

FUSAMATIC™ BRANCH SADDLES

STACKLOAD | UNDERCLAMP | UNDERSTRAP

FOR GAS AND WATER



MISSION

“The Fusion Group Strategy is to become the customers’ preferred partner as the leading innovator, manufacturer and supplier of products and services for gas and water polyethylene pipeline systems, worldwide...”

CUSTOMER PROMISES

Our unique selling propositions enable us to give eight important promises to our customers:

SOLUTIONS, NOT ONLY PRODUCTS

GLOBAL LEADERSHIP AND LOCAL COMMITMENT

QUALITY IN EVERY STEP

PROMPT RESPONSE

LASTING INNOVATIONS

TOTAL SAVINGS

A LONG-TERM PARTNERSHIP

TO BE EFFECTIVE AND EASY

ABOUT

Fusion Group pioneered polyethylene pipe jointing in the UK and across the globe, and continues to provide innovative solutions for multiple industries. In 2017, Fusion became a member of the AVK Group of Companies, a partnership that has resulted in a broader product and service offer, a strengthened manufacturing base, and an amalgamation of expertise and ideas.

Polyethylene Solutions

Fusion is built around the knowledge and expertise of our people and their passion to deliver innovation. Part of our mission is to support you with a complete polyethylene solutions package for gas and water infrastructure, mining, energy and agricultural projects.

Our specialist teams are able to work with you throughout every step of your customer journey - from advice on site specification and product selection, all the way to providing installer training to your teams. When you work with Fusion, our promise to you is that you can expect quality throughout every step of the process and can trust that we will always be here for you.

World-Class Manufacturing

Fusion boasts world class manufacturing, testing, and inspection facilities, with lean principles of continuous improvement integrated into our manufacturing culture.

We pride ourselves on our products being fully traceable, right down to the core components.

High Standards

Fusion and AVK believe in much more than simply supplying a finished product to a customer. In order to assure you of our continued excellence, we have achieved ISO 9001 and ISO/TS 29001 certification.

We also hold many 3rd party product approvals and are regularly audited by organisations such as Bureau Veritas, AMI, BSI, DVGW, INSTA-CERT and others ensure our products meet – and often exceed – the highest standards of safety and durability.

For further information on the Fusion Group product range download the Global PE Product Offer brochure from our website - www.fusiongroup.com
The Global PE Product Offer brochure features our extensive product range; PE ball and butterfly valves, electrofusion, spigot and transition fittings, access systems and associated equipment and ancillaries.



FUSAMATIC™ BRANCH SADDLES FOR GAS AND WATER



Manufactured and tested in our world-class facilities, a range of electrofusion branch saddles in sizes which range from d40 - 630mm with various outlet sizes. Fusamatic branch saddles are available in stackload, underclamp and understrap variants.

All Fusion's electrofusion fittings are individually inspected using a computerised monitoring system that utilises advanced barcode technology. The barcode provides full individual fitting traceability right down to the polymer batch.

Product range overview

	<p>BRANCH SADDLE STACKLOAD PE100 Water PN16 Gas 10 Bar</p> <p>63mm Outlet d250x63-400/450x63</p>		<p>BRANCH SADDLE UNDERCLAMP PE100 Water PN16 Gas 10 Bar</p> <p>40-63mm Outlet d63x40-225x63</p>		<p>BRANCH SADDLE UNDERCLAMP PE100 Water PN16 Gas 10 Bar</p> <p>20-63mm Outlet d40x20-90x63</p>
	<p>BRANCH SADDLE UNDERCLAMP PE100 Water PN16 Gas 10 Bar</p> <p>90-125mm Outlet d90x90-250x125</p>		<p>BRANCH SADDLE UNDERSTRAP PE100 Water PN16 Gas 10 Bar</p> <p>110-180mm Outlet d315x110-630x180</p>		

FUSAMATIC



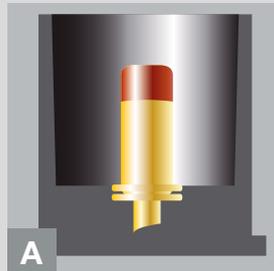
Pressure ratings

Fusamatic branch saddles are manufactured in PE100 black polyethylene and pressure rated up to 16 bar for water applications and 10 bar for gas applications.

