4-3/4-F-G	MBST-1-3/4-3/4-F-Z	1"	3/4"	3/4"	6-1/2"
MBST-3/4-1-1-F	MBST-3/4-1-1-F-G	MBST-3/4-1-1-F-Z	3/4"	1"	1"	6-1/2"
MBST-3/4-3/4-1-F	MBST-3/4-3/4-1-F-G	MBST-3/4-3/4-1-F-Z	3/4"	3/4"	1"	6-1/2"
MBST-3/4-1-3/4-F	MBST-3/4-1-3/4-F-G	MBST-3/4-1-3/4-F-Z	3/4"	1"	3/4"	6-1/2"
MBST-3/4-3/4-3/4-F	MBST-3/4-3/4-3/4-F-G	MBST-3/4-3/4-3/4-F-Z	3/4"	3/4"	3/4"	6-1/2"
MBST7-1 1/4-F	MBST7-1 1/4-F-G	MBST7-1 1/4-F-Z	1-1/4"	1-1/4"	1-1/4"	7"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBST

- Side Inlet
- Top Outlet
- Standard Union Outlet
- O-Ring Gasket on Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBST6-1-1-1-O	MBST6-1-1-1-O-G	MBST6-1-1-1-O-Z	1"	1"	1"	6"
MBST6-1-3/4-1-O	MBST6-1-3/4-1-O-G	MBST6-1-3/4-1-O-Z	1"	3/4"	1"	6"
MBST6-1-1-3/4-O	MBST6-1-1-3/4-O-G	MBST6-1-1-3/4-O-Z	1"	1"	3/4"	6"
MBST6-1-3/4-3/4-O	MBST6-1-3/4-3/4-O-G	MBST6-1-3/4-3/4-O-Z	1"	3/4"	3/4"	6"
MBST6-3/4-1-1-O	MBST6-3/4-1-1-O-G	MBST6-3/4-1-1-O-Z	3/4"	1"	1"	6"
MBST6-3/4-3/4-1-O	MBST6-3/4-3/4-1-O-G	MBST6-3/4-3/4-1-O-Z	3/4"	3/4"	1"	6"
MBST6-3/4-1-3/4-O	MBST6-3/4-1-3/4-O-G	MBST6-3/4-1-3/4-O-Z	3/4"	1"	3/4"	6"
MBST6-3/4-3/4-3/4-O	MBST6-3/4-3/4-3/4-O-G	MBST6-3/4-3/4-3/4-O-Z	3/4"	3/4"	3/4"	6"
MBST-1-1-1-O	MBST-1-1-1-O-G	MBST-1-1-1-O-Z	1"	1"	1"	6-1/2"
MBST-1-3/4-1-O	MBST-1-3/4-1-O-G	MBST-1-3/4-1-O-Z	1"	3/4"	1"	6-1/2"
MBST-1-1-3/4-O	MBST-1-1-3/4-O-G	MBST-1-1-3/4-O-Z	1"	1"	3/4"	6-1/2"
MBST-1-3/4-3/4-O	MBST-1-3/4-3/4-O-G	MBST-1-3/4-3/4-O-Z	1"	3/4"	3/4"	6-1/2"
MBST-3/4-1-1-O	MBST-3/4-1-1-O-G	MBST-3/4-1-1-O-Z	3/4"	1"	1"	6-1/2"
MBST-3/4-3/4-1-O	MBST-3/4-3/4-1-O-G	MBST-3/4-3/4-1-O-Z	3/4"	3/4"	1"	6-1/2"
MBST-3/4-1-3/4-O	MBST-3/4-1-3/4-O-G	MBST-3/4-1-3/4-O-Z	3/4"	1"	3/4"	6-1/2"
MBST-3/4-3/4-3/4-O	MBST-3/4-3/4-3/4-O-G	MBST-3/4-3/4-3/4-O-Z	3/4"	3/4"	3/4"	6-1/2"
MBST7-1 1/4-O	MBST7-1 1/4-O-G	MBST7-1 1/4-O-Z	1-1/4"	1-1/4"	1-1/4"	7"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBSL

