

Product Catalogue 2009 Machines & Tools for Installation of Plastic Pipes

PIPE WIN-WELD®

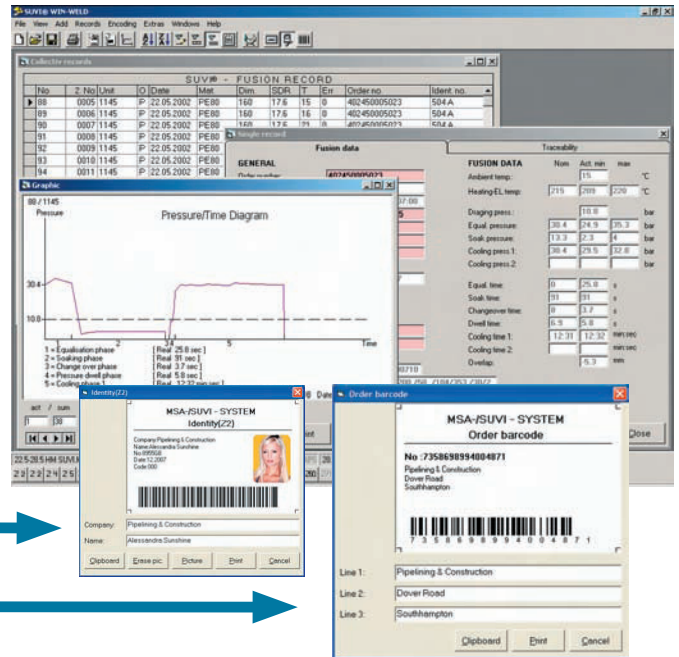
The software package for an electronic based universal piping system documentation on the basis of ISO 12176-4

MSA WIN-WELD

These software packages are used for the data transfer with the MSA electro fusion units and the SUVI® line butt fusion machines.

SUVI WIN-WELD

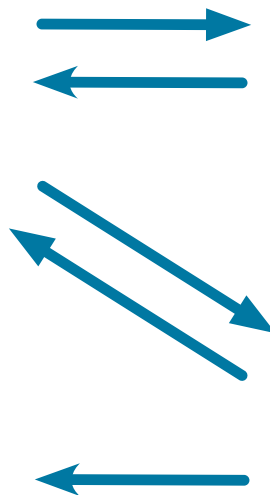
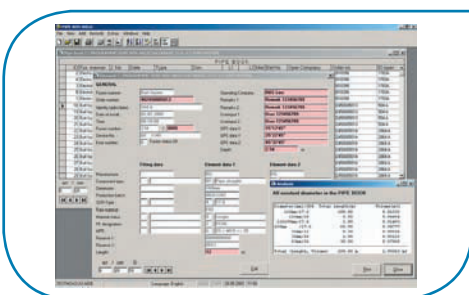
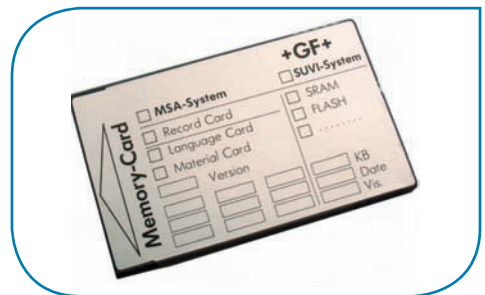
- traceability data of the jointed components
- welding parameters
- operator ID
- job number
- additional remarks



Barcodes according to the current standards generated in the software package MSA or SUVI WIN-WELD.

Your Advantages:

- By using the **PIPE WIN-WELD® Software** package your documentation of a piping system will be complete, including welds, installed components and pipes.
- Mechanical joints and components can be manually added.
- Data from other fusion machine manufacturers can be transferred via the CSV-module.



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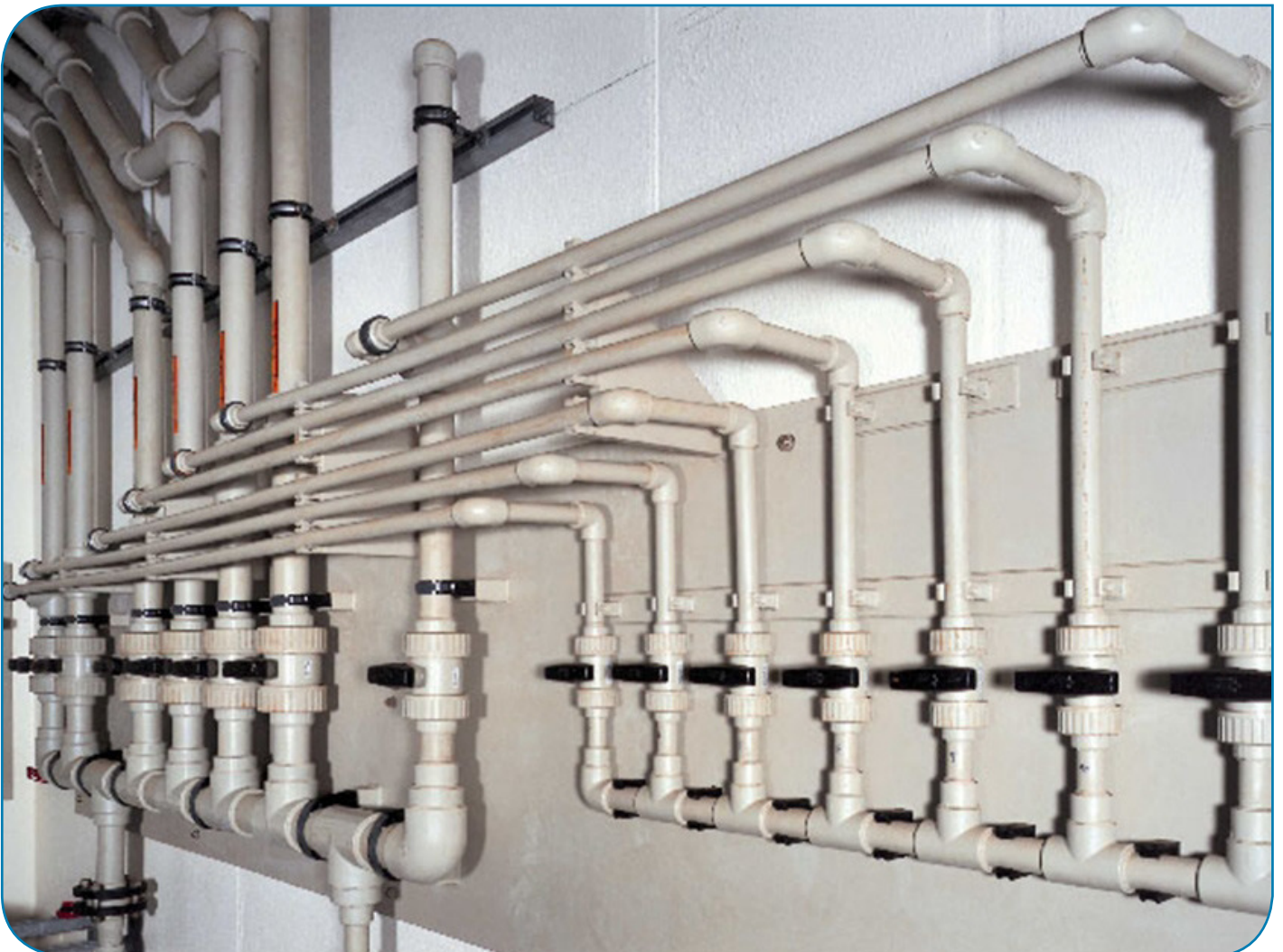
Saws Cutter Chamfering tools Outer bead remover

Industrial and plant construction machines

- **SSE/MSE** Manual fusion tools
- **MC 110** Butt fusion machine
- **Weld 160/250** Butt fusion machines
- **PSO 701** Butt fusion machine
- **SG 125** Socket fusion machine

Universal machines and tools for the use in industrial, building technology and sanitary applications.

The machines are portable and due to the design (e.g. MC 110) suitable to weld in difficult locations.



Manual fusion tools



SSE Butt fusion tool

- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Heating element diameter 120 mm, 200 mm and 300 mm
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
110	SSE 120 T	115 V/400 W	790 105 136	2.300
110	SSE 120 E	115 V/400 W	790 105 141	2.400
180	SSE 200 T	230 V/800 W	790 105 052	3.000
180	SSE 200 E	230 V/800 W	790 105 059	3.000
180	SSE 200 T	115 V/800 W	790 105 137	3.000
180	SSE 200 E	115 V/800 W	790 105 142	3.000
280	SSE 300 T	230 V/1500 W	790 105 053	5.540
280	SSE 300 E	230 V/1500 W	790 105 060	5.640
280	SSE 300 T	115 V/1500 W	790 105 138	5.540
280	SSE 300 E	115 V/1500 W	790 105 143	5.640



SSE 200 -Set- Butt fusion tool

- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 200 mm
- Table clamp
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
180	SSE 200 T	230 V/800 W	790 105 054	7.815
180	SSE 200 E	230 V/800 W	790 105 061	8.800
180	SSE 200 T	115 V/800 W	790 105 139	7.400
180	SSE 200 E	115 V/800 W	790 105 144	7.400



SSE 300 -Set- Butt fusion tool

- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 300 mm
- Table clamp
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
280	SSE 300 T	230 V/1500 W	790 105 055	11.725
280	SSE 300 E	230 V/1500 W	790 105 062	11.000
280	SSE 300 T	115 V/1500 W	790 105 140	11.000
280	SSE 300 E	115 V/1500 W	790 105 145	11.000



MSE 63/MSE 110 Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control / E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg	
16 - 63	MSE 63 T	230 V/800 W	790 105 081	1.760	
16 - 63	MSE 63 E	230 V/800 W	790 105 082	2.000	
16 - 63	MSE 63 T	115 V/800 W	790 105 096	2.075	
16 - 63	MSE 63 E	115 V/800 W	790 105 097	2.145	
16 - 110	MSE 110 T	230 V/1500 W	790 105 083	3.550	
16 - 110	MSE 110 E	230 V/1500 W	790 105 084	3.200	
16 - 110	MSE 110 T	115 V/1500 W	790 105 126	3.200	
16 - 110	MSE 110 E	115 V/1500 W	790 105 127	3.200	



MSE 63/MSE 110 - Set - Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Heating bushes and spigots
- Available as a complete set in a practical metal case
- Table clamp
- Floor stand for MSE 63
- Allen screws and key
- T = thermostatic temperature control / E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg	
16 - 63	MSE 63 T	230 V/800	790 105 085	8.600	
16 - 63	MSE 63 E	230 V/800	790 105 086	10.180	
16 - 63	MSE 63 T	115 V/800	790 105 098	8.600	
16 - 63	MSE 63 E	115 V/800	790 105 099	8.600	
16 - 110	MSE 110 T	230 V/1500	790 105 087	17.700	
16 - 110	MSE 110 E	230 V/1500	790 105 088	17.680	
16 - 110	MSE 110 T	115 V/1500	790 105 128	14.880	
16 - 110	MSE 110 E	115 V/1500	790 105 129	15.600	

Accessories/Wearing parts for manual fusion tools



Metal case

Article	Code	kg
SSE 200	790 105 056	3.900
SSE 300	790 105 057	4.700
MSE 63	790 105 089	4.000
MSE 110	790 105 090	7.000



Floor stand for manual fusion tools SSE/MSE

Code	kg
790 105 063	0.300



Table clamp for SSE/MSE

- For correct placement of heater

Code	kg
790 109 315	0.700



Heating spigots and bushes

- Aluminium, PTFE coated
- Type B
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)

d [mm]	Code	kg
16	799 300 155	0.070
20	799 300 156	0.080
25	799 300 157	0.110
32	799 300 158	0.140
40	799 300 159	0.230
50	799 300 160	0.335
63	799 300 161	0.565
75	799 300 162	0.965
90	799 300 163	1.440
110	799 300 164	2.210

