

Type 75 Workshop Socket Fusion Tool

- ✔ Suitable for PE, PB, PP and PVDF
- ✔ Size range from 20mm O.D. to 75mm O.D.

The Widos Type 75 socket fusion welding machine will weld piping systems made from PE, PB, PP or PVDF in sizes from 20mm O.D. up to 75mm O.D.

This machine has easy adjustment on both sides of the tool to ensure correct alignment. There are two clamps on the pipe side, whereas the fitting side has a single clamp plus an insertion stop. The insertion stop will control the entry of the pipe into the fitting.

The electronically controlled heating element (230V/630W) holds the anti-stick coated heating tools. It can also be removed from the prismatic mount and put into a table locking device for external use. A rack-and-pinion mechanism controls the opening and closing motion of the machine.



The Type 75 is optionally available with 110v supply and with inch sized heater blocks.

Type 3500 and 3600 Workshop Socket Fusion Tool

- ✔ Suitable for PE, PB, PP and PVDF
- ✔ Type 3500 size range from 20mm O.D. to 110mm or 125mm O.D.
- ✔ Type 3600 size range from 20mm O.D. to 160mm O.D.

The Widos Type 3500 socket fusion welding machine will weld piping systems made from PE, PB, PP or PVDF in sizes from 20mm O.D. up to 110mm O.D., or up to 125mm O.D.

The Widos Type 3600 socket fusion welding machine will weld piping systems made from PE, PB, PP or PVDF in sizes from 20mm O.D. up to 160mm O.D.

The machines are mounted on a solid frame and have easy adjustment on both sides of the tool to ensure correct alignment. There are two clamps on the pipe side, whereas the fitting side has a single clamp plus an insertion stop. The insertion stop will control the entry of the pipe into the fitting.



The electronically controlled heating element (230V/1100W) is in accordance with DVS 2208. It holds the anti-stick coated heating tools which may also be ordered in inch dimensions if required. It can also be removed from the prismatic mount and put into a table locking device for external use. A rack-and-pinion mechanism controls the opening and closing motion of the machine.

Special voltages are also available to order.

Socket Fusion Machines Type 75, 3500 and 3600

Item	Size (O.D. mm)	Code	Price
Widos Type 75 * (110v / 630w)	20 - 75	3701110	
Steel carry case for Type 75		TK0075	
Widos Type 3500 / OD110 * (110v / 1100w)	20 - 110	3720110	
Widos Type 3500 / OD125 * (110v / 1100w)	20 - 125	3740110	
Transport and mounting case for Type 3500		TK3500	on application
Widos Type 3600 * (110v / 1100w)	63 - 160	3730110	
Optional electronic heating element for Type 3600		H3600E110	
Transport and mounting case with drawer for Type 3600		TK3600	
Packing (not required if transport case is purchased)		TV0955	

* Heating blocks not included

Accessories

Item	Size (O.D. mm)	Code	Price
Heating block, non-stick coated, grey *	20	HD020S	
Heating block, non-stick coated, grey *	25	HD025S	
Heating block, non-stick coated, grey *	32	HD032S	
Heating block, non-stick coated, grey *	40	HD040S	
Heating block, non-stick coated, grey *	50	HD050S	
Heating block, non-stick coated, grey *	63	HD063S	on application
Heating block, non-stick coated, grey *	75	HD075S	
Heating block, non-stick coated, grey *	90	HD090S	
Heating block, non-stick coated, grey *	110	HD110S	
Heating block, non-stick coated, grey *	125	HD125S	
Heating block, non-stick coated, grey *	140	HD140S	
Heating block, non-stick coated, grey *	160	HD160S	

* Available inch sizes on request

workshop combined socket fusion and butt fusion tools

SG160 Workshop Combined Socket and Butt Fusion Tool

Butt Fusion Welding

- Suitable for PE, PP and PVDF
- Sizes from 32mm to 160mm

Socket Fusion Welding

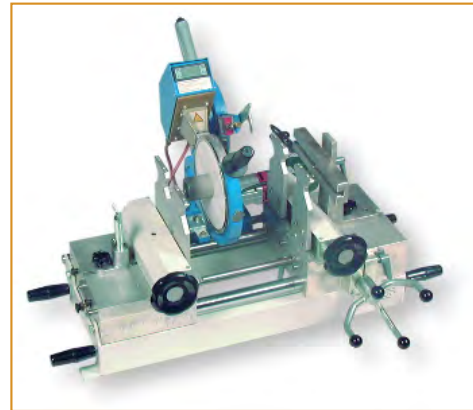
- Suitable for PE, PB, PP and PVDF
- Sizes from 16mm to 110mm

The SG160 combined socket and butt fusion tool is a convenient and compact workshop or site tool providing versatile options for use.