- Side Inlet
- Sleeved Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSSL6-1-1-1	MBSSL6-1-1-1-G	MBSSL6-1-1-1-Z	1"	1"	1"	6"
MBSSL6-1-3/4-1	MBSSL6-1-3/4-1-G	MBSSL6-1-3/4-1-Z	1"	3/4"	1"	6"
MBSSL6-1-1-3/4	MBSSL6-1-1-3/4-G	MBSSL6-1-1-3/4-Z	1"	1"	3/4"	6"
MBSSL6-1-3/4-3/4	MBSSL6-1-3/4-3/4-G	MBSSL6-1-3/4-3/4-Z	1"	3/4"	3/4"	6"
MBSSL6-3/4-1-1	MBSSL6-3/4-1-1-G	MBSSL6-3/4-1-1-Z	3/4"	1"	1"	6"
MBSSL6-3/4-3/4-1	MBSSL6-3/4-3/4-1-G	MBSSL6-3/4-3/4-1-Z	3/4"	3/4"	1"	6"
MBSSL6-3/4-1-3/4	MBSSL6-3/4-1-3/4-G	MBSSL6-3/4-1-3/4-Z	3/4"	1"	3/4"	6"
MBSSL6-3/4-3/4-3/4	MBSSL6-3/4-3/4-3/4-G	MBSSL6-3/4-3/4-3/4-Z	3/4"	3/4"	3/4"	6"
MBSSL-1-1-1	MBSSL-1-1-1-G	MBSSL-1-1-1-Z	1"	1"	1"	6-1/2"
MBSSL-1-3/4-1	MBSSL-1-3/4-1-G	MBSSL-1-3/4-1-Z	1"	3/4"	1"	6-1/2"
MBSSL-1-1-3/4	MBSSL-1-1-3/4-G	MBSSL-1-1-3/4-Z	1"	1"	3/4"	6-1/2"
MBSSL-1-3/4-3/4	MBSSL-1-3/4-3/4-G	MBSSL-1-3/4-3/4-Z	1"	3/4"	3/4"	6-1/2"
MBSSL-3/4-1-1	MBSSL-3/4-1-1-G	MBSSL-3/4-1-1-Z	3/4"	1"	1"	6-1/2"
MBSSL-3/4-3/4-1	MBSSL-3/4-3/4-1-G	MBSSL-3/4-3/4-1-Z	3/4"	3/4"	1"	6-1/2"
MBSSL-3/4-1-3/4	MBSSL-3/4-1-3/4-G	MBSSL-3/4-1-3/4-Z	3/4"	1"	3/4"	6-1/2"
MBSSL-3/4-3/4-3/4	MBSSL-3/4-3/4-3/4-G	MBSSL-3/4-3/4-3/4-Z	3/4"	3/4"	3/4"	6-1/2"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

MBSD

- Side Inlet
- Side Outlet
- Direct Thread Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSD6-1-1-1	MBSD6-1-1-1-G	MBSD6-1-1-1-Z	1"	1"	1"	6"
MBSD6-1-1/2-1	MBSD6-1-1/2-1-G	MBSD6-1-1/2-1-Z	1-1/2"	1-1/2"	1-1/2"	6"
MBSD6-1-3/4-1	MBSD6-1-3/4-1-G	MBSD6-1-3/4-1-Z	1"	3/4"	1"	6"
MBSD6-1-1-3/4	MBSD6-1-1-3/4-G	MBSD6-1-1-3/4-Z	1"	1"	3/4"	6"
MBSD6-1-3/4-3/4	MBSD6-1-3/4-3/4-G	MBSD6-1-3/4-3/4-Z	1"	3/4"	3/4"	6"
MBSD6-3/4-1-1	MBSD6-3/4-1-1-G	MBSD6-3/4-1-1-Z	3/4"	1"	1"	6"
MBSD6-3/4-3/4-1	MBSD6-3/4-3/4-1-G	MBSD6-3/4-3/4-1-Z	3/4"	3/4"	1"	6"
MBSD6-3/4-1-3/4	MBSD6-3/4-1-3/4-G	MBSD6-3/4-1-3/4-Z	3/4"	1"	3/4"	6"
MBSD6-3/4-3/4-3/4	MBSD6-3/4-3/4-3/4-G	MBSD6-3/4-3/4-3/4-Z	3/4"	3/4"	3/4"	6"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

Meter Bars

- Side Inlet
- Top Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBSD6-1-1/2	MBSD6-1-1/2-G	MBSD6-1-1/2-Z	1-1/2"	1-1/2"	1-1/2"	6"