MC 110 Butt fusion machine



Machine MC 110, complete with electric planer

- Portable butt fusion machine for use in the workshop and on job sites. For fusion jointing of PP and PE pipes and fittings as well as prefabrication of segments in the size range d 20 - 110 mm and up to SDR 11.
- Machine MC 110 complete includes: machine mounting, basic machine, 2 base clamping plates (wide), base clamping plate (left narrow), planer, heater thermostatic controlled, table clamp and transport crate.
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
20 - 110	230 V/ 800 W	790 109 303	31.000
20 - 110	115 V/ 800 W	790 109 321	31.000



MC 110 complete with manual planer

- Portable butt fusion machine for use in the workshop and on job sites. For fusion jointing of PP and PE pipes and fittings as well as prefabrication of segments in the size range d 20 - 110 mm and up to SDR 11.
- Machine MC 110 complete includes: machine mounting, basic machine, 2 base clamping plates (wide), base clamping plate (left narrow), planer, heater thermostatic controlled, table clamp and transport crate.
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
20 - 110	230 V/800W	790 109 301	31.000
20 - 110	115 V/800W	790 109 320	31.000



Machine mounting

- For mounting the basic machine and fastening the complete MC 110 on the work-bench

Code	kg
790 109 306	0.900



Basic machine

- With spring resistance for pressure build-up and tool set

d-d [mm]	Code	kg
25 - 110	790 109 307	6.000



Base clamping plate, wide

- 110 mm for pipe/pipe joints
- For mounting the wide reduction clamping inserts
- Freely adjustable (max. 15°)

d [mm]	Code	kg
110	790 109 308	1.200



Base clamping plate, left narrow

- 110 mm for fitting/pipe joints
- For mounting the narrow reduction clamping inserts
- Freely adjustable (max. 15°)

d [mm]	Code	kg
110	790 109 309	1.000



Planer, electrically operated

- Centre of planing radial adjustable.

d-d [mm]	Performance	Code	kg
25 - 110	230V/560W	790 109 312	4.900
25 - 110	115V/560W	790 109 324	4.900



Planer, manually operated

- With ratchet mechanism
- Stops on guide shaft can be locked
- Cutting blades sharpened on both sides

d-d [mm]	Code	kg
25 - 110	790 109 311	2.300



Heater

- Thermostatic temperature control, variable setting
- With machine mounting
- Control light for mains voltage and heating intervals
- PTFE- coating

d-d [mm]	Performance	Code	kg
25 - 110	230V/800W	790 109 313	2.600
25 - 110	115V/800W	790 109 322	2.600



Table clamp

Code	kg
790 109 315	0.700



Transport crate

Code	kg
790 109 317	13.000

MC 110 Accessories



Reduction clamping inserts

- 20 - 90 mm
- Each code number defines 1 half shell. Per wide base clamping plate 2 reduction half-shells are needed.

d [mm]	wide Code	narrow Code	kg
20	790 109 326	790 109 334	0.150
25	790 109 327	790 109 335	0.075
32	790 109 328	790 109 336	0.070
40	790 109 329	790 109 337	0.125
50	790 109 330	790 109 338	0.124
56	790 109 342	790 109 343	0.114
63	790 109 331	790 109 339	0.110
75	790 109 332	790 109 340	0.100
90	790 109 333	790 109 341	0.100



Base clamping plate, right narrow

- 110 mm for fitting/pipe joints
- For mounting the narrow reduction clamping inserts
- Freely adjustable (max. 15°)

d [mm]	Code	kg
110	790 109 310	1.000



Heater

- Electronic control, variable setting
- With machine mounting
- Control light for mains voltage and heating intervals
- PTFE- coating

d-d [mm]	Performance	Code	kg
25 - 110	230 V/800 W	790 109 314	2.600
25 - 110	115 V/800 W	790 109 323	2.600



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d-d [mm]	Code	kg
25 - 110	790 109 316	1.300



Replacement blades

- Sharpened on both sides (1 set = 2 pieces)

description	Code	kg
short	790 118 043	0.045

Weld 160 Butt fusion machine

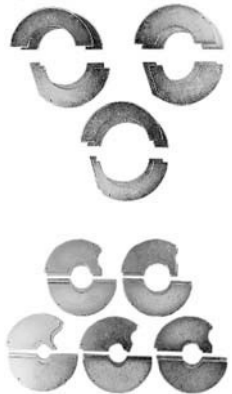


For fusion jointing of PP and PE pipes and fittings, size range d 40 - 160 mm

- Economical, lightweight plastic fusion machine for mobile use. Suitable for plumbing installations, roof drainage systems and drainage pipes.
- **Basic machine** for butt fusion from d 40 up to d 160 mm, max. d 160, SDR 26. Sliding carriages, pressure device 600 N scale. Support for heating element.
- **Planer** compact unit with reversible blades.
- **Heating element** thermostatic controlled, PTFE coated, electric cable with plug. Can also be used as a manual tool.
- **Steel frame** used for operation and transportation protection.
- **Reduction clamping inserts** d 40 - 140 mm
- **V-shaped pipe support** d 40 - 140 mm
- **Base clamping plates** right and left, d 160 mm

d-d [mm]	Performance	Code	kg
40 - 160	230 V/800 W	790 301 020	50.000
40 - 160	115 V/800 W	790 301 021	50.000

Weld 160 Accessories Reduction clamping inserts



- 1 Code Nr. includes 4 half-shells

d [mm]	Code	kg
40	790 113 031	1.380
50	790 113 032	1.395
56	790 113 033	1.385
63	790 113 034	1.360
75	790 113 035	1.290
90	790 113 036	1.235
110	790 113 037	1.055
125	790 113 038	0.885
140	790 113 039	0.795

Inserts for pipe support



- 1 Code Nr. Includes 2 supports

d [mm]	Code	kg
40	790 113 041	0.570
50	790 113 042	0.545
56	790 113 043	0.520
63	790 113 044	0.520
75	790 113 045	0.500
90	790 113 046	0.460
110	790 113 047	0.370
125	790 113 048	0.340
140	790 113 049	0.275

1 Set planer blades



- (1 set = 2 blades)

Code	kg
790 113 056	0.080

Weld 250 Butt fusion machine

For fusion jointing of PP and PE pipes and fittings, size range d 90 - 250 mm



- Economical, lightweight plastic fusion machine for mobile use. Suitable for plumbing installations, roof drainage systems and drainage pipes.
- **Basic machine** for butt fusion from d 90 up to d 250 mm, max. d 250, SDR 33. Sliding carriages, pressure device 1000 N scale. Support for heating element.
- **Planer** compact unit with reversible blades.
- **Steel frame** used for operation and transportation protection.
- **Heating element** thermostatic controlled, PTFE coated, electric cable with plug. Can also be used as a manual tool.
- **Complete** with reduction clamping inserts d 90 - 225 mm
- Pipe support inserts d 90 - 225 mm included

d-d [mm]	Performance	Code	kg
90 - 250	230 V/1500 W	790 311 020	90.000
90 - 250	115 V/1500 W	790 311 021	73.000

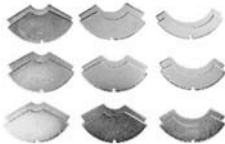
Weld 250 Accessories Reduction clamping inserts



- 1 Code Nr. includes 4 half-shells

d [mm]	Code	kg
90	790 311 050	3.000
110	790 311 051	2.750
125	790 311 052	2.350
140	790 311 053	2.200
160	790 311 054	2.100
180	790 311 055	1.800
200	790 311 056	1.500
225	790 311 057	1.000

Inserts for pipe support



- 1 Code Nr. Includes 2 supports

d [mm]	Code	kg
90	790 311 060	1.400
110	790 311 061	1.350
125	790 311 062	1.150
140	790 311 063	1.100
160	790 311 064	1.000
180	790 311 065	0.900
200	790 311 066	0.750
225	790 311 067	0.500

1 set planer blades



- (set of 2 blades)

Code	kg
790 115 024	0.060

PSO 701 Butt fusion machine



For fusion jointing of PP and PE pipes and fittings, size range d 40 - 160 mm

- Professional butt fusion machine capable to weld pipes d 160mm up to SDR 11. The wooden box is usable as working bench as well as for transportation.
- Pressure adjustment via direct load transfer (max. force 100kp)
- Planer and heating element could be swivelled in and out
- High performance heating element thermostatic controlled (PTFE coated)
- The heating element can be used as manual fusion tool
- **V-shaped pipe support** d 40 - 140 mm
- **Reduction clamping inserts** d 40 - 140 mm
- **Base clamping plates** right and left, d 160 mm
- Machine specific tool set

d-d [mm]	Performance	Code	kg
40 - 160	230 V/800 W	790 301 000	90.000



PSO 701 Accessories Reduction clamping inserts

- 1 Code Nr. includes 4 half-shells

d [mm]	Code	kg
40	790 113 031	1.380
50	790 113 032	1.395
56	790 113 033	1.385
63	790 113 034	1.360
75	790 113 035	1.290
90	790 113 036	1.235
110	790 113 037	1.055
125	790 113 038	0.885
140	790 113 039	0.795



Inserts for pipe support

- 1 Code Nr. Includes 2 supports

d [mm]	Code	kg
40	790 113 041	0.570
50	790 113 042	0.545
56	790 113 043	0.520
63	790 113 044	0.520
75	790 113 045	0.500
90	790 113 046	0.460
110	790 113 047	0.370
125	790 113 048	0.340
140	790 113 049	0.275



1 Set planer blades

- (1 set = 2 blades)

Code	kg
790 113 056	0.080

SG 125 Socket fusion machine



For fusion jointing of PP, PE, PB and PVDF pipes and fittings

- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- Dimension 20 - 125 mm
- **Base machine**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- **Heater**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **Additional standard equipment on the basic model**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- Depth stop
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times

d-d [mm]	Performance	Code	kg
20 - 125	230 V/1500 W	790 310 034	65.000
20 - 125	115 V/1500 W	790 310 036	65.000



SG 125 Accessories

Heating spigots and bushes

- For socket fusion systems in PP, PE and PVDF
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B

d [mm]	Code	kg
20	799 300 156	0.080
25	799 300 157	0.110
32	799 300 158	0.140
40	799 300 159	0.230
50	799 300 160	0.335
63	799 300 161	0.565
75	799 300 162	0.965
90	799 300 163	1.440
110	799 300 164	2.210
125	799 300 165	2.900



1 set face chucks

d-d [mm]	Code	kg
20 - 110	790 310 018	1.100



Universal prismatic clamping device, complete

d-d [mm]	Code	kg
20 - 125	790 310 040	3.300



Backstop, complete

d-d [mm]	Code	kg	
20 - 110	790 310 012	0.600	



V-shaped pipe support, complete

d-d [mm]	Code	kg	
20 - 125	790 310 041	0.700	



Heating element

d-d [mm]	Performance	description	Code	
20 - 125	230 V/1500 W	electronic	790 310 043	
20 - 125	230 V/1500 W	thermostatic	790 310 044	
20 - 125	115 V/1500 W	electronic	790 310 045	
20 - 125	115 V/1500 W	thermostatic	790 310 046	



Special transport crate

Code	kg	
790 310 099	45.000	

Workshop butt fusion machines

- **WM 315** (90 mm - 315 mm)
- **WM 500** (250 mm - 500 mm)
- **WM 630** (315 mm - 630 mm)
- **WM 1200** (630 mm - 1200 mm)

Butt fusion machines for the jointing of PP, PE and PVDF pipes and fittings.

