Franklin Electric
FUELING SYSTEMS

UPP® SEMI-RIGID PIPEWORK SYSTEM



Since its introduction as the world's first electrofusion pipework system for fuel applications over thirty years ago, UPP® semi-rigid pipework has become known globally as the standard for liquid tight pipework systems. UPP® pipework utilizes the advanced electrofusion welding process to effectively bond system components together into one, leak proof system.

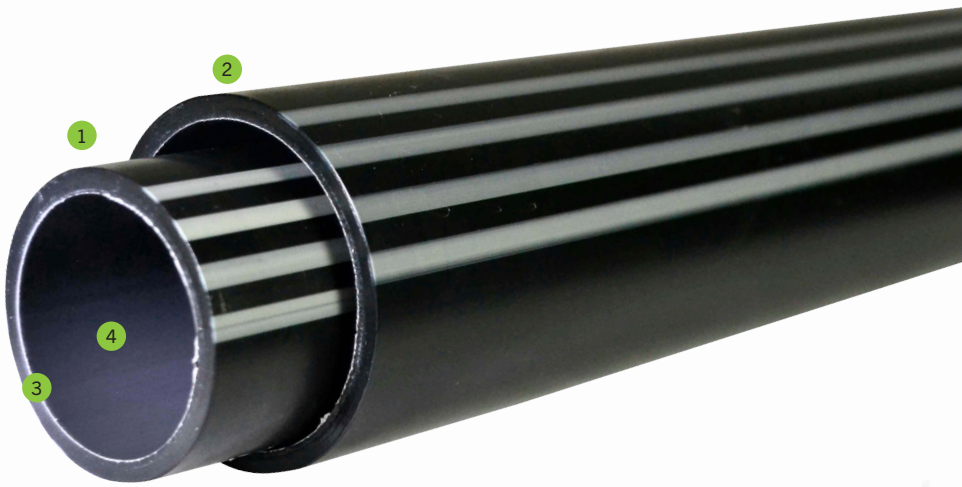
HIGHLIGHTS

- The highly efficient electrofusion welding process that connects pipe, fittings, boots, and containment to create a seamless direct burial pipework system.
- The UPP® electrofusion welding process is safe and simple to complete in any climate and virtually any weather condition. An installer simply preps the components, fits them together attaching welder leads to the fitting, and then presses a single button on the welding unit to initiate the process.
- The welder unit itself calculates the exact settings required to complete the weld, regardless of the pipework diameter or temperature, leaving no settings for the installer to input.
- UPP® double wall semi-rigid pipe is flexible enough to coil and bend like flexible pipe, while UPP® single wall pipe is also rigid enough to be used in place of fiberglass pipe for vapor or vent lines.
- Available in both coils and straight sticks, UPP® pipe can accommodate the sweeping bends of a "loop" pipework system while the straight sticks make installation between dispenser sumps simple by providing a square pipe entry into containment.
- The flexibility of UPP® double wall semi-rigid pipe allows for easy installation through existing ducting.
- As a vital component to the UPP® pipework system, patented UPP® electrofusion entry boots weld directly to the wall of any polyethylene sump creating a watertight seal between the pipework system and containment spaces.

SPECIFICATIONS

Components

1. UV Resistant PE100 HDPE Primary Pipe
2. UV Resistant PE100 HDPE Secondary Pipe
3. Tie Layer (Bonding Layer)
4. EVOH Barier Layer (Fuel Contact Layer)