METER BARS

MBLG

- Rear Center Inlet
- Side Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
MBLG-1-1-1	MBLG-1-1-1-G	MBLG-1-1-1-Z	1"	1"	1"	6"
MBLG-1-3/4-1	MBLG-1-3/4-1-G	MBLG-1-3/4-1-Z	1"	3/4"	1"	6"
MBLG-1-1-3/4	MBLG-1-1-3/4-G	MBLG-1-1-3/4-Z	1"	1"	3/4"	6"
MBLG-1-3/4-3/4	MBLG-1-3/4-3/4-G	MBLG-1-3/4-3/4-Z	1"	3/4"	3/4"	6"
MBLG-3/4-1-1	MBLG-3/4-1-1-G	MBLG-3/4-1-1-Z	3/4"	1"	1"	6"
MBLG-3/4-3/4-1	MBLG-3/4-3/4-1-G	MBLG-3/4-3/4-1-Z	3/4"	3/4"	1"	6"
MBLG-3/4-1-3/4	MBLG-3/4-1-3/4-G	MBLG-3/4-1-3/4-Z	3/4"	1"	3/4"	6"
MBLG-3/4-3/4-3/4	MBLG-3/4-3/4-3/4-G	MBLG-3/4-3/4-3/4-Z	3/4"	3/4"	3/4"	6"
MBLG7-1 1/4	MBLG7-1 1/4-G	MBLG7-1 1/4-Z	1-1/4"	1-1/4"	1-1/4"	7"

Meter Bars

- Center Rear Inlet with Integral Valve for Manifold Use
- Top O-Ring Insulated Union Outlet



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
CMBV-20LT	CMBV-20LT-G	CMBV-20LT-Z	1"	1"	20LT	6"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

CMB

- Side Inlet
- Side Outlet
- Integral Swivels
- Insulated O-Ring Union



RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
CMB-1-1-20LT-I	CMB-1-1-20LT-GI	CMB-1-1-20LT-ZI	1"	1"	20LT	6"
CMB-1-3/4-20LT-I	CMB-1-3/4-20LT-GI	CMB-1-3/4-20LT-ZI	1"	3/4"	20LT	6"
CMB-3/4-1-20LT-I	CMB-3/4-1-20LT-GI	CMB-3/4-1-20LT-ZI	3/4"	1"	20LT	6"
CMB-3/4-3/4-20LT-I	CMB-3/4-3/4-20LT-GI	CMB-3/4-3/4-20LT-ZI	3/4"	3/4"	20LT	6"
CMB-1-1-1A-I	CMB-1-1-1A-GI	CMB-1-1-1A-ZI	1"	1"	1A	6"
CMB-1-3/4-1A-I	CMB-1-3/4-1A-GI	CMB-1-3/4-1A-ZI	1"	3/4"	1A	6"
CMB-3/4-1-1A-I	CMB-3/4-1-1A-GI	CMB-3/4-1-1A-ZI	3/4"	1"	1A	6"
CMB-3/4-3/4-1A-I	CMB-3/4-3/4-1A-GI	CMB-3/4-3/4-1A-ZI	3/4"	3/4"	1A	6"
CMB-1-1-0EMCO-I	CMB-1-1-0EMCO-GI	CMB-1-1-0EMCO-ZI	1"	1"	0EMCO	6"
CMB-1-3/4-0EMCO-I	CMB-1-3/4-0EMCO-GI	CMB-1-3/4-0EMCO-ZI	1"	3/4"	0EMCO	6"
CMB-3/4-1-0EMCO-I	CMB-3/4-1-0EMCO-GI	CMB-3/4-1-0EMCO-ZI	3/4"	1"	0EMCO	6"
CMB-3/4-0EMCO-I	CMB-3/4-0EMCO-GI	CMB-3/4-0EMCO-ZI	3/4"	3/4"	0EMCO	6"
CMB8-1 1/4-30LT-I	CMB8-1 1/4-30LT-GI	CMB8-1 1/4-30LT-ZI	1-1/4"	1-1/4"	30LT	8-1/4"

Richards Meter Bars are also available with PRESSURE TAPS. Please specify the size, location and type of plug when ordering.