Accurate single or series prefabrication of segmented fittings like bends, Y, X and T- fittings for high pressure applications.

The sturdy clamping units are assembled with the reduction inserts according the specific machine range, both clamps are from 0° to maximum 22,5° turnable.

Automated machines with data recording and touch screen operation are available.



WM 315 Workshop butt fusion machine

Machine WM 315



- Machine for jointing segmented fittings like bends from d 90 - 315 mm for high pressure applications
- To produce T and Y fittings from d 90 - 250 mm the special accessories are required

Machine description:

- Distortion - free, sturdy machine frame
- Electric and hydraulic components separated in the frame
- Control panel assembled with pressure adjustment valve, pressure selection switch (planing or fusion pressure), gauge, joy stick and emergency stop
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 90 - 280mm
- Precision heating element with electronic temperature control (3000 W)
- High - quality, PTFE coating with long service life
- Heating element pull off mechanism
- Powerful planer (1200 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Mechanical stops to provide single sided planing and accurate facing depth
- Planer is secured with a mechanical locking system and a micro switch

d-d [mm]	Performance	Code	kg
90 - 315	400 V/4620 W	790 118 060	464.000

Machine WM 315 CNC



- Machine for jointing segmented fittings like bends from d 90 - 315 mm for high pressure applications
- To produce T and Y fittings from d 90 - 250 mm the special accessories are required
- Fully automated fusion process by the use of state of the art PLC and touch screen

Machine description:

- Highest flexibility in the pipe preparation process
- The heating element is removed automatically during the change-over phase
- Data storage and transfer via USB to the PC
- Data management by SUVI WIN-WELD
- Distortion - free, sturdy machine frame
- Electric and hydraulic components separated in the frame
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 90 - 280mm
- Precision heating element with electronic temperature control (3000 W)
- High - quality, PTFE coating with long service life
- Powerful planer (1200 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Mechanical stops to provide single sided planing and accurate facing depth
- Planer is secured with a mechanical locking system and a micro switch

d-d [mm]	Performance	Code	kg
90 - 315	400 V/4620 W	790 118 009	464.000

WM 315 Accessories



Flange adapter clamping unit

- For centric fusion of flange adapters
- Easy, correct attachment of clamping unit in the basic machine
- Including packaging

d-d [mm]	Code	kg	
90 - 315	790 118 031	25.000	

Base clamping unit left for fittings with adapter ring, wide



- For clamping fittings of 315 mm as well as for fastening reduction clamping inserts for fittings 90 to 280 mm, Guide shaft for pipe support und back stop, with pipe support 315 mm
- L = left
- R = right

d [mm]	Type	Code	kg	
315	L	790 118 011	15.700	
315	R	790 118 012	15.700	



Reduction clamping inserts, narrow

- d 90 - 280 mm
- Each code number defines 1 piece of reduction clamping insert.

d [mm]	Code	kg	
90	790 112 098	0.995	
110	790 112 099	1.285	
125	790 112 100	1.245	
140	790 112 101	1.205	
160	790 112 102	1.135	
180	790 112 103	1.010	
200	790 112 104	0.950	
225	790 112 105	0.865	
250	790 112 106	0.770	
280	790 112 107	0.560	



Clamping insert, narrow, d 315

- For clamping of elbows, flange adapters, etc., d = 315 mm, 1 piece = 1 Alu-half-shell
- Each code number defines 1 piece reduction clamping insert. Per outer base clamping unit 2 reduction clamping inserts are needed.

d [mm]	Code	kg	
315	790 118 028	0.850	



Set of pipe supports

d-d [mm]	Code	kg	
90 - 280	790 118 025	6.700	



T-fitting clamping unit

- For the rational manufacturing of 90° T-fittings in the sizes d 90 to 250 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Integrated eyelets for lifting
- **Complete** with reduction clamping inserts d 90 - 225 mm
- Including packaging

d-d [mm]	Code	kg	
90 - 250	790 118 032	140.000	



Y-fitting clamping unit

- For the rational manufacturing of 30° to 45° Y-fittings in the sizes d 90 to 250 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Complete with reduction clamping inserts d 90 - 225 mm
- Including packaging

d-d [mm]	Code	kg	
90 - 250	790 118 033	174.000	



Back stop

- Prevents the components from slipping out of the clamping device during fusion.

Code	kg	
790 118 026	5.200	



Set planer of blades

- Blade has 2 cutting edges (1 set = 2 pieces)

description	Code	kg	
long	790 118 042	0.085	
short	790 118 043	0.045	

WM 500 Plus Workshop butt fusion machine

Machine WM 500 Plus



- Machine for jointing segmented fittings like bends from d 250 - 500 mm for high pressure applications
- To produce T and Y fittings from d 250 - 400 mm the special accessories are required

Machine description:

- Distortion - free, sturdy machine frame
- Electric and hydraulic components separated in the frame
- Control panel assembled with pressure adjustment valve, pressure selection switch (planing or fusion pressure), selection switch for single or double sided planing process, gauge, joy stick and emergency stop
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 250 - 450 mm
- Hydraulically opening and closing of the upper clamping tools, manual locking with bolts and nuts
- Precision heating element with electronic temperature control (10000 W)
- High - quality, PTFE coating with long service life
- Insertion hydraulically operated
- Powerful planer (1100 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Insertion hydraulically operated
- During the planing process each slide could be moved separately (single sided planing)

d-d [mm]	Performance	Code	kg	
250 - 500	400 V/13600 W	790 120 020	1700.000	

WM 500 Plus Accessories



Flange adapter clamping unit

- For centric fusion of flange adapters
- Easy, correct attachment of clamping unit in the basic machine
- Including packaging

d-d [mm]	Code	kg	
250 - 500	790 120 031	73.000	



Base clamping unit 500 mm for fittings

- For clamping fittings of 500 mm as well as for the reduction clamping inserts for fittings of 250 to 450 mm, Guide shaft for pipe support and back stop, with pipe support 500 mm
- L = left
- R = right

d [mm]	Type	Code	kg	
500	L	790 120 011	109.000	
500	R	790 120 012	112.000	



Reduction clamping inserts, narrow

- Each code number defines 1 piece of reduction clamping insert.

d [mm]	Code	kg	
250	790 116 018	4.100	
280	790 116 019	3.800	
315	790 116 020	3.500	
355	790 116 021	3.200	
400	790 116 022	2.500	
450	790 116 023	2.500	



Reduction clamping inserts, wide

- Each code number defines 1 piece of reduction clamping insert.

d [mm]	Code	kg	
250	790 116 010	3.300	
280	790 116 011	3.500	
315	790 116 012	3.600	
355	790 116 013	3.700	
400	790 116 014	3.400	
450	790 116 015	3.500	



Set of pipe supports

d-d [mm]	Code	kg	
250 - 450	790 120 025	10.700	



Y-fitting clamping unit

- For the rational manufacturing of 30° to 45° Y-fittings in the sizes d 250 to 400 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Complete with reduction clamping inserts d 250 - 355 mm
- Including packaging

d-d [mm]	Code	kg	
250 - 400	790 120 033	610.000	



T-fitting clamping unit

- For the rational manufacturing of 90° T-fittings in the sizes d 250 to 400 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Complete with reduction clamping inserts d 250 - 355 mm
- Including packaging

d-d [mm]	Code	kg	
250 - 400	790 120 032	415.000	



Back stop

- Prevents the components from slipping out of the clamping device during fusion.

Code	kg	
790 108 026	34.000	



1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 pieces)

Code	kg	
790 117 041	0.470	

WM 630 Plus Workshop butt fusion machine

Machine WM 630 Plus



- Machine for jointing segmented fittings like bends from d 315 - 630 mm for high pressure applications
- To produce T and Y fittings from d 315 - 500 mm the special accessories are required

Machine description:

- Distortion - free, sturdy machine frame
- Electric and hydraulic components separated in the frame
- Control panel assembled with pressure adjustment valve, pressure selection switch (planing or fusion pressure), selection switch for single or double sided planing process, gauge, joy stick and emergency stop
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 315 - 560 mm
- Hydraulically opening and closing of the upper clamping tools, manual locking with bolts and nuts
- Precision heating element with electronic temperature control (12000 W)
- High - quality, PTFE coating with long service life
- Insertion hydraulically operated
- Powerful planer (1100 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Insertion hydraulically operated
- During the planing process each slide could be moved separately (single sided planing)

d-d [mm]	Performance	Code	kg	
315 - 630	400 V/15600 W	790 108 020	1870.000	



Machine WM 630 CNC

- Machine for jointing segmented fittings like bends from d 315 - 630 mm for high pressure applications
- To produce T and Y fittings from d 315 - 500 mm the special accessories are required

Machine description:

- Fully automated fusion process by the use of state of the art PLC and touch screen
- Highest flexibility in the pipe preparation process
- Data storage and transfer via USB to the PC
- Data management by SUVI® WIN-WELD
- Distortion - free, sturdy machine frame
- Electric and hydraulic components separated in the frame
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 315 - 560 mm
- Hydraulically opening and closing of the upper clamping tools, manual locking with bolts and nuts
- Precision heating element with electronic temperature control (12000 W)
- High - quality, PTFE coating with long service life
- Insertion hydraulically operated
- Powerful planer (1100 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Insertion hydraulically operated
- During the planing process each slide could be moved separately (single sided planing)

d-d [mm]	Performance	Code	kg	
315 - 630	400 V/15600 W	790 108 101	2300.000	

WM 630 Plus Accessories



Flange adaptor clamping unit

- For centric fusion of flange adapters
- Easy, correct attachment of clamping unit in the basic machine
- Including packaging

d-d [mm]	Code	kg	
315 - 630	790 108 031	235.000	



Base clamping unit for fittings

- For clamping fittings of 500 mm as well as for the reduction clamping inserts for fittings of 315 to 450 mm, Guide shaft for pipe support and back stop, with pipe support 500 mm
- L = left
- R = right

d [mm]	Type	Code	kg	
500	L	790 108 011	141.000	
500	R	790 108 012	141.000	
630	L	790 108 017	150.000	
630	R	790 108 018	150.000	



Reduction clamping inserts, narrow

- Each code number defines 1 piece of reduction clamping insert.

In order to mount the inserts d 315/d 355/d 400/d 450 to the base clamp d 630, the reduction clamping insert d 500 mm, code 790 117 012, must also be used

d [mm]	Code	kg	
315	790 116 020	3.500	
355	790 116 021	3.200	
400	790 116 022	2.500	
450	790 116 023	2.500	
500	790 117 238	4.000	
560	790 117 239	4.000	



Reduction clamping inserts, wide

- Each code number defines 1 piece of reduction clamping insert.

In order to mount the inserts d 315/d 355/d 400/d 450 to the base clamp d 630, the reduction clamping insert d 500 mm, code 790 117 012, must also be used

d [mm]	Code	kg	
315	790 116 012	3.600	
355	790 116 013	3.700	
400	790 116 014	3.400	
450	790 116 015	3.500	
500	790 117 012	4.600	
560	790 117 013	4.300	



Set of pipe supports

d-d [mm]	Code	kg	
315 - 450	790 108 025	6.000	
315 - 560	790 108 009	16.000	



T-fitting clamping unit

- For the rational manufacturing of 90° T-fittings in the sizes d 315 to 500 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Integrated eyelets for lifting
- Complete with reduction clamping inserts
- Including packaging

d-d [mm]	Code	kg	
315 - 500	790 108 032	613.000	



Y-fitting clamping unit

- For the rational manufacturing of 30° to 45° Y-fittings (branches) in the sizes d 315 - 500 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Integrated eyelets for lifting
- Complete with reduction clamping inserts
- Including packaging

d-d [mm]	Code	kg	
315 - 500	790 108 033	770.000	



Back stop

- Prevents the components from slipping out of the clamping device during fusion.

