

**Polyethylene Pipe & Accessories**

**POLYETHYLENE PIPE**

Polyethylene pipe may be fusion welded or mechanically connected and used only underground with 30 pounds maximum pressure. Polyethylene piping is a safe and economical method of satisfying industrial, commercial & residential customers' needs for long runs of underground piping. No worries of corrosion. Our pipe comes individually wrapped in plastic, eliminating the need to uncoil the entire roll if you aren't using the whole length. Just pull what you need from the center.



Size	SDR / Wal Thickness	500' roll	300' Roll	250' roll	150' roll	40' Straight Length
1/2" IPS	SDR 9.3; 0.090"	PE2406-12	-	-	PE2406-12-150	-
1/2" CTS	SRD 7.0; 0.090"	PE2406-12CTS	-	-	PE2406-12CTS-150	-
3/4" IPS	SDR 11.0; 0.095"	PE2406-34	-	PE2406-34-250	-	-
1" IPS	SDR 11.0; 0.119"	PE2406-100	-	-	PE2406-100-150	-
1" CTS	SDR 11.05; 0.099"	PE2406-100CTS	PE2406-1CTS-300	-	-	-
1-1/4" IPS	SDR 10.0; 0.166"	PE2406-114	-	PE2406-114-250	PE2406-114-150	-
2" IPS	SDR 11.0; 0.216"	PE2406-200	-	PE2406-200-250	PE2406-200-150	PE2406-200-40**
3" IPS	SDR 11.5; 0.304"	PE2406-300	-	-	-	PE2406-300-40**

\* Larger sizes available - reach out to RMI customer service for more info & sizing

\*\* Minimum of five 40' lengths. Non stock, FOB factory.

**POLYMINDER**

Keeps pipe roll intact, off the floor, rolled up, safe from damage and always ready for easy installation or retrieval.

- Handles 1/4", 1/2", 3/4" and 1" rolls
- Pipe dispensers for your plant, work site, trencher or service truck
- Pipe roll can be up to: 15" in width, 46" outside diameter
- Accepts any size inside diameter
- Pipe dispensing opening between reels is 2.5"

RMI Part No.	Description
POLYMINDER-CART	Poly Pipe Spooler Push Cart
POLYMINDER-HITCH	Hitch-Mounted Poly Pipe Spooler



POLYMINDER CART



POLYMINDER HITCH

**POLY COATED TRACER WIRE**

Copper Clad Steel Tracer Wire is the intelligent choice for tracer wire. This product combines the strength of hi-carbon steel with the conductivity and corrosion resistance of copper through a metallurgical bonding process. The result: a more cost-effective composite with superior performance characteristics over traditional 100% copper wire.

RMI Part No.	Description
14-1-CCS	14 Gauge Copper Clad Steel Tracer Wire
12-1-CCS	12 Gauge Copper Clad Steel Tracer Wire
90120	GEL-LUG



RMI Part No.	Description
14-1	14 gauge poly tracer wire - 500' spool
12-1	12 gauge poly tracer wire - 500' spool

**Polyethylene Pipe & Accessories**

**TRACER SPACER**

The Tracer Spacer is a simple, low cost, snap-on device designed to provide a consistent separation between plastic pipe and its' tracer wire. Separation prevents damage to the gas line caused by lightning strikes, stray voltage, and downed power lines.



TRACER SNAP



TRACER SPACER

RMI Part No.	Description
TS-75X6	Tracer Snap Wire Retainer 3/4" fits 1/2" PIPE
TS-125X6	Tracer Snap Wire Retainer 1-1/4" X6"
TS-150X6	Tracer Snap Wire Retainer 1-1/2"X6"
TS-2X12	Tracer Snap Wire Retainer 2" X 12"
TS-2X6	Tracer Snap Wire Retainer 2"X6"
TS-0.75X6	Tracer Snap Wire Retainer 3/4"X6"
TS-1X2	Tracer Snap Wire Retainer 1"X2"
TS-1X6	Tracer Snap Wire Retainer 1"X6"
TSR050	Tracer Spacer for 1/2" CTS
TSR100	Tracer Spacer for 3/4" & 1" PIPE
TSR125	Tracer Spacer for 1-1/4" PIPE
TSR200	Tracer Spacer for 2" PIPE

**SHOVEL BARRIER**

Standard caution tape is easily broken and frequently missed by homeowners or excavation crews due to its random placement in a trench over utility lines. Shovel Barrier has the ability to bring excavation to a halt by having strategic placement and acting as an actual barrier over utility lines. A woven geotextile with an extreme breaking strength, Shovel Barrier adds significant protection, warns, and can be used to locate any underground utility line it is installed over. Includes tracer wire.



Part No.	Color	Label	Tracer Wire	Length	Width
SB-325	Yellow	GAS	14 AWG Copper	325'	5.5"

**MARKING EQUIPMENT**

Bury locator tape 6" below grade directly above polyethylene pipe. Metallic and non-metallic tape is available.

