

# PE Electrofusion Systems for Gas and Water Catalog



ELECTROFUSION SYSTEMS

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For Gas and Water Applications



Engineered Smarter™

# PE Electrofusion Systems for Gas & Water

Friatec electrofusion products are engineered smarter than traditional fusion systems. Manufactured in the USA, Friatec couplings feature a unique, exposed coil design that provides a seal stronger than any other electrofusion system on the market. This is achieved for two reasons:

- the heat, created by the electrical current passing through the exposed coil of the Friatec coupling, is transferred directly to the PE pipe, and
- the coil protrudes from the interior surface of the coupling. When the pipe is heated, the coil sinks into it creating a much stronger bond.

Unlike competing embedded coil technology fittings which require heating the entire coupling, Friatec's unique "exposed coil" melts the fitting and pipe surfaces directly, sinking into the pipe to form a leak-proof bond. Friatec electrofusion fittings are designed with extra wide fusion zones that provide greater contact area, further increasing the integrity of the bond between coupling and pipe.

As a result of this process, every joint will be fused precisely to specification, automatically, every time, minimizing the risk of human error. This unique fusion technology has earned Friatec couplings the highest pressure rating in the industry. What's more, because every joint is as strong as the pipe itself, the Friatec electrofusion system is ideal for directional drilling and other trenchless applications.

With the industry's most advanced barcode monitoring, recording and tracking technology, Friatec makes managing your infrastructure easier than ever before.

Imagine, no more hidden costs or surprises on future dig ups. Instead, you will know when, where and how every coupling in your system was installed, and by whom.

All these benefits add up to deliver substantial time and cost savings on every project.



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FRIAMAT® II

COUPLINGS

HIGH PRESSURE  
TAPPING TEES

SCRAPER TOOLS

RE-ROUND CLAMPS

SADDLES

REPAIR PATCHES  
AND CLAMPS



## FRIAMAT® II Fusion Units

The fusion units of the FRIAMAT® family are constructed using state of the art technology. And in accordance with recognized safety rules are fitted with the appropriate protective equipment.

The units have 6 function buttons:

**Start** This is used to start a fusion process

**Stop** Is used to cancel a fusion process

**Info** It is used to call up current information (voltage/frequency, date/time, ambient temperature, fusion operator and language)

**Set** To save settings

**Menu** This button is used to call up the main menu and to scroll through individual menus e.g. date/time, signal volume, language

**Res** For cancelling an input process

The electronics in your fusion unit are housed in a splash-proof casing. The carrying frame is used to hold the cables. The FRIAMAT® fusion units are designed for a maximum fusion voltage of 48 V. The supply and fusion voltage are isolated from each other by a safety transformer.

The computerized command system:

- is completely automatic in regulating and checking the metering of the electrical power
- determines the fusion time depending on the ambient temperature. The temperature probe in the fusion cable continuously determines the ambient temperature.

### Technical Data

Input Voltage Range	AC 95 V - 135 V
Frequency Range	45 Hz . . . 66 Hz
Current Consumption	AC 30 A max
Power	3.5 kW
Generator rated output, 1/2" CTS - 2" IPS, 3" IPS - 28" IPS	AC 2.0 kW, AC 4.0 kW
Equipment Fuse	30 A slow acting
Casing	Enclosure class IP54 DIN 40 050, Protection class II DIN 57 700
Power Cable	16' with 30 AMP twist lock plug
Fusion Cable	13' with 4mm fittings plug
Bar Code	Made to ANSI HM 10.8M-1983, ISO CD 13950/08.94
Working Temperature Range	-4°F. . . + 122°F*
Fusion Current Monitoring	Short circuit 110 A, Open circuit 0.25 x IN
Printer Interface	Parallel (D-Sub 25)
Fusion Voltage	Max AC 48 V
Dimensions W x D x H	14 1/2" x 11" x 19"
Weight	47 lbs
Weight w Transport Box	57 lbs

\* When fusing fittings from other manufacturers always take note of the details given on the working temperature range.

# Couplings

1/2" CTS through 28" IPS

Friatec Couplings and Fittings deliver flexibility and reliability. No one offers a wider range of coupling sizes and every Friatec fitting is ASTM approved.

Short Designation MBI/UBI...OD

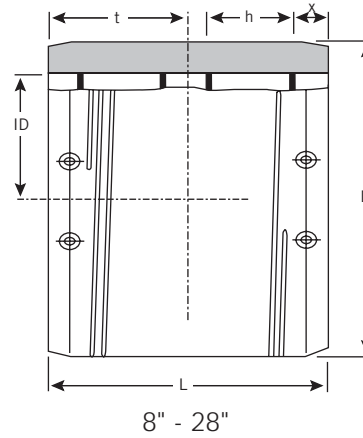
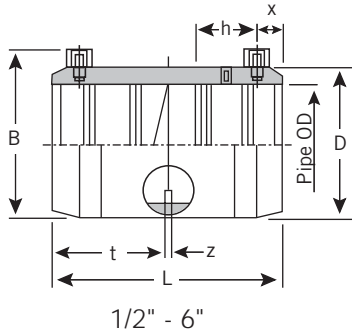
Field of Application Connections of PE Pipes 2406 and 3408