As a butt fusion tool it includes motorized parallel planing of the pipe ends, and a heating element with exchangeable PTFE cover sheets. When used for socket fusion welding, it features motorized peeling and chamfering.

Heating surfaces are PTFE coated. All tools have an on/off switch and a digital temperature display.

The standard SG160 includes a 110v power supply. 240v machines are available on request.



SG160 Combined Socket and Butt Fusion Tool

Item	Code	Price
SG160 Complete *	SG160	on application

* Machine includes electric planer, heating element, clamping device for butt fusion in sizes 32mm to 160mm, heating blocks for socket fusion in sizes 20mm to 110mm, and transportation case.

Spares

Item	Size (O.D. mm)	Code	Price
Heating block, non-stick coated, grey *	20	HD020S	
Heating block, non-stick coated, grey *	25	HD025S	
Heating block, non-stick coated, grey *	32	HD032S	
Heating block, non-stick coated, grey *	40	HD040S	
Heating block, non-stick coated, grey *	50	HD050S	
Heating block, non-stick coated, grey *	63	HD063S	
Heating block, non-stick coated, grey *	75	HD075S	
Heating block, non-stick coated, grey *	90	HD090S	
Heating block, non-stick coated, grey *	110	HD110S	on application
Heating block, non-stick coated, green *	20	HD020	
Heating block, non-stick coated, green *	25	HD025	
Heating block, non-stick coated, green *	32	HD032	
Heating block, non-stick coated, green *	40	HD040	
Heating block, non-stick coated, green *	50	HD050	
Heating block, non-stick coated, green *	63	HD063	
Heating block, non-stick coated, green *	75	HD075	
Heating block, non-stick coated, green *	90	HD090	
Heating block, non-stick coated, green *	110	HD110	

* Available inch sizes on request



Tool Hire

Many of our workshop or site welding tools are available for hire on a weekly basis. In most cases the hire includes welder training either on site or in our workshop by TWI certified CSWIP qualified welding professionals.

To discuss machine hire or welder training contact Tony Charlton on tcharlton@ipsflowsystems.com

Type 2500 Workshop Butt Fusion Tool

- ✓ Suitable for PE, PP and PVDF
- ✓ Size range from 50mm O.D. to 75mm O.D.

The Widos Type 2500 butt fusion welding machine will weld piping systems made from PE, PP or PVDF. The three standard machines will weld pipes in diameters from 50mm O.D. to 160mm O.D., 50mm O.D. to 250mm O.D., or 50mm O.D. to 315mm O.D. A special "Kombi" model is also available that provides butt fusion welding in pipe diameters from 50mm O.D. to 160mm O.D., and socket fusion welding in pipe diameters from 20mm O.D. to 125mm O.D.

The machine includes an electrically operated planer and electronic heating element. The clamping tool is divided into two parts (except for 160mm), each side swivelling up to 15° with clamping inserts and pipe support. This allows welding of segmented bends. A transport and mounting crate is available for safe, clean and protected storage.

The Type 2500 is a handy, mobile welding machine that is suitable for use on site as well as in the workshop. It is available for use with a 110v or 230v power supply - please specify with order.



Butt Fusion Machines Type 2500

Item	Size (O.D. mm)	Code	Price
Widos Type 2500 / OD 160 *	50 - 160	38SV11N1	on application
Widos Type 2500 / OD 250 *	50 - 250	38SV21N1	
Widos Type 2500 / OD 315 *	50 - 315	38SV01N1	
Transport case		TK2500	

* Machine includes planer, heating element, basic clamping device, reducer inserts in sizes to suit the machine and prismatic pipe support. For component and accessory prices, please enquire.

Machine Hire

Don't have the tools?
We have a dedicated fleet of welding equipment available to hire on a weekly basis.