RMI Part No.	Description
GT-3	Metallic Locator Tape - 2" x 1,000ft
NT-3	Non-Metallic Locator Tape - 3" x 1,000ft
CST-3	3" Non-Metallic yellow tape w/"Caution" Marking Only
78-004	Yellow marking Flags, 4"X5"-100 count
POST-66D-Y	Yellow Domed Marking Post 66" w/ "Caution Buried Gas Line"



GT-3



POST-66D-Y



**Risers & Transitions**



**X-RISERS**

With the use of the X-Riser® system, gas is distributed from main to meter, meter to appliance, or propane tank to house with a solid (jointless) underground pipe. Combining this philosophy with the long list of features & benefits of the Sealastic® sealing technology makes the X-Riser® the most reliable, safest, and most cost-effective method for gas piping systems.

RMI Part No.	Outlet	Tube Size	Wall	Conduit Length (in.)
XR-10B-8-36-L-ZDC	1/2" MPT	1/2 CTS	0.090"	36
XR-10B-8-72-L-ZDC	1/2" MPT	1/2 CTS	0.090"	72
XR-10B-8-96-L-ZDC	1/2" MPT	1/2 CTS	0.090"	96
XR-10B-8-144-L-ZDC	1/2" MPT	1/2 CTS	0.090"	144
XR-10B-12-36-L-ZDC	3/4" MPT	1/2 CTS	0.090"	36
XR-10B-12-72-L-ZDC	3/4" MPT	1/2 CTS	0.090"	72
XR-10B-12-96-L-ZDC	3/4" MPT	1/2 CTS	0.090"	96
XR-10B-12-144-L-ZDC	3/4" MPT	1/2 CTS	0.090"	144
XR-13B-8-36-L-ZDC	1/2" MPT	1/2" IPS	0.090"	36
XR-13B-8-72-L-ZDC	1/2" MPT	1/2" IPS	0.090"	72
XR-17C-12-36-L-ZDC	3/4" MPT	3/4" IPS	0.095"	36
XR-17C-12-72-L-ZDC	3/4" MPT	3/4" IPS	0.095"	72
XR-17C-12-96-L-ZDC	3/4" MPT	3/4" IPS	0.095"	96
XR-10B-8SN-36-L-ZDC	1/2" Female Flare Swivel	1/2"CTS	0.090"	36
XR-10B-8SN-72-L-ZDC	1/2" Female Flare Swivel	1/2"CTS	0.090"	72
XR-10B-8SN-96-L-ZDC	1/2" Female Flare Swivel	1/2"CTS	0.090"	96
XR-17C-10SN-36-L-ZDC	1/2" Female Flare Swivel	3/4" IPS	0.095"	36
XR-17C-10SN-72-L-ZDC	1/2" Female Flare Swivel	3/4" IPS	0.095"	72
XR-17C-10SN-96-L-ZDC	1/2" Female Flare Swivel	3/4" IPS	0.095"	96
XR-21J-16-36-L-ZDC	1" MPT	1" IPS	0.119"	36 W/Cflexliner™
XR-21J-16-72-L-ZDC	1" MPT	1" IPS	0.119"	72 W/Cflexliner™



**PERFECTION FLEXIBLE RISERS**

Riser allows the installer to run the polyethylene pipe to a Permasert connector located at the service head adapter. Choice of pre-bent epoxy coated pipe, flexible with stub riser, or fully flexible kit. Complies with NFPA-58 and CAN/CGA-B149.2-m95. The fully flexible riser kit can be used to connect the plastic service line to the tank. No longer need to have a coupling, fusion, transition or copper fitting below ground.



Fully Flexible Riser Kit*			Stub Flexible Riser w/ Liner	Rigid Pre-Bent Riser w/ Liner	Servi-sert Fitting**	Size	
36"	60"	84"	36" Flex w/ Nipple	30" Vert X 24" Horiz		Plastic	Pipe
71354	-	71353	71351	71350	71110	1/2" CTS	1/2"
71356	-	71355	71463	71453	71100	1/2" CTS	3/4"
71271	-	-	-	-	-	1/2" IPS	3/4"
71410	71411	71412	71721	71304	71161	3/4" IPS	3/4"
-	-	-	71731	-	71160	1" IPS	1"
71200P	-	-	71600	71720	71151	1" CTS	1"



\* Conforms to requirements of NFPA58

\*\* Servi-Sert fitting for use with pipe only. Not used with risers.



**Risers & Transitions**



**PERFECTION PERMASERT RISERS**

Perfection anodeless riser with Permasert 2.0 coupling installed, which allows for fast, easy, and reliable mechanical connection.