METER BARS

CMB

- Side Inlet
- Side Outlet
- Integral Swivels
- Standard O-Ring Union

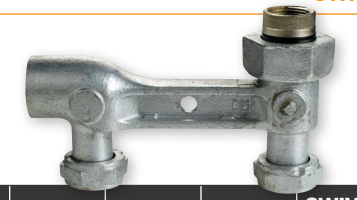


RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
CMB-1-1-20LT	CMB-1-1-20LT-G	CMB-1-1-20LT-Z	1"	1"	20LT	6"
CMB-1-3/4-20LT	CMB-1-3/4-20LT-G	CMB-1-3/4-20LT-Z	1"	3/4"	20LT	6"
CMB-3/4-1-20LT	CMB-3/4-1-20LT-G	CMB-3/4-1-20LT-Z	3/4"	1"	20LT	6"
CMB-3/4-3/4-20LT	CMB-3/4-3/4-20LT-G	CMB-3/4-3/4-20LT-Z	3/4"	3/4"	20LT	6"
CMB-1-1-1A	CMB-1-1-1A-G	CMB-1-1-1A-Z	1"	1"	1A	6"
CMB-1-3/4-1A	CMB-1-3/4-1A-G	CMB-1-3/4-1A-Z	1"	3/4"	1A	6"
CMB-3/4-1-1A	CMB-3/4-1-1A-G	CMB-3/4-1-1A-Z	3/4"	1"	1A	6"
CMB-3/4-3/4-1A	CMB-3/4-3/4-1A-G	CMB-3/4-3/4-1A-Z	3/4"	3/4"	1A	6"
CMB-1-1-0EMCO	CMB-1-1-0EMCO-G	CMB-1-1-0EMCO-Z	1"	1"	0EMCO	6"
CMB-1-3/4-0EMCO	CMB-1-3/4-0EMCO-G	CMB-1-3/4-0EMCO-Z	1"	3/4"	0EMCO	6"
CMB-3/4-1-0EMCO	CMB-3/4-1-0EMCO-G	CMB-3/4-1-0EMCO-Z	3/4"	1"	0EMCO	6"
CMB-3/4-0EMCO	CMB-3/4-0EMCO-G	CMB-3/4-0EMCO-Z	3/4"	3/4"	0EMCO	6"
CMB8-1 1/4-30LT	CMB8-1 1/4-30LT-G	CMB8-1 1/4-30LT-Z	1-1/4"	1-1/4"	30LT	8-1/4"

METER BARS

CMBT

- Side Inlet
- Top Outlet
- Integral Swivels
- Insulated O-Ring Union

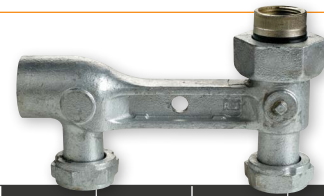


RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
CMBT-1-1-20LT-I	CMBT-1-1-20LT-GI	CMBT-1-1-20LT-ZI	1"	1"	20LT	6"
CMBT-1-3/4-20LT-I	CMBT-1-3/4-20LT-GI	CMBT-1-3/4-20LT-ZI	1"	3/4"	20LT	6"
CMBT-3/4-1-20LT-I	CMBT-3/4-1-20LT-GI	CMBT-3/4-1-20LT-ZI	3/4"	1"	20LT	6"
CMBT-3/4-3/4-20LT-I	CMBT-3/4-3/4-20LT-GI	CMBT-3/4-3/4-20LT-ZI	3/4"	3/4"	20LT	6"
CMBT-1-1-1A-I	CMBT-1-1-1A-GI	CMBT-1-1-1A-ZI	1"	1"	1A	6"
CMBT-1-3/4-1A-I	CMBT-1-3/4-1A-GI	CMBT-1-3/4-1A-ZI	1"	3/4"	1A	6"
CMBT-3/4-1-1A-I	CMBT-3/4-1-1A-GI	CMBT-3/4-1-1A-ZI	3/4"	1"	1A	6"
CMBT-3/4-3/4-1A-I	CMBT-3/4-3/4-1A-GI	CMBT-3/4-3/4-1A-ZI	3/4"	3/4"	1A	6"
CMBT-1-1-0EMCO-I	CMBT-1-1-0EMCO-GI	CMBT-1-1-0EMCO-ZI	1"	1"	0EMCO	6"
CMBT-1-3/4-0EMCO-I	CMBT-1-3/4-0EMCO-GI	CMBT-1-3/4-0EMCO-ZI	1"	3/4"	0EMCO	6"
CMBT-3/4-1-0EMCO-I	CMBT-3/4-1-0EMCO-GI	CMBT-3/4-1-0EMCO-ZI	3/4"	1"	0EMCO	6"
CMBT-3/4-0EMCO-I	CMBT-3/4-0EMCO-GI	CMBT-3/4-0EMCO-ZI	3/4"	3/4"	0EMCO	6"

