

## COUPLER

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	D (mm)	D1 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
20mm	77	37.5	29	20	35	3	0.033	80
25mm	77	37.5	33.5	25	30	3	0.037	80
32mm	77	37.5	43	32	45	3	0.057	75/100
40mm	90	44	51.5	40	40	5	0.08	90
50mm	91	44	61.5	50	90	5	0.096	70
63mm	102	49	77	63	35	3	0.148	25/20
75mm	120	59	92	75	50	5	0.22	45
90mm	122	60	110	90	90	10	0.333	30/27
110mm	144	70	133	110	160	10	0.52	18/10
125mm	154	75	151	125	200	10	0.74	12
140mm	181	89	176	140	200	10	1.45	6
160mm	175	86	195	160	300	20	1.409	4
180mm	185	91	220	180	360	20	1.906	4
200mm	186	92	243	200	440	20	2.301	4
225mm	222	109	276	225	600	30	4.15	2
250mm	220	108	301	250	600	30	4.28	2
280mm (40V)	260	127	345	280	600	30	8.32	1
315mm (40V)	261	128	386	315	900	30	10.1	1
355mm (40V)	260	126	437	355	900	30	12.3	1
400mm (40V)	290	142	475	400	TBC	TBC	14.5	1

## EQUAL TEE

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	D (mm)	D1 (mm)	D2 (mm)	A (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
20 x 20 x 20mm	98	35	44	20	20	78	30	3	0.13	75
25 x 25 x 25mm	98	35	44	25	25	78	35	3	0.12	75
32 x 32 x 32mm	98	35	44	32	32	78	50	3	0.1	50
40 x 40 x 40mm	131	44	52	40	40	91	80	5	0.163	18
50 x 50 x 50mm	141	43	64	50	50	104	90	5	0.23	25
63 x 63 x 63mm	156	50	82	63	63	114	40	5	0.445	20
75 x 75 x 75mm	174	60	97	75	75	126	120	10	0.597	12
90 x 90 x 90mm	201	55	115	90	90	143	110	8	0.97	7
110 x 110 x 110mm	239	73	139	110	110	167	140	10	1.67	6
125 x 125 x 125mm	262	79	156	125	125	196	200	15	2.3	4
160 x 160 x 160mm	313	89	200	160	160	211	360	20	4.06	2
180 x 180 x 180mm	330	89	224	180	180	231	360	19	5.3	2

## REDUCING TEE

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	D (mm)	D1 (mm)	D2 (mm)	A (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
20 x 20 x 32mm	98	35	44	20	32	78	50	3	0.13	50
25 x 25 x 32mm	98	35	44	25	32	78	35	3	0.126	50
50 x 50 x 40mm	144	49	67	50	40	101	120	10	0.3	25
63 x 63 x 40mm	154	34	81	63	40	108	40	5	0.4	24
63 x 63 x 50mm	157	51	83	63	50	118	40	5	0.42	18
90 x 90 x 63mm	206	63	115.5	90	63	138	110	8	0.88	8
110 x 110 x 63mm	239	73	139	110	63	163	140	10	1.47	8
110 x 110 x 90mm	239	73	139	110	90	158	140	10	1.41	6
125 x 125 x 63mm	266	79	157	125	63	500	200	15	3	1
125 x 125 x 90mm	262	76	156	125	90	197	200	15	2.12	4
125 x 125 x 110mm	262	76	156	125	110	359	200	15	2.8	1
160 x 160 x 63mm	367	112	210	160	63	385	360	20	4.1	2
160 x 160 x 90mm	365	112	210	160	90	385	360	20	4.1	2
160 x 160 x 110mm	365	112	210	160	110	203	360	20	3.77	2
160 x 160 x 125mm	367	112	213	160	125	410	200	10	7.45	2
180 x 180 x 125mm	372	105	213	180	125	219	360	19	4.85	2