Part No.	Plastic (Inlet)	Pipe (Outlet)	Vertical Height	Horizontal Length
PM77205	1/2" CTS	1/2" NPT	18"	18"
PM77253	1/2" CTS	1/2" NPT	30"	24"
PM77195	1/2" CTS	3/4" NPT	18"	18"
PM77181	1/2" CTS	3/4" NPT	30"	24"
PG79354	3/4" IPS	3/4" NPT	30"	25"
PG77120	1" CTS	3/4" NPT	30"	25"
PG78442	1" IPS	1" NPT	30"	26"
PG75901	1-1/4" IPS	1-1/4" NPT	30"	25"
PG75906	2" IPS	2" NPT	34"	16"

**PERFECTION ANODELESS RISERS**

Service risers are pre-bent to 30" vertical X 24" horizontal. Anodeless risers require no cathodic protection, since the outside epoxy coated casing is not the gas carrier—plastic runs all the way through. Risers and transition fittings can be used with mechanical or fusion fittings.



Size		Anodeless Riser 30" Vert X 24" Horiz	Transition Fittings Straight 18"
Pipe	Plastic		
1/2"	1/2" IPS	-	TF-12X12
1/2"	1/2" CTS	-	TF-12X12CTS
3/4"	1/2" IPS	TRA-34X12	TF-34X12
3/4"	1/2" CTS	TRA34X12CTS	TF-34X12CTS
3/4"	3/4" IPS	TRA-34X34	TF-34X34
3/4"	1" CTS	TRA-34X100CTS*	TF-34X100CTS
1"	3/4" IPS	TRA-100X34	-
1"	1" IPS	TRA-100X100	TF-100X100
1"	1" CTS	TRA-100X100CTS*	TF-100X100CTS
1-1/4"	1-1/4" IPS	TRA-114X114	TF-114X114
2"	2" IPS	TRA-200X200*	TF-200X200
3"	3" IPS	TRA-300X300*	TF-300X300
4"	4" IPS	TRA-400X400*	TF-400X400

\* Stub risers—with fused polyethylene 90-degree elbow and polyethylene pip pigtail.

**TRANSITION FITTINGS**

Transition fitting is epoxy coated and should be cathodically protected.



TRA-34X34



**Mechanical Fittings**



Permasert fittings are non-corrosive and require no cathodic protection or protective coatings. The complete system complies with NFPA 58. Permasert fittings utilize a slotted, tapered collet to “grip” the tubing. With this system, the greater the pull-out force, the more tightly the collet grips the tubing. As a result, the pull-out strength of Permasert couplings is greater than the connected polyethylene tubing. The coupling’s one-piece construction ensures consistent, gas-tight connections in any weather conditions. Perfection’s Permasert 2.0 line of mechanical fittings seals on both the inside and outside of the pipe, creating a double barrier against leaks.

**NOTE:** Installer must be certified.

**TECH TIP:** RMI provides certification and training classes for Perfection products. Call your local sales rep to schedule a training session.

**PERMASERT MECHANICAL COUPLINGS**

RMI Part No.	PE Pipe Size	SDR Size	Wall Thickness
PC50100	1/2" CTS	SDR7	0.090"
PC50701	1/2" IPS	SDR9.3	0.090"
PC50030	3/4" IPS	SDR11	0.095"
PC50102	1" CTS	SDR11.5	0.099"
PC50601	1" IPS	SDR11	0.119"
PC50035010	1-1/4" IPS	SDR10	0.166"
PC50314	2" IPS	SDR11	0.216"



PC50030

**PERMASERT XL LARGE DIAMETER MECHANICAL COUPLINGS**

RMI Part No.	Size
55161	2" IPS - SDR 11
55131	3" IPS - SDR 11/11.5
55101	4" IPS - SDR 11/11.5
55182	6" IPS - SDR 11.5
55196	8" IPS - SDR 11.5



55131

**PERMASERT REDUCING COUPLINGS**

RMI Part No.	Size	SDR/Wall	Size	SDR/Wall
PC50751	1/2" CTS	SDR7.0 (0.090")	1/2" IPS	SDR9.3 (0.090")
PC50969	1/2" CTS	SDR7.0 (0.090")	3/4" IPS	SDR11 (0.095")
PC50149	1/2" CTS	SDR7.0 (0.090")	1" CTS	SDR11.5 (0.099")
PC50641	1/2" CTS	SDR7.0 (0.090")	1" IPS	SDR11 (0.119")
PC50756	1/2" IPS	SDR9.3 (0.090")	3/4" IPS	SDR11 (0.095")
PC50148	3/4" IPS	SDR11 (0.095")	1" CTS	SDR11.5 (0.099")
PC51432	3/4" IPS	SDR11 (0.095")	1" IPS	SDR11 (0.119")
PC50195010	3/4" IPS	SDR11 (0.095")	1-1/4" IPS	SDR10 (0.166")
PC50623	1" CTS	SDR11.5 (0.099")	1" IPS	SDR11 (0.119")
PC50192	1" CTS	SDR11.5 (0.099")	1-1/4" IPS	SDR10 (0.166")
PC50343010	1" IPS	SDR11 (0.119")	1-1/4" IPS	SDR10 (0.166")
PC50333010	1-1/4" IPS	SDR10 (0.166")	2" IPS	SDR11 (0.216")



PC50969

**PERMASERT REPAIR COUPLINGS**

Locate and inspect a damaged pipe and simply and easily repair damaged section with size of coupling required. No need for fusion, welding, or taping. Save on repair time.