Range of Application Gas up to 100 psi and water up to 160 psi

For higher pressure ranges, contact IPEX at ☎ 864-286-8800



## 1/2" CTS through 28" IPS con't



Nominal Pipe (in)	ID	ID	D	B	L	t	z	h	x	Fusion	Cooling	
OD	SDR	min	max							Time/Sec @ 73°F	Time/Min */**/***	
1/2" CTS	SDR 11	0.622	0.634	1.102	1.732	2.283	1.142	0.079	0.591	0.23	27	05/08/10
3/4" IPS	SDR 11	1.047	1.059	1.575	2.165	2.598	1.260	0.079	0.728	0.27	28	05/08/10
1" CTS	SDR 11	1.122	1.134	1.654	2.244	3.071	1.535	0.079	0.787	0.31	28	05/08/10
1" IPS	SDR 11	1.311	1.323	1.850	2.460	3.071	1.496	0.079	0.787	0.31	28	05/08/10
1 1/4" IPS	SDR 11	1.654	1.679	2.244	2.835	3.346	1.634	0.079	0.945	0.39	34	10/15/25
1 1/2" IPS	SDR 11	1.902	1.917	2.480	3.130	3.858	1.870	0.079	1.060	0.46	34	10/15/25
2" IPS	SDR 11	2.374	2.390	3.142	3.657	4.449	2.205	0.079	1.205	0.51	54	10/15/25
3" IPS	SDR 11	3.496	3.516	4.606	4.980	5.472	2.717	0.079	1.417	0.59	100	10/30/40
4" IPS	SDR 11	4.492	4.516	5.827	6.173	6.260	3.110	0.079	1.689	0.67	151	10/30/40
6" IPS	SDR 11	6.610	6.634	8.543	8.740	7.992	3.976	0.079	2.295	0.79	440	20/60/75

Nominal Pipe (in)	ID	ID	D	L	t	h	x	Fusion	Cooling	
OD IPS	SDR	min	max					Time/Sec @ 73°F	Time/Min */**/***	
8" monofilar	SDR 11	8.626	8.665	11.029	9.448	4.724	2.953	1.063	540	20/60/75
8" bifilar	SDR 11	8.626	8.665	11.022	9.448	4.724	2.953	1.063	554 ea side	20/60/75
10"	SDR 11	10.748	10.787	13.975	11.811	5.275	3.149	1.063	500 ea side	30/75/100
12"	SDR 11	12.748	12.787	15.746	11.219	5.610	2.679	1.142	550 ea side	30/75/100
14"	SDR 11	13.976	14.016	17.716	11.811	5.905	3.500	1.260	580 ea side	30/75/100
16"	SDR 11	15.969	16.008	19.685	12.598	6.299	3.748	1.260	870/730 ea side	45/95/120
18"	SDR 11	17.969	18.008	22.047	13.386	6.693	3.346	1.260	870/870 ea side	45/95/120
20"	SDR 11	19.961	20.016	24.803	14.173	7.086	3.622	1.260	870/720 ea side	45/95/120
22"	SDR 17	21.961	22.016	24.803	14.566	7.283	3.291	1.260	870/720 ea side	45/95/120
24"	SDR 13.5	24.000	24.039	27.952	15.748	7.874	4.095	1.420	870/850 ea side	45/95/120
28"	SDR 17	27.992	28.031	31.496	15.748	7.874	6.062	1.614	850/850 ea side	60/80/120

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and pipe SDR range 9.33 through 17.6.

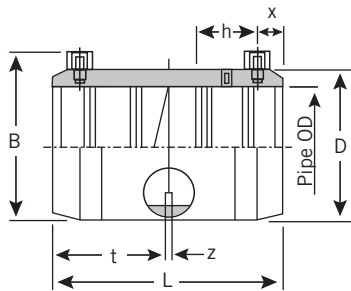
- \* Pipe can be moved after indicated cooling time (handling)
- \*\* Pipe can be pressurized after indicated cooling time (pressure <90 psi)
- \*\*\* Pipe can be pressurized after indicated cooling time (pressure >90 psi)

# Safety Electrofusion Fittings < FM 200 psi >

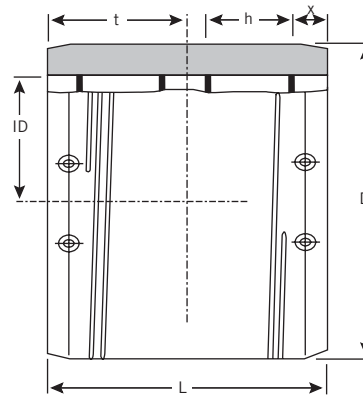


4" IPS through 20" IPS

Short Designation MBI... OD  
 Field of Application Connections of PE Pipes 2406 and 3408  
 Range of Application Gas up to 100 psi and water up to 200 psi  
 For higher pressure ranges contact IPEX at ☎ 864-286-8800



4" - 6"



8" - 20"

Nominal Pipe (in)	ID	ID	D	B	L	t	z	h	x	Fusion	Cooling	
OD	SDR	min	max							Time/Sec @ 73°F	Time/Min */**/***	
4" IPS	SDR 11	4.492	4.516	5.827	6.173	6.260	3.110	0.079	1.689	0.67	151	10/30/40
6" IPS	SDR 11	6.610	6.634	8.543	8.740	7.992	3.976	0.079	2.295	0.79	440	20/60/75