Type 4001 Workshop Butt Fusion Tool

- Suitable for PE, PP and PVDF
- Sizes from 90mm to 315mm

The Widos Type 4001 is a rugged and reliable machine designed for welding polyolefine pipes in the size range from 90mm O.D. to 315mm O.D. An optional extension kit is available to increase the size range up to 450mm O.D.

A universal control lever with separate pressure setting manage the electro-hydraulic welding forces, distances and speeds during the welding process. The planer includes a high torque electrical chain drive and exchangeable blades. Other features of this machine include external chip removal, an adjustable timer and a clamping device that swivels on each side up to 15° for the welding of segmented bends and fittings.

This bench machine can be ordered with an optional support frame if required, and is supplied complete with two carrying handles to assist portability. The hydraulic unit, planer, heating element and clamping tools can also be easily removed for transporting the machine. Other options include special tools to enable the production of tees and crosses, or the electronic weld log recorder SPA 600 which automatically documents all relevant welding parameters.



Butt Fusion Machine Type 4001

Item	Size (O.D. mm)	Code	Price
Widos Type 4001 (110v / 1300w)	90 - 315	0241110	on application
Conversion kit to 450mm *	90 - 450	02410110	
Steel support frame		024101	

* Kit includes basic machine with hydraulics but without planer and basic clamping device. For component and accessory prices, please enquire.

Type 4002 Workshop Butt Fusion Tool

- Suitable for PE, PP and PVDF
- Sizes from 90mm to 315mm

The Widos Type 4002 is a rugged and reliable machine designed for welding polyolefine pipes in the size range from 90mm O.D. to 315mm O.D. An optional extension kit is available to increase the size range up to 450mm O.D.

A universal control lever with separate pressure setting manage the electro-hydraulic welding forces, distances and speeds during the welding process. The planer includes a high torque electrical chain drive and exchangeable blades. Other features of this machine include external chip removal, an adjustable timer and a clamping device that swivels on each side up to 15° for the welding of segmented bends and fittings.

This machine is supplied fitted to a heavy duty support frame, and is complete with two carrying handles to assist portability. The hydraulic unit, planer, heating element and clamping tools can also be easily removed for transporting the machine. Other options include special tools to enable the production of tees and crosses, or the electronic weld log recorder SPA 600 which automatically documents all relevant welding parameters. CNC control may be included for semi-automatic operation and high levels of control.



Butt Fusion Machine Type 4002

Item	Size (O.D. mm)	Code	Price
Widos Type 4002 (110v / 1300w)	90 - 315	0231110	on application
Conversion kit to 450mm *	90 - 450	02310110	
Widos Type 4002 with SPA 600 recorder (110v / 1300w)	90 - 315	0231110SP	
Widos Type 4002 S CNC (110v / 1300w)	90 - 315	1720110	

* Kit includes basic machine with hydraulics but without planer and basic clamping device. For component and accessory prices, please enquire.

Miniplast 2 Portable Butt Fusion Tool

- ✓ Suitable for PE, PP and PVDF
- ✓ Size range from 20mm O.D. to 110mm O.D.
- ✓ Highly portable device

The Widos Miniplast 2 is a butt welding machine for PE, PP and PVDF pipes and fittings in diameters from 20mm O.D. to 110mm O.D. It is lightweight and compact.

The special design of this machine makes it suitable for welding in confined spaces where other machines would be unsuitable.

The basic machine has two large aluminium basic clamping tools which swivel up to 15° on each side for the fabrication of segmented bends. By screwing in 4 small reduction inserts, clamping is possible on smaller diameters. For fittings with short legs, a small fitting clamping tool is available. The light and compact manual planer is ratchet operated (electric option), and the electronically controlled heating element is accordance with DVS 2208.



A steel carry case and heat-protected box for the planer and heating element is included when the complete machine is purchased. It is available for use with a 110v or 230v power supply - please specify with order.

Miniplast 2 Butt Fusion Machine

Item	Size (O.D. mm)	Code	Price
Widos Miniplast 2 *	20 - 110	45SVMIN1	on application
Electric planer (110v)		4504110	
Electric planer (230v)		4504230	

* Machine includes table support, ratchet planer, heating element, clamping device for 110mm with reducer inserts in sizes 20mm to 90mm, heat protected box and steel carry case. For component and accessory prices, please enquire.