RMI Part No.	Size	Length	SDR / Wall Thickness
PC50056	1/2" CTS	12"	SDR7 (0.090")
PC50740	1/2" IPS	12"	SDR9.3 (0.090")
PC50175	3/4" IPS	12"	SDR11 (0.095")
PC50172	1" CTS	12"	0.099" / 0.103"
PC50640	1" IPS	13"	SDR11 (0.119")
PC50320100*	1-1/4" IPS	13-1/4"	SDR10 (0.166")
PC50341*	2" IPS	15-1/2"	SDR11 (0.216")

\* **IMPORTANT:** 1-1/4" AND 2" have special installation instructions provided on packaging.



PC50740

**PE100 WYES AND REDUCING WYES**

- Creates a “branch” in each dwelling service line for the installation of multiple service lines.
- Use of a blind end cap allows installation of a full piping system to a housing development.



PC51704

RMI Part No.	Description	Size	SDR/Wall
PC51702	WYE	1/2" CTS	.090
PC51704	WYE	1 CTS	.099
PC51766	Reducing WYE	3/4" IPS X 1/2" CTS	.090



Non-stock/special order items are not cancellable or returnable

Shop online at [www.raymurray.com](http://www.raymurray.com) or call **800-628-5044**

### Mechanical Fittings



#### COPPERSERT TRANSITION COUPLINGS

RMI Part No.	PE Pipe Size	Copper Size	SDR/Wall
PS41007	1/2" CTS	3/8" OD	0.090"
PS41013	1/2" CTS	1/2" OD	0.090"
PS41002	1/2" CTS	5/8" OD	0.090"
PS41140	1/2" IPS	1/2" OD	SDR9.3
PS41133	3/4" IPS	1/2" OD	SDR11
PS41130	3/4" IPS	5/8" OD	SDR11
PS41150	1" CTS	5/8" OD	0.090/0.102"
PS41153	1" CTS	1/2" OD	0.090/0.102"



PS41013

#### PERMASERT TEES

Remarkably easy to use. Available in same size Tee or a 3-way reducing configuration. Same lasting grip as in mechanical couplings. No need for tools, fusion or wrenches.

RMI Part No.	Size	SDR / Wall
PC50199	1/2" CTS	0.090"
PC50730100	1/2" IPS	SDR 9.3
PC50929	3/4" IPS	SDR 11
PC50292	1" CTS	0.099" / 0.103"
PC50634	1" IPS	SDR 11
PC50327010	1-1/4" IPS	SDR 10
PC50316	2" IPS	SDR 11



PC50929

#### PERMASERT REDUCING TEES



PC50461

RMI Part No.	Size 1	SDR / Wall	Size 2	SDR / Wall	Size 3	SDR / Wall
PC51335	1/2" CTS	0.090"	1/2" CTS	0.090"	1" CTS	0.090"
PC50731	1/2" IPS	SDR 9.3	1/2" IPS	SDR 9.3	1/2" CTS	0.090"
PC50461	3/4" IPS	SDR 11	3/4" IPS	SDR 11	1/2" CTS	0.090"
PC50451	1" CTS	0.099"/0.103"	1" CTS	0.099"/0.103"	1/2" CTS	0.090"
PC50632	1" IPS	SDR 11	1" IPS	SDR 11	1/2" CTS	0.090"
PC50635	1" IPS	SDR 11	1" IPS	SDR 11	3/4" IPS	SDR 11
PC51325	1-1/4" IPS	SDR 10	1-1/4" IPS	SDR 10	3/4" IPS	SDR 11
PC50328100	1-1/4" IPS	SDR 10	1-1/4" IPS	SDR 10	1" CTS	0.099"/0.103"
PC50348100	2" IPS	SDR 11	2" IPS	SDR 11	1" CTS	0.099"/0.103"
PC51323100	2" IPS	SDR 11	2" IPS	SDR 11	1-1/4" IPS	SDR 10

#### PERMASERT BLIND END CAPS & STUBS

Used to safely shut off service or to close the end of a service line. Only the open end of "stub" is functional. Both ends of blind "cap" may be used as a coupling.