Specifications

Fusamatic branch saddles are tested and have 3rd party approval against the following standards;

- EN 12201-3
- EN 1555-3
- AS/NZS 4129
- ISO Type 5
- WaterMark
- ISO4427
- ISO4437
- GIS/PL2-4 (Certain sizes only - contact us for further details).



A

Fusamatic Pin

Invented by Fusion, the Fusamatic pin provides a totally automatic method for ensuring the correct welding parameters are used. Within each Fusamatic pin is a resistor. When the electrofusion box is connected to the fitting, the Fusamatic pin enables it to automatically identify the correct fusion time required to make the joint.

All the operator has to do is press go!



B

Indicator

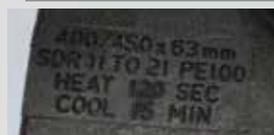
Pressure, created by the expanding molten plastic in the jointing area (inside the fitting) during the electrofusion process, will force out the indicator lug (saddle fittings usually only have one indicator). This is a visible sign that the necessary jointing pressure has been achieved.



C

Barcode / QR Code

Quality control is central to the success of Fusion's fittings. The unique barcode configuration (compliant with ISO 13950 welding and ISO 12176-4 traceability), including QR code, provides full traceability of raw material for each individual fitting and welding information when used in conjunction with electrofusion boxes equipped with a barcode scanner.



Moulded-in welding parameters

Manual welding parameters are moulded into the body of all Fusion's fittings.

Information provided includes fitting size, material (PE100), applicable pipe SDRs, weld parameters, and pressure ratings for gas and water applications.

Permanently marked batch number

The injection moulded batch number is just one of numerous quality control identifiers on each Fusamatic fitting.

It is replicated on the fitting's barcode.



Stackload, Underclamp or Understrap

Different clamping systems are available depending upon application, size and existing tooling.

1. Stackload - allows operators to use own calibrated and approved top loading equipment.
2. Sacrificial toggle-clamp underpart - snaps quickly into place, saves the installer time, avoids the need for specialist tooling and provides proof of clamping during the Fusion cycle.
3. Sacrificial understrap - sizes above 315mm - offering both cost and time efficient installation whilst ensuring effective clamping forces are maintained during the fusion cycle on larger mains pipe.

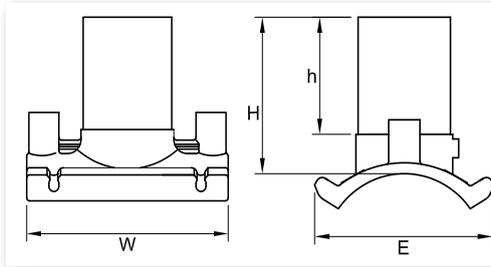


Branch Saddle | Stackload

63mm outlet

Specification

- PE100
- Water PN 16
- Gas 10 Bar
- d250x63 - 400/450x63



4mm Pin Fitting Code	4.7mm Pin Fitting Code	Fitting Size	H	h	W	E	Fusion Time	Cooling Time	Weight	Box Quantity	Box Size (W X L X D)	Delivery Code
			mm	mm	mm	mm	secs	mins	Kg		mm	
MBBKHF250X63	MBBKHA250X63	250 x 63	125	75	146	122	110	10	0.37	15	295 X 485 X 333	A
MBBKHF280X63	MBBKHA280X63	280 x 63	140	75	146	122	120	10	0.35	15	295 X 485 X 333	C
MBBKHF315X63	MBBKHA315X63	315 x 63	140	75	146	122	120	10	0.38	15	295 X 485 X 333	A
MBBKHF355X63	MBBKHA355X63	355 x 63	140	75	146	122	120	10	0.38	15	295 X 485 X 333	A
MBKHFA400450X63	MBKHA400450X63	400/450 x 63	146	72	146	152	120	15	0.40	10	295 X 485 X 333	B

New
400/450 size
with 63mm
outlet



Branch Saddle | Stackload

NEW size - 400/450 x 63mm outlet

- For use on pipes up to SDR11.
- One electrofusion fitting fits both 400 and 450mm mains pipe resulting in reduced stockholding.
- Larger base footprint ensures correct alignment.
- Can be used with existing top-load clamping equipment reducing the need for expensive additional tooling or clamps.