## 90° ELBOW

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	L2 (mm)	D (mm)	D1 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
20mm x 90deg	82	44	64	36	20	35	3	0.141	40
25mm x 90deg	72.4	37.5	55.4	33.85	25	30	3	0.062	100
32mm x 90deg	84	40	62	44	32	60	5	0.097	80
40mm x 90deg	116	50	83	67	40	50	5	0.34	55
50mm x 90deg	116	50	83	67	50	90	5	0.241	50
63mm x 90deg	123.3	50	84.1	80	63	35	5	0.294	25
75mm x 90deg	141	53	92	95	75	70	5	0.425	25
90mm x 90deg	165	59	106	113	90	90	10	0.685	15
110mm x 90deg	205	71	135	137	110	160	15	1.12	6
125mm x 90deg	228	77	152	154	125	200	15	1.57	6
160mm x 90deg	320	104	211	213	160	200	10	5	2
180mm x 90deg	320	104	211	213	180	300	20	4.12	2

## 45° ELBOW

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	D (mm)	D1 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
32mm x 45deg	95	39	44	32	45	3	0.08	100
40mm x 45deg	108	41.5	53	40	50	5	0.1	70
50mm x 45deg	124	44.5	63.8	50	80	5	0.134	50
63mm x 45deg	136.4	50	78.5	63	35	5	0.25	30
75mm x 45deg	165	62	97	75	70	5	0.427	35
90mm x 45deg	192	60	117	90	110	10	0.765	18
110mm x 45deg	213	75	137	110	140	10	0.894	10
125mm x 45deg	240	81	154	125	140	10	1.22	6
160mm x 45deg	320	105	217	160	240	10	4.5	2
180mm x 45deg	320	105	217	180	240	20	3.13	2

### REDUCER

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



L (mm)	L1 (mm)	D (mm)	D1 (mm)	L2 (mm)	D2 (mm)	D3 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
77	38.5	34	25	36.5	29	20	35	3	0.035	80
77	38.5	43	32	36.5	29	20	40	3	0.048	75
77	38.5	43	32	36.5	34	25	30	3	0.052	75
84	41	52	40	41	43	32	50	5	0.104	100
91	46.5	62	50	41	44	32	60	5	0.087	80
91	46.5	62	50	43	52	40	60	5	0.92	80
102	52	78	63	44	44	32	90	5	0.13	60
102	52.3	77	63	45	52	40	70	5	0.103	60
102	52	78	63	48	62	50	120	10	0.138	60
126	61	98	75	57	82	63	80	7	0.44	28
122.5	61	109.5	90	55	79	63	80	5	0.3	35
158	80	140	110	58	98	63	70	10	0.62	18
137.5	70	134	110	62	111	90	120	10	0.535	20
145	75	152	125	62.5	112	90	160	10	0.7	12
192	96	200	160	73	117	90	200	22	1.44	4
193	96	200	160	80	140	110	200	22	1.52	6
221	101	216	180	83	157	125	220	10	2.09	4

### MALE TRANSITION COUPLER

PE100 Black - Gas 10 Bar / Water PN16  
PE80 Yellow - Gas 6 Bar



FITTING SIZE	L (mm)	L1 (mm)	L2 (mm)	D (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
25mm x 3/4"	114	79	34	17	30	3	0.4	60
32mm x 1/2"	114	79	34	23	45	3	0.425	50
32mm x 3/4"	114	79	34	23	45	3	0.425	50
32mm x 1"	114	79	34	23	45	3	0.426	50
32mm x 1 1/4"	114	79	34	23	45	3	0.431	50
32mm x 1 1/2"	114	79	34	23	45	3	0.431	50
40mm x 1"	126	81	34	29	40	5	0.468	30
40mm x 1 1/4"	126	83	34	29	40	5	0.468	30
40mm x 1 1/2"	126	83	34	29	40	5	0.468	30
40mm x 2"	126	88	34	29	40	5	0.471	30
50mm x 1"	134	86	34	38	80	5	0.418	20
50mm x 1 1/4"	136	88	36	38	80	5	0.548	20
50mm x 1 1/2"	136	88	36	38	80	5	0.548	20
50mm x 2"	141	93	41	38	80	5	0.569	15
63mm x 1 1/4"	154	97	36	48	35	3	0.704	15
63mm x 1 1/2"	154	97	36	48	35	3	0.704	15
63mm x 2"	159	102	41	48	35	3	0.894	15