Cap Part No.	Stub Part No.	Size	SDR / Wall
PC50016	PC50015	1/2" CTS	0.090"
PC50716	PC50717	1/2" IPS	0.090"
PC50026	PC50809	3/4" IPS	SDR11
PC50045	PC50048	1" CTS	0.099" / 0.103"
PC51501	PC50612	1" IPS	SDR11
PC50033	PC50024100	1-1/4" IPS	SDR10
PC50317	PC51770	2" IPS	SDR11



PC50016



PC50612

#### PERMALOCK SELF-TAPPING 2.0 MECHANICAL OUTLET TEES

Permalock mechanical tapping tee provides a simple gas tight, non-heat fusion polyethylene service line connection. No special tools required for installation. (Standard socket set and Allen wrenches needed.)



PL55901

RMI Part No.	Main Size	Outlet*	SDR / Wall
PL54201	1-1/4" IPS	1/2" CTS	0.090"
PL54290	1-1/4" IPS	3/4" IPS	SDR 11
PL55702	2" IPS	1/2" CTS	0.090"
PL55901	2" IPS	3/4" IPS	SDR 11
PL55951	2" IPS	1" IPS	SDR 11
PL55990	2" IPS	2" IPS	SDR 11
PL54102	3" IPS	1/2" CTS	0.090"
PL54150	3" IPS	2" IPS	SDR 11
PL55716	4" IPS	1/2" CTS	0.090"
PL55902	4" IPS	3/4" IPS	SDR 11
PL55992	4" IPS	2" IPS	SDR 11

\* Outlet is a Permasert fitting.

**Mechanical Fittings**



**PERMASERT 90-DEGREE ELBOW COUPLING**

As with other Perfection mechanical connections, elbows are easy to use and reliable. No tools or fusion are required.



RMI Part No.	Size	SDR / Wall
PC50294	1/2" CTS	0.090"
PC50732100	1/2" IPS	SDR 9.3
PC51620	3/4" IPS	SDR 11
PC51333	1" CTS	0.099" / 0.103"
PC50636	1" IPS	SDR 11
PC50325010	1-1/4" IPS	SDR 10
PC50315	2" IPS	SDR 11

**PERMASERT INLINE EXCESS FLOW COUPLINGS**

Permasert couplings with built-in excess flow valve meet the requirements for jurisdictional piping systems under US DOT CFR Title 49, Part 192.381. Used primarily at each branch off a main line feeding a residence or small commercial building.

RMI Part No.	Description	SCFH Propane*	BTU Propane
PC51474	1/2" CTS Coupling w/EFV	250	630,000
PC50581	1/2" IPS Coupling w/ EFV	250	630,000
PC50584	3/4" IPS Coupling w/EFV	250	630,000
PC51476	1" CTS Coupling w/EFV	250	630,000
PC51636	1" IPS Coupling w/EFV	250	630,000
PC51518	1-1/4" IPS Coupling w/EFV	250	630,000

\*Other configurations available



PC50584

**PERMASERT SHUT-OFF VALVES**

Polyethylene shut-off valve is compatible with all PE gas distribution systems. Valve is rated equivalent to the maximum allowable operating pressure of PE piping to which it is connected.

RMI Part No.	Size	SDR / Wall
PV45051	1/2" CTS	0.090"
PV45100	3/4" IPS	SDR 11
PV45071	1" CTS	0.099" / 0.103"
PV45200	1" IPS	SDR 11
PV45170100	1-1/4" IPS	SDR 10
PV46011	2" IPS	SDR 11



PV46011

**HANDLEY CURB BOXES FOR UNDERGROUND VALVES**

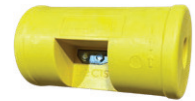
445-S



RMI Part No.	Description	Valve Size	Adj. Height
445-S	Curb Box w/ Support	1/2" - 1-1/4"	24"
445-L	Curb Box	2"	24"
445EXT	15" Extension for 445-S	-	-
GHA4-3	4" ID Heavy Duty Curb Box	2"-3"	32"-44"
GH4B6-3	6" ID Heavy Duty Curb Box	4"	32"-44"
PWCBL3.5	Wrench for Curb Box Lid	3/4" - 3"	-

**PERMASERT 2.0 CHAMFER TOOLS**

Chamfering tool permits the tubing to be completely stabbed without damaging the internal seals on Permasert connectors. These tools chamfer the inside and outside of the pipe and must be used on Permasert 2.0 fittings.



58500

RMI Part No.	Description
58500	1/2" CTS Permasert 2.0 Chamfer Tool
58501	1/2" IPS Permasert 2.0 Chamfer Tool
58502	3/4" CTS Permasert 2.0 Chamfer Tool
58503	3/4" IPS Permasert 2.0 Chamfer Tool
58504	1" CTS Permasert 2.0 Chamfer Tool
58505	1" IPS Permasert 2.0 Chamfer Tool
58506	1-1/4" CTS Permasert 2.0 Chamfer Tool
58507	1-1/4" IPS Permasert 2.0 Chamfer Tool
58508	1-1/2" IPS Permasert 2.0 Chamfer Tool
58509	2" IPS Permasert 2.0 Chamfer Tool

