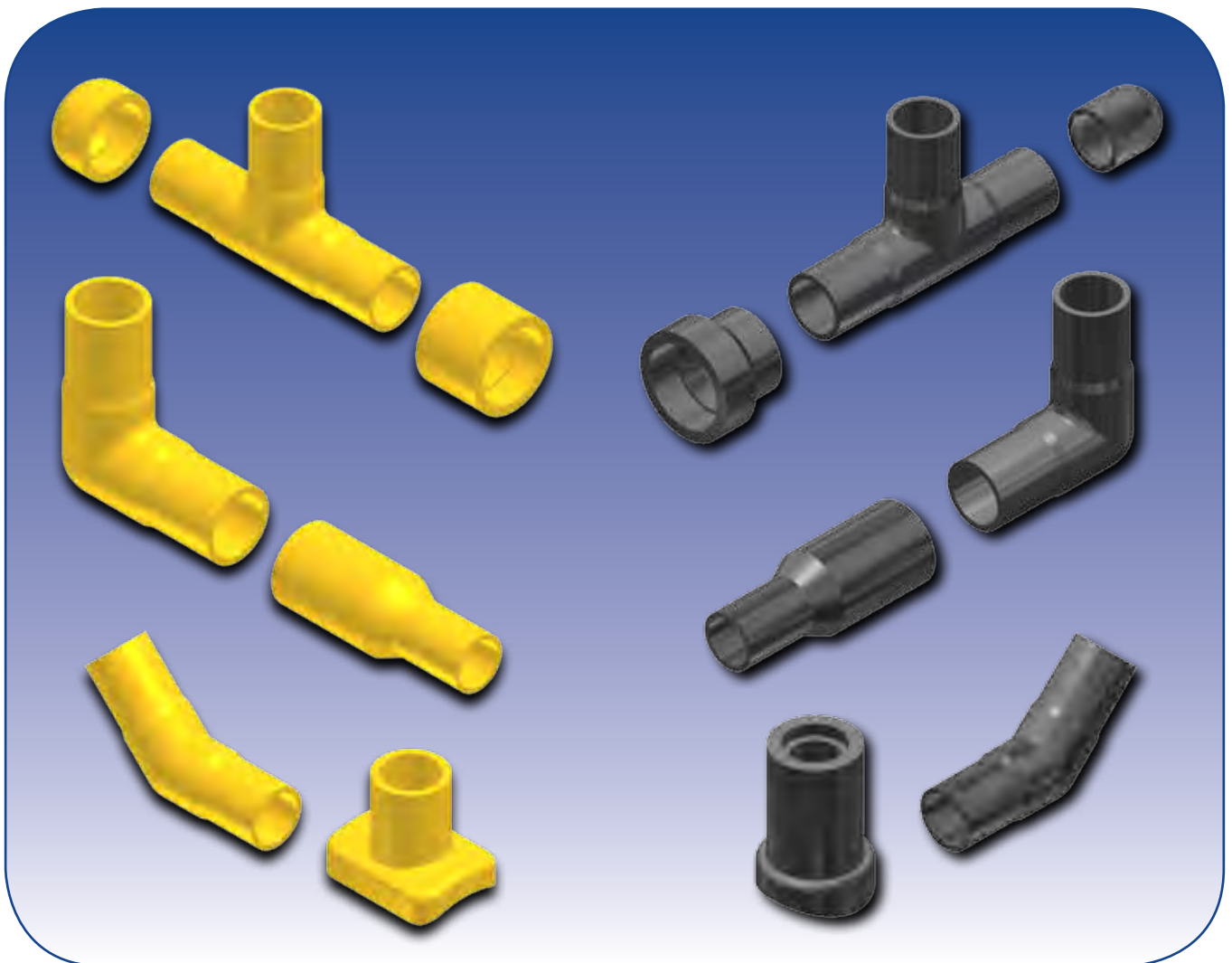




POLYETHYLENE FITTINGS



Continental Industries

A Division of  **BURNDY** LLC

The Ultimate Connection
www.conind.com

Our Company

Continental Industries, headquartered in Tulsa , Oklahoma, was formed in 1958 and is today a leading manufacturer of connectors for the Gas Utility, Gas & Water Distribution, Propane, Plumbing and Cathodic Protection markets. An ISO 9001 certified company, Continental Industries has manufacturing locations in Tulsa and Broken Arrow , Oklahoma. Our employees are committed to providing the best value to our customers.

Continental manufactures a full line of plastic and steel connector products utilizing state-of-the-art injection molding machines, automatic screw machines, and CNC machining equipment. Our commitment to quality is evident in every step of our business processes. Renowned for our design and development of advanced products, we provide our customers with reliable, cost-effective solutions for joining polyethylene pipe.

thermOweld®, our exothermic welding materials and accessories products, provide a simple, efficient, cost effective method of permanently connecting two or more conductors utilizing a high temperature exothermic reaction between Aluminum and Copper Oxide to produce an almost pure copper weld. We manufacture all of our weld metal and molds in Oklahoma so you are certain of getting consistent, high quality products to satisfy your exothermic welding needs.

Our Vision

Simply stated, our vision is “To be a Sales and Customer Driven Company”. Our commitment to providing the best value to our customers is shared by the entire organization and is evidenced by both the number of long standing relationships we have gratefully developed over the years and the new relationships we are developing every day.

Why Use Continental?

Continental Industries is the industry leader in the manufacturing of plastic and steel mechanical fittings for the Gas & Water industry. From the Con-Stab ID Seal® to Scope®, steel saddles to HVT, quality and service is what drives us at Continental Industries.

Continental has the experience and confidence necessary to provide the best quality products on the market today. Continental Industries’ connectors will save you both time and money and give you the peace of mind that comes with using a quality product. Continental uses only the highest quality raw materials, engineered designs, and manufacturing processes to ensure the consistent quality that makes our products second to none.

With regional sales offices located throughout the United States, a Continental Industries representative is only a phone call away to help with any questions you may have.

Ordering Information

To place an order, or to check the status of an order, contact us via;

Telephone: 918-627-5210 or 1-800-558-1373

Fax: 918-622-1275 or 918-800-788-1668

Mailing Address:

Continental Industries
1140 North 129th East Ave.
Tulsa, OK 74116

Business Hours: Monday to Friday 8:00 am to 5:00 pm CST



TABLE OF CONTENTS

Description.....	Page #
3608 HDPE Socket Fusion Fittings	4-13
3408/4710 HDPE Butt Fusion Fittings.....	14-22
2406/2708 MDPE Socket Fusion Fittings	24-32
2406/2708 MDPE Butt Fusion Fittings	34-40
PPI Information	41
Fusion Procedures.....	42-43

Due to our continuous improvement efforts, all Continental products and specifications are subject to change without notice.

NOTE: The Eliminator®, ID Seal®, Geo-Stab®, and thermOweld® are registered trademarks of Continental Industries.

Socket Fusion Fittings PE Black

Applications: Geothermal, Municipal, Industrial, Gas, Water, Oil, Landfill

Size Range and Types: ½" to 2"

Couplings, End Caps, Elbows, Tees, Reducers, Branch Saddles, Service Saddles

Polyethylene Material: Black high density polyethylene resin. Listed by the Plastic Pipe Institute as having a PE3608 rating and a Hydrostatic Design Basis (HDB) of 1600 psi at 73° F. This resin has a cell classification of PE345464C in accordance with ASTM D3350.

Pressure Rating: The pressure rating is dependent upon the material's HDB, the dimension ratio (SDR) of the fittings, and the overall design factor (DF). The overall design factor is a product of the service design factor, the temperature design factor, and the chemical design factor. For more information the user should consult PPI TR-9 "Recommended Design Factors and Design Coefficients for Thermoplastic Pressure Pipe".

Fitting SDR	Pressure Rating for Water @ 73° F	Pressure Rating for Gas @ 73° F
9	250 psig	125 psig
11	200 psig	100 psig
13.5	160 psig	80 psig

Temperature Range: The operating temperature range is -20° F to 140° F. Pressure de-rating factors should be considered when operating systems above 73° F.

Joining: These fittings are compatible for heat fusion to any PE pipe or fittings made from a like or similar resin. The fittings are designed for use on pipe conforming to ASTM D2513 and ASTM D3035.

For additional information on joining, the user should consult ASTM F2620 "Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings"

Manufacturing Standards:

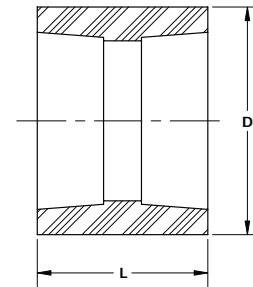
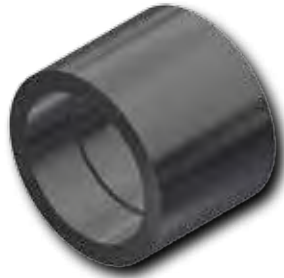
ASTM D2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings"

ASTM D2683 "Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing"



Socket Fusion Fittings

Coupling SOCKET FUSION 3608 HDPE



Socket Fusion Coupling - 3608 HDPE		
PE Size	Part Number	Package Qty
1/2" CTS	4434-52-0704-00	10
1" CTS	4434-52-0708-00	10
3/4" IPS	4434-52-0713-00	10
1" IPS	4434-52-0714-00	10
1 1/4" IPS	4434-52-0715-00	10
1 1/2" IPS	4434-52-0716-00	10
2" IPS	4434-52-0717-00	10

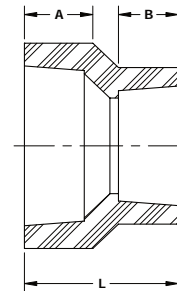
• For sizes not listed, contact Continental Industries.