Code	kg	
790 108 026	34.000	



1 Set planer blades

- (1 set = 4 blades)

Code	kg	
790 108 043	0.500	

WM 1200 Workshop butt fusion machine

Machine WM 1200 with SUVI®50



- Machine for jointing segmented fittings like bends from d 630 - 1200 mm for high pressure applications
- Professional data recording and operator guidance granted by the use of SUVI® 50
- To produce T and Y fittings from d 630 - 900 mm the special accessories are required

Machine description:

- Dimensions: 2400 L x 1400 W x 2070 H in mm
- Distortion - free, sturdy machine frame
- Hardened, hard chrome plated linear guide rails for extreme loads
- Electric and hydraulic components separated in the frame
- Moveable control panel assembled with potentiometer to adjust the fusion and the planing pressure, selection switch for single or double sided planing process, gauge, Open, Close and pressure release button, emergency stop
- The data recorder SUVI® 50 is a component of the control panel
- The main clamping tools are mounted on supports which could each be adjusted transverse to the pipe axis
- Each clamping tool is max. 22,5° turnable and assembled with a set of reductions d 630 - 1000 mm
- Hydraulically opening and closing of the upper clamping tools
- Hydraulic locking mechanism of the main clamping tools
- Precision heating element with electronic temperature control (30000 W)
- High - quality, PTFE coating with long service life
- Insertion hydraulically operated
- High speed extraction to grant fast change over times
- Powerful planer (2200 W) with optimized cutting geometry for even and chatter-free planing
- Load transfer via robust chain drive
- Insertion hydraulically operated
- During the planing process each slide could be moved separately (single sided planing)

d-d [mm]	Performance	Code	kg	
630 - 1200	400 V/41000 W	790 126 001	8300.000	

WM 1200 Accessories



T-fitting clamping unit

- For the rational manufacturing of 90° T-fittings in the sizes d 630 - 900 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Integrated eyelets for lifting
- Complete with reduction clamping inserts
- Including packaging

d-d [mm]	Code	kg	
630 - 900	790 126 011	2926.000	



Y-fitting clamping unit

- For the rational manufacturing of 30° to 45° Y-fittings (branches) in the sizes d 630 - 900 mm
- Three-piece, precise clamping tool for easy mounting on the machine bed
- Integrated eyelets for lifting
- Complete with reduction clamping inserts
- Including packaging

d-d [mm]	Code	kg	
630 - 900	790 126 012	2910.000	

X-fitting clamping unit

- To weld a X-piece the T-piece unit is necessary

d-d [mm]	Code	kg	
630 - 900	790 126 013	2900.000	

Base Plate T-Y-X pieces

- To mount the T-Y-X pieces to the support plate

Code	kg	
790 126 014	1000.000	



1 Set planer blades

- 4 blades mounted on each planer disk
- (1 set = 4 blades)

Code	kg	
790 126 043	0.500	

Construction Site Machines

TM 160 - 315 (40 mm - 315 mm)

GF 160 - 1200 (40 mm - 1200 mm)

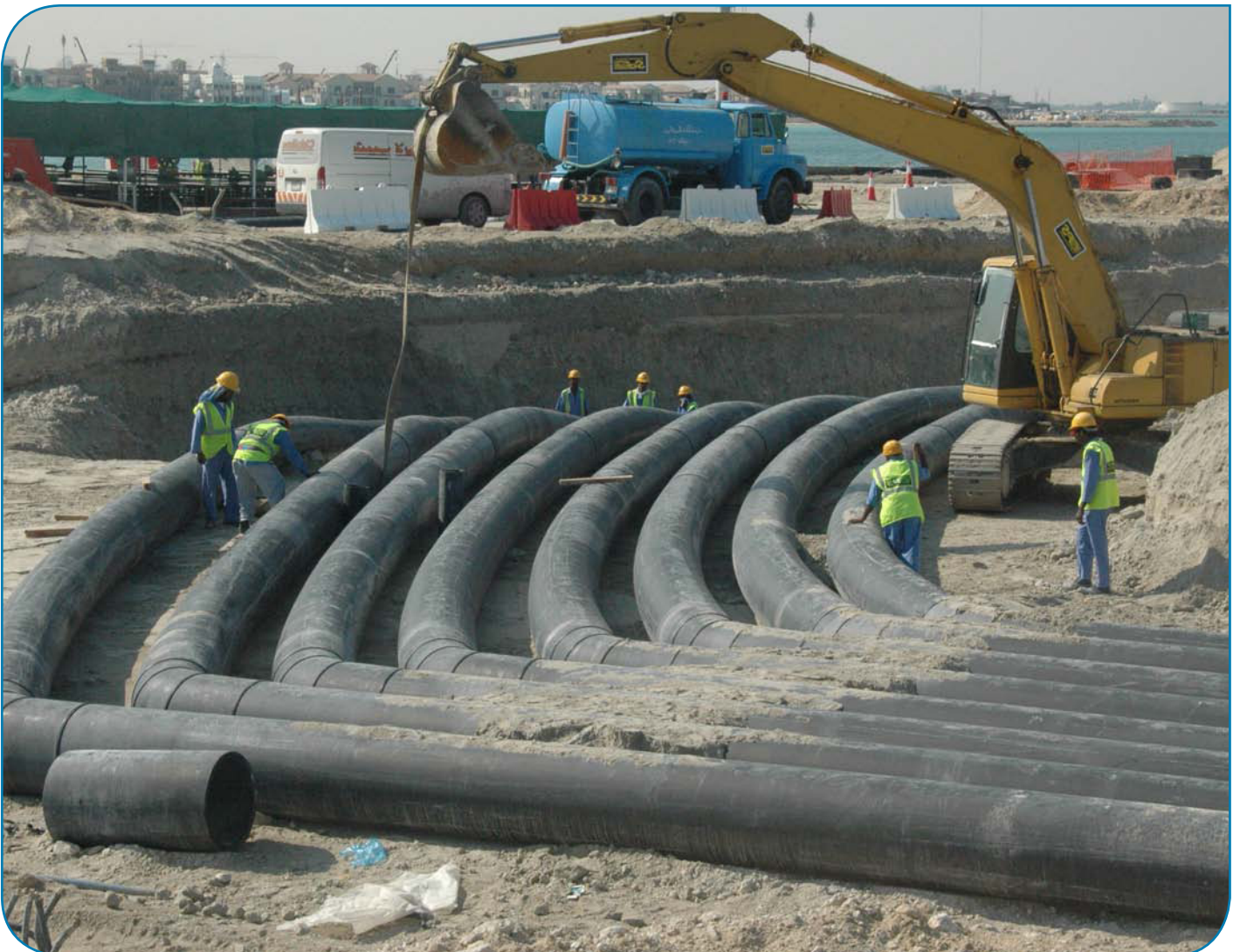
KL 500 - 630 (200 mm - 500 mm)

Butt fusion machines for the jointing of PP, PE and PVDF pipes and fittings on construction site.

Extremely robust design for use in hard conditions.

Different base machines, planer and hydraulic units selectable according to the application.

All machines could be equipped with the welding recorder WR 100, comfortable automatic CNC machines up to 630 mm available.



TM 160 - 250 - 315 ECO Butt fusion machines



TM 160 - 250 - 315 ECO Machine complete

- Flexible and user-friendly heating element butt fusion machine for fusion jointing PE, PP, PB and PVDF pipes and fittings on building sites and in trenches
- Consisting of: lightweight ECO hydraulic unit, flexible base machine, powerful planer, high performance heating element with electronic temperature control box, storage case for the planer and heater
- Including transport packaging (carton pallet), without accessories and without reduction inserts

Type	d-d [mm]	Performance	Code	kg
TM 160 ECO	40 - 160	230V/1900W	790 150 010	81.000
TM 160 ECO	40 - 160	115V/1900W	790 150 040	81.000
TM 250 ECO	75 - 250	230V/3270W	790 151 010	139.000
TM 250 ECO	75 - 250	115V/3270W	790 151 040	139.000
TM 315 ECO	90 - 315	230V/3870W	790 152 010	155.000
TM 315 ECO	90 - 315	115V/3870W	790 152 040	155.000



TM 160 - 250 - 315 Base machine

- Tubular frame providing increased rigidity and easy movement of the machine on the ground
- 4 lifting lugs
- Metal shield providing protection of the main welding area
- The movable (sliding) 3rd clamp allows easy and time saving fixing of bends or tees without need of additional tools
- Double-sided heating element pull-off mechanism to optimise the change-over phase
- Clamps are hinged on the top side and tilting, whenever necessary the four clamps can be quickly removed
- Quick-action and drip-proof oil connections located in protected position
- By rotating of the base machine a second operating position available

Type	d-d [mm]	Code	kg
TM 160	40 - 160	790 150 001	25.000
TM 250	75 - 250	790 151 001	50.000
TM 315	90 - 315	790 152 001	57.000



TM 160 - 250 - 315 ECO Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Reliable torque transmission via robust worm-gear device
- Ergonomic, weight balanced handling
- Optimised cutting geometry for even and chatter-free planing
- Safety switch to prevent undesired start-up
- Self-locking mechanism in working position

Type	d-d [mm]	Performance	Code	kg
TM 160 ECO	40 - 160	230V/630W	790 150 014	10.000
TM 160 ECO	40 - 160	115V/630W	790 150 044	10.000
TM 250 ECO	75 - 250	230V/1200W	790 151 014	16.000
TM 250 ECO	75 - 250	115V/1200W	790 151 044	16.000
TM 315 ECO	90 - 315	230V/1200W	790 152 014	19.000
TM 315 ECO	90 - 315	115V/1200W	790 152 044	19.000



TM 160 - 250 - 315 Heating element

- High performance, electronic controlled heating element
- Uniform temperature distribution over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator placed into the handle
- Easy placement in the correct working position with automatic heater release mechanism

Type	d-d [mm]	Performance	Code	
TM 160	40 - 160	230V/900W	790 114 004	
TM 160	40 - 160	115V/900W	790 114 187	
TM 250	75 - 250	230V/1700W	790 115 004	
TM 250	75 - 250	115V/1700W	790 115 187	
TM 315	90 - 315	230V/2300W	790 112 083	
TM 315	90 - 315	115V/2300W	790 112 187	



TM 160 - 250 - 315 Case

- For safe storage of planer and heating element

Type	d-d [mm]	Code	kg	
TM 160	40 - 160	790 114 006	7.500	
TM 250	75 - 250	790 115 005	14.000	
TM 315	90 - 315	790 325 006	18.500	



TM 160 - 250 - 315 ECO Hydraulic unit

- Clearly visible, vibration-free pressure gauge with precision scaling
- Compact construction with protection frame
- Fine adjustment of pressure
- High pressure constance during cooling phase
- Fix attached hydraulic hose

Type	Performance	Code	kg	
TM 160 ECO	230V/370W	790 150 013	21.000	
TM 160 ECO	115V/370W	790 150 043	21.000	
TM 250 - 315 ECO	230V/370W	790 152 009	21.000	
TM 250 - 315 ECO	115V/370W	790 152 039	21.000	

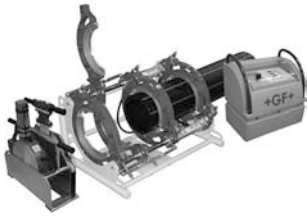


TM 160 - 250 - 315 Temperature controller

- Electronic temperature control
- Accurate adjustment (set point) of heating element temperature
- Digital display of current and set-point temperature

Type	Performance	Code	kg	
TM 160- 315 ECO	230V/3000W	790 152 006	2.000	
TM 160- 315 ECO	115V/3000W	790 152 036	2.000	