**RISER BRACKETS**

74500X



RMI Part No.	Description
74506	Bracket for 1/2" - 2" Risers - 4" Offset
74500X	Bracket for 1/2" - 2" Risers - 6" Offset
74491	Bracket for 1/2" - 2" Risers - 9" Offset
74440	Foundation Mount Bracket Kit - 3/4" - 2"
09800	Wall Mounting Hardware
31733	5ft Support Post

**Poly Pipe Linesizing Charts**

Length (ft)	Calculated Maximum Capacity (Propane Gas) BTU's per Hour						
	CTS		IPS				
Nom. OD	1/2"	1"	3/4"	1"	1-1/4"	1-1/2"	2"
DR	7	11.5	11	11	10	11	11
Avg ID	0.436	0.918	0.848	1.062	1.308	1.534	1.917
<b>PE Pipe Line Sizing - 2PSIG Inlet with 1 PSIG Pressure Drop</b>							
10	1,067,000	7,568,000	6,143,000	11,102,000	19,227,000	29,225,000	52,557,000
20	734,000	5,201,000	4,222,000	7,630,000	13,215,000	20,086,000	36,122,000
30	589,000	4,177,000	3,390,000	6,128,000	10,612,000	16,130,000	29,007,000
40	504,000	3,575,000	2,902,000	5,244,000	9,082,000	13,805,000	24,826,000
50	447,000	3,168,000	2,572,000	4,648,000	8,050,000	12,235,000	22,003,000
60	405,000	2,871,000	2,330,000	4,211,000	7,294,000	11,086,000	19,937,000
70	372,000	2,641,000	2,144,000	3,874,000	6,710,000	10,199,000	18,341,000
80	346,000	2,457,000	1,994,000	3,604,000	6,242,000	9,488,000	17,063,000
90	325,000	2,305,000	1,871,000	3,382,000	5,857,000	8,902,000	16,010,000
100	307,000	2,178,000	1,768,000	3,195,000	5,532,000	8,409,000	15,123,000
125	272,000	1,930,000	1,567,000	2,831,000	4,903,000	7,453,000	13,403,000
150	247,000	1,749,000	1,419,000	2,565,000	4,443,000	6,753,000	12,144,000
<b>PE Pipe Line Sizing - 11" w.c. Inlet with 0.5" w.c. Pressure Drop</b>							
10	116,000	826,000	670,000	1,211,000	2,098,000	3,188,000	5,734,000
20	80,000	568,000	461,000	833,000	1,443,000	2,193,000	3,944,000
30	64,000	456,000	370,000	669,000	1,159,000	1,762,000	3,168,000
40	55,000	391,000	316,000	573,000	992,000	1,508,000	2,712,000
50	49,000	346,000	281,000	508,000	880,000	1,337,000	2,404,000
60	44,000	314,000	255,000	460,000	797,000	1,212,000	2,179,000
70	41,000	289,000	234,000	424,000	733,000	1,115,000	2,005,000
80	38,000	269,000	218,000	394,000	682,000	1,037,000	1,865,000
90	36,000	252,000	205,000	370,000	640,000	973,000	1,750,000
100	34,000	238,000	193,000	349,000	605,000	920,000	1,654,000
125	30,000	211,000	171,000	310,000	536,000	815,000	1,466,000
150	27,000	191,000	155,000	281,000	486,000	739,000	1,329,000

Average ID used in all calculations. It equals the nominal OD minus 2.12 times the minimal wall thickness.

For flow in SCF/hr at sea level divide flow by 2488. Heat value of Propane Gas is 2488 BTU/scf at sea level.

Calculations used low pressure equation from Chapter 12 in National Fuel Gas Code.

This table is for informational purposes only and is intended for use as a reference guide. It should not be used in place of the advice of a professional engineer. It does not contain or confer any warranty or guarantee of any kind.





**Socket Fusion Equipment**



**SOCKET FUSION KIT**

This kit contains everything you need to get started with socket fusion for 1/2" IPS through 2" IPS pipe.

Kit Includes:

- Model SF3 Heater with high temp handle
- Model SF3 Heater Muff
- Clamp Bracket Assembly
- 1/2" IPS plug and socket
- 3/4" IPS plug and socket
- 1" IPS plug and socket
- 1-1/4" IPS plug and socket
- 1-1/2" IPS plug and socket
- 2" IPS plug and socket
- 1/2" IPS depth gage/chamfer tool
- 3/4" IPS depth gage/chamfer tool
- 1" IPS depth gage/chamfer tool
- 1-1/4" IPS depth gage/chamfer tool
- 1-1/2" IPS depth gage/chamfer tool
- 2" IPS depth gage/chamfer tool
- 1/2" IPS Cold Ring
- 3/4" IPS Cold Ring
- 1" IPS Cold Ring
- 1-1/4" IPS Cold Ring
- 1-1/2" IPS Cold Ring
- 2" IPS Cold Ring
- 15/8" Capacity Ratchet Cutter
- 2-1/2" Capacity Ratchet Cutter
- 500° Temp-Stik
- 525° Temp-Stik
- Digital Countdown Timer
- Wrench Hex Key 3/16"
- Wrench Hex Key Screwdriver 3/16"
- Professional Tool Box
- Procedure Manual