Socket Fusion Coupling Dimensions		
Part Number	D	L
4434-52-0704-00	1.125	2.250
4434-52-0708-00	1.750	1.875
4434-52-0713-00	1.500	1.750
4434-52-0714-00	1.875	1.625
4434-52-0715-00	2.375	2.000
4434-52-0716-00	2.500	2.125
4434-52-0717-00	3.125	2.250

• All values are nominal dimensions.

Reducer Coupling SOCKET FUSION

3608 HDPE



Socket Fusion Reducer Coupling - 3608 HDPE		
PE Size	Part Number	Package Qty
1" IPS X 3/4" IPS	4434-54-1413-00	10
1 1/4" IPS X 3/4" IPS	4434-54-1513-00	10
1 1/4" IPS X 1" IPS	4434-54-1514-00	10
1 1/2" IPS X 1 1/4" IPS	4434-54-1615-00	10
2" IPS X 3/4" IPS	4434-54-1713-00	10
2" IPS X 1" IPS	4434-54-1714-00	10
2" IPS X 1 1/4" IPS	4434-54-1715-00	10
2" IPS X 1 1/2" IPS	4434-54-1716-00	10

• For sizes not listed, contact Continental Industries.

Socket Fusion Reducer Coupling Dimensions			
Part Number	A	B	L
4434-54-1413-00	0.875	0.875	2.125
4434-54-1513-00	1.000	0.750	2.000
4434-54-1514-00	1.000	0.750	2.000
4434-54-1615-00	1.000	1.000	2.125
4434-54-1713-00	1.390	0.579	1.960
4434-54-1714-00	1.000	0.750	2.000
4434-54-1715-00	1.000	0.875	2.250
4434-54-1716-00	1.000	0.875	2.250

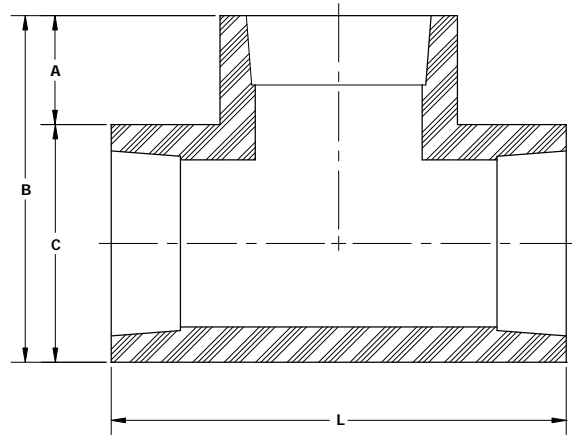
• All values are nominal dimensions.

Socket Fusion Fittings



Tee

SOCKET FUSION
3608 HDPE



Socket Fusion Tee - 3608 HDPE		
PE Size	Part Number	Package Qty
1/2" CTS	4434-50-0704-00	10
1" CTS	4434-50-0708-00	10
3/4" IPS	4434-50-0713-00	10
1" IPS	4434-50-0714-00	10
1 1/4" IPS	4434-50-0715-00	10
2" IPS	4434-50-0717-00	10

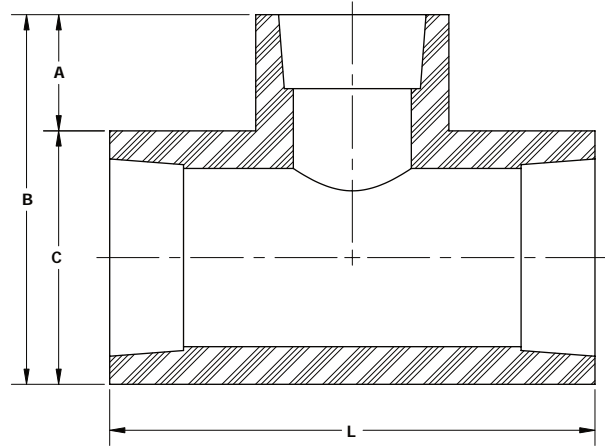
• For sizes not listed, contact Continental Industries.

Socket Fusion Tee Dimensions				
Part Number	A	B	C	L
4434-50-0704-00	0.750	1.925	1.200	2.650
4434-50-0708-00	0.700	2.400	1.725	3.125
4434-50-0713-00	0.675	2.075	1.425	2.775
4434-50-0714-00	0.700	2.400	1.725	3.125
4434-50-0715-00	1.015	3.300	2.250	4.275
4434-50-0717-00	1.150	4.225	3.075	5.450

• All values are nominal dimensions.

Reducer Tee

SOCKET FUSION
3608 HDPE



Socket Fusion Reducer Tee - 3608 HDPE		
PE Size (Run x Run x Branch)	Part Number	Package Qty
1" IPS X 1" IPS X 3/4" IPS	4434-49-1413-00	10
1 1/4" IPS X 1 1/4" IPS X 3/4" IPS	4434-49-1513-00	10
1 1/4" IPS X 1 1/4" IPS X 1" IPS	4434-49-1514-00	10
1 1/2" IPS X 1 1/2" IPS X 3/4" IPS	4434-49-1613-00	10
1 1/2" IPS X 1 1/2" IPS X 1" IPS	4434-49-1614-00	10
1 1/2" IPS X 1 1/2" IPS X 1 1/4" IPS	4434-49-1615-00	10
2" IPS X 2" IPS X 3/4" IPS	4434-49-1713-00	10
2" IPS X 2" IPS X 1" IPS	4434-49-1714-00	10
2" IPS X 2" IPS X 1 1/4" IPS	4434-49-1715-00	10

• For sizes not listed, contact Continental Industries.

Socket Fusion Reducer Tee Dimensions				
Part Number	A	B	C	L
4434-49-1413-00	0.700	2.425	1.725	3.100
4434-49-1513-00	0.825	3.075	2.250	4.250
4434-49-1514-00	0.800	3.075	2.250	4.250
4434-49-1613-00				
4434-49-1614-00				
4434-49-1615-00				
4434-49-1713-00	0.825	4.000	3.050	5.425
4434-49-1714-00	0.860	4.020	3.060	5.390
4434-49-1715-00				

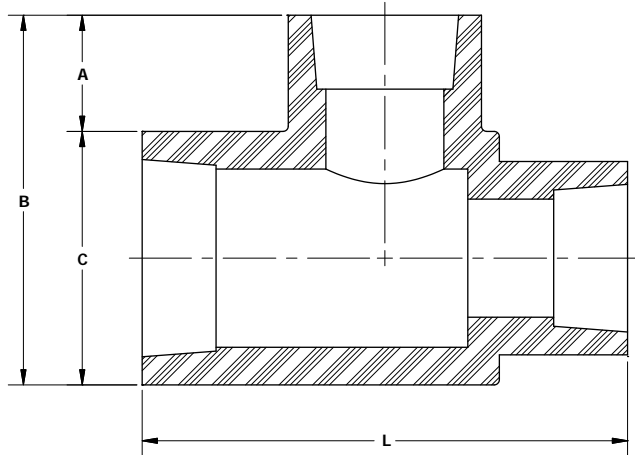
• All values are nominal dimensions.

Socket Fusion Fittings



Unequal Reducer Tee

SOCKET FUSION
3608 HDPE

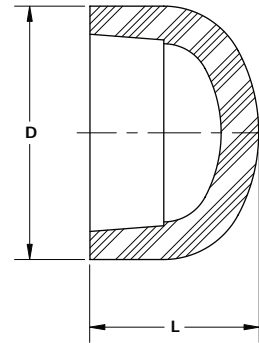
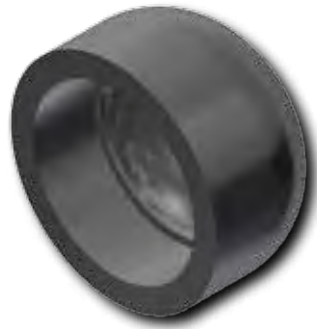


Socket Fusion Unequal Reducer Tee - 3608 HDPE		
PE Size	Part Number	Package Qty
1 1/4" IPS X 3/4" IPS X 3/4" IPS	4434-46-1513-00	10
1 1/4" IPS X 1" IPS X 1" IPS	4434-46-1514-00	10
1 1/2" IPS X 3/4" IPS X 3/4" IPS	4434-46-1613-00	10
1 1/2" IPS X 1" IPS X 1" IPS	4434-46-1614-00	10
1 1/2" IPS X 1 1/4" IPS X 1 1/4" IPS	4434-46-1615-00	10
2" IPS X 1 1/4" IPS X 1 1/4" IPS	4434-46-1715-00	10

• For sizes not listed, contact Continental Industries.

Socket Fusion Unequal Reducer Tee Dimensions				
Part Number	A	B	C	L
4434-46-1513-00	0.825	3.125	1.400	4.100
4434-46-1514-00	0.800	3.050	1.700	4.100
4434-46-1613-00				
4434-46-1614-00	0.600	3.150	1.725	4.350
4434-46-1615-00				
4434-46-1715-00	0.900	4.000	2.425	5.375

• All values are nominal dimensions.



END CAP - 3608 HDPE		
PE Size	Part Number	Package Qty
3/4" IPS	4434-53-0713-00	10
1" IPS	4434-53-0714-00	10
1 1/4" IPS	4434-53-0715-00	10
1 1/2" IPS	4434-53-0716-00	10
2" IPS	4434-53-0717-00	10

• For sizes not listed, contact Continental Industries.