TM 160 - 250 - 315 TOP Butt fusion machines



TM 160 - 250 - 315 TOP Machine complete

- High quality, flexible and user-friendly heating element butt fusion machine for fusion jointing PE, PP, PB and PVDF pipes and fittings on building sites and in trenches
- Consisting of: innovative TOP hydraulic unit, flexible base machine, powerful planer, high performance heating element, storage case for the planer and heater
- Including transport packaging (wooden crate), without accessories and without reduction inserts

Type	d-d [mm]	Performance	Code	kg
TM 160 TOP	40 - 160	230V/1900W	790 150 011	131.000
TM 250 TOP	75 - 250	230V/3270W	790 151 011	180.000
TM 315 TOP	90 - 315	230V/3870W	790 152 026	214.000



TM 160 - 250 - 315 Base machine

- Tubular frame providing increased rigidity and easy movement of the machine on the ground
- 4 lifting lugs
- Metal shield providing protection of the main welding area
- The movable (sliding) 3rd clamp allows easy and time saving fixing of bends or tees without need of additional tools
- Double-sided heating element pull-off mechanism to optimise the change-over phase
- Clamps are hinged on the top side and tilting, whenever necessary the four clamps can be quickly removed
- Quick-action and drip-proof oil connections located in protected position
- By rotating of the base machine a second operating position available

Type	d-d [mm]	Code	kg
TM 160	40 - 160	790 150 001	25.000
TM 250	75 - 250	790 151 001	50.000
TM 315	90 - 315	790 152 001	57.000



TM 160 - 250 - 315 TOP Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Reliable torque transmission via robust worm-gear device
- Optimised cutting geometry for even and chatter-free planing
- Ergonomic, weight balanced handling
- Safety microswitch to prevent undesired start-up
- Self-locking mechanism in working position

Type	Performance	Code	kg
TM 160 TOP	230V/630W	790 150 000	10.000
TM 250 TOP	230V/1200W	790 151 000	16.000
TM 315 TOP	230V/1200W	790 152 000	19.000



TM 160 - 250 - 315 Heating element

- High performance, electronic controlled heating element
- Uniform temperature distribution over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Temperature indicator placed into the handle
- Easy placement in the correct working position with automatic heater release mechanism

Type	d-d [mm]	Performance	Code
TM 160	40 - 160	230V/900W	790 114 004
TM 250	75 - 250	230V/1700W	790 115 004
TM 315	90 - 315	230V/2300W	790 112 083



TM 160 - 250 - 315 Case

- For safe storage of planer and heating element

Type	d-d [mm]	Code	kg
TM 160	40 - 160	790 114 006	7.500
TM 250	75 - 250	790 115 005	14.000
TM 315	90 - 315	790 325 006	18.500



TM 160 - 250 - 315 TOP Hydraulic unit

- Shock absorbing plastic housing in attractive design
- Internal aluminium frame providing high rigidity and resistance
- Intuitive control panel provided with digital indication of hydraulic pressure, electronic heating element temperature controller, 2-channel welding timer
- Precise pressure setting and fine adjusting
- Operation of machine carriage executed through push-buttons
- Pressure release button for safe changeover from equalization to heat soak phase
- Integrated power outlets for planer, heating element
- Additional power socket (230V-AC)
- Interface for welding recorder WR 100 already installed

Type	Performance	Code	kg
TM 160 - 315 TOP	230V/370W	790 151 004	30.000



TM 160 - 315 TOP Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Type	Code	kg
TM 160 - 315 TOP	790 152 003	4.000



TM 160 - 250 - 315 TOP Clamp tightening knobs

Type	Code	kg
TM 160 TOP	790 150 225	1.000
TM 250 - 315 TOP	790 152 225	1.500

TM 160 - 250 - 315 WR



TM 160 - 250 - 315 WR Machine complete

- High quality, flexible and user-friendly heating element butt fusion machine for fusion jointing PE, PP, PB and PVDF pipes and fittings on building sites and in trenches
- Consisting of: innovative TOP hydraulic unit, flexible base machine, powerful planer, high performance heating element, storage case for the planer and heater
- Welding Recorder WR 100 configured to the machine and calibrated to the TOP hydraulic unit
- Including transport packaging (wooden crate), without accessories and without reduction inserts

Type	Performance	Code	kg
TM 160 WR	230V/1910W	790 150 015	136.000
TM 160 WR CYRILLIC	230V/1910W	790 150 016	136.000
TM 250 WR	230V/3280W	790 151 015	185.000
TM 250 WR CYRILLIC	230V/3280W	790 151 016	185.000
TM 315 WR	230V/3880W	790 152 025	219.000
TM 315 WR CYRILLIC	230V/3880W	790 152 016	219.000



WR 100 welding recorder

The WR 100 supports you to ensure the quality of the jointing done according the country specific standards. The concept of the fusion data recording device enables configuration and retrofitting of hydraulically operated butt-fusion machines for field applications, appropriate listing see next page.

The whole fusion sequence is recorded and can be retraced later. The user is guided through all the fusion steps. The selection of the fusion data like the used material, diameter and wall thickness (SDR) is supported by a menu. The highly accurate recording device WR100 controls the fusion process according to the valid national guideline (e.g. DVS, WIS or UNI). Hard plastic PE case IP65 locates a printer on board.

Performance:

- Easy configuration by operator to the different GF/KL machines
- Internal memory fusion protocol with a capacity up to 100 records
- Easy user guidance
- Battery support for data recording (8 hours), no data loss during power interruption
- Configuration: User identity, Job site and order no.
- Different menu languages
- Country specific fusion parameter
- Interchangeable with SUVI®50 data logger

Data Processing:

- Individual print out directly from serial on board printer
- Collective and individual print out directly from WR 100 to external printer (only HP) (parallel interface 790 119 402)
- Collective and individual protocol download to PC using the hyper terminal communicator of windows (serial interface 790 119 403)

Power connector: Schuko, 16A

Working temperature range: -10°C up to +50°C

Including connecting cables to butt fusion machine

Type	Performance	Dimensions [mm]	Code	kg
WR 100	230 V	350x300x150 mm	790 119 401	6.000

TM 160 - 250 - 315 Accessories



TM 160 Reduction clamping inserts

- d 40 - 140 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
40	790 114 027	790 114 023	0.300
50	790 114 016	790 114 009	0.320
63	790 114 017	790 114 010	0.300
75	790 114 018	790 114 011	0.300
90	790 114 019	790 114 012	0.280
110	790 114 020	790 114 013	0.245
125	790 114 021	790 114 014	0.265
140	790 114 022	790 114 015	0.180



TM 250 Reduction clamping inserts

- d 75 - 225 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
75	790 115 029	790 115 028	0.815
90	790 115 016	790 115 008	0.835
110	790 115 017	790 115 009	0.825
125	790 115 018	790 115 010	0.785
140	790 115 019	790 115 011	0.735
160	790 115 020	790 115 012	0.695
180	790 115 021	790 115 013	0.660
200	790 115 022	790 115 014	0.715
225	790 115 023	790 115 015	0.465



TM 315 Reduction clamping inserts

- d 90 - 280 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
90	790 112 098	790 112 088	1.000
110	790 112 099	790 112 089	1.050
125	790 112 100	790 112 090	0.988
140	790 112 101	790 112 091	0.975
160	790 112 102	790 112 092	1.062
180	790 112 103	790 112 093	0.988
200	790 112 104	790 112 094	0.937
225	790 112 105	790 112 095	0.975
250	790 112 106	790 112 096	0.937
280	790 112 107	790 112 097	0.800



TM 160 - 250 - 315 Reduction clamping inserts-set

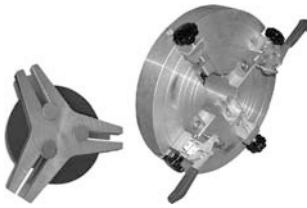
- 4 wide and 4 narrow clamping inserts of each dimension

d-d [mm]	Code	kg
40 - 140	790 114 156	17.000
75 - 225	790 115 156	48.000
90 - 280	790 112 156	78.000



TM 160 - 250 - 315 Chamfered upper clamp

Type	Left Code	Right Code	kg
TM 160	790 150 205	790 150 206	1.000
TM 250	790 151 205	790 151 206	1.000
TM 315	790 152 205	790 152 206	1.000



TM 160 - 250 - 315 Flange adapter clamping units

- For correct clamping and fusion jointing of short end fittings

d-d [mm]	Code	kg
40 - 160	790 319 007	5.400
75 - 250	790 115 044	7.900
90 - 315	790 112 073	10.100



TM 160 - 250 - 315 RU Repair unit

- Repair unit with 2 clamping devices and a pair of cylinders, especially convenient for butt-fusion joints in narrow trenches or inside of buildings and industrial plants. Heating element, planer, hydraulic unit and reduction inserts could be used from the according TM machine line like TM 250 ECO

Type	Code	kg
RU 160	790 150 045	8.800
RU 250	790 151 045	18.000
RU 315	790 152 045	20.000



TM 160 - 250 - 315 Outer Clamp

- An additional clamping device could be mounted on the cylinders to improve the alignment of the components to be joint.

Type	Code	kg
RU 160	790 150 046	2.000
RU 250	790 151 046	4.400
RU 315	790 152 046	5.400



TM 160 - 250 - 315 TOP Clamp tightening knobs

Type	Code	kg
TM 160 TOP	790 150 225	1.000
TM 250 - 315 TOP	790 152 225	1.500



TM 160 - 250 - 315 Hydraulic adapter hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling
- Required by assembling a TM base machine to GF or KL hydraulic units
- Required by connecting a GF or KL base machine to the TM TOP hydraulic unit
- Hoses with quick action couplers (M3/8" – F 1/4" , F 3/8" – M 1/4")

Code	kg
790 150 003	4.000

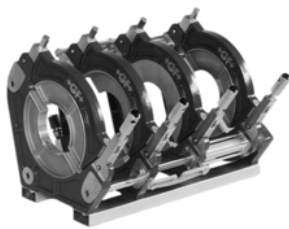
GF 160 - 250 - 315 CNC Butt fusion machine



Machine complete

- For fusion jointing of PP and PE pipes and fittings. The automatic CNC, hydraulically-operated butt fusion machines are designed for applications in gas and water distribution piping systems as well as for use in trenches, outdoors or in the workshop.
- The CNC control unit (SUVI® 400) controls and regulates the complete fusion process according to the approved national guidelines (e.g. DVS guidelines).
- All fusion parameters (set/actual comparison) are recorded on a memory card and can be called up and shown on the display. External fusion data processing is easy with the exchangeable memory card or with the build-in interface for the PC, printer or laptop. The integrated error analysis system recognizes deviations from the defined parameters and interrupts the fusion cycle while simultaneously recording the error source.
- **SUVI® 400 CNC - Control unit**
- Controlling of the cooling phase according to the ambient temperature (CTC)
- This unit consists of the hydraulic and the control unit with data recording
- Automatic control of planing with even-out function
- Automatically controlled temperature of the heating element
- User-friendly operation (keyboard)
- Minimal weight of complete CNC control unit with two handles for carrying
- Tamper-safe, easy data recording with exchangeable memory card (256 kB)
- Clear overview, 2-line LCD with backlighting
- Temperature sensor for accurate recording of ambient temperature
- Serial interface (RS 232, 9-in) to connect PCs or laptops
- Parallel standard printer interface (Centronics)
- Configuration of specific fusion parameters according to national guidelines
- Barcode reader for data input (optional)
- Including transport packaging, without accessories and without reduction inserts