RMI Part No.	Description
360001736	Socket Fusion Kit 1/2"IPS - 2" IPS

**SOCKET FUSION KIT**



SC



SL



ST



SRC



SEC

Socket Fusion Fittings								
Size/Style	RMI Part No.						RMI Part No.	
	IPS x IPS Couplings						CTS x CTS Couplings	
	1/2" IPS	3/4" IPS	1" IPS	1-1/4" IPS	2" IPS	3" IPS	1/2" CTS	1" CTS
Coupling	SC-12	SC-34	SC-100	SC-114	SC-200	SC-300	SC-12CTS	SC-100CTS
90-degree Elbow	SL-12	SL-34	SL-100	SL-114	SL-200	SL-300	SL-12CTS	SL-100CTS
Tee	ST-12	ST-34	ST-100	ST-114	ST-200	ST-300	ST-12CTS	ST-100CTS
End Cap	SEC-12	SEC-34	SEC-100	SEC-114	SEC-200	SEC-300	SEC-12CTS	SEC-100CTS
IPS x CTS Reducer Couplings								
1/2" CTS	SRC-12X12CTS	SRC-34X12CTS	SRC-100X12CTS	SRC-114X12CTS	--	--	--	SRC-100CX12CT
1" CTS	--	--	--	SRC-114X100CT	SRC-200X100CT	--	--	--
IPS x IPS Reducers								
1/2" IPS	--	SRC-34X12	SRC-100X12	SRC-114X12	--	--		
3/4" IPS	--	--	SRC-100X34	SRC-114X34	--	--		
1" IPS	--	--	--	SRC-114X100	SRC-200X100	--		
1-1/4" IPS	--	--	--	--	SRC-200X114	--		
2" IPS	--	--	--	--	--	SRC-300X200		

IPS= Iron Pipe Size (AN ID measurement)

CTS= Copper Tubing Size (An OD measurement)



Non-stock/special order items are not cancellable or returnable

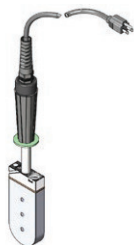
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### Socket Fusion Equipment



#### ELECTRIC HEATING TOOL

Thermostatically heats to 500 degrees. Requires 115 volts. Extension handle is available for easier fusion.



RMI Part No.	Description
EB3000	Model 2 Electric Fusion, 1000 watts
EB0000	Extension handle, Models 2 & 4
HM3000	Heater Muff

#### COLD RING

Used for rounding out pipe and prevents the socket fitting from sliding on to the pipe too far. One for each size pipe is required.



RMI Part No.	Pipe Size
CR0620CTS	1/2 " CTS
CR0750	3/4" IPS
CR0010	1" IPS
CR0110CTS	1" CTS
CR0120	1-1/4 "IPS
CR0020	2" IPS
CR0030	3" IPS

#### HEATER SOCKET FUSION FACES

Required on the EB3000 for each size pipe.



RMI Part No.	Pipe Size
SP2620CTS	1/2 " CTS
SP2750	3/4 " IPS
SP2010	1" IPS
SP2110CTS	1" CTS
SP2120	1-1/4 " IPS
SP2020	2" IPS
SP2030	3" IPS

#### CHAMFERING TOOL DEPTH GAUGE COMBINATION

Handy tool for accurate sizing to proper depth on pipe. One tool is required for each size of pipe.

**\*Not for use with Permasert Mechanical Fittings**



RMI Part No.	Pipe Size	Description
DGCHI2CTS	1/2 " CTS	Chamfer tool / Depth Gauge
DGCH34	3/4 " IPS	Chamfer tool / Depth Gauge
DGCHI00	1" IPS	Chamfer tool / Depth Gauge
DGCHI00CTS	1" CTS	Chamfer tool / Depth Gauge
DGCH114	1-1/4 " IPS	Chamfer tool / Depth Gauge
DGCH200	2" IPS	Chamfer tool / Depth Gauge

#### TOOLS FOR 3" PE PIPE

RMI Part No.	Description
109-400	3" Chamfer Tool
TC4QP	3" Plastic Pipe Cutter



#### SHEARS

Ratchet type to clean cut plastic pipe up to 2".

RMI Part No.	Description
55190	Plastic cutter 1/2"-1"
SHEARS	1/2" -1-1/4" Plastic pipe shears
SHEARS-2	1/2" - 2" Plastic pipe shears
BLADE	Replacement blade for SHEARS
BLADE-2	Replacement blade for SHEARS-2



SHEARS-2

#### PLASTIC PIPE SHUT-OFF TOOL

Designed to stop gas flow at any accessible point. Useable up to 2" PE Pipe.