Socket Fusion End Cap Dimensions		
Part Number	D	L
4434-53-0713-00	1.375	1.250
4434-53-0714-00	1.875	1.625
4434-53-0715-00	2.250	1.875

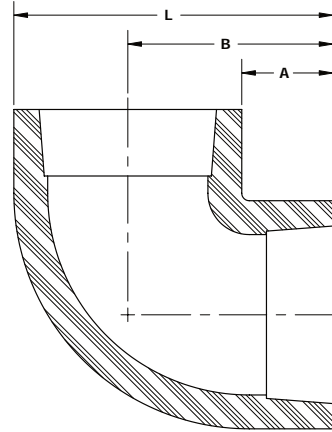
• All values are nominal dimensions.

Socket Fusion Fittings



90° Elbow

Socket FUSION
3608 HDPE

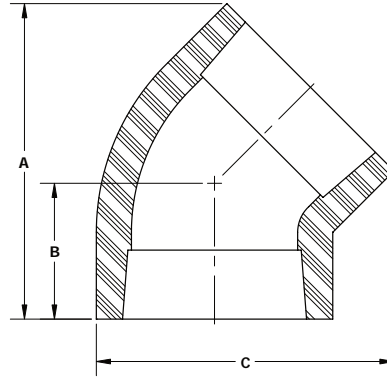


90° Socket Fusion Elbow - 3608 HDPE		
PE Size	Part Number	Package Qty
1" CTS	4434-51-0708-00	10
3/4" IPS	4434-51-0713-00	10
1" IPS	4434-51-0714-00	10
1 1/4" IPS	4434-51-0715-00	10
1 1/2" IPS	4434-51-0716-00	10
2" IPS	4434-51-0717-00	10

• For sizes not listed, contact Continental Industries.

Socket Fusion 90° Elbow Dimensions			
Part Number	A	B	L
4434-51-0708-00	0.750	1.250	1.875
4434-51-0713-00	0.750	1.500	1.875
4434-51-0714-00	0.750	1.500	2.500
4434-51-0715-00	0.875	2.000	3.250
4434-51-0716-00	1.125	2.500	3.625
4434-51-0717-00	1.250	2.875	4.500

• All values are nominal dimensions.



45° Socket Fusion Elbow - 3608 HDPE		
PE Size	Part Number	Package Qty
1 1/4" IPS	4434-58-0715-00	
1 1/2" IPS	4434-58-0716-00	
2" IPS	4434-58-0717-00	

• For sizes not listed, contact Continental Industries.

Socket Fusion 45° Elbow Dimensions			
Part Number	A	B	C
4434-58-0715-00	2.900	1.250	2.750
4434-58-0716-00	3.250	1.350	3.000
4434-58-0717-00	3.900	1.700	3.700

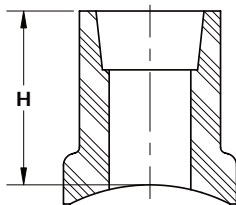
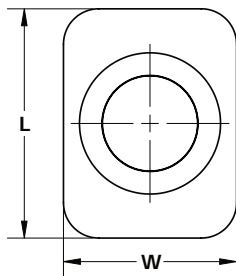
• All values are nominal dimensions.

Socket Fusion Fittings

Service Saddle



SOCKET FUSION
3608 HDPE



Service Saddle - 3608 HDPE			
Main Size	Outlet Size	Part Number	Package Qty
1" IPS	3/4" IPS	4471-14-0713-00	10
1 1/4" IPS		4471-15-0713-00	10
1 1/2" IPS		4471-16-0713-00	10
2" IPS		4471-17-0713-00	10
3" IPS		4471-19-0713-00	10
4" IPS		4471-21-0713-00	10
6" IPS		4471-24-0713-00	10
8" IPS		4471-26-0713-00	10
10" IPS		4471-27-0713-00	10
12" IPS		4471-28-0713-00	10
1 1/4" IPS	1" IPS	4471-15-0714-00	10
1 1/2" IPS		4471-16-0714-00	10
2" IPS		4471-17-0714-00	10
3" IPS		4471-19-0714-00	10
4" IPS		4471-21-0714-00	10
6" IPS		4471-24-0714-00	10
8" IPS		4471-26-0714-00	10
10" IPS		4471-27-0714-00	10
12" IPS	4471-28-0714-00	10	
1 1/2" IPS	1 1/4" IPS	4471-16-0715-00	10
2" IPS		4471-17-0715-00	10

• For sizes not listed, contact Continental Industries.

Service Saddle Dimensions			
Part Number	H	L	W
3/4" IPS Outlet			
1" IPS Outlet	2.050	2.425	1.845

• All values are nominal dimensions.

Butt Fusion Fittings PE Black

Applications: Geothermal, Municipal, Industrial, Gas, Water, Oil, Landfill

Size Range and Types: 1 ¼" IPS to 8" IPS
End Caps, Elbows, Tees, Reducers, Branch Saddles, Service Saddles

Polyethylene Material: Black high density polyethylene resin. Listed by the Plastic Pipe Institute as having a PE3408/PE4710 rating and a Hydrostatic Design Basis (HDB) of 1600 psi @ 73° F. This resin has a cell classification of PE445574C in accordance with ASTM D3350.

Pressure Rating: The pressure rating is dependent upon the material's HDB, the dimension ratio (SDR) of the fittings, and the overall design factor (DF). The overall design factor is a product of the service design factor, the temperature design factor, and the chemical design factor. For more information the user should consult PPI TR-9 "Recommended Design Factors and Design Coefficients for Thermoplastic Pressure Pipe".

Fitting SDR	Pressure Rating for Water @ 73° F	Pressure Rating for Gas @ 73° F
9	250 psig	125 psig
11	200 psig	100 psig
13.5	160 psig	80 psig

Temperature Range: The operating temperature range is -20° F to 140° F. Pressure de-rating factors should be considered when operating systems above 73° F.

Joining: These fittings are compatible for heat fusion to any PE pipe or fittings made from a like or similar resin. The fittings are designed for use on pipe conforming to ASTM F714, ASTM D2513, and ASTM D3035.

For additional information on joining, the user should consult ASTM F2620 "Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings"

Manufacturing Standards:

ASTM D2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings"

ASTM D3261 "Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastics Pipe and Tubing"

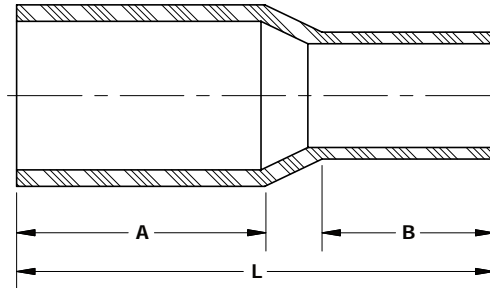
ANSI/NSF 61 " Drinking water system components - Health effects"



Butt Fusion Fittings

Reducer Coupling

BUTT FUSION
3408/4710 HDPE



Butt Fusion Reducer Coupling - 3408/4710 HDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/2" IPS X 1" IPS	DR-11 X DR-11	4431-54-1614-00	10
1 1/2" IPS X 1 1/4" IPS	DR-11 X DR-11	4431-54-1615-0A	10
2" IPS X 1" IPS	DR-11 X DR-11	4431-54-1714-00	10
2" IPS X 1 1/4" IPS	DR-11 X DR-11	4431-54-1715-0A	10
2" IPS X 1 1/2" IPS	DR-11 X DR-11	4431-54-1716-00	10
3" IPS X 2" IPS	DR-11 X DR-11	4431-54-1917-00	10
4" IPS X 2" IPS	DR-11 X DR-11	4431-54-2117-00	2
4" IPS X 3" IPS	DR-11 X DR-11	4431-54-2119-00	2
6" IPS X 4" IPS	DR-11 X DR-11	4431-54-2421-00	1
8" IPS X 6" IPS	DR-11 X DR-11	4431-54-2624-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion Reducer Coupling Dimensions			
Part Number	A	B	L
4431-54-1614-00	3.250	1.250	6.000
4431-54-1615-0A	3.250	1.250	6.250
4431-54-1714-00	3.250	1.250	6.250
4431-54-1715-0A	3.250	2.250	6.250
4431-54-1716-00	3.000	3.000	7.000
4431-54-1917-00	3.000	2.750	6.750
4431-54-2117-00	3.000	2.250	7.500
4431-54-2119-00	2.750	2.750	7.250
4431-54-2421-00	1.750	1.250	3.750
4431-54-2624-00	1.750	1.250	4.000

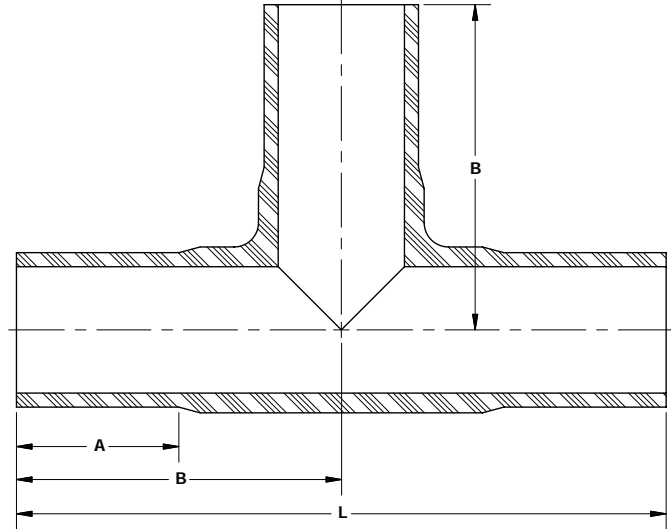
• All values are nominal dimensions.