Nominal Pipe (in)	ID	ID	D	L	t	h	x	Fusion	Cooling	
OD IPS	SDR	min	max					Time/Sec @ 73°F	Time/Min */**/***	
8" monofilar	SDR 11	8.626	8.665	11.029	9.448	4.724	2.953	1.063	540	20/60/75
8" bifilar	SDR 11	8.626	8.665	11.022	9.448	4.724	2.953	1.063	554 ea side	20/60/75
10"	SDR 11	10.748	10.787	13.975	11.811	5.275	3.149	1.063	500 ea side	30/75/100
12"	SDR 11	12.748	12.787	15.746	11.219	5.610	2.679	1.142	550 ea side	30/75/100
14"	SDR 11	13.976	14.016	17.716	11.811	5.905	3.500	1.260	580 ea side	30/75/100
16"	SDR 11	15.969	16.008	19.685	12.598	6.299	3.748	1.260	870/730 ea side	45/95/120
18"	SDR 11	17.969	18.008	22.047	13.386	6.693	3.346	1.260	870/870 ea side	45/95/120
20"	SDR 11	19.961	20.016	24.803	14.173	7.086	3.622	1.260	870/720 ea side	45/95/120

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and pipe SDR range 9.33 through 17.6.

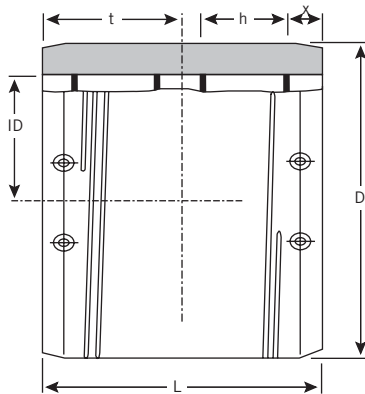
- \* Pipe can be moved after indicated cooling time (handling)
- \*\* Pipe can be pressurized after indicated cooling time (pressure <90 psi)
- \*\*\* Pipe can be pressurized after indicated cooling time (pressure >90 psi)



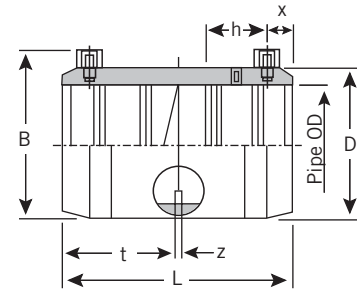


## 4" through 20" DIP

Short Designation      UBI . . . OD  
 Field of Application      Connections of PE Pipes 2406 and 3408  
 Range of Application      Water up to 160 psi  
 For higher pressure ranges contact IPEX at ☎ 864-286-8800



6" - 20"



4"

Nominal Pipe (in)	ID	ID	D	L	t	h	x	Fusion	Cooling	
OD IPS	SDR	min	max					Time/Sec @ 73°F	Time/Min */**/***	
4"	SDR 13.5	4.799	4.819	5.669	6.354	3.177	1.765	0.827	100	15/20/30
6"	SDR 11	6.889	6.929	8.825	8.268	4.134	2.535	0.827	486	20/60/75
8"	SDR 11	9.039	9.078	11.022	9.448	4.724	2.953	0.827	540	30/75/100
10"	SDR 11	11.082	11.122	13.976	11.023	5.511	3.291	0.827	550 ea side	30/75/100
12"	SDR 11	13.182	13.224	15.746	11.023	5.511	2.582	0.827	550 ea side	30/75/100
14"	SDR 11	15.272	15.311	18.000	11.417	5.708	3.500	0.827	730 ea side	40/95/120
16"	SDR 11	17.385	17.444	22.047	11.417	5.708	3.392	0.827	870/720 ea side	40/95/120
18"	SDR 13.5	19.472	19.531	22.047	11.417	5.708	3.392	0.827	870/720 ea side	40/95/120
20"	SDR 13.5	21.582	21.641	24.803	11.417	5.708	2.460	0.827	870/720 ea side	40/95/120

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and pipe SDR range 9.33 through 17.6.

- \* Pipe can be moved after indicated cooling time (handling)
- \*\* Pipe can be pressurized after indicated cooling time (pressure <90 psi)
- \*\*\* Pipe can be pressurized after indicated cooling time (pressure >90 psi)

Please note 4", 18" or 20" DIP are rated SDR 13.5 and can be pressurized up to 150 psi (water)

# Couplings con't

## Low Pressure Safety Electrofusion Coupling

(formally called Friafit)



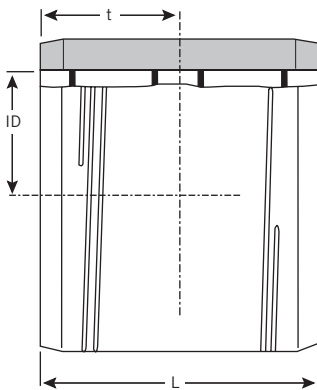
The low pressure coupling can be fused to pipes of SDR stages 11 - 32 in accordance with ASTM F1055

Pipes made of raw material types PE2406 and PE3408, PE63, PE80 and P100 in melt index groups 005 - 050 can be fused.

It is possible to work with these couplings at ambient temperatures of between  $-4^{\circ}\text{F}$  up to  $122^{\circ}\text{F}$ . It is always necessary to use a Friafit adapter for the fusion.

The thinwall safety coupling (AM) is made of PE3408 and can be pressurized up to a maximum of 80 psi if the pipe is of suitable design.

With exposed heating coils for optimal heat transfer, large insertion depth, extra wide fusion zones plus cold zones at the end and in the middle to prevent the flow of molten material for use without a holding device.