RMI Part No.	Description
77XXXX	1/2" - 2" Shut-off Tool



77XXXX

**Electrofusion Equipment**



**ELECTROFUSION EQUIPMENT**

Electrofusion is an automated method of joining PE pipe with integral heating elements. Electrofusion offers several advantages over traditional heat fusion procedures. Electrofusion will create a fusion that is stronger than the surrounding pipe. While using a computerized processor to determine the fusion requirements of the fitting - removes “human” element. If anything interferes with the completion of the fusion joint, the processor will detect the problem and alert the operator. The processor allows for documentation that every fusion was completed properly. Ray Murray, Inc. offers a full line of electrofusion equipment and fittings - contact RMI for assistance in laying out and quoting of your job.



**ELECTROFUSION  
COUPLING**



**ELECTROFUSION  
REDUCER**



**ELECTROFUSION  
TEE**



**ELECTROFUSION  
TAPPING  
TEE**

Black HDPE Fittings									
Style/Size	IPS Fittings							CTS Fittings	
	1/2" IPS	3/4" IPS	1" IPS	1-1/4" IPS	2" IPS	3" IPS	4" IPS	1/2" CTS	1" CTS
<b>Coupling</b>	360000885	360000889	360000893	360000897	360000920	360000933	360000936	360000883	360000891
<b>End Cap</b>	-	360000860	360000862	360000866	360000869	360000871	360000874	360004294	360000861
Tapping Tees - Butt Outlet									
<b>1/2" IPS</b>	-	-	-	-	360062647	-	360062650	-	-
<b>3/4" IPS</b>	-	-	-	360001232	360001258	360001294	360001347	-	-
<b>1" IPS</b>	-	-	-	360021460	360001276	360001311	360001339	-	-
<b>1/2" CTS</b>	-	-	-	360001225	360001246	-	360021575	-	-
<b>1" CTS</b>	-	-	-	360001238	360001267	360001304	360001333	-	-
Reducer Couplings									
<b>1/2" IPS</b>	-	-	360001071	-	-	-	-	-	-
<b>3/4" IPS</b>	-	-	360001073	-	-	-	-	-	360001067
<b>1" IPS</b>	-	-	-	360001081	-	-	-	-	-
<b>1-1/4" IPS</b>	-	-	-	-	360001084	-	-	-	-
<b>2" IPS</b>	-	-	-	-	-	360001087	360001089	-	-
<b>3" IPS</b>	-	-	-	-	-	-	360001091	-	-
<b>1/2" CTS</b>	-	360001061	360001069	-	-	-	-	-	360001064
<b>1" CTS</b>	-	-	360001075	360001080	-	-	-	-	-



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**Electrofusion Equipment**



**ELECTROFUSION MACHINE**

- Robust, cast aluminum housing
- Intuitive user guidance menu
- Protective transport box and pouch for barcode pen
- USB interface for memory download and software update
- Prevention of electrical damage
- Clear and explicit error messages
- Worldwide training, support and service network
- Water resistant design to IP54 standards



MSA 340

RMI Part No.	Description
MSA340	Easy Fuse 115V Electrofusion Machine

Yellow MDPE Fittings									
Style/Size	IPS Fittings							CTS Fittings	
	1/2" IPS	3/4" IPS	1" IPS	1-1/4" IPS	2" IPS	3" IPS	4" IPS	1/2" CTS	1" CTS
<b>Coupling</b>	360000886	360000890	360000894	360000898	360000921	360000934	360000937	360000884	360000892
<b>End Cap</b>	360000859	360021200	360000863	360000867	360029059	360029060	360029061	360000858	360021201
<b>Tapping Tees - Butt Outlet</b>									
<b>1/2" IPS</b>	-	-	-	360021425	360021490	360021541	360021586	-	-
<b>3/4" IPS</b>	-	-	-	360001233	360001259	360001295	360001325	-	-
<b>1" IPS</b>	-	-	-	360001244	360001278	360001312	360001340	-	-
<b>1/2" CTS</b>	-	-	-	360001226	360001247	360021538	360001315	-	-
<b>1" CTS</b>	-	-	-	360001240	360001270	360001306	360001335	-	-
<b>Reducer Couplings</b>									
<b>1/2" IPS</b>	-	360001063	360001072	-	-	-	-	-	-
<b>3/4" IPS</b>	-	-	360001074	360004295	-	-	-	-	360001068
<b>1" IPS</b>	-	-	-	360001083	360021370	-	-	-	-
<b>1-1/4" IPS</b>	-	-	-	-	360001085	-	-	-	-
<b>2" IPS</b>	-	-	-	-	-	360001088	360001090	-	-
<b>3" IPS</b>	-	-	-	-	-	-	360001092	-	-
<b>1/2" CTS</b>	-	360001062	360001070	360021363	-	-	-	-	360001065
<b>1" CTS</b>	-	-	360001076	-	360021369	-	-	-	-