Maxiplast Portable Butt Fusion Tool

- ✓ Suitable for PE, PP and PVDF
- ✓ Size range from 50mm O.D. to 160mm O.D.
- ✓ Highly portable device

The Widos Maxiplast is a butt welding machine for PE, PP and PVDF pipes and fittings in diameters from 50mm O.D. to 160mm O.D. It is lightweight and compact.

The special design of this machine makes it suitable for welding in confined spaces where other machines would be unsuitable.

The basic machine has two large aluminium basic clamping tools which swivel up to 15° on each side for the fabrication of segmented bends. By using reduction inserts, clamping is possible on smaller diameters. The compact planer is electrically operated, and the electronically controlled heating element is accordance with DVS 2208.



A transportation case and heat-protected box for the planer and heating element is included when the complete machine is purchased. It is available for use with a 110v or 230v power supply - please specify with order.

Maxiplast Butt Fusion Machine

Item	Size (O.D. mm)	Code	Price
Widos Maxiplast *	50 - 160	45SVMAX	on application

* Machine includes table support, electric planer, heating element, clamping device with reducer inserts in sizes 50mm to 140mm, heat protected box and transportation case. For component and accessory prices, please enquire.

PF Automatic Electrofusion Machine

- ✓ Suitable for PE and PP fittings up to 48v
- ✓ Welding process is monitored throughout
- ✓ Barcode or manual entry
- ✓ Simple to operate
- ✓ Robust yet easy to handle



The Frank PF Automatic Universal Electrofusion Control Box is a powerful and universal electrofusion control box suitable for site use. It will automatically or manually weld electrofusion fittings in PE or PP within the range 10 to 48V.

An integrated process monitoring system controls the fusion sequence based on a current curve. If a determined tolerance limit is exceeded the machine will cut out and display an appropriate error message. Joint overheating or defect is avoided.

The ambient temperature is measured on the welding cable adjacent to the welding zone, so that accurate temperature control is assured. In addition, full weld data is stored in the memory, including: date and time; weld record number; manufacturer, type and diameter of the electrofusion component; voltage, actual and nominal welding time and error messages. Optional data output connections allow transfer to a printer or computer.

Technical Data

Input voltage	110V AC
Input frequency/current	50 Hz/16A
Output voltage/current	10-48V/16A
Rating	2800W (3500VA)
Temperature range	-10°C to 50°C
Equipment safety	IP54, CE
Current cable	4.5m
Welding cable	5m
Weight	Approx 20kg

Monitoring Functions

Input	Voltage/Current/Frequency
Output	Voltage/Resistance/Contact Welding Time/Current Profile/System Check/ Ambient Temperature/Service Date



Type 4400/4600/4900 Site Butt Fusion Tool

- ✓ Suitable for PE, PP and PVDF
- ✓ Type 4400 size range from 50mm O.D. to 160mm O.D.
- ✓ Type 4600 size range from 75mm O.D. to 250mm O.D.
- ✓ Type 4900 size range from 90mm O.D. to 315mm O.D.
- ✓ Can be retro-fitted with SPA weld log recorder
- ✓ CNC version available

The Widos Types 4400/4600/4900 are butt welding machines for PE, PP and PVDF pipes and fittings that have been designed for rugged use on construction sites and in trenches.

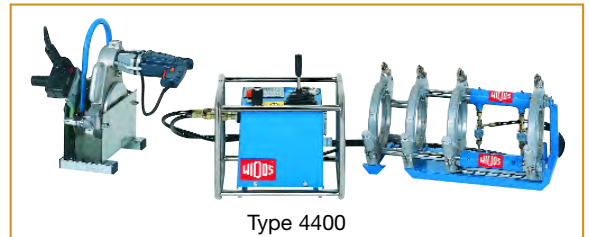
The machine has a double clamping device with quick clamping on the fixed and on the movable side guided by two hydraulic cylinders. There are two flexible hoses with quick-action couplings for connection to the hydraulic control unit. The double clamping devices are screwed to the steel pipe frame. The outer fixed clamping tool can be easily dismantled to enable welding in places of poor accessibility.

The electro-hydraulic unit (for moving the right-hand clamping device and for the exact control of the welding forces) has a pressure backup for supporting the welding force during the cooling period, two quick-action couplings as well as a digital pressure gauge.