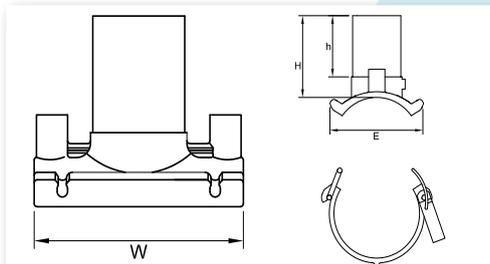


Branch Saddle | Underclamp

40 - 63mm outlet

Specification

- PE100
- Water PN16
- Gas 10 Bar
- d63x40 - 225x63



4mm Pin Fitting Code	4.7mm Pin Fitting Code	Fitting Size	H	h	W	E	Fusion Time	Cooling Time	Weight	Box Quantity	Box Size (W X L X D)	Delivery Code
		mm	mm	mm	mm	mm	secs	mins	Kg		mm	
MBBKHF63X40U	MBBKHA63X40U	63 x 40	115	75	147	119	100	10	0.47	10	295 X 485 X 333	C
MBBKHF63X50U	MBBKHA63X50U	63 x 50	115	75	147	119	100	10	0.48	10	295 X 485 X 333	C
MBBKHF63X63U	MBBKHA63X63U	63 x 63	115	75	147	119	100	10	0.50	10	295 X 485 X 333	A
MBBKHF75X40U	MBBKHA75X40U	75 x 40	115	75	147	119	120	10	0.62	10	295 X 485 X 333	B
MBBKHF75X50U	MBBKHA75X50U	75 x 50	115	75	147	119	120	10	0.64	10	295 X 485 X 333	C
MBBKHF75X63U	MBBKHA75X63U	75 x 63	115	75	147	119	120	10	0.65	10	295 X 485 X 333	C
MBBKHF90X40U	MBBKHA90X40U	90 x 40	115	75	147	122	100	10	0.58	10	295 X 485 X 333	B
MBBKHF90X50U	MBBKHA90X50U	90 x 50	115	75	147	122	100	10	0.60	10	295 X 485 X 333	C
MBBKHF90X63U	MBBKHA90X63U	90 x 63	115	75	147	122	100	10	0.63	10	295 X 485 X 333	A
MBBKHF110X40U	MBBKHA110X40U	110 x 40	118	75	147	122	100	10	0.62	10	295 X 485 X 333	A
MBBKHF110X50U	MBBKHA110X50U	110 x 50	118	75	147	122	100	10	0.63	10	295 X 485 X 333	C
MBBKHF110X63U	MBBKHA110X63U	110 x 63	118	75	147	122	100	10	0.64	10	295 X 485 X 333	A
MBBKHF125X40U	MBBKHA125X40U	125 x 40	118	75	147	122	100	10	0.62	10	295 X 485 X 333	C
MBBKHF125X50U	MBBKHA125X50U	125 x 50	118	75	147	122	100	10	0.62	10	295 X 485 X 333	C
MBBKHF125X63U	MBBKHA125X63U	125 x 63	118	75	147	122	100	10	0.64	10	295 X 485 X 333	B
MBBKHF160X40U	MBBKHA160X40U	160 x 40	125	75	147	122	100	10	0.66	10	295 X 485 X 333	B
MBBKHF160X50U	MBBKHA160X50U	160 x 50	125	75	147	122	100	10	0.66	10	295 X 485 X 333	C
MBBKHF160X63U	MBBKHA160X63U	160 x 63	125	75	147	122	100	10	0.68	10	295 X 485 X 333	A
MBBKHF180X40U	MBBKHA180X40U	180 x 40	125	75	147	122	100	10	0.70	10	295 X 485 X 333	C
MBBKHF180X50U	MBBKHA180X50U	180 x 50	125	75	147	122	100	10	0.70	10	295 X 485 X 333	C
MBBKHF180X63U	MBBKHA180X63U	180 x 63	125	75	147	122	100	10	0.70	10	295 X 485 X 333	A
MBBKHF200X40U	MBBKHA200X40U	200 x 40	125	75	147	122	100	10	0.70	10	295 X 485 X 424	C
MBBKHF200X50U	MBBKHA200X50U	200 x 50	125	75	147	122	100	10	0.70	10	295 X 485 X 424	C
MBBKHF200X63U	MBBKHA200X63U	200 x 63	125	75	147	122	100	10	0.70	10	295 X 485 X 424	B
MBBKHF225X40U	MBBKHA225X40U	225 x 40	125	75	147	122	100	10	0.73	10	295 X 485 X 424	C
MBBKHF225X50U	MBBKHA225X50U	225 x 50	125	75	147	122	100	10	0.71	10	295 X 485 X 424	C
MBBKHF225X63U	MBBKHA225X63U	225 x 63	125	75	147	122	100	10	0.75	10	295 X 485 X 424	A