METER BARS

CMBT

- Side Inlet
- Top Outlet
- Integral Swivels
- Standard O-Ring Union



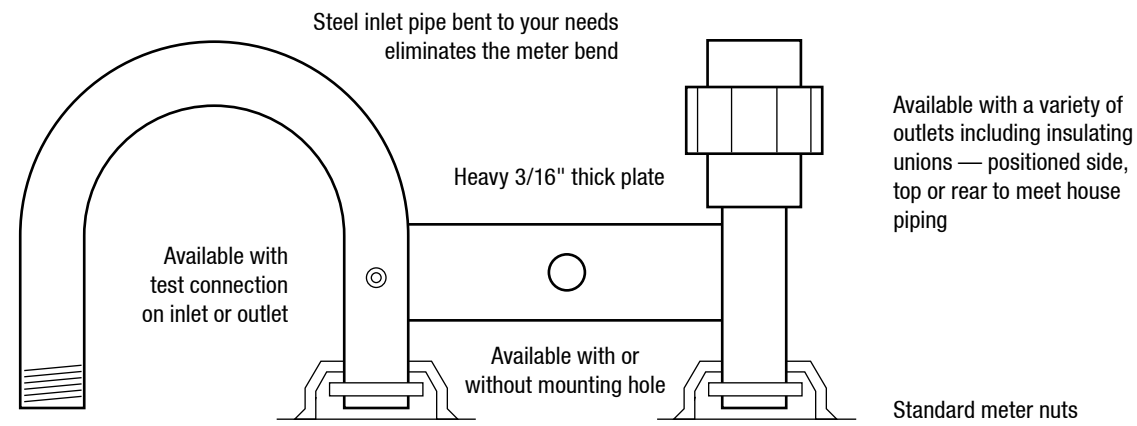
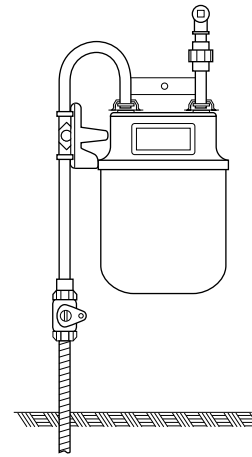
RICHARDS PART NUMBER			INLET SIZE	OUTLET SIZE	SWIVEL TAP SIZE	SWIVEL TAP C TO C
BLACK	GALVANIZED	ZINC ELECTROPLATED				
CMBT-1-1-20LT	CMBT-1-1-20LT-G	CMBT-1-1-20LT-Z	1"	1"	20LT	6"
CMBT-1-3/4-20LT	CMBT-1-3/4-20LT-G	CMBT-1-3/4-20LT-Z	1"	3/4"	20LT	6"
CMBT-3/4-1-20LT	CMBT-3/4-1-20LT-G	CMBT-3/4-1-20LT-Z	3/4"	1"	20LT	6"
CMBT-3/4-3/4-20LT	CMBT-3/4-3/4-20LT-G	CMBT-3/4-3/4-20LT-Z	3/4"	3/4"	20LT	6"
CMBT-1-1-1A	CMBT-1-1-1A-G	CMBT-1-1-1A-Z	1"	1"	1A	6"
CMBT-1-3/4-1A	CMBT-1-3/4-1A-G	CMBT-1-3/4-1A-Z	1"	3/4"	1A	6"
CMBT-3/4-1-1A	CMBT-3/4-1-1A-G	CMBT-3/4-1-1A-Z	3/4"	1"	1A	6"
CMBT-3/4-3/4-1A	CMBT-3/4-3/4-1A-G	CMBT-3/4-3/4-1A-Z	3/4"	3/4"	1A	6"
CMBT-1-1-OEMCO	CMBT-1-1-OEMCO-G	CMBT-1-1-OEMCO-Z	1"	1"	OEMCO	6"
CMBT-1-3/4-OEMCO	CMBT-1-3/4-OEMCO-G	CMBT-1-3/4-OEMCO-Z	1"	3/4"	OEMCO	6"
CMBT-3/4-1-OEMCO	CMBT-3/4-1-OEMCO-G	CMBT-3/4-1-OEMCO-Z	3/4"	1"	OEMCO	6"
CMBT-3/4-OEMCO	CMBT-3/4-OEMCO-G	CMBT-3/4-OEMCO-Z	3/4"	3/4"	OEMCO	6"