Size (in)	Order No.	VE	PE	ID (in)	L (in)	t (in)	Weight lb/ea
8" IPS	190008-A	48	PE - HD	8.626	7.874	3.937	9
10" IPS	190010-A	32	PE - HD	10.748	8.268	4.134	11
12" IPS	190012-A	32	PE - HD	12.748	8.661	4.330	8
16" IPS	190016-A	16	PE - HD	16.008	8.661	4.330	16

# Tapping Tees

## DAA High Pressure Tapping Tee

The industry-leading design of Friatec Tapping Tees makes for fast and safe installation of service and branch pipe.

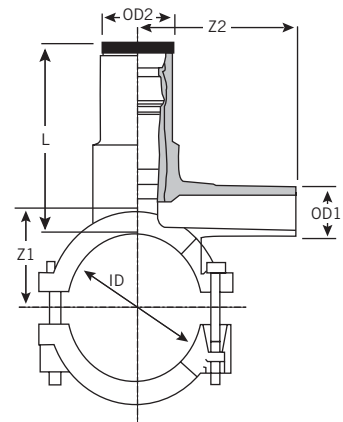
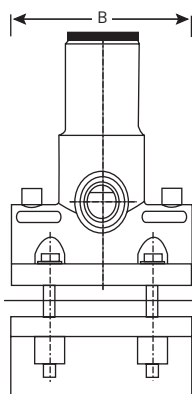
Short Designation DAA d1./d2...

Field of Application Installation of service and branch pipes

Range of Application Gas up to 100 psi and water up to 160 psi

For higher pressure ranges contact IPEX at ☎ 864-286-8800

- Hot tapping tee designed for leakproof installation under pressure up to 160 psi for water and 100 psi for gas
- Ease of assembly—no rounding clamps or special tools
- Cutter and sleeve made of brass
- Brass guide allows easy cutting of thick wall pipe
- Lower and upper “cutter stops” prevent overcutting as well as accidental removal of cutter
- Threaded plug with o-ring seal
- Corrosion-proof construction



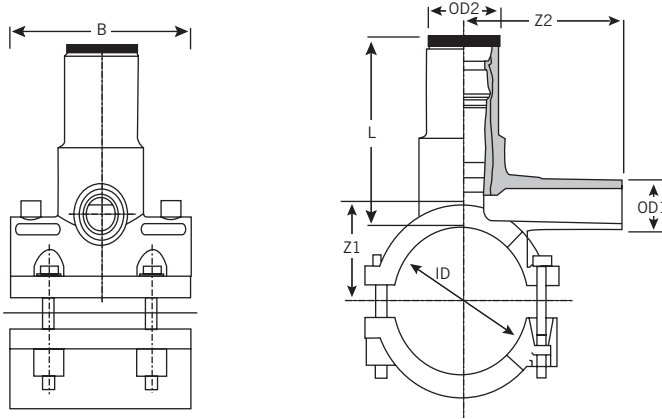
Nominal Pipe (in)	Main Size	Nominal Outlet (in)	ID	OD 1	OD 2	Cutter	L	Z1	Z2	B
1¼"	IPS	½ CTS	1.575	0.626	1.259	0.630	2.913	1.102	9.624	2.756
1¼"	IPS	¾ IPS	1.575	1.051	1.259	0.630	2.913	1.102	9.624	2.756
1¼"	IPS	1 CTS	1.575	1.126	1.259	0.630	2.913	1.102	9.624	2.756
1¼"	IPS	1 IPS	1.575	1.315	1.259	0.630	2.913	1.102	9.624	2.756
2"	IPS	½ CTS	2.378	0.626	1.575	0.846	3.878	1.780	3.937	4.094
2"	IPS	¾ IPS	2.378	1.051	1.575	0.846	3.878	1.780	3.701	4.094
2"	IPS	1 CTS	2.378	1.126	1.575	0.846	3.878	1.780	3.701	4.094
2"	IPS	1 IPS	2.378	1.315	1.575	0.846	3.878	1.780	3.701	4.094
3"	IPS	½ CTS	3.504	0.626	1.969	1.201	4.764	2.343	4.410	4.803
3"	IPS	¾ IPS	3.504	1.051	1.969	1.201	4.764	2.343	3.937	4.803
3"	IPS	1 CTS	3.504	1.126	1.969	1.201	4.764	2.343	4.255	4.803
3"	IPS	1 IPS	3.504	1.315	1.969	1.201	4.764	2.343	4.255	4.803
3"	IPS	2 IPS	3.504	2.378	1.969	1.201	4.780	2.350	6.890	5.905

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and Pipe SDR Range 9.33 through 17.6. For Pipe SDR Range 21+, contact IPEX for reduced fusion times.

Allow electrofusion joints to cool prior to handling, pressurizing or tapping.

# Tapping Tees con't

## DAA High Pressure Tapping Tee con't



Nominal Pipe (in)	Main Size	Nominal Outlet (in)	ID	OD 1	OD 2	Cutter	L	Z1	Z2	B
4"	IPS	1/2" CTS	4.512	0.626	1.969	1.201	4.764	2.905	4.016	4.785
4"	IPS	3/4" IPS	4.512	1.051	1.969	1.201	4.764	2.846	4.409	4.764
4"	IPS	1" CTS	4.512	1.126	1.969	1.201	4.764	2.846	4.527	4.785
4"	IPS	1" IPS	4.512	1.315	1.969	1.201	4.764	2.913	4.527	4.785
4"	IPS	2" IPS	4.512	2.378	1.969	1.201	4.780	2.913	7.086	4.905
6"	IPS	1/2" CTS	6.638	0.626	1.969	1.201	6.575	4.500	4.586	7.677
6"	IPS	3/4" IPS	6.638	1.051	1.969	1.201	6.575	4.528	4.331	7.677
6"	IPS	1" CTS	6.638	1.126	1.969	1.201	6.575	4.528	4.331	7.677
6"	IPS	1" IPS	6.638	1.315	1.969	1.201	6.575	4.528	4.331	7.677
6"	IPS	2" IPS	6.638	2.378	1.969	1.201	6.575	4.803	6.811	7.677