SPECIFICATIONS CONTINUED

Pipe Outer Layer	PE100
Pipe Liner Layer	Ethylene vinyl alcohol (EVOH) resin liner
Pipe Intermediate Layer	Tie-layer permanently bonds HDPE outer layer to EVOH resin liner layer
Temperature Rating	-22 °F to 122 °F
Primary Pipe Pressure Rating	90 psi
Secondary Pipe Pressure Rating	58 psi
1½" and 2" Double Wall Pipe Bend Radius	3'3"
3" and 4" Double Wall Pipe Bend Radius	13'2"
2" Single Wall Vent/Vapor Pipe Bend Radius	3'3"
Approvals & Certifications	UL971 listed
Fuel Compatibility	UL971 listed for fuels including: – Motor vehicle fuels typically found in consumer dispensing facilities like gasoline or diesel including blended fuels with maximum 15% MTBE, 15% Methanol or 30% Ethanol. – Concentrated fuels such as alternate unblended fuels containing up to 100% concentrations of Toluene, Methanol or Ethanol. – High blend fuels with higher than normal gasoline blends with maximum 50% Methanol or 50% Ethanol. – Aviation and marine specialty fuels containing up to 100% kerosene or leaded gasoline. – Michigan, Wisconsin, and Florida EQ-816.leaded gasoline.
Biodiesel Compatiblity	– Biodiesel up to 5% (B5) – Biodiesel up to 20% (B20) – Biodiesel at 97% - 100% (B99 / B100) – All ASTM defined biofuel blends – High-blend Ethanol, with ethanol/gasoline blends between 51% - 83% (E51 - E83) - commercially known as “E-85”

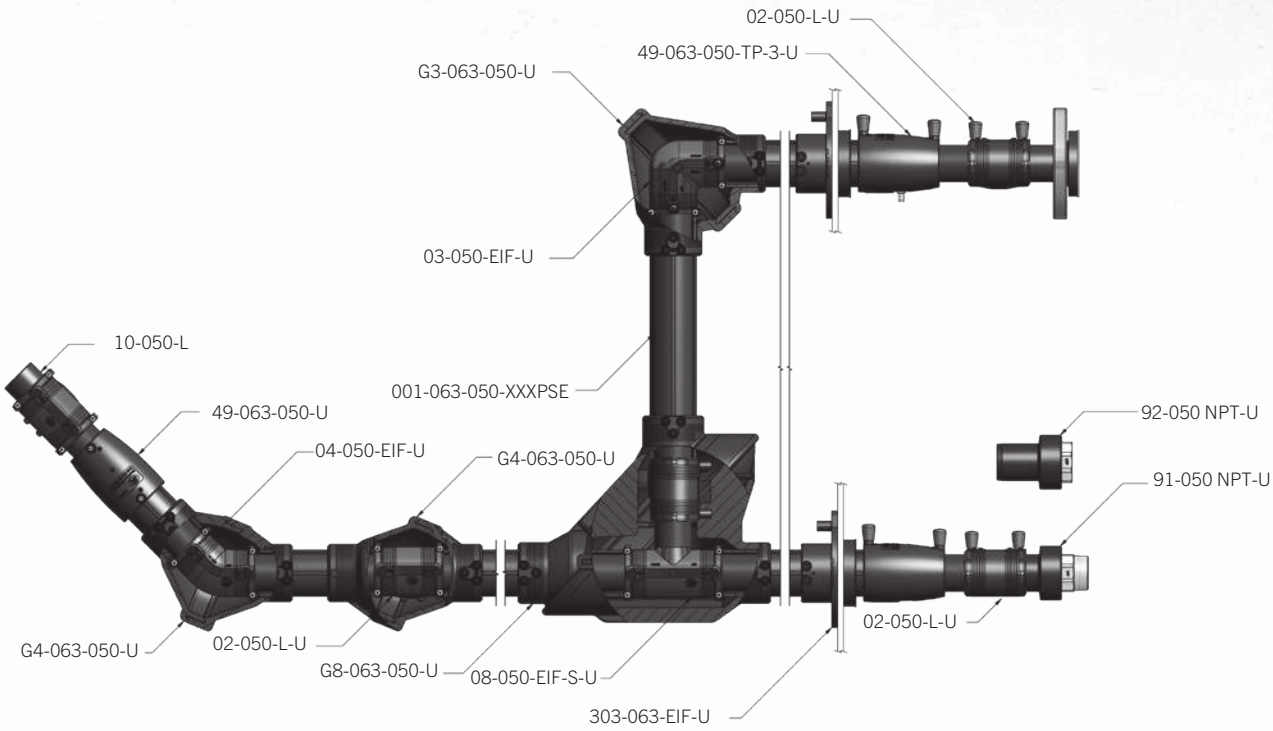
Pipework Dimensions

Model	Description	Nominal Primary Pipe		Nominal Secondary Pipe	
		ID	OD	ID	OD
001-063-050-XXXPSE	1½" double wall pipe	1.67"	1.97"	2.18"	2.48"
001-075-063-XXXPSE	2" double wall pipe	2.12"	2.48"	2.59"	2.95"
001-110-090-019PSE	3" double wall pipe	3.02"	3.54"	3.82"	4.33"
001-125-110-019PSE	4" double wall pipe	3.69"	4.33"	4.34"	4.92"
001-063-019VE	2" single wall pipe	2.12"	2.48"	--	--
001-090-019VE	3" single wall pipe	3.02"	3.54"	--	--