Delivery Codes

Products are categorised into 3 delivery codes which are based on our delivery commitments, these are as follows:

A = Available ex-stock, or up to 6 weeks

B = Up to 6 weeks

C = Upon enquiry

The above lead times are provided as an indication only and are manufacturing replenishment times in the event of a stock-out.

If your request is of an urgent nature, please email sales@fusiongroup.com or telephone +44(0)1246 268666 for further details regarding delivery commitments.

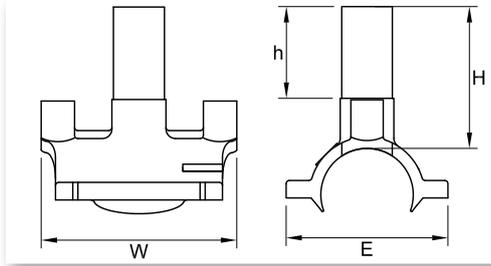


Branch Saddle | Underclamp

20 - 63mm outlet

Specification

- PE100
- Water PN16
- Gas 10 Bar
- d40x20 - 90x63



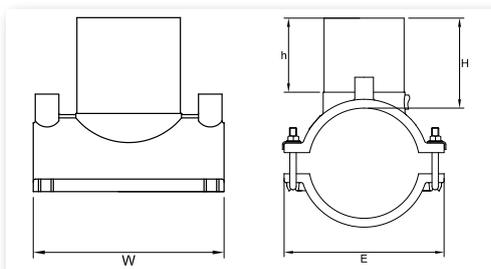
4mm Pin Fitting Code	4.7mm Pin Fitting Code	Fitting Size	H	h	W	E	Fusion Time	Cooling Time	Weight	Box Quantity	Box Size (W X L X D)	Delivery Code
		mm	mm	mm	mm	mm	secs	mins	Kg	mm		
BBKHFM40X20U	BBKHA40X20U	40 x 20	93	51	103	83	50	5	0.19	25	295 X 485 X 199	C
BBKHFM40X25U	BBKHA40X25U	40 x 25	90	52	103	83	50	5	0.19	20	295 X 485 X 199	C
BBKHFM40X32U	BBKHA40X32U	40 x 32	90	57	103	83	50	5	0.19	20	295 X 485 X 199	C
BBKHFM63X20U	BBKHA63X20U	63 x 20	90	50	122	105	140	10	0.31	10	295 X 485 X 199	C
BBKHFM63X25U	BBKHA63X25U	63 x 25	106	59	122	105	140	10	0.31	10	295 X 485 X 199	C
BBKHFM63X32U	BBKHA63X32U	63 x 32	106	59	122	105	140	10	0.31	10	295 X 485 X 199	A
BBKHFM90X20U	BBKHA90X20U	90 x 20	91	51	136	133	140	10	0.44	15	295 X 485 X 333	C
BBKHFM90X25U	BBKHA90X25U	90 x 25	91	51	136	133	140	10	0.44	15	295 X 485 X 333	C
BBKHFM90X32U	BBKHA90X32U	90 x 32	91	51	136	133	140	10	0.44	15	295 X 485 X 333	B
BBKHFM90X40U	BBKHA90X40U	90 x 40	105	69	136	133	140	10	0.44	10	295 X 485 X 333	C
BBKHFM90X50U	BBKHA90X50U	90 x 50	105	82	136	133	140	10	0.44	10	295 X 485 X 333	C
BBKHFM90X63U	BBKHA90X63U	90 x 63	105	88	136	133	140	10	0.44	10	295 X 485 X 333	C