Type	d-d [mm]	Performance	Description	Code	kg
GF 160	40 - 160	230 V/1850 W		790 114 069	119.000
GF 160	40 - 160	115 V/1850 W		790 114 068	119.000
GF 160	40 - 160	230 V/1850 W	Russian	790 114 067	119.000
GF 160	40 - 160	230 V/1850 W	Chinese	790 114 178	119.000
GF 250	75 - 250	230 V/2490 W		790 115 069	175.000
GF 250	75 - 250	115 V/2490 W		790 115 068	175.000
GF 250	75 - 250	230 V/2490 W	Russian	790 115 067	175.000
GF 250	75 - 250	230 V/2490 W	Chinese	790 115 178	175.000
GF 315	90 - 315	230 V/4170 W		790 112 069	213.000
GF 315	90 - 315	115 V/4170 W		790 112 068	213.000
GF 315	90 - 315	230 V/4170 W	Russian	790 112 067	213.000
GF 315	90 - 315	230 V/4170 W	Chinese	790 112 178	213.000



GF 160 – 250 – 315 Basic machine

- High precision design, distortion-free and sturdy machine bed
- Linear potentiometer for carriage positioning control assembled
- Easy to remove left clamping element for fusion in tight spaces or in combination with short leg fittings such as T-pieces or bends
- Good accessibility thanks to 35° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Heater release mechanism to optimize the changeover phase
- Double clamping device for secure hold and exact radial and axial alignment of components
- Knurled handles for easy opening and closing of clamping brackets without additional tools



GF 160 – 250 – 315 Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Load transfer via maintenance-free, robust worm drive
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up



GF 160 – 250 – 315 Heating element

- High performance heating element with electronic, continuously adjustable temperature control
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with heater release mechanism



GF 160 – 250 – 315 Case

- For safe storage of planer and heating element



GF 160 – 250 – 315 Hydraulic hose package

- Hydraulic hoses and the cable to the potentiometer are assembled together in a protecting sleeve

GF 160 - 250 - 315 CNC with automatic heating element



Machine complete

- For fusion jointing of PP and PE pipes and fittings. The fully automatic CNC, hydraulically-operated butt fusion machines are designed for applications in gas and water distribution piping systems as well as for use in trenches, outdoors or in the workshop.
- The CNC control unit (SUVI® 400) controls and regulates the complete fusion process according to the approved national guidelines (e.g. DVS guidelines).
- All fusion parameters (set/actual comparison) are recorded on a memory card and can be called up and shown on the display. External fusion data processing is easy with the exchangeable memory card or with the build-in interface for the PC, printer or laptop. The integrated error analysis system recognizes deviations from the defined parameters and interrupts the fusion cycle while simultaneously recording the error source.
- **SUVI® 400 CNC - Control unit**
 - Controlling of the cooling phase according to the ambient temperature (CTC)
 - This unit consists of the hydraulic and the control unit with data recording
 - Automatically controlled fusion cycle with built-in linear measurement unit (safety)
 - Automatically controlled temperature of the heating element
 - Minimal weight of complete CNC control unit with two handles for carrying
 - Clear overview, 2-line LCD with backlighting
 - Temperature sensor for accurate recording of ambient temperature
 - Serial interface (RS 232, 9-in) to connect PCs or laptops
 - Parallel standard printer interface (Centronics)
 - Safe two-handed operation according to TÜV for machine carriage movement
 - 6 languages, variable
 - Configuration of specific fusion parameters according to national guidelines
 - Barcode reader for data input (optional)
- In the **fully automatic** version, the heating element is inserted manually by the operator and after the heat soak phase automatically removed from the working position.
- Including transport packaging, without accessories and without reduction inserts

Type	d-d [mm]	Performance	Description	Code	kg
GF 160	40 - 160	230 V/1850 W		790 114 191	122.000
GF 160	40 - 160	230 V/1850 W	Russian	790 114 179	122.000
GF 160	40 - 160	230 V/1850 W	Chinese	790 114 184	129.000
GF 250	75 - 250	230 V/2490 W		790 115 191	175.000
GF 250	75 - 250	115 V/2490 W		790 115 194	175.000
GF 250	75 - 250	230 V/2490 W	Russian	790 115 179	175.000
GF 250	75 - 250	230 V/2490 W	Chinese	790 115 184	175.000
GF 315	90 - 315	230 V/4170 W		790 112 191	213.000
GF 315	90 - 315	115 V/4170 W		790 112 194	213.000
GF 315	90 - 315	230 V/4170 W	Russian	790 112 179	213.000
GF 315	90 - 315	230 V/4170 W	Chinese	790 112 184	213.000



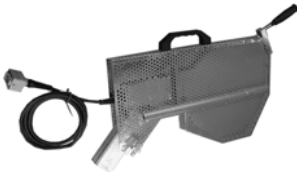
GF 160 – 250 – 315 Basic machine

- High precision design, distortion-free and sturdy machine bed
- Linear potentiometer for carriage positioning control assembled
- Easy to remove left clamping element for fusion in tight spaces or in combination with short leg fittings such as T-pieces or bends
- Good accessibility thanks to 35° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Heater release mechanism to optimize the changeover phase
- Double clamping device for secure hold and exact radial and axial alignment of components
- Knurled handles for easy opening and closing of clamping brackets without additional tools



GF 160 – 250 – 315 Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Load transfer via maintenance-free, robust worm drive
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up



GF 160 – 250 – 315 Automatic Heating element

- High performance heating element with electronic, continuously adjustable temperature control
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with automatic heater release mechanism



GF 160 – 250 – 315 Case

- For safe storage of planer and automatic heating element



GF 160 – 250 – 315 Hydraulic hose package

- Hydraulic hoses and the cable to the potentiometer are assembled together in a protecting sleeve

GF 160 - 250 - 315 Accessories



GF 160 Reduction clamping inserts

- d 40 - 140 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
40	790 114 027	790 114 023	0.300
50	790 114 016	790 114 009	0.320
63	790 114 017	790 114 010	0.300
75	790 114 018	790 114 011	0.300
90	790 114 019	790 114 012	0.280
110	790 114 020	790 114 013	0.245
125	790 114 021	790 114 014	0.265
140	790 114 022	790 114 015	0.180



GF 250 Reduction clamping inserts

- d 75 - 225 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
75	790 115 029	790 115 028	0.815
90	790 115 016	790 115 008	0.835
110	790 115 017	790 115 009	0.825
125	790 115 018	790 115 010	0.785
140	790 115 019	790 115 011	0.735
160	790 115 020	790 115 012	0.695
180	790 115 021	790 115 013	0.660
200	790 115 022	790 115 014	0.715
225	790 115 023	790 115 015	0.465



GF 315 Reduction clamping inserts

- d 90 - 280 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	narrow Code	wide Code	kg
90	790 112 098	790 112 088	1.000
110	790 112 099	790 112 089	1.050
125	790 112 100	790 112 090	0.988
140	790 112 101	790 112 091	0.975
160	790 112 102	790 112 092	1.062
180	790 112 103	790 112 093	0.988
200	790 112 104	790 112 094	0.937
225	790 112 105	790 112 095	0.975
250	790 112 106	790 112 096	0.937
280	790 112 107	790 112 097	0.800



GF 160 - 250 - 315 Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

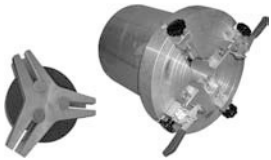
d-d [mm]	Code	kg
40 - 140	790 114 156	17.000
75 - 225	790 115 156	48.000
90 - 280	790 112 156	78.000



GF 160 - 250 - 315 Special clamping bracket tapered

- For clamping of fittings d 160 - 315 mm
- For left-sided mounting (stationary side) with shell adapter
- Version for right-sided mounting (slide)
- L = left
- R = right

d [mm]	Type	Code	kg
160	L	790 114 025	0.820
160	R	790 114 026	0.680
250	L	790 115 025	1.825
250	R	790 115 026	1.560
315	L	790 112 111	2.780
315	R	790 112 112	2.335



GF 160 - 250 - 315 Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d-d [mm]	Code	kg
40 - 160	790 114 045	6.400
75 - 250	790 115 045	9.600
90 - 315	790 112 038	15.400

GF 400 Butt fusion machine



Machine GF 400 complete, 400 V

- The GF400 butt fusion machine could be assembled with the welding recorder WR 100 or configured as a CNC machine with the SUVI® 400. The different versions are listed on the following pages
- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to SDR 11.
- Assembled with control box to supply all components with power, only 1 power connection required !
- Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
125 - 400	400 V/5700 W	790 127 010	210.000



Basic machine

- High precision design, distortion-free and sturdy machine bed
- Good accessibility thanks to 35° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Heater release mechanism to optimize the changeover phase
- For the purpose of welding bends and T-pieces the 2. clamping element is fast and without losing stability on the guiding shafts relocatable
- Double clamping device for secure hold and exact radial and axial alignment of components
- Machine specific tool set

d-d [mm]	Code	kg
125 - 400	790 127 002	95.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
125 - 400	230 V/1100 W	790 127 003	39.000



Heating element

- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with heater release mechanism

d-d [mm]	Performance	Code	kg
125 - 400	230 V/3500 W	790 127 004	15.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Performance	Code	kg	
400 V/1500 W	790 127 006	40.000	



Control box

- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

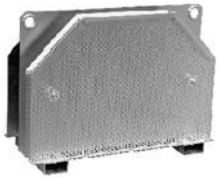
Performance	Code	kg	
400 V	790 127 008	15.500	



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg		
790 112 085	4.250		



Case

- For safe storage of planer and heating element

Code	kg		
790 127 005	29.000		



Machine GF 400 complete, 230 V

- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to SDR 11.
- Machine complete with remote control
- The GF butt fusion machines could be assembled with the welding recorder WR 100 or configured as a CNC machine with the SUVI® 400.
- Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg	
125 - 400	230 V/5700 W	790 127 001	210.000	

GF 400 CNC Butt fusion machine



Machine GF 400 complete

- For fusion jointing of PP and PE pipes and fittings. The automatic CNC, hydraulically-operated butt fusion machines are designed for applications in gas and water distribution piping systems as well as for use in trenches, outdoors or in the workshop.
- The CNC control unit (SUVI® 400) controls and regulates the complete fusion process according to the approved national guidelines (e.g. DVS guidelines).
- All fusion parameters (set/actual comparison) are recorded on a memory card and can be called up and shown on the display. External fusion data processing is easy with the exchangeable memory card or with the build-in interface for the PC, printer or laptop. The integrated error analysis system recognizes deviations from the defined parameters and interrupts the fusion cycle while simultaneously recording the error source.
- **SUVI® 400 CNC - Control unit**
 - This unit consists of the hydraulic and the control unit with data recording
 - Automatic control of planing with even-out function
 - Automatically controlled temperature of the heating element
 - Automatically controlled facing process
 - Minimal weight of complete CNC control unit with two handles for carrying
 - Tamper-safe, easy data recording with exchangeable memory card (256 kB)
 - Clear overview, 2-line LCD with backlighting
 - Temperature sensor for accurate recording of ambient temperature
 - Serial interface (RS 232, 9-in) to connect PCs or laptops
 - Parallel standard printer interface (Centronics)
 - Safe two-handed operation according to TÜV for machine carriage movement
 - Barcode reader for data input (optional)
- **Base machine**
 - Technical features as for manual versions
 - Position measurement of the carriage (safety, process monitoring)
- **Planer, Heating element, Hydraulic hose package, Case, Tool set**
 - Technical features same as for manually operated machines
 - Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Type	Code	kg	
125 - 400	230 V/5510 W		790 127 069	200.000	
125 - 400	230 V/5510 W	Russian	790 127 070	200.000	