CUSTOM INSTALLATION OPTIONS

Direct Pipe Meter Set Assemblies

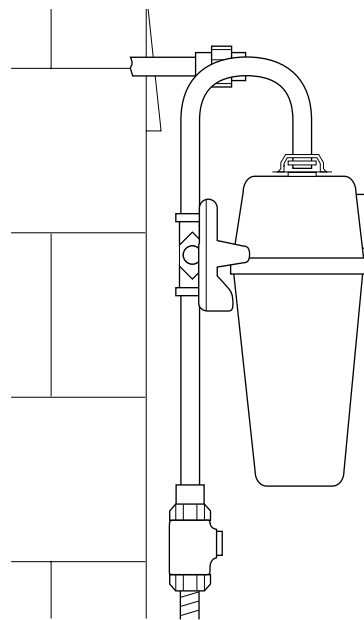
- Eliminates virtually all of the threaded connections associated with a standard meter bend, meter bar, and swivel installation
- Provides a strong, lightweight, all-steel, meter hook up
- Versatile — virtually any inlet/outlet configuration can be accommodated
- Unrestricted flow to the meter
- Cost effective
- Factory coated

Examples of Richards Direct Pipe installations that utilize 90-degree or 180-degree bends or loops ...

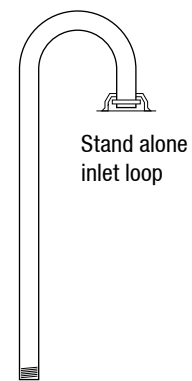


Standard 10LT, 1A, 20LT, or 30LT connections

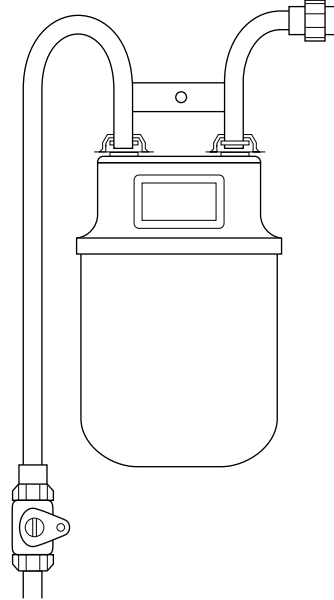
Complete meter installation rear in – rear out with regulator