Branch Saddle | Underclamp

90 - 125mm outlet

Specification

- PE100
- Water PN16
- Gas 10 Bar
- d90x90 - 250x125



4mm Pin Fitting Code	4.7mm Pin Fitting Code	Fitting Size	H	h	W	E	Fusion Time	Cooling Time	Weight	Box Quantity	Box Size (W X L X D)	Delivery Code
		mm	mm	mm	mm	mm	secs	mins	Kg	mm		
BBKHFM90X90U	BBKHA90X90U	90 x 90	124	84	144	154	90	10	0.95	5	295 X 485 X 333	B
BBKHFM110X90U	BBKHA110X90U	110 x 90	121	84	165	180	120	10	1.22	5	295 X 485 X 333	A
BBKHFM125X90U	BBKHA125X90U	125 x 90	114	84	165	180	120	10	1.13	5	295 X 485 X 333	A
BBKHFM160X90U	BBKHA160X90U	160 x 90	110	84	215	236	120	10	2.09	4	232 X 453 X 387	A
BBKHFM180X90U	BBKHA180X90U	180 x 90	100	84	215	236	120	10	1.91	4	232 X 453 X 387	A
BBKHFM200X90U	BBKHA200X90U	200 x 90	115	84	165	263	120	10	1.99	3	295 X 485 X 333	B
BBKHFM225X90U	BBKHA225X90U	225 x 90	113	84	165	291	120	10	2.20	2	295 X 485 X 333	B
BBKHFM250X90U	BBKHA250X90U	250 x 90	120	84	165	317	120	10	2.66	2	295 X 485 X 333	A
BBKHFM160X110U	BBKHA160X110U	160 x 110	131	98	217	236	120	10	2.27	3	295 X 485 X 333	B
BBKHFM180X110U	BBKHA180X110U	180 x 110	121	98	217	236	120	10	2.10	3	295 X 485 X 333	B
BBKHFM180X125U	BBKHA180X125U	180 x 125	121	98	217	236	120	10	2.14	3	295 X 485 X 333	A
BBKHFM225X125U	BBKHA225X125U	225 x 125	123	98	310	327	500	30	7.70	1	390 X 510 X 380	C
BBKHFM250X125U	BBKHA250X125U	250 x 125	110	98	310	327	500	30	7.37	1	390 X 510 X 380	C