Nominal Pipe (in)	Main Size	Nominal Outlet (in)	ID	OD 1	OD 2	Cutter	L	Z1	Z2	B
8"	IPS	1/2" CTS	8.605	0.626	1.969	1.201	6.575	5.483	4.586	7.677
8"	IPS	3/4" IPS	8.605	1.051	1.969	1.201	6.575	5.315	4.331	7.677
8"	IPS	1" CTS	8.605	1.126	1.969	1.201	6.575	5.315	4.331	7.677
8"	IPS	1" IPS	8.605	1.315	1.969	1.201	6.575	5.315	4.331	7.677
8"	IPS	2" IPS	8.605	2.378	1.969	1.201	6.575	5.827	6.811	7.677
10" - 16" *	IPS	2" IPS	10.75 - 16.00	--	1.969	1.201	6.575	--	7.087	7.677

\* Friatop pneumatic top-loading tool required

Friatec Safety Fittings can be used to all PE pipes within melt index groups 003-050 and Pipe SDR Range 9.33 through 17.6.

For Pipe SDR Range 21+, contact IPEX for reduced fusion times.

Allow electrofusion joints to cool prior to handling, pressurizing or tapping.

For 12" and 14" IPS applications, maximum SDR for full coupon cut is SDR 11.

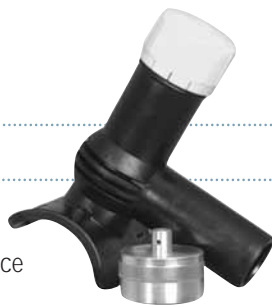
For 16" IPS applications, maximum SDR for full coupon cut is SDR 13.5.

For 12" DIP applications, maximum SDR for full coupon cut is SDR 11.

For 14" and 16" DIP applications, maximum SDR for full coupon cut is SDR 17.

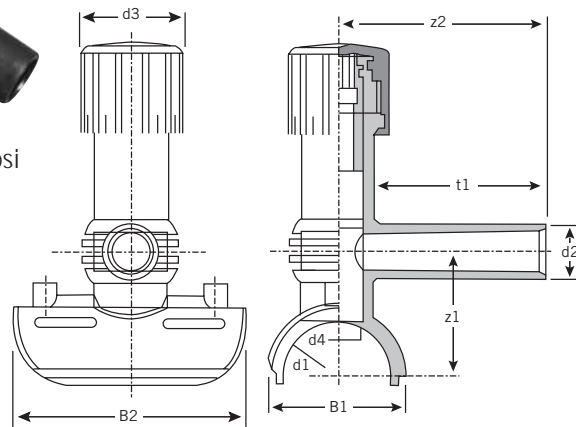


## DAS II Top Loading Tapping Tee



Short Designation DAS II d1./d2...  
 Field of Application Installation of service and branch pipes  
 Range of Application Gas up to 100 psi and water up to 160 psi  
 For higher pressure ranges contact IPEX at ☎ 864-286-8800

- Top loading • High volume • Self-tapping tee
- Internal cutter blade that is the largest on the market



Nominal Pipe Main Outlet (in)	d3	L	z1	z2	t1	B1	B2	d4
2 IPS x 1/2" CTS	2.165	5.748	2.559	3.449	2.717	2.795	4.724	1.016
2 IPS x 3/4" IPS	2.165	5.748	2.559	3.843	3.110	2.795	4.724	1.016
2 IPS x 1" CTS	2.165	5.748	2.559	4.236	3.504	2.795	4.724	1.016
4 IPS x 1/2" CTS	2.165	5.827	3.524	3.449	2.717	4.528	5.906	1.016
4 IPS x 3/4" IPS	2.165	5.827	3.524	3.843	3.110	4.528	5.906	1.016
4 IPS x 1" CTS	2.165	5.827	3.524	4.236	3.504	4.528	5.906	1.016

Nominal Pipe Main Outlet (in)	d3	L	z1	z2	t1	B1	B2	d4
2" IPS x 1 1/4" IPS	2.402	5.000	2.157	4.677	3.740	2.795	4.724	1.214
2" IPS x 2" IPS	2.402	5.000	2.319	6.496	5.559	2.795	4.724	1.214
4" IPS x 1 1/4" IPS	3.268	8.386	4.114	5.512	4.114	4.528	5.906	1.798
4" IPS x 2" IPS	3.268	8.386	4.114	6.299	4.902	4.528	5.906	1.798
6" IPS x 1 1/4" IPS	3.268	8.386	4.449	5.512	4.114	5.039	5.906	1.798
6" IPS x 2" IPS	3.268	8.386	4.449	6.299	4.902	5.039	5.906	1.798
8" IPS x 1 1/4" IPS	3.268	8.976	4.921	5.512	4.114	5.827	5.906	1.798
8" IPS x 2" IPS	3.268	8.976	4.921	6.299	4.902	5.827	5.906	1.798