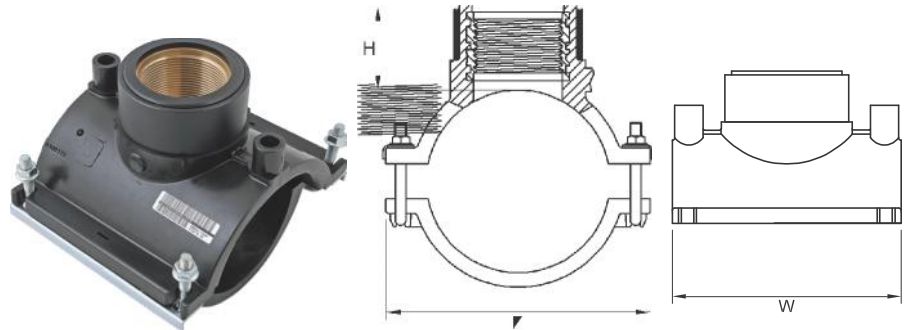
### FEMALE TRANSITION COUPLER

PE100 Black - Gas 10 Bar / Water PN16  
PE80 Yellow - Gas 6 Bar



FITTING SIZE	L (mm)	L1 (mm)	L2 (mm)	D (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
25mm x 3/4"	106	68	26	17	30	3	0.4	60
32mm x 1"	106	68	26	23	45	3	0.426	50
40mm x 1"	116	73	26	29	40	5	0.418	30
40mm x 1 1/4"	116	73	26	29	40	5	0.418	30
40mm x 1 1/2"	116	73	26	29	40	5	0.408	30
50mm x 1 1/2"	126	78	26	38	80	5	0.588	20
50mm x 2"	126	78	26	38	80	5	0.588	15
63mm x 1 1/2"	148	91	30	48	35	3	0.924	15
63mm x 2"	148	91	30	48	35	3	0.894	15

### TRANSITION SADDLE PE100 Black - Gas 10 Bar / Water PN16



FITTING SIZE	H (mm)	W (mm)	E (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
63mm x 1¼"	90	118	102	120	10	0.75	10
63mm x 1½"	90	118	102	120	10	0.7	10
90mm x 1¼"	57	118	156	160	10	1.2	10
90mm x 1½"	57	118	156	160	10	1.17	10
90mm x 2"	57	118	156	160	10	1.04	10
110mm x 1¼"	56	118	180	120	10	1.16	10
110mm x 1½"	56	118	180	120	10	1.135	8
110mm x 2"	56	118	180	120	10	1.16	8
125mm x 1¼"	58	118	180	120	10	1.12	8
125mm x 1½"	58	118	180	120	10	1.079	8
125mm x 2"	58	118	180	120	10	1.12	8
160mm x 1¼"	62	118	236	120	10	1.7	2
160mm x 1½"	62	118	236	120	10	1.6	2
160mm x 2"	62	118	236	120	10	1.45	2
180mm x 1¼"	60	118	236	120	10	1.7	2
180mm x 1½"	60	118	236	120	10	1.6	2
180mm x 2"	60	118	236	120	10	1.5	2
200mm x 2"	67	165	263	120	10	2.17	3
225mm x 2"	66	165	288	120	10	2.3	2
250mm x 2"	74	165	316	120	10	2.42	2

### END CAP

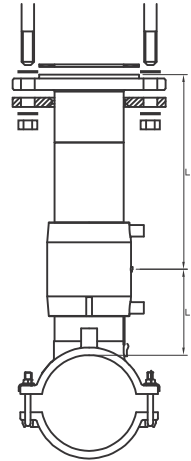
PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 7 Bar



FITTING SIZE	L (mm)	L1 (mm)	D (mm)	D1 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
20mm	82	37.5	29	20	35	3	0.041	80
25mm	82	37.5	33.5	25	30	3	0.048	80
32mm	84	37.5	46	32	45	3	0.073	75/100
40mm	97	44	51.5	40	40	5	0.102	90
50mm	101	44	61.5	50	90	5	0.15	70
63mm	115	49	77	63	35	5	0.226	25/20
75mm	125	59	92	75	50	5	0.553	45
90mm	138	60	110	90	90	10	0.521	30
110mm	164	70	133	110	160	10	0.97	18/10
125mm	175	75	151	125	200	10	1.24	10
140mm	236	89	176	140	200	10	2.25	6
160mm	202	85	196	160	300	20	2.21	4
180mm	214	91	220	180	360	20	2.32	4
200mm	215	108	243	200	440	30	4.2	2
225mm	222	109	276	225	600	30	7	2
250mm	220	108	301	250	600	30	8.1	2