Note: For “XXX” enter pipe lengths from available unit options found in the following pages.

ORDERING INFORMATION

1½" Secondary Contained Pipework System



Model	Description	Unit
001-063-050-028PSE	1½" double wall pipe	28' stick
001-063-050-033PSE	1½" double wall pipe	33' stick
001-063-050-165PSE	1½" double wall pipe	165' coil



Model	Description
02-050-L-U	1½" primary welding coupler



Model	Description
03-050-EIF-U	1½" primary electrofusion 90° elbow fitting



Model	Description
04-050-EIF-U	1½" primary electrofusion 45° elbow fitting



Model	Description
04-050-L	1½" primary plain 45° elbow fitting



Model	Description
08-050-EIF-U	1½" single wall electrofusion tee fitting



ORDERING INFORMATION CONTINUED

Model	Description
08-050-L	1½" primary plain tee fitting



Model	Description
09-063-050-L	2" × 1½" primary plain reducer fitting



Model	Description
10-050-L	1½" primary plug



Model	Description
02-63SC-U	1½" secondary welding coupler



Model	Description
49-063-050-U	1½" secondary electrofusion reducer fitting
49-063-050-TP-3-U	1½" secondary electrofusion reducer fitting with press fit test port



Model	Description
49-110-063SC-U	4" × 1½" secondary electrofusion reducer fitting



Model	Description
91-050 SS NPT-U	Stainless steel 1½" (pipe) × 1½" NPT male threaded termination fitting
91-050 NPT-U	1½" (pipe) × 1½" NPT male threaded termination fitting



Model	Description
92-050 NPT-U	1½" (pipe) × 1½" NPT female threaded termination fitting



Model	Description
92-050 UF NPT-U	1½" (pipe) × 1½" NPT union adapter termination fitting
11.5G	1½" gasket



Model	Description
HEX 2	2" NPT X 1½" NPT Hex adapter



ORDERING INFORMATION CONTINUED

Model	Description
303-063-EIF-U	1½" double wall / 2" single wall electrofusion entry boot
304-110-063-TP-3*	1½" double wall ducted entry boot with ducting press fit test port



**For use with UPP® 4" ducting.*

Model	Description
G3-063-050-U	SC 1½" Gemini 90° Elbow



Model	Description
G4-063-050-U	SC 1½" Gemini 45° Elbow OR SC 1½" Gemini Inline Joint