Stand alone inlet loop



Complete meter installation side inlet – side outlet low pressure



CUSTOM INSTALLATION OPTIONS

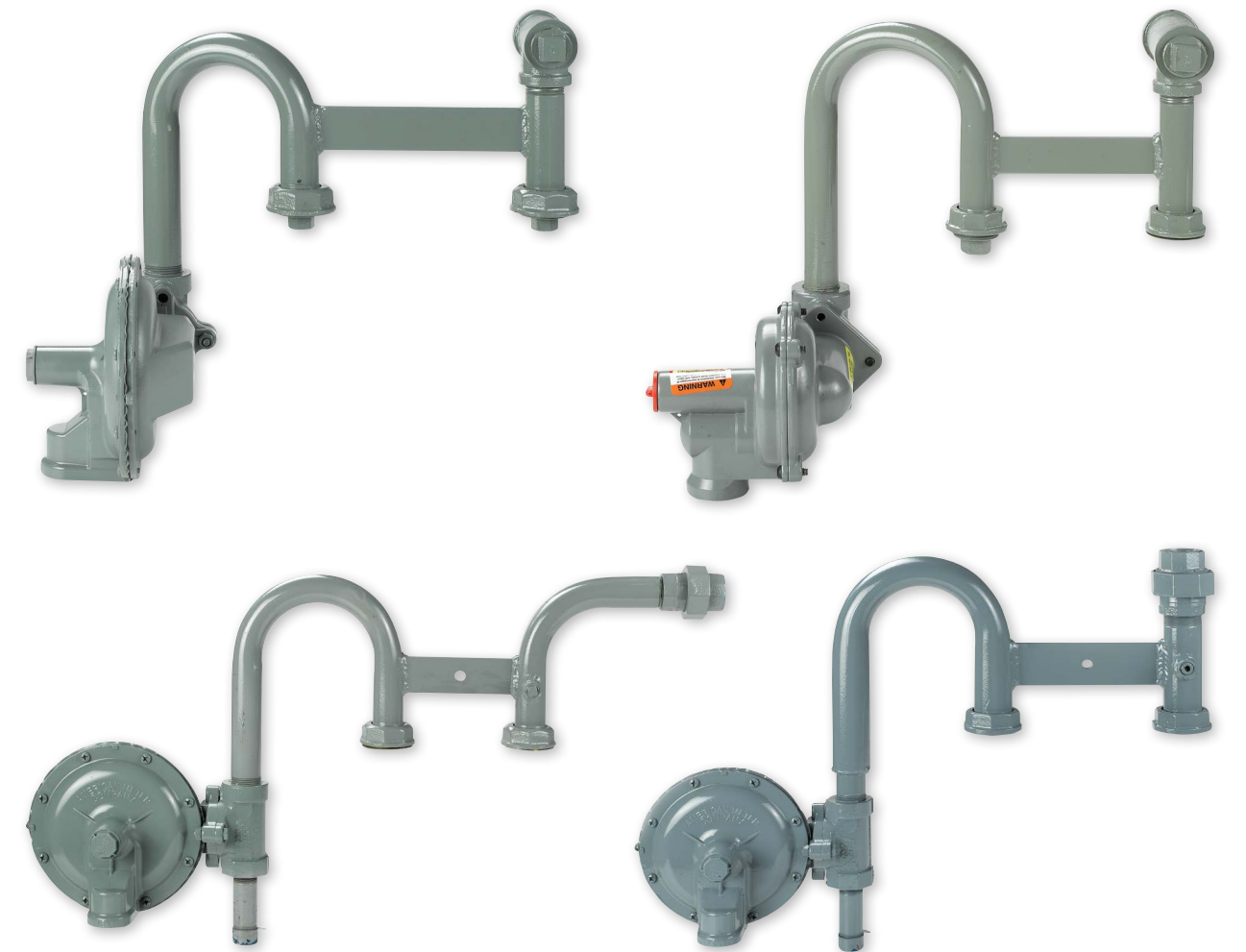
Meter Sets And Meter Manifolds

- Pressure Tested
- Economical
- Attractive
- Factory Painted

Examples of some of the prefabricated meter set assembly configurations that Richards can build for you using approved components ...



Richards Meter Sets and Meter Manifolds make meter installation easy, fast, uniform, and error free. The photos below show several popular designs for prefabricated meter sets and manifolds. Richards will build meter sets and manifolds to your company's specifications using approved components.

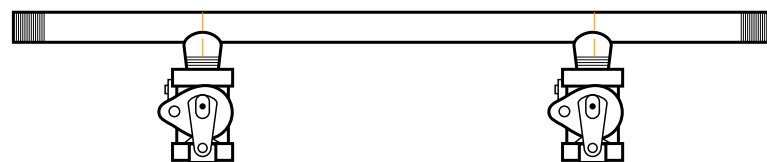


ORDERING GUIDE

Meter Manifold Ordering Guide

Please use this form as a guide to help you when ordering. (Complete all that apply)

1. Header Pipe Size:
 - 1"
 - 1-1/4"
 - 1-1/2"
 - 2"
2. Number of meter connection: _____
3. Pipe size of the meter connections:
 - 3/4"
 - 1"
 - 1-1/4"
4. Number of inches separating the meter connections: _____
5. Number of inches from the manifold inlet to the center of the first connection: _____
6. Number of inches from the center of the last meter connection to the end of the manifold: _____
7. The meter connections should be:
 - Straight
 - Bent
8. Dimension of the meter connection take off pipe: _____
9. Do you require a valve on the meter take off?
 - Yes
 - No
 - If yes, what valve model? _____

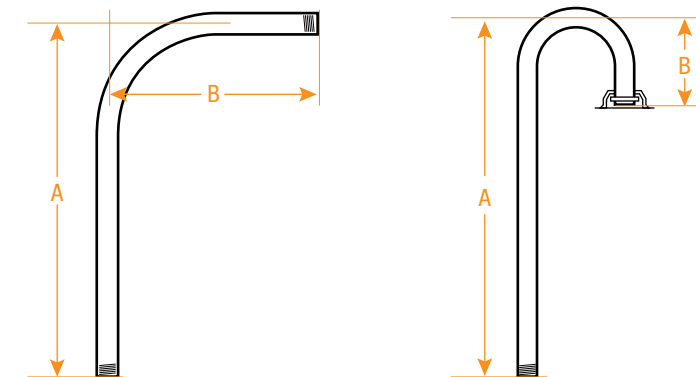


ORDERING GUIDE

Meter Bend Ordering Guide

Please use this form as a guide to help you when ordering. (Complete all that apply)