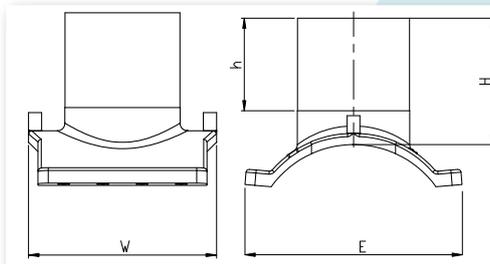


Branch Saddle | Understrap

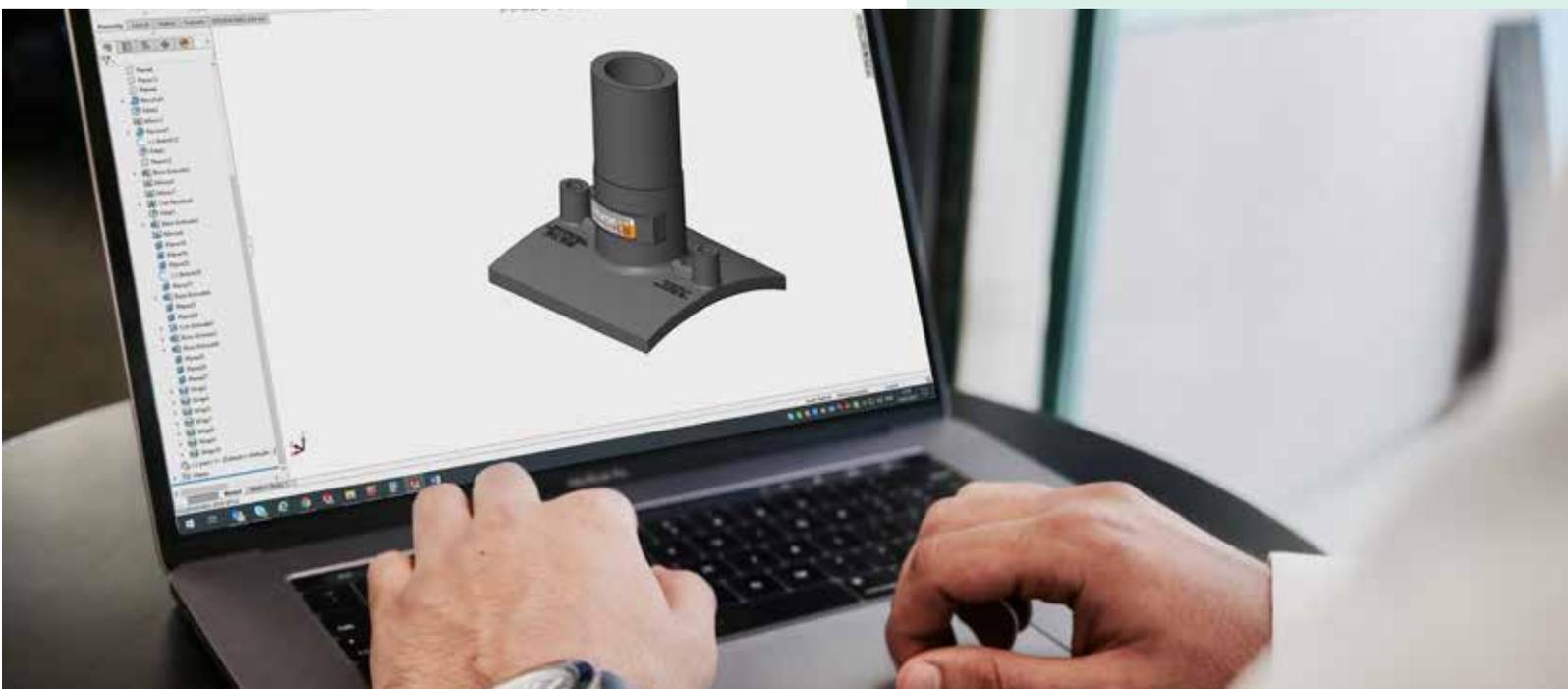
110 - 180mm outlet

Specification

- PE100
- Water PN16
- Gas 10 Bar
- d315x110 - 630x180



4mm Pin Fitting Code	4.7mm Pin Fitting Code	Fitting Size	H	h	W	E	Fusion Time	Cooling Time	Weight	Box Quantity	Box Size (W X L X D)	Delivery Code
		mm	mm	mm	mm	mm	secs	mins	Kg		mm	
BBKHF315X110U	BBKHM315X110U	315 x 110	193	150	300	360	460	20	4.36	1	295 X 485 X 333	C
BBKHF315X125U	BBKHM315X125U	315 x 125	193	150	300	360	460	20	4.48	1	295 X 485 X 333	C
BBKHF315X160U	BBKHM315X160U	315 x 160	193	150	300	360	460	20	4.97	1	295 X 485 X 333	C
BBKHF315X180U	BBKHM315X180U	315 x 180	193	150	300	360	460	20	4.99	1	295 X 485 X 333	C
BBKHF355X110U	BBKHM355X110U	355 x 110	193	150	300	360	460	20	4.42	1	295 X 485 X 333	C
BBKHF355X125U	BBKHM355X125U	355 x 125	193	150	300	360	460	20	4.52	1	295 X 485 X 333	C
BBKHF355X160U	BBKHM355X160U	355 x 160	193	150	300	360	460	20	4.84	1	295 X 485 X 333	C
BBKHF355X180U	BBKHM355X180U	355 x 180	193	150	300	360	460	20	5.04	1	295 X 485 X 333	C
BBKHF400X110U	BBKHM400X110U	400 x 110	193	150	300	360	460	20	4.48	1	295 X 485 X 333	C
BBKHF400X125U	BBKHM400X125U	400 x 125	193	150	300	360	460	20	4.59	1	295 X 485 X 333	C
BBKHF400X160U	BBKHM400X160U	400 x 160	193	150	300	360	460	20	4.84	1	295 X 485 X 333	C
BBKHF400X180U	BBKHM400X180U	400 x 180	193	150	300	360	460	20	4.34	1	295 X 485 X 333	C
BBKHF630X110U	BBKHM630X110U	630 x 110	193	150	300	360	460	20	5.00	1	295 X 485 X 333	C
BBKHF630X125U	BBKHM630X125U	630 x 125	193	150	300	360	460	20	5.00	1	295 X 485 X 333	C
BBKHF630X160U	BBKHM630X160U	630 x 160	193	150	300	360	460	20	5.10	1	295 X 485 X 333	C
BBKHF630X180U	BBKHM630X180U	630 x 180	193	150	300	360	460	20	5.10	1	295 X 485 X 333	C



Direct access to Fusion's BIM and CAD models at www.fusiongroup.com

Visit the Fusion Group website - www.fusiongroup.com for direct access to Fusion's BIM and CAD models, in .dxf, .igs and .step file formats. The models provide customers with the ability to transfer 2D and 3D drawing data between a variety of CAD and BIM infrastructure design systems.