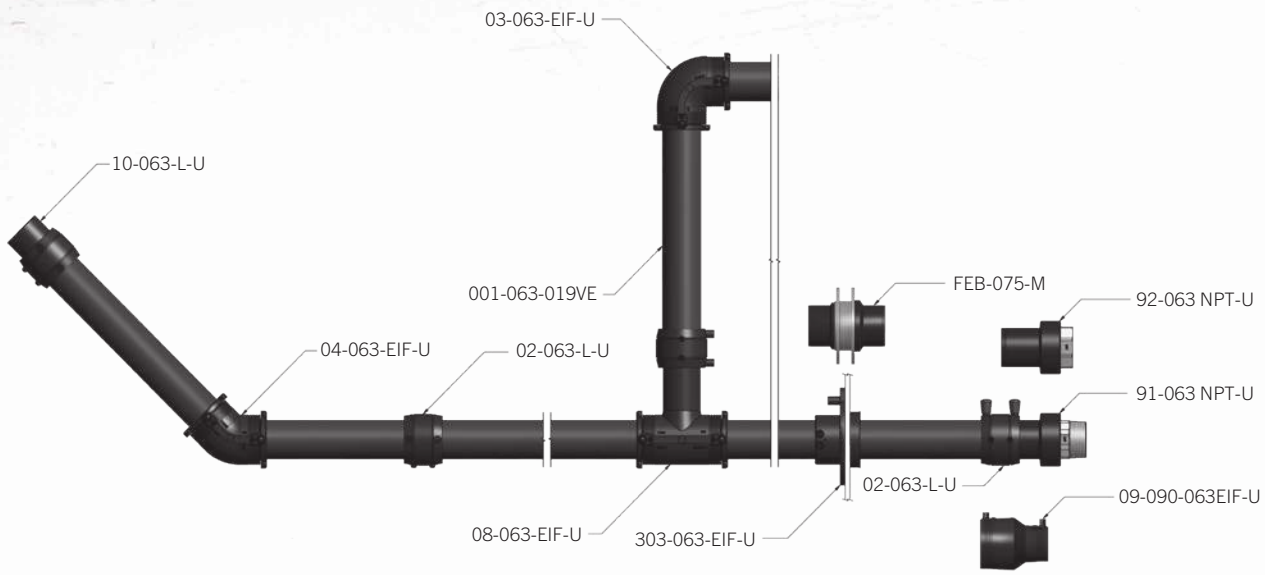


Model	Description
G8-063-050-U	SC 1½" Gemini Tee



ORDERING INFORMATION CONTINUED

2" Primary Pipework System



Model	Description	Unit
001-063-019VE	2" single wall pipe	19' stick



Model	Description
02-63-U	2" primary welding coupler



Model	Description
02-063-L-U	2" primary welding coupler, long



Model	Description
03-063-EIF-U	2" primary electrofusion 90° elbow fitting



Model	Description
03-063-L	2" primary plain 90° elbow fitting



Model	Description
04-063-EIF-U	2" primary electrofusion 45° elbow fitting



Model	Description
08-063-EIF-U	2" single wall electrofusion tee fitting



Model	Description
08-063-L	2" primary plain tee fitting



ORDERING INFORMATION CONTINUED

Model	Description
08-063-L	2" primary plain tee fitting



Model	Description
09-090-063-L-U	3" × 2" primary plain reducer fitting



Model	Description
09-110-063-L-U	4" × 2" primary plain reducer fitting



Model	Description
10-063-L-U	2" primary plug



Model	Description
91-063 SS NPT-U	Stainless steel 2" (pipe) × 2" NPT male threaded termination fitting
91-063-1 NPT-U	2" (pipe) × 1½" NPT male threaded termination fitting
91-063 NPT-U	2" (pipe) × 2" NPT male threaded termination fitting



Model	Description
92-063-1 NPT-U	2" (pipe) × 1½" NPT female threaded termination fitting
92-063 NPT-U	2" (pipe) × 2" NPT female threaded termination fitting



Model	Description
90-063 QL-U	2" (pipe) × 2" quick release termination fitting



Model	Description
92-063 UF NPT-U	2" (pipe) × 2" NPT union adapter termination fitting
11.63G	2" gasket



Model	Description
303-063-EIF-U	1½" double wall / 2" single wall electrofusion entry boot