The planer is suspended in the guide shafts, has a chain drive in a closed aluminium housing, a security micro switch with lock and an automatic external chip removal.

The heating element is suspended in the guide shafts and is anti-stick coated. It has an electronic temperature control with digital display, control lamps, an on/off switch and a connection cable with shock-proof plug. The heat-separating device prevents the heating element from sticking to the pipe after the heating process.

The Widos 4400, 4600 and 4900 welding machines can easily be retrofitted with the Widos SPA weld log recorder and can also be supplied in CNC controlled version. Automatic movement of the heating element is also an option. The machines are supplied with a transportation case and are available for use with a 110v or 230v power supply - please specify with order.



Type 4400



Type 4600



Type 4900

Butt Fusion Machine Type 4400

Item	Size (O.D. mm)	Code	Price
Widos Type 4400 with 160mm clamping device *	50 - 160	16SV44N1	on application
Widos Type 4400 SPA600 with 160mm clamping device *	50 - 160	62SV44S1	
Widos Type 4400 CNC3.0 with 160mm clamping device *	50 - 160	62SV44C1	
Reducer inserts, set 50mm - 140mm		16VS140	

* Reducer inserts not included

Butt Fusion Machine Type 4600

Item	Size (O.D. mm)	Code	Price
Widos Type 4600 with 250mm clamping device *	75 - 250	09SV46N1	on application
Widos Type 4600 SPA600 with 250mm clamping device *	75 - 250	09SV46S1	
Widos Type 4600 CNC3.0 with 250mm clamping device *	75 - 250	61SV46C1	
Reducer inserts, set 75mm - 225mm		09VS225	

* Reducer inserts not included

Butt Fusion Machine Type 4900

Item	Size (O.D. mm)	Code	Price
Widos Type 4900 with 315mm clamping device *	90 - 315	21SV49N1	on application
Widos Type 4900 SPA600 with 315mm clamping device *	90 - 315	21SV49S1	
Widos Type 4900 CNC3.0 with 315mm clamping device *	90 - 315	63SV49C1	
Reducer inserts, set 90mm - 280mm		21VS280	

* Reducer inserts not included

Type 5100/5500/6100 Site Butt Fusion Tool

- ✓ Suitable for PE, PP and PVDF
- ✓ Type 5100 size range from 200mm O.D. to 450mm O.D.
- ✓ Type 5500 size range from 200mm O.D. to 500mm O.D.
- ✓ Type 6100 size range from 315mm O.D. to 630mm O.D.
- ✓ Can be retro-fitted with SPA weld log recorder
- ✓ CNC version available

The Widos Types 5100/5500/6100 are butt welding machine for PE, PP and PVDF pipes and fittings that have been designed for rugged use on construction sites and in trenches.

The machine has a double clamping device with quick clamping on the fixed and on the movable side guided by two hydraulic cylinders. There are two flexible hoses with quick-action couplings for connection to the hydraulic control unit. The double clamping devices are screwed to the steel pipe frame. The outer fixed clamping tool can be easily dismounted to enable welding in places of poor accessibility.

The electro-hydraulic unit (for moving the right-hand clamping device and for the exact control of the welding forces) has a pressure backup for supporting the welding force during the cooling period, two quick-action couplings as well as a digital pressure gauge.

The planer is suspended in the guide shafts, has a chain drive in a closed aluminium housing, a security micro switch with lock and an automatic external chip removal.

The heating element is suspended in the guide shafts and is anti-stick coated. It has an electronic temperature control with digital display, control lamps, an on/off switch and a connection cable with shock-proof plug. The heat-separating device prevents the heating element from sticking to the pipe after the heating process.

The Widos 5100, 5500 and 6100 welding machines can easily be retrofitted with the Widos SPA weld log recorder and can also be supplied in CNC controlled version. Automatic movement of the heating element is also an option. The machines are supplied with a transportation case and are available for use with a 415v 3 phase power supply.