Butt Fusion Fittings



Tee

BUTT FUSION
3408/4710 HDPE

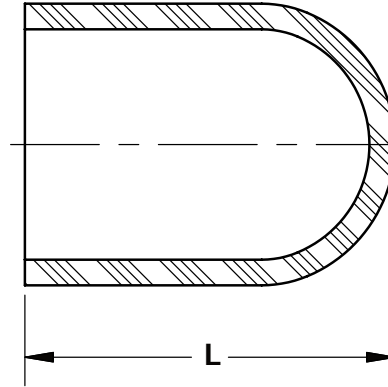
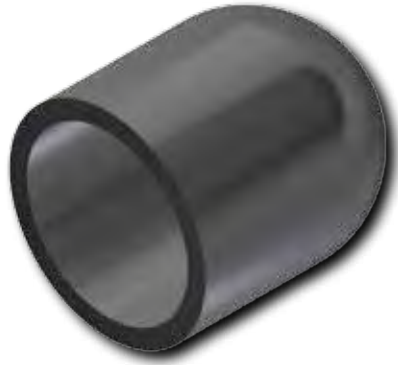


Butt Fusion Tee - 3408/4710 HDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/4" IPS	DR-11	4431-50-0615-AA	5
2" IPS	DR-11	4431-50-0617-00	5
3 IPS	DR-11	4431-50-0619-00	2
4" IPS	DR-11	4431-50-0621-00	1
6" IPS	DR-11	4431-50-0624-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion Tee Dimensions			
Part Number	A	B	L
4431-50-0615-00	2.500	4.000	8.000
4431-50-6017-00	2.500	4.250	8.500
4431-50-0619-00	3.000	5.750	11.375
4431-50-0621-00	3.000	6.250	12.250
4431-50-0624-00	4.000	8.250	16.250

• All values are nominal dimensions.



END CAP - 3408/4710 HDPE			
PE Size	SDR / WALL	Part Number	Package Qty
2" IPS	DR-11	4431-53-0617-00	10
3" IPS	DR-11	4431-53-0619-00	10
4" IPS	DR-11	4431-53-0621-00	2
6 IPS	DR-11	4431-53-0624-00	2
8" IPS	DR-11	4431-53-0626-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion End Cap Dimensions	
Part Number	L
4431-53-0617-00	2.875
4431-53-0619-00	3.250
4431-53-0621-00	4.000
4431-53-0624-00	4.500
4431-53-0626-00	4.750

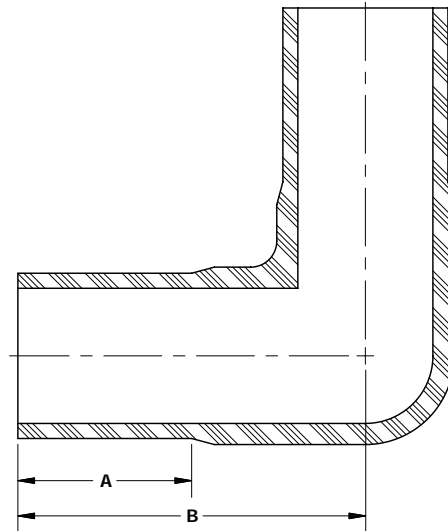
• All values are nominal dimensions.

Butt Fusion Fittings



90° Elbow

BUTT FUSION
3408/4710 HDPE

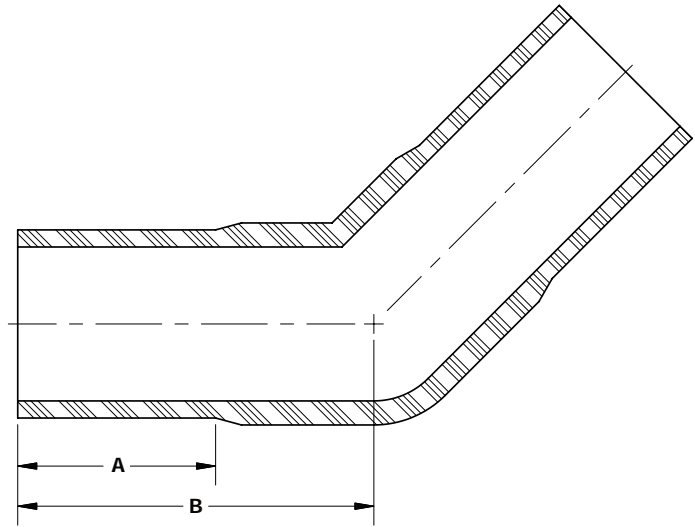


90° Butt Fusion Elbow - 3408/4710 HDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/4" IPS	DR-11	4431-51-0615-AA	10
2" IPS	DR-11	4431-51-0617-00	10
3 IPS	DR-11	4431-51-0619-00	2
4" IPS	DR-11	4431-51-0621-00	2
6" IPS	DR-11	4431-51-0624-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion 90° Elbow Dimensions		
Part Number	A	B
4431-51-0615-AA	2.500	4.000
4431-51-0617-00	2.500	4.000
4431-51-0619-00	3.000	5.500
4431-51-0621-00	3.000	6.000
4431-51-0624-00	4.000	8.000

• All values are nominal dimensions.



45° Butt Fusion Elbow - 3408/4710 HDPE			
PE Size	SDR / WALL	Part Number	Package Qty
2" IPS	DR-11	4431-58-0617-00	5
3 IPS	DR-11	4431-58-0619-00	2
4" IPS	DR-11	4431-58-0621-00	2
6" IPS	DR-11	4431-58-0624-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion 45° Elbow Dimensions		
Part Number	A	B
4431-58-0617-00	2.500	4.500
4431-58-0619-00	3.200	5.500
4431-58-0621-00	3.000	5.000
4431-58-0624-00	4.000	10.000

• All values are nominal dimensions.

Butt Fusion Fittings

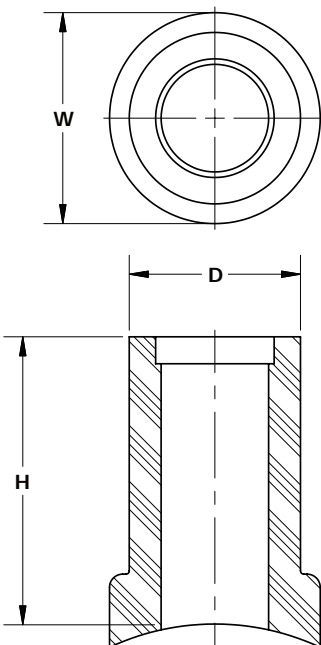
Service Saddle

BUTT / SOCKET FUSION COMBO
3408/4710 HDPE



Branch Saddle - 3408/4710 HDPE			
Main Size	Outlet Size	Part Number	Package Qty
2" IPS	2" IPS DR-11	4472-17-0617-00	1
3" IPS		4472-19-0617-00	1
4" IPS		4472-21-0617-00	1
6" IPS		4472-24-0617-00	1
8" IPS		4472-26-0617-00	1
10" IPS		4472-27-0617-00	1
12" IPS		4472-28-0617-00	1

• For sizes not listed, contact Continental Industries.



Branch Saddle Dimensions			
Part Number	H	W	D
4472-17-0617-00	5.000	2.750	2.375
4472-19-0617-00			
4472-21-0617-00			
4472-24-0617-00			
4472-26-0617-00			
4472-27-0617-00			
4472-28-0617-00			

- All values are nominal dimensions.
- "H" dimensions may vary slightly with the size of the main diameter ordered.



Butt Fusion Fittings Service Saddle

BUTT FUSION
3408/4710 HDPE

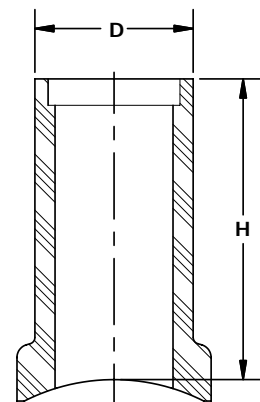
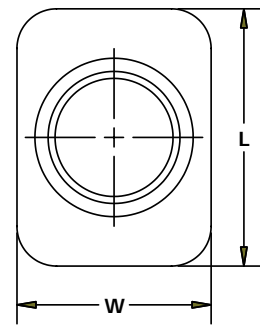
Service Saddle - 3408/4710 HDPE			
Main Size	Outlet Size	Part Number	Package Qty
1" IPS	3/4" IPS DR-11	4471-14-0613-00	
1 1/4" IPS		4471-15-0613-00	
1 1/2" IPS		4471-16-0613-00	
2" IPS		4471-17-0613-00	
1 1/4" IPS	1" IPS DR-11	4471-15-0614-00	
1 1/2" IPS		4471-16-0614-00	
2" IPS		4471-17-0614-00	

• For sizes not listed, contact Continental Industries.



Service Saddle Dimensions				
Part Number	H	L	W	D
4471-14-0613-00				
4471-15-0613-00				
4471-16-0613-00				
4471-17-0613-00				
4471-15-0614-00				
4471-16-0614-00				
4471-17-0614-00				

- All values are nominal dimensions.
- "H" dimensions may vary slightly with the size of the main diameter ordered.



Butt Fusion Fittings

Branch Saddle

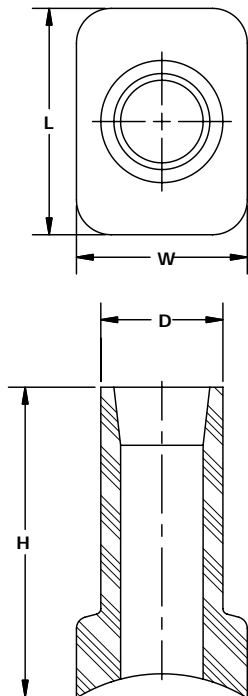


BUTT FUSION
3408/4710 HDPE



Service Saddle - 3408/4710 HDPE				
Main Size	Butt Fusion Outlet Size	Socket Fusion Outlet Size	Part Number	Package Qty
1" IPS	1" IPS	3/4" IPS	9971-00-0001-00	10
1 1/4" IPS	1" IPS		9971-00-0002-00	10
1 1/2" IPS	1" IPS		9971-00-0003-00	10
2" IPS	1" IPS		9971-00-0004-00	10
1 1/4" IPS	1 1/4" IPS	1" IPS	9971-00-0005-00	10
1 1/2" IPS	1 1/4" IPS		9971-00-0006-00	10
2" IPS	1 1/4" IPS		9971-00-0007-00	10

• For sizes not listed, contact Continental Industries.