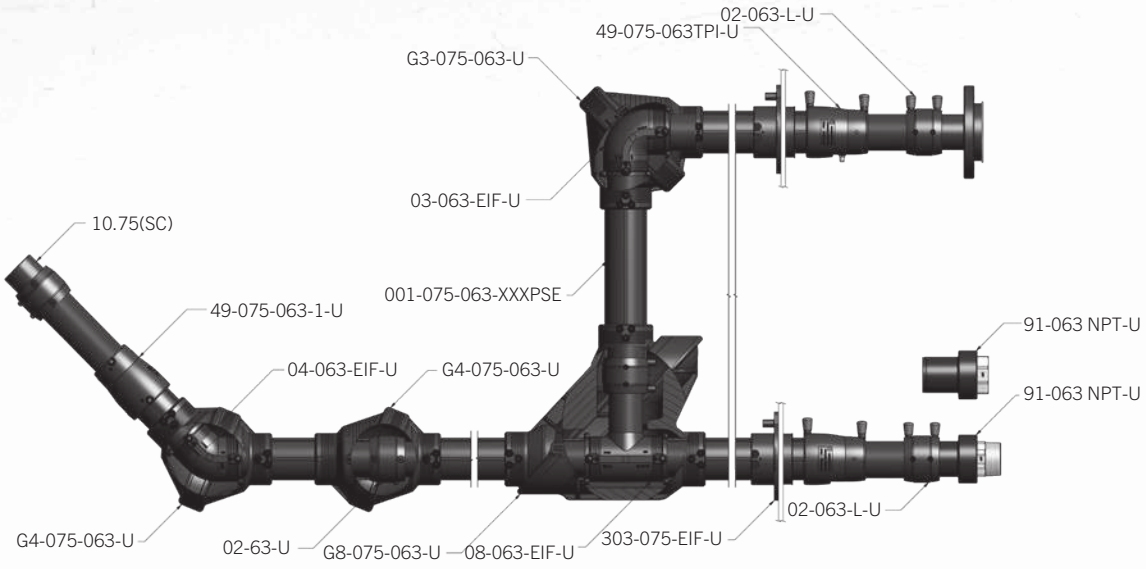


Model	Description
FEB-075-M	2" (pipe) fiberglass entry boot



ORDERING INFORMATION CONTINUED

2" Secondary Contained Pipework System



Model	Description	Unit
001-075-063-028PSE	2" double wall pipe	28' stick
001-075-063-033PSE	2" double wall pipe	33' stick
001-075-063-038PSE	2" double wall pipe	38' stick
001-075-063-100PSE	2" double wall pipe	100' coil
001-075-063-165PSE	2" double wall pipe	165' coil



Model	Description
02-63-U	2" primary welding coupler



Model	Description
02-063-L-U	2" primary welding coupler, long



Model	Description
02-75SC-U	2" secondary welding coupler



Model	Description
03-063-EIF-U	2" primary electrofusion 90° elbow fitting



Model	Description
04-063-EIF-U	2" primary electrofusion 45° elbow fitting



Model	Description
08-063-EIF-U	2" single wall electrofusion tee fitting



ORDERING INFORMATION CONTINUED

Model	Description
49-075-063-1-U	2" secondary electrofusion reducer fitting
49-075-063-TP-3-U	2" secondary electrofusion reducer fitting with press fit test port



Model	Description
49-110-75SC-U	4" × 2" secondary electrofusion reducer fitting



Model	Description
09-110-75SC-U	4" × 2" secondary plain reducer fitting



Model	Description
91-063 SS NPT-U	Stainless steel 2" (pipe) × 2" NPT male threaded termination fitting
91-063-1 NPT-U	2" (pipe) × 1½" NPT male threaded termination fitting
91-063 NPT-U	2" (pipe) × 2" NPT male threaded termination fitting



Model	Description
92-063-1 NPT-U	2" (pipe) × 1½" NPT female threaded termination fitting
92-063 NPT-U	2" (pipe) × 2" NPT female threaded termination fitting



Model	Description
90-063 QL-U	2" (pipe) × 2" quick release termination fitting
90-063 QL SS-U	2" (pipe) x 2" quick release termination fitting, stainless steel



Model	Description
92-063 UF NPT-U	2" (pipe) × 2" NPT union adapter termination fitting
11.63G	2" gasket



Model	Description
303-075-EIF-U	2" double wall electrofusion entry boot
304-110-075-TP-3*	2" double wall ducted entry boot with ducting press fit test port

**For use with UPP® 4" ducting.*



Model	Description
FEB-075-M	2" (pipe) fiberglass entry boot
10000008766	2" wedge x ⅜" slope



Model	Description
G3-075-063-U	SC 2" Gemini 90° Elbow



Model	Description
G4-075-063-U	SC 2" Gemini 45° Elbow OR SC 2" Gemini Inline Elbow