### HYDRANT BRANCH SADDLE KIT PE100 Black - Water PN16



FITTING SIZE	L (mm)	L1 (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
90mm x 80K	455	124	160	10	6.6	1
110mm x 80K	455	121	120	10	6.55	1
125mm x 80K	455	114	120	10	6.5	1
160mm x 80K	455	110	120	10	7.64	1
180mm x 80K	455	100	120	10	7.6	1
200mm x 80K	455	115	120	10	10	1
225mm x 80K	455	112	120	10	10.2	1
250mm x 80K	455	120	120	10	10.27	1

Kit: E/F hydrant branch saddle, coupler<sup>1</sup>, riser, flange gasket, backing ring<sup>2</sup>, bolts<sup>2</sup>, nuts<sup>2</sup>, washers<sup>2</sup>

<sup>1</sup> Coupler in kit is 90mm - see coupler chart for dimensional details

<sup>2</sup> Rilsan coated



### MULTISEAL TAPPING TEE S/L

PE100 Black - Gas 10 Bar / Water PN16

PE80 Yellow - Gas 6 Bar



FITTING SIZE	L (mm)	H (mm)	h (mm)	W (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
63 x 20mm	105	119	62	120	80	10	0.34	15
63 x 25mm	105	119	62	120	80	10	0.34	15
63 x 32mm	105	119	62	120	80	10	0.34	15
75 x 20mm	105	110	77	120	100	10	0.35	15
75 x 25mm	105	110	77	120	100	10	0.35	15
75 x 32mm	105	110	77	120	100	10	0.35	15
90 x 20mm	105	110	77	120	100	10	0.35	15
90 x 25mm	105	110	77	120	100	10	0.35	15
90 x 32mm	105	110	77	120	100	10	0.35	15
110 x 20mm	105	117	87	120	80	10	0.37	15
110 x 25mm	105	117	87	120	80	10	0.37	15
110 x 32mm	105	117	87	120	80	10	0.37	15
125 x 20mm	105	117	95	120	80	10	0.38	15
125 x 25mm	105	117	95	120	80	10	0.38	15
125 x 32mm	105	117	95	120	80	10	0.38	15
160 x 20mm	105	122	112	120	100	10	0.39	15
160 x 25mm	105	122	112	120	100	10	0.39	15
160 x 32mm	105	122	112	120	100	10	0.39	15
180 x 20mm	105	122	122	120	100	10	0.38	15
180 x 25mm	105	122	122	120	100	10	0.38	15
180 x 32mm	105	122	122	120	100	10	0.38	15
200 x 20mm	105	122	132	120	100	10	0.38	15
200 x 25mm	105	122	132	120	100	10	0.38	15
200 x 32mm	105	122	132	120	100	10	0.38	15
225 x 20mm	105	122	145	120	100	10	0.36	15
225 x 25mm	105	122	145	120	100	10	0.36	15
225 x 32mm	105	122	145	120	100	10	0.36	15
250 x 20mm	105	122	158	118	100	10	0.36	15
250 x 25mm	105	122	158	118	100	10	0.36	15
250 x 32mm	105	122	158	118	100	10	0.36	15
280 x 32mm	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
315 x 32mm	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
355 x 32mm	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC

### BRANCH SADDLE U/P PE100 Black - Gas 10 Bar / Water PN16



FITTING SIZE	H (mm)	h (mm)	W (mm)	E (mm)	FUSION TIME (secs)	COOLING TIME (mins)	WEIGHT (kg)	BOX QUANTITY
63 x 40mm	115	75	147	119	100	10	0.475	10
63 x 50mm	115	75	147	119	100	10	0.475	10
63 x 63mm	115	75	147	119	100	10	0.475	10
75 x 40mm	115	75	147	119	100	10	0.475	10
75 x 50mm	115	75	147	119	100	10	0.475	10
75 x 63mm	115	75	147	119	100	10	0.475	10
90 x 40mm	115	75	147	122	100	10	0.588	10
90 x 50mm	115	75	147	122	100	10	0.588	10
90 x 63mm	115	75	147	122	100	10	0.588	10
110 x 40mm	118	75	147	122	100	10	0.596	10
110 x 50mm	118	75	147	122	100	10	0.596	10
110 x 63mm	118	75	147	122	100	10	0.596	10
125 x 40mm	118	75	147	122	100	10	0.608	10
125 x 50mm	118	75	147	122	100	10	0.608	10
125 x 63mm	118	75	147	122	100	10	0.608	10
160 x 40mm	125	75	147	122	100	10	0.652	10
160 x 50mm	125	75	147	122	100	10	0.652	10
160 x 63mm	125	75	147	122	100	10	0.652	10
180x 40 mm	125	75	147	122	100	10	0.672	10
180x 50 mm	125	75	147	122	100	10	0.672	10
180x 63 mm	125	75	147	122	100	10	0.672	10
200x 40 mm	125	75	147	122	100	10	0.677	10
200x 50 mm	125	75	147	122	100	10	0.677	10
200x 63 mm	125	75	147	122	100	10	0.677	10
225x 40 mm	125	75	147	122	100	10	0.706	10
225x 50 mm	125	75	147	122	100	10	0.706	10
225x 63 mm	125	75	147	122	100	10	0.706	10

## Pressure ratings

The maximum pressure rating for each type of electrofusion fitting is included in the detailed product specifications provided in pages 12 to 29. The table below provides a summary of the pressure ratings of the most common fittings.

FITTING TYPE	WATER (COLD) BLACK PE100	GAS (1) BLACK PE100	GAS (2) YELLOW PE80
Coupler	PN16	10 Bar	7 Bar
Elbow	PN16	10 Bar	7 Bar
Equal tee	PN16	10 Bar	7 Bar
Reducer	PN16	10 Bar	7 Bar
Tapping tee	PN16	10 Bar	6 Bar
Branch saddle	PN16	10 Bar	6 Bar
Hydrant products	PN16	n/a	n/a
Transition fittings	PN16	10 Bar	6 Bar

(1) Rated to 10 bar under EN\_1555\_3. A black PE100 Fusamatic fitting can be used in the UK if its use is signed off by a qualified gas engineer.

(2) Rated under GIS/PL2-4 to either 7 bar for class B or 6 bar for class C

## SDR ratings

The appropriate pipe SDR rating for electrofusion fittings is in accordance with the tables below:

FITTING SIZES BELOW 63mm		FITTING SIZES 63mm AND ABOVE	
FITTING TYPE	PIPE SDR	FITTING TYPE	PIPE SDR
Coupler	11	Coupler	11 to 17.6
Elbow	11	Elbow	11 to 17.6
Reducer	11	Equal tee	11 to 17.6
Equal tee	11	Reducer	11 to 17.6
Tapping tee	11	Tapping tee *	11 to 17.6
Branch saddle	11	Branch saddle	11 to 17.6
Transition fittings	11	Hydrant products	11 to 17.6
		Transition fittings	11 to 17.6

\* Tapping tees for 63mm mains only are not suitable for SDR17 pressurised pipe applications.

### PRE JOINTING CHECKS

- Use equipment that is clean, in good condition, regularly maintained and within required calibration/service.
- Ensure that cutters/blades and scrapers are clean and in good condition.
- Mechanical scrapers must be used wherever possible.
- Check that restraining clamps are in good condition.
- Check that you have somewhere clean and dry to place tools and equipment during the electrofusion process.
- Do not start the jointing process unless it can be completed in one go.

### DO'S

- Understand the principles of electrofusion (refer to pipe manufacturer's details in van pack if necessary).
- Use a shelter and ground sheet, both in dry and wet conditions, to minimise contamination.
- Use pipe end covers wherever possible.
- Always enter your details into the electrofusion control box if the box requests it; your operator code and job code must be entered to allow full traceability.
- Always use clamps for alignment/restraining/re-rounding.
- Ensure control box voltage is compatible with fitting.
- Ensure pipe and fittings to be jointed are compatible with each other.
- Cut pipe ends square for all electrofusion socket fittings.
- Fully scrape pipe and/or spigot surfaces. (Secura-Line pipes need not be scraped prior to electrofusion if outer skin has been freshly peeled

and the core pipe is pristine. Should the peeled pipe ends become contaminated then they should be treated in the same way as standard PE pipe).