Service Saddle Dimensions				
Part Number	H	L	W	D
9971-00-0001-00	3.850	2.435	1.840	1.315
9971-00-0002-00				
9971-00-0003-00				
9971-00-0004-00				
9971-00-0005-00	1.660			
9971-00-0006-00				
9971-00-0007-00				

• All values are nominal dimensions.

Socket Fusion Fittings PE Yellow

Applications: Natural Gas Distribution, LPG and Propane, Yard Gas

Size Range and Types: 1/2" CTS to 2" IPS
Couplings, End Caps, Elbows, Tees, Reducers, Service Saddles

Polyethylene Material: Yellow high density polyethylene resin. Listed by the Plastic Pipe Institute as having a PE2708 rating and a Hydrostatic Design Basis (HDB) of 1250 psi @ 73° F. This resin has a cell classification of PE234373E in accordance with ASTM D3350.

Pressure Rating: The pressure rating is dependent upon the material's HDB, the dimension ratio (SDR) of the fittings, and the overall design factor (DF). The overall design factor is a product of the service design factor, the temperature design factor, and the chemical design factor. For more information the user should consult PPI TR-9 "Recommended Design Factors and Design Coefficients for Thermoplastic Pressure Pipe".

Fitting SDR	Pressure Rating for Gas @ 73° F	Pressure Rating for Propane @ 73° F
9	100 psig	30 psig
11	80 psig	30 psig
13.5	64 psig	30 psig

Temperature Range: The operating temperature range is -20° F to 140° F. Pressure de-rating factors should be considered when operating systems above 73° F.

Joining: These fittings are compatible for heat fusion to any PE pipe or fittings made from a like or similar resin. The fittings are designed for use on pipe conforming to ASTM D2513.

For additional information on joining, the user should consult ASTM F2620 "Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings"

Manufacturing Standards:

ASTM D2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings"

ASTM D2683 "Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing"

CSA B137.4 "Polyethylene piping systems for gas services"

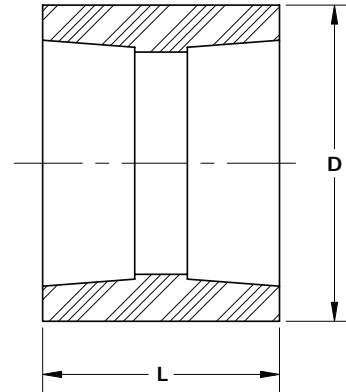


Socket Fusion Fittings

Coupling

SOCKET FUSION

2406/2708 MDPE



Socket Fusion Coupling - 2406/2708 MDPE

PE Size	Part Number	Package Qty
1/2" CTS	4634-52-0704-00‡	10
1" CTS	4634-52-0708-00‡	10
3/4" IPS	4634-52-0713-00‡	10
1" IPS	4634-52-0714-00‡	10
1 1/4" IPS	4634-52-0715-00‡	10
1 1/2" IPS	4634-52-0716-00‡	10
2" IPS	4634-52-0717-00‡	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion Coupling Dimensions

Part Number	D	L
4634-52-0704-00	1.125	2.250
4634-52-0708-00	1.750	1.875
4634-52-0713-00	1.500	1.750
4634-52-0714-00	1.875	1.625
4634-52-0715-00	2.375	2.000
4634-52-0716-00	2.500	2.125
4634-52-0717-00	3.125	2.250

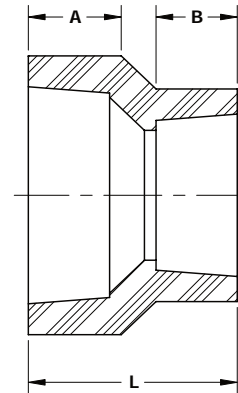
- All values are nominal dimensions.

Socket Fusion Fittings

Reducer Coupling



SOCKET FUSION
2406/2708 MDPE

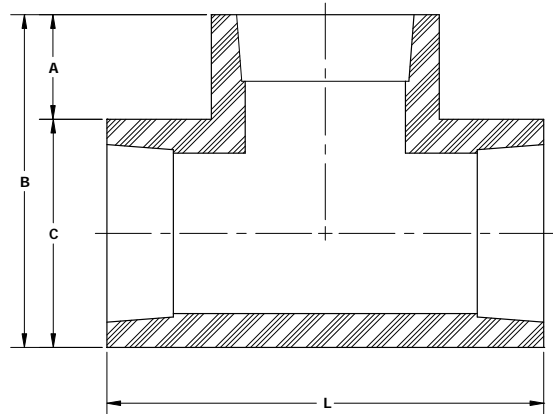


Socket Fusion Reducer Coupling - 2406/2708 MDPE		
PE Size	Part Number	Package Qty
3/4" IPS X 1/2" CTS	4634-54-1304-00‡	10
1" IPS X 3/4" IPS	4634-54-1413-00‡	10
1 1/4" IPS X 3/4" IPS	4634-54-1513-00‡	10
1 1/4" IPS X 1" IPS	4634-54-1514-00‡	10
1 1/2" IPS X 1 1/4" IPS	4634-54-1615-00	10
2" IPS X 3/4" IPS	4634-54-1713-00	10
2" IPS X 1" IPS	4634-54-1714-00‡	10
2" IPS X 1 1/4" IPS	4634-54-1715-00‡	10
2" IPS X 1 1/2" IPS	4634-54-1716-00‡	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion Reducer Coupling Dimensions			
Part Number	A	B	L
4634-54-1304-00	1.130	1.020	2.165
4634-54-1413-00	0.875	0.875	2.125
4634-54-1513-00	1.000	0.750	2.000
4634-54-1514-00	1.000	0.750	2.000
4634-54-1615-00	1.000	1.000	2.125
4634-54-1713-00	1.390	0.579	1.960
4634-54-1714-00	1.000	0.750	2.000
4634-54-1715-00	1.000	0.875	2.250
4634-54-1716-00	1.000	0.875	2.250

- All values are nominal dimensions.



Socket Fusion Tee - 2406/2708 MDPE		
PE Size	Part Number	Package Qty
1/2" CTS	4634-50-0704-00‡	10
1" CTS	4634-50-0708-00‡	10
3/4" IPS	4634-50-0713-00‡	10
1" IPS	4634-50-0714-00‡	10
1 1/4" IPS	4634-50-0715-00‡	10
2" IPS	4634-50-0717-00‡	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion Tee Dimensions				
Part Number	A	B	C	L
4634-50-0704-00	0.750	1.925	1.200	2.650
4634-50-0708-00	0.700	2.400	1.725	3.125
4634-50-0713-00	0.675	2.075	1.425	2.775
4634-50-0714-00	0.700	2.400	1.725	3.125
4634-50-0715-00	1.015	3.300	2.250	4.275
4634-50-0717-00	1.150	4.225	3.075	5.450

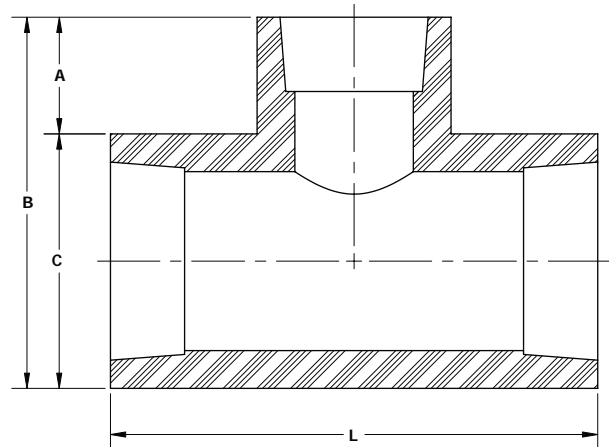
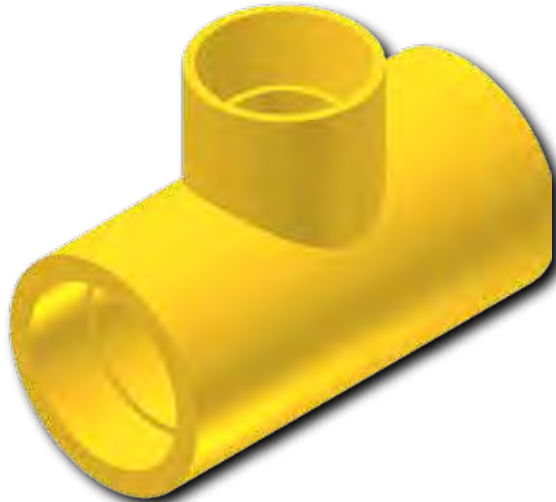
- All values are nominal dimensions.