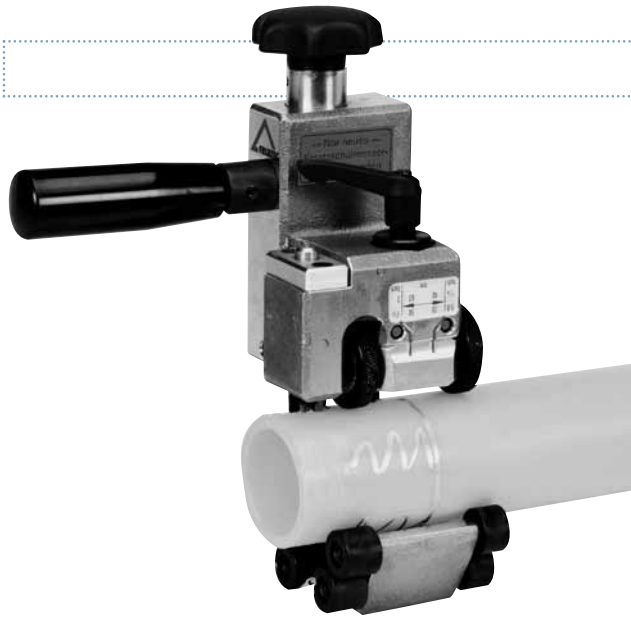
Nominal Pipe Main Outlet (in)	d3	L	z1	z2	t1	B1	B2	d4
6" IPS x 1/2" CTS	2.165	5.827	4.449	3.449	2.717	5.039	5.906	1.016
6" IPS x 2" IPS	2.165	5.827	4.449	3.843	3.110	5.039	5.906	1.016
6" IPS x 2" CTS	2.165	5.827	4.449	4.236	3.110	5.039	5.906	1.016
8" IPS x 1/2" CTS	2.165	6.457	4.921	3.449	2.717	5.827	5.906	1.016
8" IPS x 3/4" IPS	2.165	6.457	4.921	3.843	3.110	5.827	5.906	1.016
8" IPS x 1" CTS	2.165	6.457	4.921	4.236	3.504	5.827	5.906	1.016

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and Pipe SDR Range 9.33 through 17.6. For Pipe SDR Range 21+, contact IPEX for reduced fusion times.

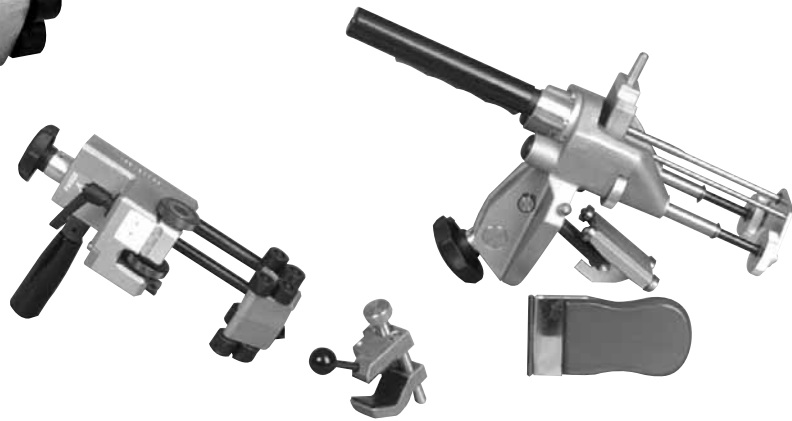
Allow electrofusion joints to cool prior to handling, pressurizing or tapping.

# Scraper Tools

## Scraper Tools with Accessories



Friatec scraper tools are designed to assist the installer in producing a quality electrofusion joint. With Friatec® Scraper Tools a quality electrofusion joint can be achieved every time.



Part Number	Scraper Tools	Pipe Size Compatibility (in)	Accessories
328018	FWZ hand scraper	all	328017 - spare blades (set of 5 blades)
128020	GBZ pocket scraper	1/2" CTS - 1 1/4" CTS	3 green blades, 2 screws, 1 driver
128034	FWSG 63	1/2" IPS - 2" IPS	" " " " " "
128036	FWSG 315	3" IPS - 8" IPS	3 red blades, 2 screws, 1 driver
128190	FWSG 710	6" IPS - 28" IPS 6" DIP - 20" DIP	3 blue blades, 2 screws, 1 driver

# Re-Round Clamps

## Hydraulic Re-Round Clamp

If the end of a PE pipe is not perfectly round, the coupling will not fit over the end of the pipe. Friatec Re-Round Clamps solve this problem.

The clamping unit has four parts:

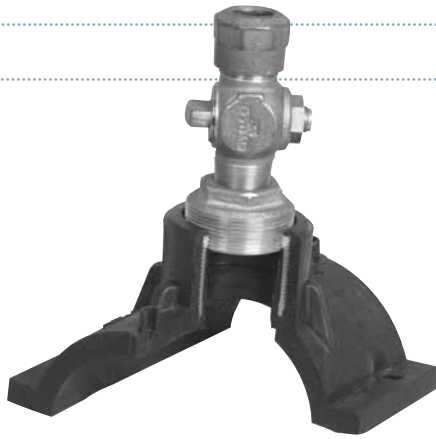
- 1 – Hydraulic clamping unit
- 2 – Component inserts



Part Number	Description - IPS (in)
228151	10" IPS master re-round clamp
228152	14" IPS master re-round clamp
228154	18" IPS master re-round clamp
228155	16" IPS re-round insert
228161	20" IPS master re-round clamp
228156	d630mm large master re-round clamp 22" - 24"
228160	22" IPS re-round insert
228159	24" IPS re-round insert
228217	28" IPS master re-round clamp