TYPICAL APPLICATION SCHEMATIC

EXAMPLE OF SOLUTIONS PACKAGE

Fusion Group are here to support you with a complete polyethylene solutions package for your gas and water infrastructure project. For the full range visit www.fusiongroup.com



A

Electrofusion equal tee

Sizes 20 - 250mm

NEW range of large diameter equal tees now available in sizes 200, 225 and 250mm



B

Electrofusion coupler

Sizes 20 - 630mm



C

Spigot outlet branch saddle

Various options available with stackload, underclamp or understrap variants

Sizes range from 40 - 630mm with various outlet sizes



D

Certus PE Ball Valve

Sizes 20 - 180mm



E

Multiseal tapping tee

Delivering security, safety and speed at the point of installation

Stackload or underclamp

Sizes range from 40 - 400/450mm
20, 25, 32, 40, 50 and 63mm outlets



F

Electrofusion integral flow limiter

Fits into electrofusion coupler or reducer

Size range; 32x20, 32x25, 32x32



SBOX Max - Electrofusion

The SBOX Max electrofusion welding machine gives you functionality, reliability and is capable of welding electrofusion fittings for gas, water and other pressure pipe applications from 20 - 630mm



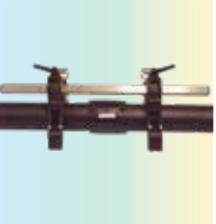
Gator - Automatic Butt Fusion

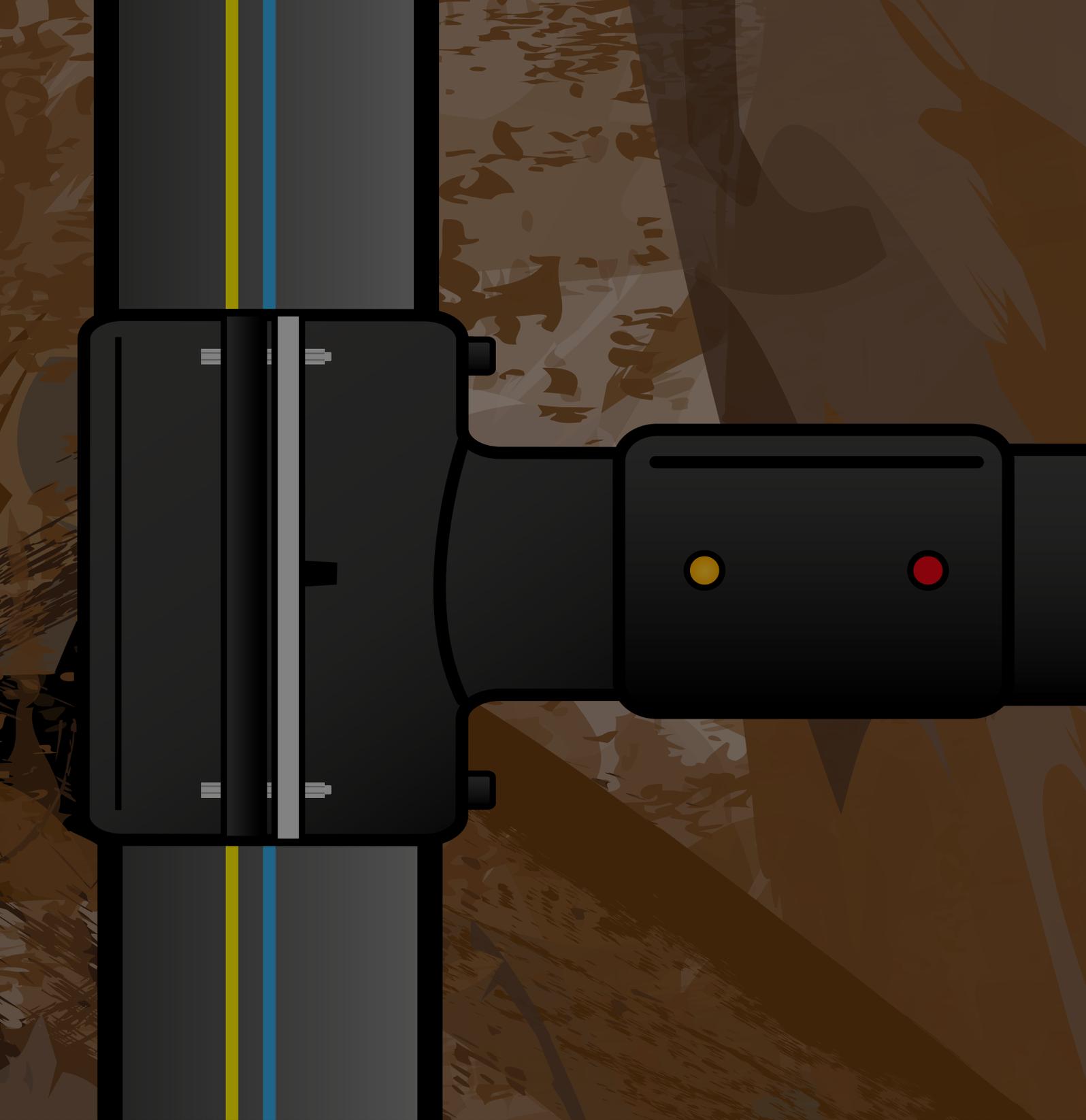
The Gator range of automatic butt fusion machines have been designed and developed to be used on gas and water pressure polyethylene pipes for distribution networks. Various options available to weld pipe in the size range 63 - 400mm