Socket Fusion Fittings



Reducer Tee

SOCKET FUSION
2406/2708 MDPE

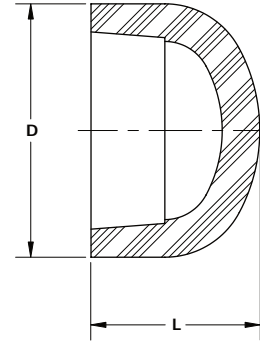


Socket Fusion Reducer Tee - 2406/2708 MDPE		
PE Size (Run x Run x Branch)	Part Number	Package Qty
1" IPS X 1" IPS X 3/4" IPS	4634-49-1413-00	10
1 1/4" IPS X 1 1/4" IPS X 3/4" IPS	4634-49-1513-00	10
1 1/4" IPS X 1 1/4" IPS X 1" IPS	4634-49-1514-00	10
1 1/2" IPS X 1 1/2" IPS X 3/4" IPS	4634-49-1613-00	10
1 1/2" IPS X 1 1/2" IPS X 1" IPS	4634-49-1614-00	10
1 1/2" IPS X 1 1/2" IPS X 1 1/4" IPS	4634-49-1615-00	10
2" IPS X 2" IPS X 3/4" IPS	4634-49-1713-00	10
2" IPS X 2" IPS X 1" IPS	4634-49-1714-00	10
2" IPS X 2" IPS X 1 1/4" IPS	4634-49-1715-00	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion Reducer Tee Dimensions				
Part Number	A	B	C	L
4634-49-1413-00	0.700	2.425	1.725	3.100
4634-49-1513-00	0.825	3.075	2.250	4.250
4634-49-1514-00	0.800	3.075	2.250	4.250
4634-49-1613-00				
4634-49-1614-00				
4634-49-1615-00				
4634-49-1713-00	0.825	4.000	3.050	5.425
4634-49-1714-00	0.860	4.020	3.060	5.390
4634-49-1715-00				

- All values are nominal dimensions.



END CAP - 2406/2708 MDPE		
PE Size	Part Number	Package Qty
1/2" CTS	4634-53-0704-00‡	10
1" CTS	4634-53-0708-00‡	10
3/4" IPS	4634-53-0713-00‡	10
1" IPS	4634-53-0714-00‡	10
1 1/4" IPS	4634-53-0715-00‡	10
2" IPS	4634-53-0717-00‡	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion End Cap Dimensions		
Part Number	D	L
4634-53-0704-00	1.125	1.625
4634-53-0708-00	1.625	1.250
4634-53-0713-00	1.375	1.250
4634-53-0714-00	1.875	1.625
4634-53-0715-00	2.250	1.875
4634-53-0717-00	3.250	2.000

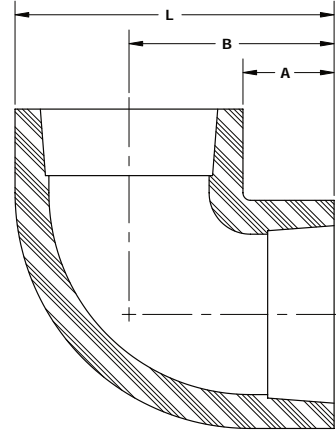
- All values are nominal dimensions.

Socket Fusion Fittings



90° Elbow

Socket FUSION
2406/2708 MDPE

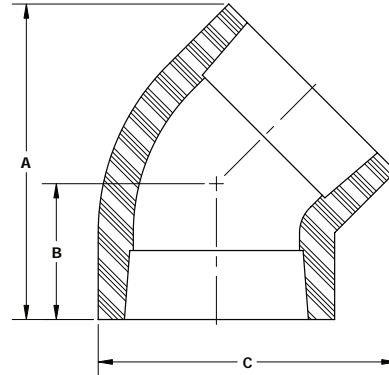


90° Socket Fusion Elbow - 2406/2708 MDPE		
PE Size	Part Number	Package Qty
1" CTS	4634-51-0708-00‡	10
3/4" IPS	4634-51-0713-00‡	10
1" IPS	4634-51-0714-00‡	10
1 1/4" IPS	4634-51-0715-00‡	10
1 1/2" IPS	4634-51-0716-00‡	10
2" IPS	4634-51-0717-00‡	10

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Socket Fusion 90° Elbow Dimensions			
Part Number	A	B	L
4634-51-0708-00	0.750	1.250	1.875
4634-51-0713-00	0.750	1.500	1.875
4634-51-0714-00	0.750	1.500	2.500
4634-51-0715-00	0.875	2.000	3.250
4634-51-0716-00	1.125	2.500	3.625
4634-51-0717-00	1.250	2.875	4.500

- All values are nominal dimensions.



45° Socket Fusion Elbow - 2406/2708 MDPE

PE Size	Part Number	Package Qty
1 1/4" IPS	4634-58-0715-00	
1 1/2" IPS	4634-58-0716-00	
2" IPS	4634-58-0717-00	

• For sizes not listed, contact Continental Industries.

Socket Fusion 45° Elbow Dimensions

Part Number	A	B	C
4634-58-0715-00	2.900	1.250	2.750
4634-58-0716-00	3.250	1.350	3.000
4634-58-0717-00	3.900	1.700	3.700

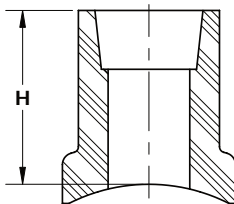
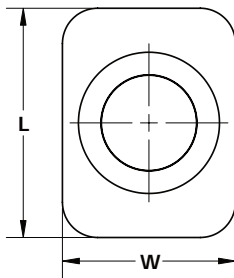
• All values are nominal dimensions.

Socket Fusion Fittings

Service Saddle



SOCKET FUSION
2406/2708 MDPE



Service Saddle - 2406/2708 MDPE			
Main Size	Outlet Size	Part Number	Package Qty
1" IPS	3/4" IPS	4671-14-0713-00	10
1 1/4" IPS		4671-15-0713-00	10
1 1/2" IPS		4671-16-0713-00	10
2" IPS		4671-17-0713-00	10
3" IPS		4671-19-0713-00	10
4" IPS		4671-21-0713-00	10
6" IPS		4671-24-0713-00	10
8" IPS		4671-26-0713-00	10
10" IPS		4671-27-0713-00	10
12" IPS		4671-28-0713-00	10
1 1/4" IPS	1" IPS	4671-15-0714-00	10
1 1/2" IPS		4671-16-0714-00	10
2" IPS		4671-17-0714-00	10
3" IPS		4671-19-0714-00	10
4" IPS		4671-21-0714-00	10
6" IPS		4671-24-0714-00	10
8" IPS		4671-26-0714-00	10
10" IPS		4671-27-0714-00	10
12" IPS	4671-28-0714-00	10	
1 1/2" IPS	1 1/4" IPS	4671-16-0715-00	10
2" IPS		4671-17-0715-00	10

• For sizes not listed, contact Continental Industries.

Service Saddle Dimensions			
Part Number	H	L	W
3/4" IPS Outlet			
1" IPS Outlet	2.050	2.425	1.845
1 1/4" IPS Outlet			

• All values are nominal dimensions.

Butt Fusion Fittings PE Yellow

Applications: Natural Gas Distribution, LPG and Propane, Yard Gas

Size Range and Types: 1 ¼" IPS to 8" IPS
Couplings, End Caps, Elbows, Tees, Reducers, Service Saddles

Polyethylene Material: Yellow high density polyethylene resin. Listed by the Plastic Pipe Institute as having a PE2708 rating and a Hydrostatic Design Basis (HDB) of 1250 psi @ 73° F. This resin has a cell classification of PE234373E in accordance with ASTM D3350.

Pressure Rating: The pressure rating is dependent upon the material's HDB, the dimension ratio (SDR) of the fittings, and the overall design factor (DF). The overall design factor is a product of the service design factor, the temperature design factor, and the chemical design factor. For more information the user should consult PPI TR-9 "Recommended Design Factors and Design Coefficients for Thermoplastic Pressure Pipe".

Fitting SDR	Pressure Rating for Gas @ 73° F	Pressure Rating for Propane @ 73° F
9	100 psig	30 psig
11	80 psig	30 psig
13.5	64 psig	30 psig

Temperature Range: The operating temperature range is -20° F to 140° F. Pressure de-rating factors should be considered when operating systems above 73° F.

Joining: These fittings are compatible for heat fusion to any PE pipe or fittings made from a like or similar resin. The fittings are designed for use on pipe conforming to ASTM D2513.

For additional information on joining, the user should consult ASTM F2620 "Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings"

Manufacturing Standards:

ASTM D2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings"

ASTM D3261 "Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastics Pipe and Tubing"

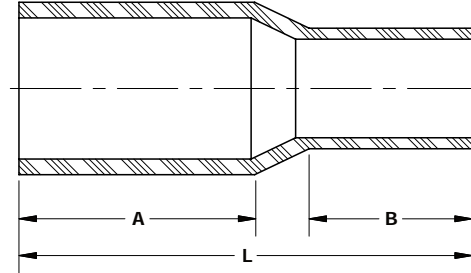
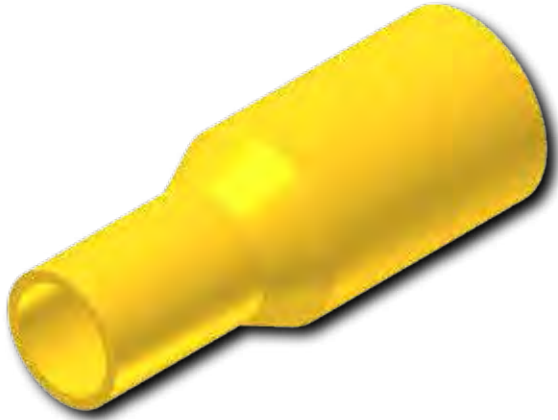
CSA B137.4 "Polyethylene piping systems for gas services"