Type 5100



Type 5500



Type 6100

Butt Fusion Machine Type 5100

Item	Size (O.D. mm)	Code	Price
Widos Type 5100 with 450mm clamping device *	200 - 450	07SV51N1	
Widos Type 5100 SPA600 with 450mm clamping device *	200 - 450	07SV51S1	on application
Widos Type 5100 CNC3.0 with 450mm clamping device *	200 - 450	64SV51C1	
Reducer inserts, set 200mm - 400mm		07VS400	

* Reducer inserts not included

Butt Fusion Machine Type 5500

Item	Size (O.D. mm)	Code	Price
Widos Type 5500 with 500mm clamping device *	200 - 500	39SV55N1	
Widos Type 5500 SPA600 with 500mm clamping device *	200 - 500	09SV46S1	on application
Widos Type 5500 CNC3.0 with 500mm clamping device *	200 - 500	39SV55C1	
Reducer inserts, set 200mm - 450mm		39VS450	

* Reducer inserts not included

Butt Fusion Machine Type 6100

Item	Size (O.D. mm)	Code	Price
Widos Type 6100 with 630mm clamping device *	315 - 630	08SV61N1	
Widos Type 6100 SPA600 with 630mm clamping device *	315 - 630	08SV61S1	on application
Widos Type 6100 CNC3.0 with 630mm clamping device *	315 - 630	65SV61C1	
Reducer inserts, set 315mm - 560mm		08VS560	

* Reducer inserts not included

for AGRU high purity piping systems

AGRU SP Series IR Fusion

FULLY AUTOMATED WELDING OPERATION

All welding parameters are recorded by the computer. By means of a touch-screen, all steps are controlled and sequential.

OPERATOR CONTROL

Use of the machine is controlled by PCMCIA cards which also double as storage discs for downloading of welding data from the computer's memory. Historical welding information can be recalled at any time and displayed on screen, simplifying traceability.

THE FUSION PROCESS

The computer will control pressure, temperature, heating time and cooling time according to pre-programmed welding parameters which meet the requirements of DVS.

CLAMPING TOOLS

The clamping tools are equipped with a new and unique closing device which ensures uniform and repeatable clamping pressure.

HEATING ELEMENT

The heating element is produced from a special alloy which is controlled and automatically changed to compensate for the smallest temperature changes.

SUITABLE FOR CLEAN ROOM USE

(Class 100 and less)

All surfaces are specially heated and coated to protect against particle generation. Motors and actuators are encapsulated, and guiding devices are free of oil and are fully covered. Records of each weld are printed onto a special thermal printer onto a thermoplastic label which resists IPA.

POWER SUPPLY

Special voltage limiting circuits are included so that the machine is insensitive to spikes. If the voltage is incorrect, it is visible on the touch-screen.

WIDE SIZE RANGE

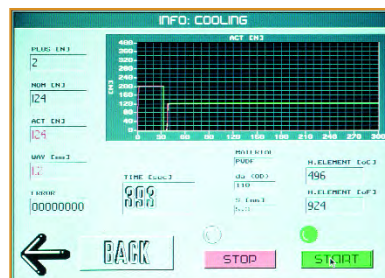
The SP110S machine welds 20mm to 110mm.
The SP315S machine welds 75mm to 315mm.



Agru SP110S computer controlled IR welding machine



Highly reproduceable accurate weld beads
Printed labels give weld traceability



Touch screen computer control displays live welding parameters



Agru SP110S IR Fusion

- ✓ Suitable for welding PP, PVDF, PFA and ECTFE
- ✓ Size range 20mm to 110mm
- ✓ Infra Red (IR) heating element
- ✓ Fully automatic welding
- ✓ Touch screen controls
- ✓ PCMCIA code card included
- ✓ Optional thermolabel printer
- ✓ Optional nitrogen purge



Agru SP315S IR Fusion

- ✓ Suitable for welding PP, PVDF, PFA and ECTFE
- ✓ Size range 75mm to 250mm
- ✓ Infra Red (IR) heating element
- ✓ Fully automatic welding
- ✓ Touch screen controls
- ✓ PCMCIA code card included
- ✓ Optional thermolabel printer
- ✓ Optional nitrogen purge



Agru HPF Electrofusion

- ✓ Suitable for welding AGRU PVDF
- ✓ HPF sleeves can be used with all AGRU PVDF pipes and fittings
- ✓ Size range 20mm to 63mm
- ✓ Fully automatic barcoded welding system
- ✓ Interface for printer
- ✓ Can be supplied with silicon balloon for high purity welding
- ✓ Optional long cables for welding in remote locations



Don't know how to use a product?

Give our expert team a call:

0800 975 79 71

Or from outside of the UK: +44 191 521 3111