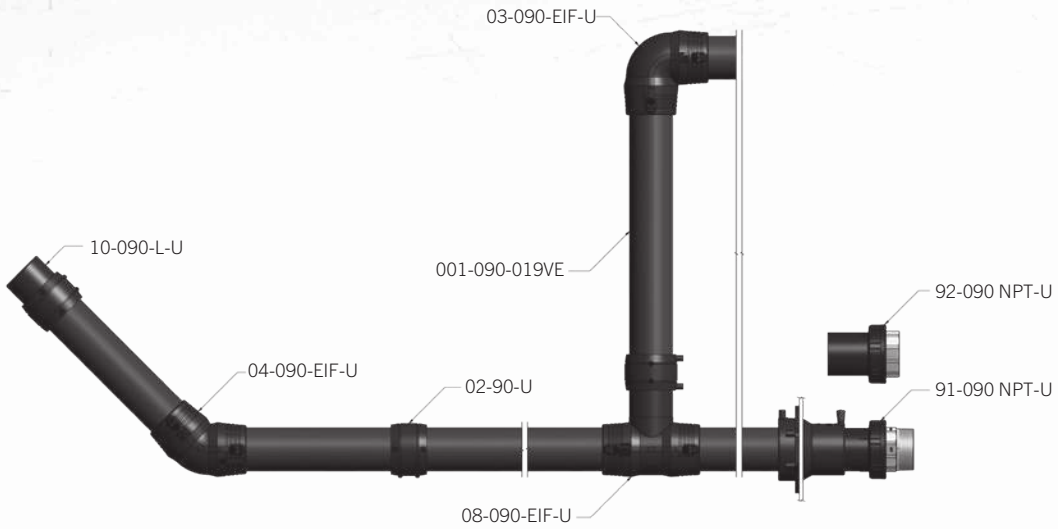


Model	Description
G8-075-063-U	SC 2" Gemini Tee



ORDERING INFORMATION CONTINUED

3" Primary Pipework System



Model	Description	Unit
001-090-019VE	3" single wall vent pipe	19' stick



Model	Description
02-90-U	3" primary welding coupler



Model	Description
03-090-EIF-U	3" primary electrofusion 90° elbow fitting



Model	Description
04-090-EIF-U	3" primary electrofusion 45° elbow fitting



Model	Description
08-090-EIF-U	3" single wall electrofusion tee fitting



Model	Description
08-090-L-U	3" primary plain tee fitting



Model	Description
09-110-090EIF-U	4" × 3" primary electrofusion reducer fitting



Model	Description
10-090-L-U	3" primary plug



ORDERING INFORMATION CONTINUED

Model	Description
91-090 SS NPT-U	Stainless steel 3" (pipe) × 3" NPT male threaded termination fitting
91-090 NPT-U	3" (pipe) × 3" NPT male threaded termination fitting



Model	Description
92-090 NPT-U	3" (pipe) × 3" NPT female threaded termination fitting



