

Pipe, Fittings and Pipe Joints for Underground Fire Service Mains

Underground fire service mains are made from many different materials. Cast iron, ductile iron, stainless steel pipe, Polyvinyl Chloride (PVC), Polyethylene (PE), and Fiber Reinforced Composite (FRP of Fiberglass) pipe and fittings are acceptable when they are FM Approved.

Installation of these products should conform to FM Global Property Loss Prevention Data Sheets.

Polyethylene Pipe and Fittings

Polyethylene pipe should be installed and anchored according to the pipe manufacturer's instructions and FM Global Property Loss Prevention Data Sheets. For underground use only.

Nominal pipe size is the approximate outside diameter of the pipe. Refer to manufacturer's catalog for pipe inside diameter.

Integrity Fusion Products, Polyethylene Pipe and Fittings

<i>Product Designation</i>	<i>O.D., Pipe Size, mm.</i>	Pressure Rating, bar (psi)	Remarks
Electrofusion fittings PE100, SDR 11			
EF Coupler	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400, 450, 500, 560, 630	18 (260)	b, c
EF Tee 90°	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315	12.75 (185)	a, b, c
EF Elbow 90°	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315	12.75 (185)	a, b, c
EF Elbow 45°	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315	12.75 (185)	a, b, c
Branch Saddle 1	40x20, 40x25, 40x32, 63x20, 63x32, 63x40, 63x50, 63x63, 75x40, 75x50, 75x63, 90x20, 90x25, 90x32, 90x40, 90x50, 90x63, 110x20, 110x25, 110x40, 110x50, 110x63, 125x20, 125x25, 125x32, 125x40, 125x50, 125x63, 140x20, 140x25, 140x32, 140x40, 140x50, 140x63, 160x20, 160x25, 160x32, 160x40, 160x50, 160x63, 180x20, 180x25, 180x32, 180x40, 180x50, 180x63, 200x20, 200x25, 200x32, 200x40, 200x50, 200x63, 225x20, 225x25, 225x32, 225x40, 225x50, 225x63, 250x20, 250x25, 250x32, 250x40, 250x50, 250x63, 280x20, 280x25, 280x32, 280x40, 280x50, 280x63, 315x20, 315x25, 315x32, 315x40, 315x50, 315x63	12.75 (185)	b, c
Branch Saddle SDR11 PN16	180x63, 180x75, 180x90, 180x110, 180x125, 200x63, 200x75, 200x90, 200/225x110, 200/225x125, 225/280x63, 225/280x75, 225/280x90, 250/280x110, 250/280x125, 315/450x63, 315/450x75, 315/450x90, 315/400x110, 315/400x125, 315/400x160, 450/500x110, 450/500x125, 450/500x160, 500/560x63, 500/560x75, 500/560x90, 560/630x110, 560/630x125, 560/630x160, 710/800x110, 710/800x125, 710/800x160, 900/1000x110, 900/1000x125, 900/1000x160	15 (220)	b, c
EF Reducer	40x25, 40x32, 50x25, 50x32, 50x40, 63x25, 63x32, 63x40, 63x50, 75x50, 75x63, 90x50, 90x63, 90x75, 110x63, 110x75, 110x90, 125x63, 125x90, 125x110, 160x90, 160x110, 160x125, 180x125, 200x160, 200x180	12.75 (185)	a, b, c
Electrofusion fittings PE100, SDR 9			
EF Coupler	90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400, 450, 500, 560, 630	25 (360)	b, c
Electrofusion fittings PE100, SDR 7.4			
EF Coupler	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	30 (435)	b, c
Electrofusion fittings PE100, DIPS Sizes			
EF Coupler, SDR11	3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24	18 (260)	b, c

EF Coupler, SDR7.0	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24	34.3 (500)	b, c
Electrofusion fittings PE100, IPS Sizes			
EF Coupler, SDR17	22, 26, 28, 30, 32, 36, 42, 48	12.75 (185)	b, c
EF Coupler, SDR11	3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	18 (260)	b, c
EF Coupler, SDR11	26, 28	15 (220)	b, c
EF Coupler, SDR7.0	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24	34.3 (500)	b, c
Branch Saddle	8/10x2, 8/10x3, 8x4, 10x4, 12/18x2, 12/18x3, 12/16x4, 12x6, 14x6, 16x6, 18/20x4, 18/20x6, 20/22x2, 20/22x4, 22/26x4, 22/26x6, 24/42x2, 24/42x3, 28/32x4, 28/32x6, 34/42x4	15 (220)	b, c

Remarks:

a. Spigot fittings only to be used with electrofusion couplers.

b. The manufacturer's electro-fusion welding instructions must be strictly adhered to for a proper joint.

c. The fittings are manufactured of injection molded PE100.