1. Type of Bend:
 - 90°
 - 180°
2. Pipe Size:
 - 3/4"
 - 1"
 - 1-1/4"
3. Inlet Side:
 - Threaded
 - Plain
4. Outlet Side:
 - Threaded
 - Swivel Connection
5. Connection Size:
 - 10LT
 - 1A
 - EMCO
 - 20LT
 - 30LT
6. Radius (for 90° bends) in inches: _____
7. Center to Center (for 180° loops) in inches: _____
8. Inlet Dimension (A): _____
9. Outlet Dimension (B): _____
10. Finish:
 - Black
 - Galvanized
 - Zinc Plated
 - Painted (Color: _____)



ORDERING GUIDE

Prefabricated Meter Set Assembly Ordering Guide

Please use this form as a guide to help you when ordering. (Complete all that apply) For examples please see page GP25.

1. Size of meter connection:
 10LT 1A EMCO 20LT 30LT 45LT
2. Size pipe:
 3/4" 1" 1-1/4" 1-1/2"
3. Degree of bend on the inlet:
 90° 180°
4. Number of inches on the inlet side to the center of the bend: _____
5. Center to Center on the meter hub:
 6" 6-1/2"
6. Direction of the outlet:
 Top Outlet 90° Side Outlet 90° Back Outlet
7. Do you want an insulated union on the outlet?
 Yes No
8. Do you want a pressure tap?
 Yes No If yes, what size? 1/8" 1/4"
9. Location of your pressure tap: _____
10. Do you want your prefab painted?
 Yes No If yes, what color? _____
11. Do you want a regulator on your prefab?
 Yes No If yes, which regulator do you want? _____
12. Do you want a valve?
 Yes No If yes, which valve? _____
13. Nipple length (if needed): _____

ORDERING GUIDE

Meter Bar Ordering Guide

Please use this form as a guide to help you when ordering. (Complete all that apply)



1. Inlet Location:
 Side Top Rear
2. Inlet Thread:
 3/4" 1" 1-1/4"
3. Outlet Location:
 Side Top Rear
4. Outlet Style:
 Insulated Union Threaded
5. Outlet Size:
 3/4" 1" 1-1/4"
6. Swivel Connections:
 3/4" 1" 1-1/4"
7. Swivel Connections Integral:
 10LT 1A EMCO 20LT 30LT
8. Swivels Center To Center:
 6" 6-1/2" 7" 8-1/4"
9. Finish:
 Black Galvanized Zinc Plated Painted (Color: _____)
10. Pressure Tap: Size _____
11. Pressure Tap: Type Plug _____
12. Pressure Tap: Location _____

INDEX

(continued)

Table listing various part numbers and their corresponding GP codes. Includes items like MBST-3/4-1-1-FI-G, MBST6-1-3/4-1-F-G, MBST7-1 1/4-F-G, etc.

INDEX

(continued)

Table listing various part numbers and their corresponding GP codes. Includes items like OS-3/4-1-10LT-G, SS-5LT-1 1/2-Z, SS-10LT-3/4, etc.

REFERENCE

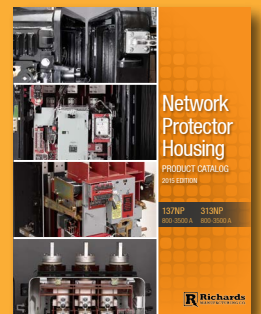
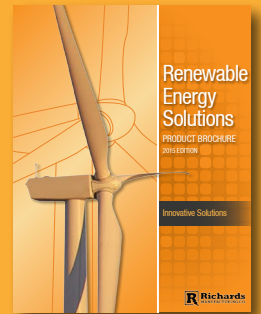
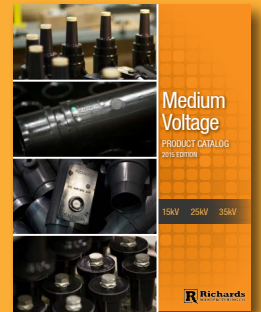
REFERENCE

GP33

GP34







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