Part Number	Description - DIP (in)
228162	8" DIP re-round insert
228151	10" DIP master re-round insert
228153	12" DIP master re-round clamp
228163	12" DIP re-round insert
228155	16" DIP master re-round clamp
228164	16" DIP re-round insert
228161	18" DIP master re-round clamp (20" IPS master)
228165	20" DIP re-round insert (requires 228156 d630mm master re-round clamp)

# Saddles



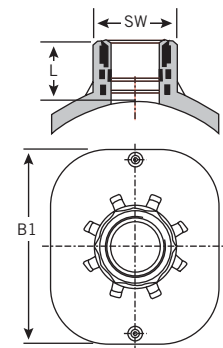
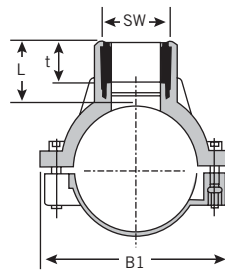
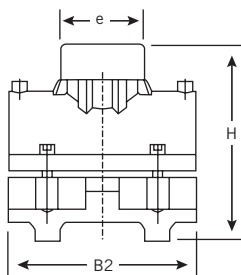
## VA Electrofusion Service Saddle

Short Designation VA, VA-TL d1./d2...  
 Field of Application Installation of service and branch pipes  
 Range of Application Gas up to 100 psi and water up to 160 psi  
 For higher pressure ranges contact IPEX at ☎ 864-286-8800

Friatec Molded Saddle Fittings may be clamped onto pipes up to SDR 9 and sealed using electrofusion. In addition to house connection fittings, Friatec Molded Saddle Fittings can also be used as branch saddles for polyethylene relining pipes (U-liners, C-liners, Roll-down)

Benefits include:

- universal compatibility with various diameters of polyethylene pipe from 3" up to 28"
- quick, easy and safe assembly



Nominal Pipe d1 (in)	Main Size d2	Nominal Outlet (in)	B1	B2	H	L	t	e
3"	IPS	2" SSPT	6.102	5.906	7.835	3.740	1.063	3.189
4"	IPS/DIP	2" SSPT	6.890	7.087	8.228	3.740	1.063	3.189
6"	IPS/DIP	2" SSPT	8.858	7.677	10.197	3.740	1.063	3.189
8" - TL*	IPS	2" SSPT	9.843	7.677	11.693	3.740	1.063	3.189
8" - TL*	DIP	2" SSPT	10.039	7.677	12.283	3.740	1.063	3.189
10" - 28" TL*	IPS	2" SSPT	7.874	--	--	3.543	--	--
10" - 20" TL*	DIP	2" SSPT	7.874	--	--	3.543	--	--

\* Friatec Pneumatic Top-loading tool required

Friatec Safety fittings can be fused to all PE pipes within melt index groups 003-050 and SDR range 9.33 through 17.6. Assemble nipple, bushing or corporation stop into saddle using red LOCTITE #262 (SSPT) = Straight Standard Pipe Thread. The use of tapered fittings for the outlet is not permitted





## SA Branch Saddle

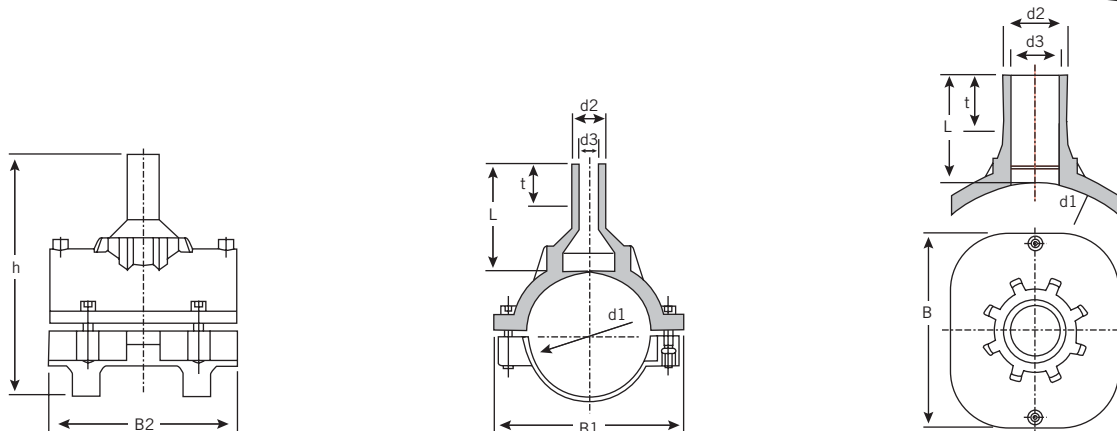
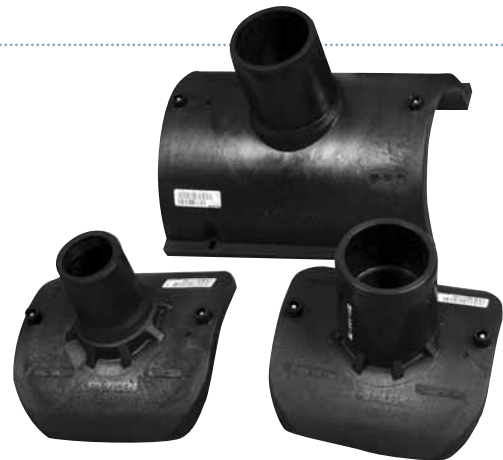
Short Designation SA, SA-TL d1./d2...