Butt Fusion Fittings

Reducer Coupling

BUTT FUSION
2406/2708 MDPE



Butt Fusion Reducer Coupling - 2406/2708 MDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/2" IPS X 1" IPS	DR-11 X DR-11	4631-54-1614-00	10
1 1/2" IPS X 1 1/4" IPS	DR-11 X DR-10	4631-54-1615-00	10
2" IPS X 1" IPS	DR-11 X DR-11	4631-54-1714-00	10
2" IPS X 1 1/4" IPS	DR-11 X DR-10	4631-54-1715-00‡	10
2" IPS X 1 1/2" IPS	DR-11 X DR-11	4631-54-1716-00	10
3" IPS X 2" IPS	DR-11 X DR-11	4631-54-1917-00‡	10
4" IPS X 2" IPS	DR-11 X DR-11	4631-54-2117-00‡	2
4" IPS X 3" IPS	DR-11 X DR-11	4631-54-2119-00‡	2
6" IPS X 4" IPS	DR-11 X DR-11	4631-54-2421-00‡	1
8" IPS X 6" IPS	DR-11 X DR-11	4631-54-2624-00	1

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Butt Fusion Reducer Coupling Dimensions			
Part Number	A	B	L
4631-54-1614-00	3.250	1.250	6.000
4631-54-1615-00	3.250	1.250	6.250
4631-54-1714-00	3.250	1.250	6.250
4631-54-1715-00	3.250	2.250	6.250
4631-54-1716-00	3.000	3.000	7.000
4631-54-1917-00	3.000	2.750	6.750
4631-54-2117-00	3.000	2.250	7.500
4631-54-2119-00	2.750	2.750	7.250
4631-54-2421-00	1.750	1.250	3.750
4631-54-2624-00	1.750	1.250	4.000

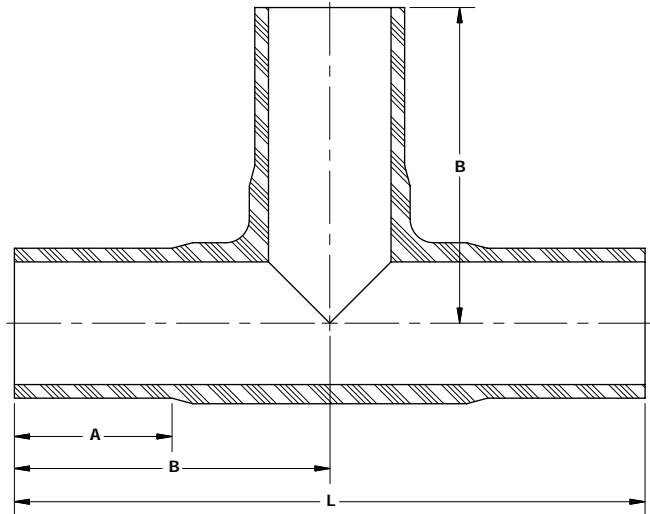
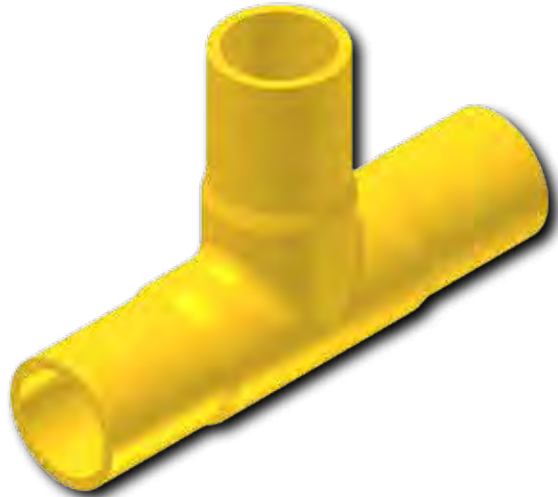
- All values are nominal dimensions.

Butt Fusion Fittings



Tee

BUTT FUSION
2406/2708 MDPE

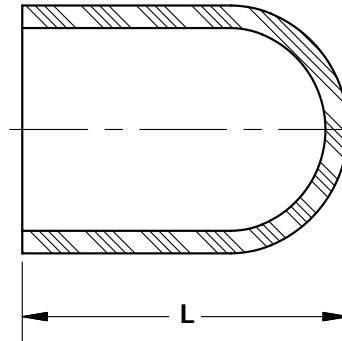


Butt Fusion Tee - 2406/2708 MDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/4" IPS	DR-10	4631-50-0615-00	5
2" IPS	DR-11	4631-50-0617-00‡	5
3 IPS	DR-11	4631-50-0619-00	2
4" IPS	DR-11	4631-50-0621-00‡	1
6" IPS	DR-11	4631-50-0624-00‡	1

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Butt Fusion Tee Dimensions			
Part Number	A	B	L
4631-50-0615-00	2.500	4.000	8.000
4631-50-0617-00	2.500	4.250	8.500
4631-50-0619-00	3.000	5.750	11.375
4631-50-0621-00	3.000	6.250	12.250
4631-50-0624-00	4.000	8.250	16.250

- All values are nominal dimensions.



END CAP - 2406/2708 MDPE			
PE Size	SDR / WALL	Part Number	Package Qty
2" IPS	DR-11	4631-53-0617-00‡	10
3" IPS	DR-11	4631-53-0619-00	10
4" IPS	DR-11	4631-53-0621-00‡	2
6 IPS	DR-11	4631-53-0624-00‡	2
8" IPS	DR-11	4631-53-0626-00	1

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Butt Fusion End Cap Dimensions	
Part Number	L
4631-53-0617-00	2.875
4631-53-0619-00	3.250
4631-53-0621-00	4.000
4631-53-0624-00	4.500
4631-53-0626-00	4.750

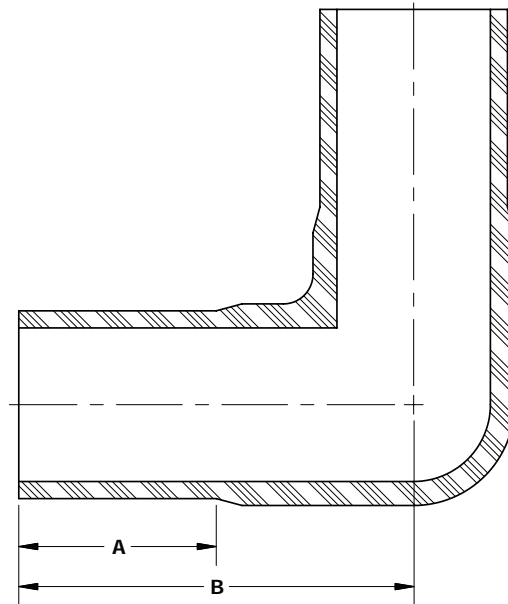
- All values are nominal dimensions.

Butt Fusion Fittings



90° Elbow

BUTT FUSION
2406/2708 MDPE



90° Butt Fusion Elbow - 2406/2708 MDPE			
PE Size	SDR / WALL	Part Number	Package Qty
1 1/4" IPS	DR-10	4631-51-0615-00‡	10
2" IPS	DR-11	4631-51-0617-00‡	10
3 IPS	DR-11	4631-51-0619-00	2
4" IPS	DR-11	4631-51-0621-00‡	2
6" IPS	DR-11	4631-51-0624-00‡	1

- For sizes not listed, contact Continental Industries.
- ‡ = IAPMO/UPC Listed

Butt Fusion 90° Elbow Dimensions		
Part Number	A	B
4631-51-0615-00	2.500	4.000
4631-51-0617-00	2.500	4.000
4631-51-0619-00	3.000	5.500
4631-51-0621-00	3.000	6.000
4631-51-0624-00	4.000	8.000

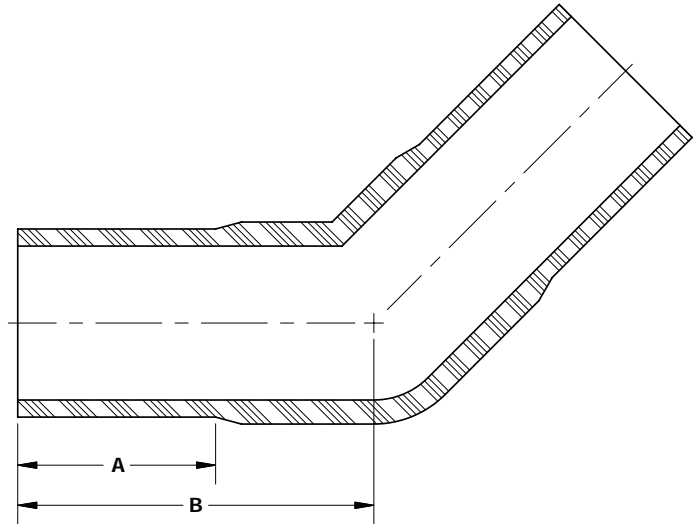
- All values are nominal dimensions.



Butt Fusion Fittings

45° Elbow

BUTT FUSION
2406/2708 MDPE



45° Butt Fusion Elbow - 2406/2708 MDPE			
PE Size	SDR / WALL	Part Number	Package Qty
2" IPS	DR-11	4631-58-0617-00	5
3 IPS	DR-11	4631-58-0619-00	2
4" IPS	DR-11	4631-58-0621-00	2
6" IPS	DR-11	4631-58-0624-00	1

• For sizes not listed, contact Continental Industries.

Butt Fusion 45° Elbow Dimensions		
Part Number	A	B
4631-58-0617-00	2.500	4.500
4631-58-0619-00	3.200	5.500
4631-58-0621-00	3.000	5.000
4631-58-0624-00	4.000	10.000

• All values are nominal dimensions.