Model	Description
90-090 QL-U	3" (pipe) × 3" quick release termination fitting



Model	Description
304-110-090-U	3" electrofusion entry boot, reducing 110/90

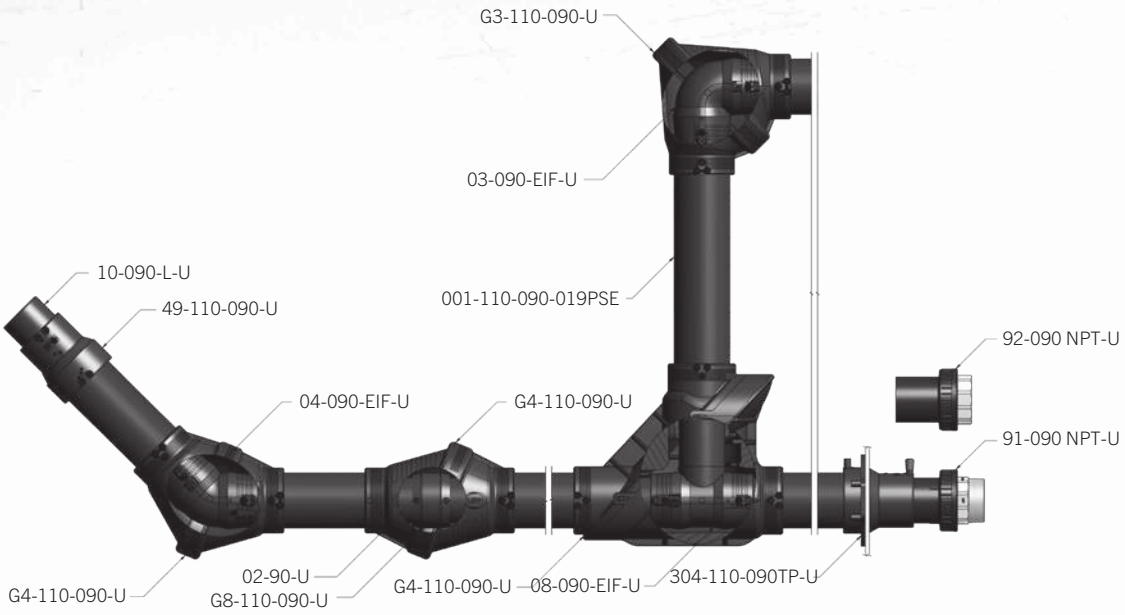


Model	Description
FEB-110-M	3” electrofusion fiberglass entry boot for use with 3” pipework systems
10000008765	3” wedge x ¼” slope
10000008767	3” wedge x ⅜” slope



ORDERING INFORMATION CONTINUED

3" Secondary Contained Pipework System



Model	Description	Unit
001-110-090-019PSE	3" double wall pipe	19' stick



Model	Description
02-90-U	3" primary welding coupler



Model	Description
02-110SC-U	3" secondary welding coupler



Model	Description
03-090-EIF-U	3" primary electrofusion 90° elbow fitting



Model	Description
04-090-EIF-U	3" primary electrofusion 45° elbow fitting



Model	Description
08-090-EIF-U	3" single wall electrofusion tee fitting



ORDERING INFORMATION CONTINUED

Model	Description
49-110-090-U	4" × 3" secondary electrofusion reducer fitting
49-110-090TP-U	4" × 3" secondary electrofusion reducer fitting with test port



Model	Description
91-090 NPT-U	3" (pipe) × 3" NPT male threaded termination fitting



Model	Description
92-090 NPT-U	3" (pipe) × 3" NPT female threaded termination fitting



Model	Description
10-090-L-U	3" primary plug



Model	Description
304-110-090-U	3" double wall electrofusion entry boot with integrated termination fitting
304-110-090-TP-3-U	3" electrofusion entry seal reducer boot 110/90, with press fit test port



Model	Description
FEB-110-M	3" electrofusion fiberglass entry boot for use with 3" secondary contained pipework systems



Model	Description
G3-110-090-U	SC 3" Gemini 90° Elbow



Model	Description
G4-110-090-U	SC 3" Gemini 45° Elbow OR SC 3" Gemini Inline Joint