- Keep scraped pipe and/or spigot surfaces and fittings clean.
- Assemble joint and fuse immediately after scraping the pipe.
- If Fusion automatic fittings and boxes are being used, connect the red lead to the fitting terminal with the red pin and the black lead to the plain pin.
- In all cases check that the fusion time displayed by the control box matches the fusion time on the fitting. If different do not continue to weld. Replace with a new bagged fitting or enter fitting time manually.
- Ensure correct fusion and cooling times are observed and adhered to.
- Ensure all fusion indicators have risen. If not, cut out and make new weld.
- Drilling/tapping through fitting/pipe should only be carried out following the required quality inspections and pressure testing.
- Always ensure you mark the completed joint with the number issued from the electrofusion control box, along with the date. This is imperative for full traceability.

### DON'TS

- Do not start any electrofusion joint unless it can be completed without interruption.
- Do not use an electrofusion box within an excavation.
- Under no circumstances should an attempt be made to carry out a second fusion cycle on any fitting. This is a WIS 4-32-08 requirement and must be adhered to.
- Incomplete, interrupted, failed or aborted fittings should ALWAYS be cut out, bagged and numbered with corresponding joint number for submission to a supervisor for inspection.

**(CONTINUED...)**

## DON'TS (...CONTINUED)

- Do not use dirty or contaminated fittings, or those from split or torn bags or touch prepared surfaces.
- Do not leave fittings out of their protective bags or remove them from bags until immediately before use.
- Do not allow prepared fusion/jointing surfaces to become wet or damp.
- Do not remove clamps from fitting until cooling time has elapsed.
- Do not remove integral cutter from the stack/saddle once the main has been drilled.
- **IF EVER IN DOUBT - CUT IT OUT**

## THE USE OF WET WIPES

**The preferred position is to make electrofusion joints without the use of wet wipes.** This guidance pertains as long as the pipes are freshly scraped, the fitting has just been debagged and the assembly and fusion of the joint follows immediately.

If any deviation from the above occurs, which may result in contamination of either the scraped pipe or the debagged fitting, then prescribed wet wipes can be used. Separate fresh wet wipes are to be used for the scraped pipes and the debagged fitting if both are contaminated. Whether wiping both scraped pipe or fitting or just one of them, wiped surfaces must be allowed to visibly dry (do not touch the wet surface), then the joint assembled and fused. Failure to allow the jointing surfaces to dry will increase the risk of voids at the weld interface.

N.B. In butt fusion jointing wet wipes are not used for cleaning pipes that have already been machined/trimmed.

## HEALTH AND SAFETY

Fusion Provida makes every effort in the design and manufacture of its pipes, fittings and equipment to ensure safety in use. The following precautions are however worth bearing in mind:

- Never allow hot polyethylene to come into contact with the skin. In such an event cold water should be used to cool the affected area. Expert medical advice should be sought.
- Under no circumstances should any attempt be made to remove any material that becomes stuck on the skin without medical supervision as this would risk a more serious injury.
- Heavy pipes, fittings and equipment should not be handled without assistance or mechanical aid. The requirements of 'manual handling' legislation should be adhered to.
- Health and safety regulations insist upon the wearing of personal protective equipment such as gloves, safety glasses and safety boots whilst carrying out electrofusion joints.
- Care should be exercised, by taking normal precautions, when using electrical equipment on site, particularly in wet conditions.
- Normal precautions should be observed when handling electrical equipment and, for safety reasons, all 110v portable generator sets should be 'centre tapped' for site use +55/0/-55 volts.

**ALWAYS REMEMBER THAT ALL JOINT RECORDS ARE AUTOMATICALLY STORED AND SHOULD BE DOWNLOADED ON A REGULAR BASIS TO ENSURE FULL TRACEABILITY AND INTEGRITY OF WORKMANSHIP.**