ASSOCIATED PRODUCTS

PRODUCT SELECTOR GUIDE

Fusion Group are a leading innovator, manufacturer and supplier of products, services and solutions for gas and water polyethylene pipeline systems. For the full range visit our website www.fusiongroup.com

	<p>COUPLER PE100 Water PN16 Gas 10 Bar d20-400</p>		<p>END CAP PE100 Water PN16 Gas 10 Bar d20-250</p> <p>Long spigot end caps available above 250mm</p>		<p>REDUCER PE100 Water PN16 Gas 10 Bar d25x20-180x125</p> <p>Long spigot reducers available above 180mm</p>
	<p>CERTUS PE BALL VALVES PE100 SDR 11 (SDR 17/17.6 available upon request) d20-180</p>		<p>ELECTROFUSION INTEGRAL FLOW LIMITER Fits into electrofusion coupler or reducer Range 0.69 Bar to 7 Bar d32x20, 32x25 and 32x32</p>		<p>SURFACE BOX Grants access to lower buried valves at all times.</p> <p>Various options available</p>
	<p>SBOX MAX – ELECTROFUSION Welds Fusumatic fittings from</p> <p>d20 – 630mm</p>		<p>SBOX LITE 220V – ELECTROFUSION Welds Fusumatic fittings from</p> <p>d20-125mm</p>		<p>UNIPREP SCRAPER To prepare pipe ends prior to electrofusion</p> <p>63-250mm 90-400mm 125-500mm 450-710mm</p>
	<p>MULTI SCRAPE To prepare pipe ends prior to electrofusion Designed with coiled pipe in mind</p> <p>20-63mm</p>		<p>HAND SCRAPER Used for scraping pipe areas prior to electrofusion</p> <p>Blade size 1.5" Blade size 2.5"</p>		<p>MINI CLAMPS For alignment and restraint of pipe and electrofusion fittings for service connections</p> <p>20, 25 and 32mm</p>
	<p>MAXI POSI CLAMP For alignment and restraint of pipe and electrofusion fittings</p> <p>32-63mm</p>		<p>STRAP CLAMP 200 For alignment and restraint of pipe and electrofusion fittings</p> <p>40-200mm</p>		<p>TOP LOAD CLAMP Strap clamp for use on top loaded saddles</p> <p>63-500mm</p>
	<p>SECATEURS Secateurs for cutting polyethylene pipe</p> <p>16-42mm 20-63mm</p>		<p>GUILLOTINE CUTTER For cutting polyethylene pipe</p> <p>63-125mm 63-225mm 63-315mm</p>	<p>Global PE Product Offer</p> <p>For further information on the Fusion Group product range; download the Global PE Product Offer brochure from our website www.fusiongroup.com</p> 	



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