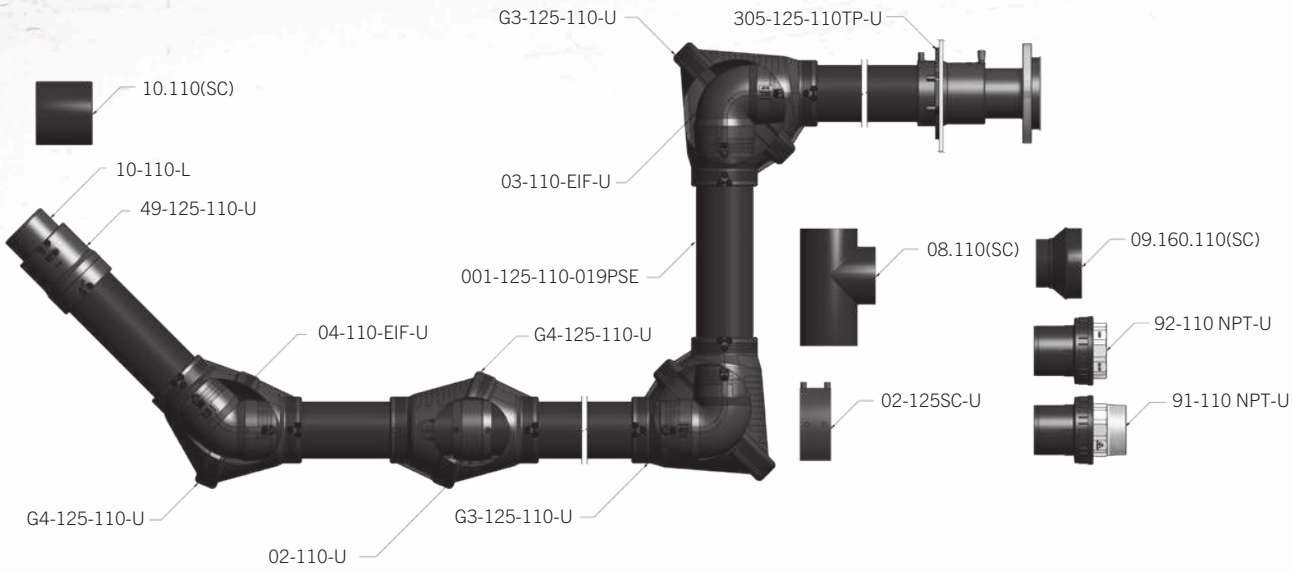


Model	Description
G8-110-090-U	SC 3" Gemini Tee



ORDERING INFORMATION CONTINUED

4" Secondary Contained Pipework System



Model	Description	Unit
001-125-110-019PSE	4" double wall pipe	19' stick



Model	Description
02-110-U	4" primary welding coupler



Model	Description
02-125SC-U	4" secondary welding coupler



Model	Description
03-110-EIF-U	4" primary electrofusion 90° elbow fitting



Model	Description
04-110-EIF-U	4" primary electrofusion 45° elbow fitting



Model	Description
08-110-EIF-U	4" single wall electrofusion tee fitting



Model	Description
10-110-L-U	4" primary plug



ORDERING INFORMATION CONTINUED

Model	Description
08-110M-U	4" tee
08-200SC-U	8" tee



Model	Description
49-125-110-U	5" × 4" secondary electrofusion reducer fitting
49-125-110-TP-3-U	5" × 4" secondary electrofusion reducer fitting with press fit test port



Model	Description
09.160.110(SC)	6" × 4" secondary plain reducer fitting
09-200-125SCM-U	8" x 4" secondary plain reduce fitting



Model	Description
RM-02-200-11-U	8" Coupling



Model	Description
91-110 NPT-U	4" (pipe) × 4" NPT male threaded termination fitting



Model	Description
92-110 NPT-U	4" (pipe) × 4" NPT female threaded termination fitting



Model	Description
305-125-110-U	4" double wall electrofusion entry boot with integrated termination fitting
305-125-110-TP-3-U	4" double wall electrofusion entry boot with integrated termination fitting and press fit test port



Model	Description
FEB-125-MM	4” electrofusion fiberglass entry boot for use with 4” pipework systems
10000015399	4" Wedge x 1/4” slope



Model	Description
G3-125-110-U	SC 4" Gemini 90° Elbow



Model	Description
G4-125-110-U	SC 4" Gemini 45° Elbow OR SC 4" Gemini Inline Joint



UPP® 4" DUCT SYSTEM

With a thick and robust wall, the new duct is equally flexible and can be welded to electrofusion entry seals and other 4" electrofusion fittings. The duct will provide a watertight chase for pipes or electrical cables when fully welded. This product is for use as an electrical duct or gravel guard for fuel pipework.

The following in-house testing has been satisfactorily carried out on the duct:

- Electrofusion trials.
- Cold temperature bending tests at -20.2 °F.
- Ball impact test at -20.2 °F.
- Pressure testing at 29 psi for 1 week.
- Drop test of coil from 6 feet.

ORDERING INFORMATION

Model	Description
DUCT-400-100	XP pipe ducting, 100 ft. coil
DUCT-400-250	XP pipe ducting, 250 ft. coil



Model	Description
02-110-U	4" primary welding coupler



Model	Description
02-125SC-U	4" secondary welding coupler



Model	Description
10.125(SC)	5" secondary plug



Model	Description
49-125-110-U	5" × 4" secondary electrofusion reducer fitting
49-125-110-TP-3-U	5" × 4" secondary electrofusion reducer fitting with press fit test port



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