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
Elbow, 90°, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Elbow, 45°, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Equal Tee, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Unequal Tee, IPS, DR11	3x2, 4x2, 4x3, 6x2, 6x3, 6x4, 8x2, 8x3, 8x4, 8x6, 10x4, 10x6, 10x8, 12x6, 12x8, 12x10	200 (1380)	a, b
Reducer, IPS, DR11	3x2, 4x2, 4x3, 6x3, 6x4, 8x2, 8x3, 8x4, 8x6, 10x6, 10x8, 12x6, 12x8, 12x10	200 (1380)	a, b
Cap, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
MJ Adapter, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Flange Adapter, IPS, DR11	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Back Up Ring, IPS, DR11, DI, Epoxy	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Back Up Ring, IPS, DR11, SS	2, 3, 4, 6, 8, 10, 12	200 (1380)	a, b
Elbow, 90°, DIPS, DR11	4, 6, 8, 10, 12	200 (1380)	a, b
Elbow, 45°, DIPS, DR11	4, 6, 8, 10, 12	200 (1380)	a, b

Equal Tee, DIPS, DR11	4, 6, 8, 10, 12	200 (1380)	a, b
Reducer, DIPS, DR11	6x4, 8x6	200 (1380)	a, b
MJ Adapter, DIPS, DR11	4, 6, 8, 10, 12	200 (1380)	a, b
Flange Adapter, DIPS, DR11	4, 6, 8, 10, 12	200 (1380)	a, b
Back Up Ring, DIPS, DR11, DI, Epoxy	4, 6, 8, 10, 12	200 (1380)	a, b
Back Up Ring, DIPS, DR11, SS	4, 6, 8, 10, 12	200 (1380)	a, b
MJ Adapter, DIPS, DR9	4, 6, 8, 10, 12	250 (1720)	a, b
Elbow, 90°, IPS, DR9	2, 3, 4, 6, 8	250 (1720)	a, b
Elbow, 45°, IPS, DR9	2, 3, 4, 6, 8	250 (1720)	a, b
Equal Tee, IPS, DR9	2, 3, 4, 6, 8	250 (1720)	a, b
Reducer, IPS, DR9	3x2, 4x2, 4x3, 6x4, 8x6	250 (1720)	a, b
Cap, IPS, DR9	2, 3, 4, 6, 8	250 (1720)	a, b
MJ Adapter, IPS, DR9	3, 4, 6, 8, 10, 12	250 (1720)	a, b
Flange Adapter, IPS, DR9	2, 3, 4, 6, 8, 10, 12	250 (1720)	a, b
Elbow, 90°, IPS, DR7	2, 3, 4, 6, 8	335 (2310)	a, b
Elbow, 45°, IPS, DR7	2, 3, 4, 6, 8	335 (2310)	a, b
Equal Tee, IPS, DR7	2, 3, 4, 6, 8	335 (2310)	a, b
Reducer, IPS, DR7	3x2, 4x2, 4x3, 6x4, 8x6	335 (2310)	a, b
Cap, IPS, DR7	2, 3, 4, 6, 8	335 (2310)	a, b
Flange Adapter, IPS, DR7	2, 3, 4, 6, 8	335 (2310)	a, b
Back Up Ring, IPS, DR7, DI, Epoxy	2, 3, 4, 6, 8, 10, 12	335 (2310)	a, b
Back Up Ring, DIPS, DR7, DI, Epoxy	4, 6, 8, 10, 12	335 (2310)	a, b

Remarks:

a. Pipe and Fittings may be directly connected together by the butt fusion process. Manufacturer's fusion instructions must be strictly followed for a proper fusion joint.

b. Pipe may also be provided with flange adapters and back-up rings and bolted together. Bolt rings must be pressure rated at or above the pressure rating of the pipe on which they are installed.

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Company Address:	270 Parkade Court, Peachtree City, Georgia 30269, USA
Company Website:	http://integrityfusion.com
New/Updated Product Listing:	Yes
Listing Country:	United States of America
Certification Type:	FM Approved
Class of Work:	1613-Pipe Ftngs, Undg, PE