Butt Fusion Fittings

Service Saddle

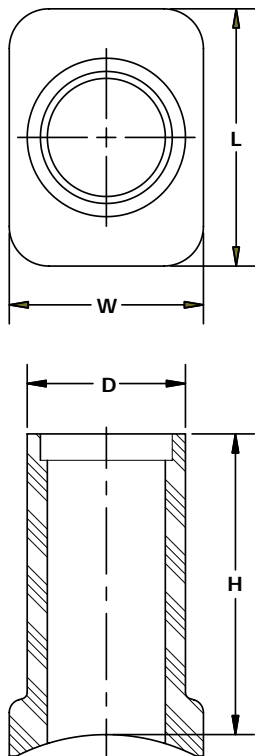


BUTT FUSION
2406/2708 MDPE



Service Saddle - 2406/2708 MDPE			
Main Size	Outlet Size	Part Number	Package Qty
1" IPS	3/4" IPS DR-11	4671-14-0613-00	
1 1/4" IPS		4671-15-0613-00	
1 1/2" IPS		4671-16-0613-00	
2" IPS		4671-17-0613-00	
1 1/4" IPS	1" IPS DR-11	4671-15-0614-00	
1 1/2" IPS		4671-16-0614-00	
2" IPS		4671-17-0614-00	

• For sizes not listed, contact Continental Industries.



Service Saddle Dimensions				
Part Number	H	L	W	D
4671-14-0613-00				1.050
4671-15-0613-00				
4671-16-0613-00				
4671-17-0613-00				
4671-15-0614-00				1.315
4671-16-0614-00				
4671-17-0614-00				

- All values are nominal dimensions.
- "H" dimensions may vary slightly with the size of the main diameter ordered.

The Plastic Pipe Institute Inc. (PPI)

The Plastics Pipe Institute promotes contemporary use of plastics piping for water and gas distribution, sewer and wastewater, oil and gas production, industrial and mining uses, power and communications, duct and irrigation. As an association dedicated to the advocacy and advancement of polyethylene pipe, the mission of The Plastics Pipe Institute is to make plastics the material of choice for all piping applications. This is accomplished through:

- contributing to the development of standards
- educating designers, installers, users and government officials
- publishing up-to-date technical and general reports
- collecting and publishing industry statistics
- establishing forums for problem solving and new idea generation
- maintaining liaisons with industry, educational and government groups
- providing a technical focus for the plastics piping industry
- supplying associated web sites with up-to-date information

Technical Reports (TR), Technical Notes (TN), and Statements are free and can be downloaded from the PPI web site www.plasticpipe.org.

- TR-4 PPI Listing of Hydrostatic Design Basis (HDB), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Ratings for Thermoplastic Piping Materials or Pipe.
- TR-9 Recommended Design Factors for Pressure Applications of Thermoplastic Pipe Materials.
- TR-33 Generic Butt Fusion Joining Procedures for Field Joining of Polyethylene Pipe.
- TR-41 Generic Saddle Fusion Joining Procedures for Polyethylene Gas Piping.
- TN-13 General Guidelines for Butt, Saddle and Socket Fusion of Unlike Polyethylene Pipes and Fittings.
- TN-20 Special Precautions for Fusing Saddle Fittings to Live PE Fuel Gas Mains Pressurized on the Basis of a 0.40 Design Factor.
- TN-27 Frequently Asked Questions: HDPE Pipe for Water Distribution and Transmission Applications.
- TN-42 Recommended Minimum Training Guidelines for PE Pipe Butt Fusion Joining Operators for Municipal and Industrial Projects.
- Statement Q – Position Statement on Polyolefin Materials for Closed Loop Earth Coupled Heat Pump Applications.
- Statement S – Caution Statement on Heat Fusion Methods of Polyethylene Pipe and/or Fittings of Similar Colors.
- Statement T – Caution Statement on Sidewall Heat Fusion without Use of Mechanical Assist Tooling.
- Fusion Statement – Joining PE Pipe Using Heat Fusion Technology.

Socket Fusion Procedure

Polyethylene fusion joining should only be attempted by persons who have been trained and have qualified joints through destructive testing.

Note:

Guideline only – exact time depends upon environmental conditions and condition of Fusion Equipment.

Procedure:

1. Preheat heating tool 500°F. Surface temperature can be checked with a Tempilstik.
2. Chamfer pipe ends (1 1/4" NPS and larger sizes). One turn of chamfering tool should produce required chamfer. This procedure helps to center pipe into fitting.
3. Clean the pipe end with a clean rag.
4. Using the depth gauge, place cold ring on pipe to ensure pipe roundness and proper socket stab depth.
5. Push fitting on heater face and then push pipe on heater face keeping both in place for the prescribed heating cycle.
6. Heating Cycle Time – stop or sweep hand watch to be used with heating cycle beginning after fitting and pipe are fully inserted on heater face.
7. “Snap” the fitting from the tool briskly and the iron from pipe end. This avoids melt sticking to the tool.
8. “Stab” the fitting onto the pipe smoothly and straight. Do not twist or turn the pipe or fitting during or immediately after the “stab”.
9. Hold together for time equal to “Heating Cycle Time”
10. Clean heater faces carefully. Do not damage heater face coating. Use non-metallic cleaning stick

Socket Fusion Times:

Pipe Size	Normal Heating Cycle Time	Cold Weather Heating Cycle Time	Cooling Time to Handle	Cooling Time to Tie-in
NTS ½"	9 seconds	10 seconds	60 seconds	10 minutes
NTS 1"	14 seconds	16 seconds	60 seconds	10 minutes
NPS 1"	15 seconds	17 seconds	60 seconds	10 minutes
NPS 3/4"	12 seconds	14 seconds	60 seconds	10 minutes
NPS 1 1/4"	18 seconds	21 seconds	60 seconds	15 minutes
NPS 1 1/2"	18 seconds	21 seconds	60 seconds	15 minutes
NPS 2"	24 seconds	28 seconds	60 seconds	15 minutes

Visual Inspection:

1. Melt bead must be pressed evenly against a minimum of 50% of the fitting face.
2. Pipe and fitting must be properly aligned.
3. Melt bead area must be free of gaps or voids.

Butt Fusion Procedure

Polyethylene fusion joining should only be attempted by persons who have been trained and have qualified joints through destructive testing.

Note:

Guideline only – exact time depends upon environmental conditions and condition of Fusion Equipment.

Procedure:

1. Preheat heating tool 500° F.†
2. Place pipe ends into fusion machine clamps.
3. Plane ends of pipe to perfectly smooth, flat faces.
4. Remove any excess shavings. Do not use hands to wipe faces ends.
5. Bring pipe ends together and carefully check alignment.
6. Bring pipe ends together against heating tool, fingertip pressure only, until a bead of molten material is visible around both pipe ends.
7. Heating Time Cycle begins when bead is visible around entire pipe.
8. “Snap” traveling carriage back and remove heating tool.
9. Bring pipe ends together. Do not “slam”. Apply sufficient pressure so that the fusion bead will double back on pipe surface. For fully automatic fusion machines, the interfacial pressure during fusion should be approximately 75 PSI.
10. Remove pipe from fusion machine. After fusion bead has cooled sufficiently to handle.

Cold Weather Procedure:

In cold weather, the initial bead will take longer to form due to low pipe temperature. Heating cycles begin once the bead has formed around the entire circumference of pipe. Pipe clamps may have to be shimmed to prevent pipe slippage during joining. Check to see that heating tool surface temperature is 500° F. Use Tempilstiks.

Butt Fusion Times:

Pipe Size IPS (inches)	Heating Time (seconds) *	Cooling Time (seconds) *	Melt Bead Size (inches)
1"	16 - 20	90	1/16"
1 1/4"	20 - 24	90	1/16"
2"	28 - 32	90	1/8"
3"	32 - 38	180	1/8"
4"	38 - 44	210	1/8" to 3/16"
6"	56- 66	240	3/16"
8"	72 - 82	300	3/16" to 1/4"

* Times are approximate and will vary with ambient conditions.

† Note: Suggested lower temperatures will produce acceptable results with corresponding adjustments to heating times (longer for lower temperatures). Reference ASTM D2620 - Standard practice for heat fusion joining of polyethylene pipe and fittings

Visual Inspection:

1. Melt bead must be pressed evenly against a minimum of 50% of the fitting face.
2. Pipe and fitting must be properly aligned.
3. Melt bead area must be free of gaps or voids.

OTHER QUALITY PRODUCTS FROM CONTINENTAL INDUSTRIES

GAS DISTRIBUTION PRODUCTS
CON-STAB ID SEAL® FITTINGS



Con-Stab ID Seal® Fittings

GAS DISTRIBUTION PRODUCTS
PA MECHANICAL SADDLES & FITTINGS



PA Mechanical Saddles & Fittings

GAS DISTRIBUTION PRODUCTS
STEEL SERVICE TEES



Steel Service Tees

GAS DISTRIBUTION PRODUCTS
STEEL COUPLINGS



Steel Couplings

GAS DISTRIBUTION PRODUCTS
METER RISERS



Meter Risers

GAS DISTRIBUTION PRODUCTS
TRANSITION FITTINGS



Transition Fittings

GAS DISTRIBUTION PRODUCTS
EFV FITTING CATALOG



EFV Catalog

GAS DISTRIBUTION PRODUCTS
IN-LINE REPAIR FITTINGS



FROM STANDARD TO SPECIALS, CONTINENTAL INDUSTRIES HAS YOUR IN-LINE REPAIR FITTING. NO OTHER SINGLE MANUFACTURER CAN OFFER THE VARIETY OF REPAIR FITTINGS THAT CONTINENTAL INDUSTRIES PROVIDES.



In-Line Repair Fittings

WATER DISTRIBUTION PRODUCTS
PVC WATER FITTINGS



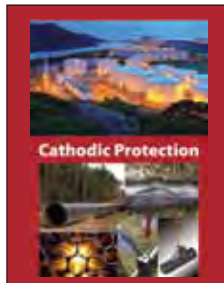
PVC Water Fittings

GEO-STAB®
Geothermal Fittings



Geo-Stab® Geothermal Fittings

thermOweld
The Contractors Choice



BURNED HUBBELL

thermOweld® for Cathodic Protection