GF 400 Accessories



Reduction clamping inserts

- d 125-355 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

In order to mount the inserts d 125/d 140/d 160/d 180/d 200/d 225/d 250/d 280, the reduction clamping insert d 315 mm, code 790 127 101, must also be used

d [mm]	narrow Code	wide Code	kg
125	790 112 100	790 112 090	0.988
140	790 112 101	790 112 091	0.975
160	790 112 102	790 112 092	1.062
180	790 112 103	790 112 093	0.988
200	790 112 104	790 112 094	0.937
225	790 112 105	790 112 095	0.975
250	790 112 106	790 112 096	0.937
280	790 112 107	790 112 097	0.800
315	790 127 111	790 127 101	1.810
355	790 127 112	790 127 102	1.650



Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension
- 8 wide clamping inserts d 315 mm

d-d [mm]	Code	kg
125 - 355	790 127 156	30.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d [mm]	Code	kg
400	790 127 045	24.600



Hoist unit

- For carrying the weight compensator mounted at the backside of the basic machine
- Weight compensator included

Code	kg
790 127 026	50.000



1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 112 110	0.115

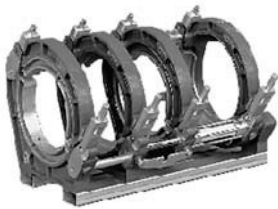
GF 500 Butt fusion machine



Machine GF 500 complete

- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. Size range d 200-500 mm, for complete pressure range up to PN 16.
- The GF500 butt fusion machine could be assembled with the welding recorder WR 100 or configured as a CNC machine with the SUVI® 400. The different versions are listed on the following pages
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
200 - 500	400 V/6250 W	790 116 040	498.000



Basic machine

- High precision design, distortion-free and sturdy machine bed
- Good accessibility thanks to 35° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Heater release mechanism to optimize the changeover phase
- For the purpose of welding bends and T-pieces the 2. clamping element is fast and without losing stability on the guiding shafts relocatable
- Double clamping device for secure hold and exact radial and axial alignment of components
- Machine specific tool set

d-d [mm]	Code	kg
200 - 500	790 116 002	174.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
200 - 500	400 V/750 W	790 116 003	53.600



Heating element

- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with heater release mechanism

d-d [mm]	Performance	Code	kg
200 - 500	400 V/4000 W	790 116 004	26.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Performance	Code	kg	
400 V/1500 W	790 116 039	38.000	



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

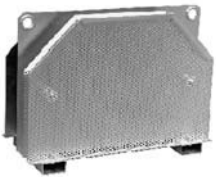
Code	kg		
790 116 038	15.500		



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg		
790 112 085	4.250		



Case

- For safe storage of planer and heating element

Code	kg		
790 116 006	41.000		

GF 500 CNC Butt fusion machine



Machine complete

- For fusion jointing of PP and PE pipes and fittings. The automatic CNC, hydraulically-operated butt fusion machines are designed for applications in gas and water distribution piping systems as well as for use in trenches, outdoors or in the workshop.
- The CNC control unit (SUVI® 400) controls and regulates the complete fusion process according to the approved national guidelines (e.g. DVS guidelines).
- All fusion parameters (set/actual comparison) are recorded on a memory card and can be called up and shown on the display. External fusion data processing is easy with the exchangeable memory card or with the build-in interface for the PC, printer or laptop. The integrated error analysis system recognizes deviations from the defined parameters and interrupts the fusion cycle while simultaneously recording the error source.
- **SUVI® 400 CNC - Control unit**
 - This unit consists of the hydraulic and the control unit with data recording
 - Automatic control of planing with even-out function
 - Automatically controlled temperature of the heating element
 - Automatically controlled facing process
 - Minimal weight of complete CNC control unit with two handles for carrying
 - Tamper-safe, easy data recording with exchangeable memory card (256 kB)
 - Clear overview, 2-line LCD with backlighting
 - Temperature sensor for accurate recording of ambient temperature
 - Serial interface (RS 232, 9-in) to connect PCs or laptops
 - Parallel standard printer interface (Centronics)
 - Safe two-handed operation according to TÜV for machine carriage movement
 - Barcode reader for data input (optional)
- **Base machine**
 - Technical features as for manual versions
 - Position measurement of the carriage (safety, process monitoring)
- **Planer, Heating element, Hydraulic hose package, Case, Tool set**
 - Technical features same as for manually operated machines
 - Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Type	Code	kg	
200 - 500	400 V/6250 W		790 116 069	476.000	
200 - 500	400 V/6250 W	Russian	790 116 067	476.000	
200 - 500	400 V/6250 W	Chinese	790 116 178	476.000	

GF 500 Accessories



Reduction clamping inserts

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

In order to mount the inserts d 200/d 225, the reduction clamping insert 790 116 015 must also be used

d [mm]	narrow Code	wide Code	kg
200	790 116 016	790 116 008	4.160
225	790 116 017	790 116 009	3.300
250	790 116 018	790 116 010	3.300
280	790 116 019	790 116 011	3.500
315	790 116 020	790 116 012	3.600
355	790 116 021	790 116 013	3.700
400	790 116 022	790 116 014	3.400
450	790 116 023	790 116 015	3.500



Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

d-d [mm]	Code	kg
250 - 450	790 116 156	162.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d [mm]	Code	kg
500	790 116 045	19.000



Hoist unit

- Hoist unit (consists of frame and swivel arm)
- Mounted to the base machine

Code	kg
790 116 026	22.000



Weight compensator to hoist unit

- For heating element, planer weight is partly compensated
- For hoist unit 790 116 026

Code	kg
790 116 027	12.500



1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 116 041	0.700

KL 500 Butt fusion machine



KL 500 TOP2 Machine complete

- Compact and robust heating element-butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to PN 16.
- The butt fusion machine could be assembled with the welding recorder WR 100.
- Machine provided with Hydromat hydraulic unit and remote control
- Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
200 - 500	400 V/6250 W	790 140 010	312.000



Basic machine

- Double clamping device for secure hold and exact radial and axial alignment of components
- Good accessibility thanks to 45° inclination
- drip-proof quick action coupling for the connection of the hydraulic hoses

d-d [mm]	Code	kg
200 - 500	790 340 001	159.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Load transfer via maintenance-free, robust chain
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
200 - 500	400 V/750 W	790 340 002	55.000



Heating element

- High performance, electronic controlled heating element
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Additional thermometer for fast check of the fusion temperature

d-d [mm]	Performance	Code	kg
200 - 500	400 V/4000 W	790 116 004	26.000



Remote control

- Electronic temperature control
- Accurate adjustment of heating element temperature

Code	kg
790 340 003	5.000



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg
790 112 085	4.250



Case

- For safe storage of planer and heating element

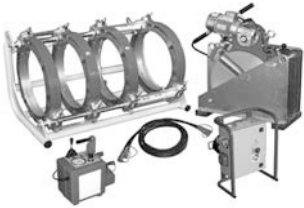
Code	kg	
790 116 006	41.000	



Hydromat

- Clearly visible, vibration-free pressure gauge with precision scaling
- Fine adjustment of pressure
- High pressure constance during cooling phase

Performance	Code	kg	
230 V/1500 W	790 340 005	29.000	



KL 500 TOP1 Machine complete

- Compact and robust heating element-butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to PN 16.
- Control box containing electronic temperature control and power distribution for heating element and planer
- The butt fusion machine could be assembled with the welding recorder WR 100.
- Machine provided with Hydromat hydraulic unit
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg	
200 - 500	400 V/6250 W	790 340 000	475.000	

KL 500 Accessories



Reduction clamping inserts

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

In order to mount the inserts d 200/d 225, the reduction clamping insert 790 116 015 must also be used

d [mm]	narrow Code	wide Code	kg
200	790 116 016	790 116 008	4.160
225	790 116 017	790 116 009	3.300
250	790 116 018	790 116 010	3.300
280	790 116 019	790 116 011	3.500
315	790 116 020	790 116 012	3.600
355	790 116 021	790 116 013	3.700
400	790 116 022	790 116 014	3.400
450	790 116 023	790 116 015	3.500



Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

d-d [mm]	Code	kg
250 - 450	790 116 156	162.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d [mm]	Code	kg
500	790 116 045	19.000



Hoist unit

- Hoist unit (consists of frame and swivel arm)
- Mounted to the base machine

Code	kg
790 140 026	22.000



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg
790 116 038	15.500



Chamfered upper clamp

Code	kg
790 340 261	8.000

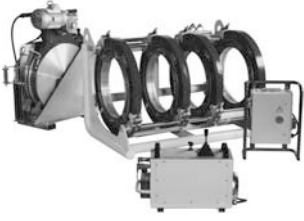


1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 116 041	0.700

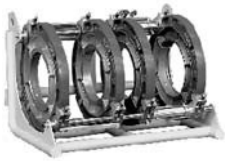
GF 630 Butt fusion machine



Machine GF 630 complete

- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. Size range d 315-630 mm, for complete pressure range up to PN 16.
- The GF630 butt fusion machine could be assembled with the welding recorder WR 100 or configured as a CNC machine with the SUVI® 400. The different versions are listed on the following pages.
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
315 - 630	400 V/11000 W	790 117 001	589.000



Basic machine

- High precision design, distortion-free and sturdy machine bed
- Good accessibility thanks to 45° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Heater release mechanism
- Double clamping device for secure hold and exact radial and axial alignment of components
- Machine specific tool set

d-d [mm]	Code	kg
315 - 630	790 117 002	225.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
315 - 630	400 V/1500 W	790 117 003	98.000



Heating element

- High performance heating element with electronic, continuously adjustable temperature control
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with heater release mechanism

d-d [mm]	Performance	Code	kg
315 - 630	400 V/8000 W	790 117 004	36.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Code	kg	
790 116 039	38.000	



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg	
790 117 038	14.000	



Case

- For safe storage of planer and heating element

Code	kg	
790 117 006	55.000	



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg	
790 112 085	4.250	

GF 630 CNC Butt fusion machine



Machine complete

- For fusion jointing of PP and PE pipes and fittings. The automatic CNC, hydraulically-operated butt fusion machines are designed for applications in gas and water distribution piping systems as well as for use in trenches, outdoors or in the workshop.
- The CNC control unit (SUVI® 400) controls and regulates the complete fusion process according to the approved national guidelines (e.g. DVS guidelines).
- All fusion parameters (set/actual comparison) are recorded on a memory card and can be called up and shown on the display. External fusion data processing is easy with the exchangeable memory card or with the build-in interface for the PC, printer or laptop. The integrated error analysis system recognizes deviations from the defined parameters and interrupts the fusion cycle while simultaneously recording the error source.
- **SUVI® 400 CNC - Control unit**
 - This unit consists of the hydraulic and the control unit with data recording
 - Automatic control of planing with even-out function
 - Automatically controlled temperature of the heating element
 - Automatically controlled facing process
 - Minimal weight of complete CNC control unit with two handles for carrying
 - Tamper-safe, easy data recording with exchangeable memory card (256 kB)
 - Clear overview, 2-line LCD with backlighting
 - Temperature sensor for accurate recording of ambient temperature
 - Serial interface (RS 232, 9-in) to connect PCs or laptops
 - Parallel standard printer interface (Centronics)
 - Safe two-handed operation according to TÜV for machine carriage movement
 - Barcode reader for data input (optional)
- **Base machine**
 - Technical features as for manual versions
 - Position measurement of the carriage (safety, process monitoring)
- **Planer, Heating element, Hydraulic hose package, Case, Tool set**
 - Technical features same as for manually operated machines
 - Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Type	Code	kg	
315 - 630	400 V/11000 W		790 117 069	613.000	
315 - 630	400 V/11000 W	Russian	790 117 067	613.000	
315 - 630	400 V/11000 W	Chinese	790 117 178	613.000	

GF 630 Accessories



Reduction clamping inserts

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

In order to mount the inserts d 315/d 355/d 400/d 450 to the base clamp d 630, the reduction clamping insert d 500 mm, code 790 117 012, must also be used

d [mm]	narrow Code	wide Code	kg
315	790 116 020	790 116 012	3.600
355	790 116 021	790 116 013	3.700
400	790 116 022	790 116 014	3.400
450	790 116 023	790 116 015	3.500
500	790 117 238	790 117 012	4.600
560	790 117 239	790 117 013	4.300



Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

d-d [mm]	Code	kg
315 - 560	790 117 021	180.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d [mm]	Code	kg
560	790 117 029	27.000



Hoist unit, complete

- Hoist unit (consists of frame and swivel arm)
- Arm length 2m, pivoting, back/forward, max. column height from floor 3.30m
- Electrical unit 400 V / 600 W
- Hoist capacity 250 kg
- 2 hoisting speeds (1,7 m/min. and 7.0 m/min.)