Field of Application Installation of service and branch pipes

Range of Application Gas up to 100 psi and water up to 160 psi

For higher pressure ranges contact IPEX at ☎ 864-286-8800

SA Branch Saddles are available with either a 2" or 3" outlet



Nominal Pipe d1 (in)	Main Size d2	Nominal Outlet (in)	d3	L	h	t	B1	B2
3"	IPS	2 IPS	1.969	4.055	8.150	2.756	6.102	5.906
4"	IPS/DIP	2 IPS	1.929	4.291	9.173	2.205	6.890	7.087
4"	IPS/DIP	3 IPS	2.756	4.528	8.976	3.543	6.496	7.480
6"	IPS/DIP	2 IPS	1.850	4.291	11.142	2.205	8.858	7.677
6"	IPS/DIP	3 IPS	2.717	5.079	11.496	3.937	8.543	9.646
8" - TL *	IPS	2 IPS	1.850	4.291	12.244	2.205	9.843	7.677
8" - TL *	DIP	2 IPS	1.850	4.291	13.228	2.205	10.039	7.677
8" - TL *	DIP	3 IPS	2.402	4.567	13.780	3.150	10.039	7.677
10" - 24" - TL *	IPS	2 IPS	1.850	4.291	--	2.205	--	7.874
10" - 20" - TL *	DIP	2 IPS	1.850	4.291	--	2.205	--	7.874
10" - 24" - TL *	IPS	3 IPS	2.402	4.567	--	3.150	--	7.874
10" - 20" - TL *	DIP	3 IPS	2.402	4.567	--	3.150	--	7.874

\* Friatec Pneumatic Top-loading tool required

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and Pipe SDR Range 9.33 through 17.6. For Pipe SDR Range 21+, contact IPEX for reduced fusion times. PE pipes of different melt index groups can be joined.

# Repair Patches and Clamps

For Pipe Repairs up to 28"



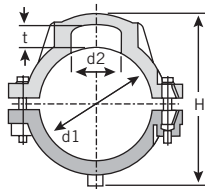
Short Designation VVS / VSC-TL d...  
 Field of Application Repair of small damage leakage  
 Reinforcement of "squeeze off" areas and areas with surface damage

Range of Application Gas up to 100 psi and water up to 160 psi

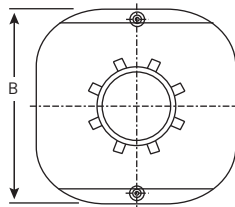
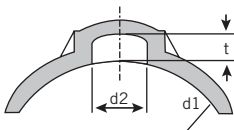
For higher pressure ranges contact IPEX at ☎ 864-286-8800

If a pipe is damaged, Friatec Repair Patches and Clamps are the quick reliable way to make the repair.

Friatec pipe repair systems are both simple to use and effective for pipe repair up to 28". Our repair systems make use of existing Friatec technology to seal a pipe puncture.



Nominal Pipe (in)	Main Size	d1	d2	H	t	Cold Zone Width (Center)
3"	IPS	3.500	1.969	5.827	0.827	2.953"/75mm
4"	IPS	4.500	1.969	6.614	0.827	3.071"/78mm
6"	IPS	6.625	1.969	8.583	0.827	3.346"/85mm



Nominal Pipe (in)	Main Size	d1	d2	t	B	Cold Zone Width (Center)
8"	IPS	8.625	1.969	0.827	10.157	3.268"/85mm
8"	DIP	9.050	1.969	0.827	11.142	3.268"/85mm
10" - 28"	IPS *	10.750 - 28.000	1.969	0.787	7.874	3.307"/83mm
10" - 20"	DIP *	11.100 - 21.600	1.969	0.787	7.874	3.307"/83mm

\* Friatec Pneumatic Top-loading tool required

Friatec Safety Fittings can be fused to all PE pipes within melt index groups 003-050 and Pipe SDR Range 9.33 through 17.6. For Pipe SDR Range 21+, contact IPEX for reduced fusion times.



# Reference materials from IPEX

## PE Electrofusion Water Brochure and Gas Brochure



## Ads for PE Electrofusion Water and Gas

## PE Electrofusion Price List



## PE Electrofusion CDR - Multimedia Presentation



Contact your IPEX representative for more information or visit [www.ipexinc.com](http://www.ipexinc.com).

## SALES AND CUSTOMER SERVICE

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Greenville, SC 29607  
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[www.ipexinc.com](http://www.ipexinc.com)

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- PE Electrofusion Systems for gas and water
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- Industrial process piping systems
- Electrical systems
- Telecommunications and utility piping systems
- Irrigation systems
- Radiant heating systems
- Industrial, plumbing and electrical cements
- PVC, CPVC, PP, FR-PVDF, ABS, PEX and PE pipe and fittings (1/4" to 48")

**WARRANTY:** All IPEX products are guaranteed against defects resulting from faulty workmanship or materials. If any such product is found to be defective by reason of faulty workmanship or materials, upon written notice and return of the product, the defective product will be replaced by IPEX free of charge, including shipping charges for the replacement product. Claims for labour costs and other expenses required to replace such defective product or to repair any damage resulting from the use thereof will not be allowed by IPEX. Our liability is limited to the price paid for the defective product. IPEX will not be bound by any warranty, other than above set forth, unless such warranty is in writing. This literature is published in good faith and is believed to be reliable. However IPEX does not represent and/or warrant in any manner the information and suggestions contained in this brochure. Data presented is the result of laboratory tests and field experience. IPEX maintains a policy of ongoing product improvement. This may result in modifications of features and/or specifications without notice.

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