Code	kg
790 117 023	196.000



1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 117 041	0.470

KL 630 Butt fusion machine



KL 630 TOP2 Machine complete

- Compact and robust heating element-butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to PN 16.
- The butt fusion machine could be assembled with the welding recorder WR 100.
- Machine provided with Hydromat hydraulic unit and remote control
- Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
315 - 630	400 V/11000 W	790 345 012	627.000



Basic machine

- Double clamping device for secure hold and exact radial and axial alignment of components
- Good accessibility thanks to 45° inclination
- drip-proof quick action coupling for the connection of the hydraulic hoses

d-d [mm]	Code	kg
315 - 630	790 117 002	225.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Load transfer via maintenance-free, robust chain
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
315 - 630	400 V/1500 W	790 117 003	98.000



Heating element

- High performance, electronic controlled heating element
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Additional thermometer for fast check of the fusion temperature

d-d [mm]	Performance	Code	kg
315 - 630	400 V/8000 W	790 117 004	36.000



Remote control

- Electronic temperature control
- Accurate adjustment of heating element temperature

Code	kg
790 340 003	5.000



Case

- For safe storage of planer and heating element

Code	kg
790 117 006	55.000



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

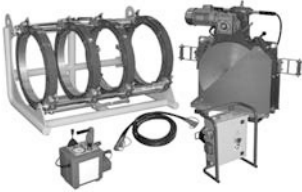
Code	kg	
790 112 085	4.250	



Hydromat

- Clearly visible, vibration-free pressure gauge with precision scaling
- Fine adjustment of pressure
- High pressure constance during cooling phase

Performance	Code	kg	
230 V/1500 W	790 340 005	29.000	



KL 630 TOP1 Machine complete

- Compact and robust heating element-butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings. For complete pressure range up to PN 16.
- Control box containing electronic temperature control and power distribution for heating element and planer
- The butt fusion machine could be assembled with the welding recorder WR 100.
- Machine provided with Hydromat hydraulic unit
- Including transport packaging, without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg	
315 - 630	400 V/11000 W	790 345 000	627.000	

KL 630 Accessories



Reduction clamping inserts

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

In order to mount the inserts d 315/d 355/d 400/d 450 to the base clamp d 630, the reduction clamping insert d 500 mm, code 790 117 012, must also be used

d [mm]	narrow Code	wide Code	kg
315	790 116 020	790 116 012	3.600
355	790 116 021	790 116 013	3.700
400	790 116 022	790 116 014	3.400
450	790 116 023	790 116 015	3.500
500	790 117 238	790 117 012	4.600
560	790 117 239	790 117 013	4.300



Reduction clamping inserts-set

- 4 wide and 4 narrow clamping inserts of each dimension

d-d [mm]	Code	kg
315 - 560	790 117 021	180.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d [mm]	Code	kg
560	790 117 029	27.000



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg
790 117 038	14.000



Hoist unit, complete

- Hoist unit (consists of frame and swivel arm)
- Arm length 2m, pivoting, back/forward, max. column height from floor 3.30m
- Electrical unit 400 V / 600 W
- Hoist capacity 250 kg
- 2 hoisting speeds (1,7 m/min. and 7.0 m/min.)

Code	kg
790 117 023	196.000



1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 117 041	0.470

GF 800 Butt fusion machine



Machine GF 800 complete

- Robust heating element-butt fusion machine for fusion jointing PP and PE pipes and fittings. Size range d 500-800 mm.
- The GF 800 butt fusion machine could be assembled with the welding recorder WR 100
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
500 - 800	400 V/15000 W	790 123 001	1546.000



Basic machine

- Heater release mechanism
- High precision design, distortion-free and sturdy machine bed
- Good accessibility thanks to 45° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Double clamping device for secure hold and exact radial and axial alignment of components
- Machine specific tool set

d-d [mm]	Code	kg
500 - 800	790 123 002	690.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends 400 V/1500 W
- Load transfer via maintenance-free chain drive
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
500 - 800	400 V/1500 W	790 123 003	175.000



Heating element

- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life
- Easy placement in the correct working position with heater release mechanism

d-d [mm]	Performance	Code	kg
500 - 800	400 V/12000 W	790 123 004	56.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Performance	Code	kg
400 V/1500 W	790 123 005	38.000



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg	
790 123 009	29.000	



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg	
790 123 006	6.000	



Case

- For safe storage of planer and heating element

Code	kg	
790 123 007	230.000	

GF 800 Accessories

Reduction clamping inserts



- d 500 - 710 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.

In order to mount the inserts d 500/d 560, the reduction clamping insert d 630, code 790 123 011 must also be used

d [mm]	narrow Code	wide Code	kg
500	790 117 238	790 117 012	4.600
560	790 117 239	790 117 013	4.300
630	790 123 219	790 123 011	11.000
710	-	790 123 012	9.500



Electric Hoist unit

- Hoist capacity 500 kg
- Arm length 2m, pivoting, back/forward, max. column height from floor 4.65 m, 2 hoisting speeds (2.5 m/min. and 5.5 m/min.)

Code	kg
790 123 016	270.000



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

d-d [mm]	Code	kg
500 - 800	790 123 029	120.000

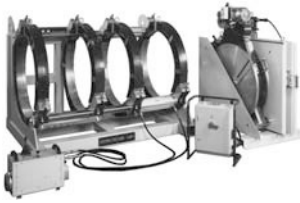


1 Set planer blades

- Blade has 2 cutting edges (1 set = 2 blades)

Code	kg
790 117 041	0.470

GF 1000 Butt fusion machine



Machine GF 1000 complete

- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings.
- The GF 1000 butt fusion machine could be assembled with the welding recorder WR 100
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
710 - 1000	400 V/19500 W	790 124 001	2528.000



Basic machine

- High precision design, distortion-free and sturdy machine bed
- Heater release mechanism
- Good accessibility thanks to 45° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Double clamping device for secure hold and exact radial and axial alignment of components
- Machine specific tool set

d-d [mm]	Code	kg
710 - 1000	790 124 002	1240.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
710 - 1000	400 V/3000 W	790 124 003	325.000



Heating element

- High performance heating element with electronic, continuously adjustable temperature control
- High temperature accuracy over the entire heating surface
- High-quality, non-stick PTFE-coating with long service life

d-d [mm]	Performance	Code	kg
710 - 1000	400 V/15000 W	790 124 004	82.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Performance	Code	kg
400 V/1500 W	790 123 005	38.000



Case

- For safe storage of planer and heating element

Code	kg	
790 124 006	345.000	



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg	
790 123 009	29.000	



Hydraulic hose package

- Flexible hydraulic hoses, with drip-proof, quick action coupling

Code	kg	
790 123 006	6.000	

GF 1000 Accessories



Reduction clamping inserts, wide

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 reduction clamping inserts are needed.

In order to mount the inserts d 710, the reduction clamping insert d 800 mm, code 790 124 011, must also be used

d [mm]	Code	kg	
710	790 123 012	9.500	
800	790 124 011	19.400	
900	790 124 012	20.000	



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

Code	kg	
790 124 029	170.000	



Electric hoist unit

- Hoist capacity 500 kg
- Arm length 2m, pivoting, back/forward, max. column height from floor 4.65 m, 2 hoisting speeds (2.5 m/min. and 5.5 m/min.)

Code	kg	
790 124 016	300.000	



1 Set planer blades

- (1 set = 4 blades)

Code	kg	
790 124 021	1.300	

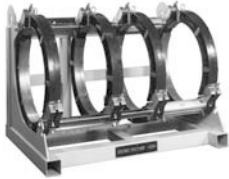
GF 1200 Butt fusion machine



Machine GF 1200 complete

- High quality, long-lasting heating element butt fusion machine for fusion jointing PP, PE and PVDF pipes and fittings.
- The GF 1200 butt fusion machine could be assembled with the welding recorder WR 100.
- Including transport packaging (carton pallet), without accessories and without reduction inserts

d-d [mm]	Performance	Code	kg
800 - 1200	400 V/20500 W	790 125 001	2932.000



Basic machine

- High precision design, distortion-free and sturdy machine bed
- Heater release mechanism
- Good accessibility thanks to 45° inclination
- Hardened and hard chrome-plated guide shafts for extreme loads
- Smooth-running cylinder guides with mechanical seals
- Hydraulic connections protected and integrated in base clamping unit for more flexibility when clamping piping components
- Double clamping device for secure hold and exact radial and axial alignment of components
- Tool set specified to machine

d-d [mm]	Code	kg
800 - 1200	790 125 002	1340.000



Planer

- Powerful parallel planer for single or double-sided facing of pipe ends
- Load transfer via maintenance-free chain drive
- Right-angled facing due to wide bedding, with side stop for single-sided facing
- Optimised cutting geometry for even and chatter-free planing
- Planer with Stop mechanism for safety
- Safety microswitch to prevent undesired start-up

d-d [mm]	Performance	Code	kg
800 - 1200	400 V/3000 W	790 125 003	452.000



Heating element

- High performance heating element with electronic, continuously adjustable temperature control
- High temperature accuracy over the entire heating surface

d-d [mm]	Performance	Code	kg
800 - 1200	400V/16000 W	790 125 004	94.000



Hydraulic unit

- Compact and robust with two handles for carrying
- Precise hydraulic control for consistent fusion pressure
- Variable, fine adjustment of pressure
- Clearly visible, vibration-free pressure gauge with precision scaling
- Memory for automatic pressure equalization during the cooling phase
- Easy level control and refilling of hydraulic oil

Performance	Code	kg
400 V/1500 W	790 123 005	38.000



Control box

- 400 V
- Contains all safety and functional components such as static relay, FI protective switch, temperature control
- Compact unit in steel box with enamel-coated protective frame

Code	kg	
790 123 009	29.000	



Case

- For safe storage of planer and heating element

Code	kg	
790 125 006	420.000	



GF 1200 Accessories Reduction clamping inserts, wide

- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.

In order to mount the inserts d 800/d 900, the reduction clamping insert d 1000, code 790 125 011, must also be used.

d [mm]	Code	kg	
800	790 124 011	19.400	
1000	790 125 011	20.500	



Flange adapter clamping unit

- For correct clamping and fusion jointing of short end fittings

Code	kg	
790 125 029	260.000	



Electric Hoist unit

- Hoist capacity 500 kg
- Arm length 2m, pivoting, back/forward, max. column height from floor 4.65 m, 2 hoisting speeds (2.5 m/min. and 5.5 m/min.)

Code	kg	
790 125 016	308.000	



1 Set planer blades

- (1 set = 4 blades)

Code	kg	
790 125 021	1.600	

WR 100

WR 100 Fusion welding recording device



The WR 100 supports you to ensure the quality of the jointing done according the country specific standards. The concept of the fusion data recording device enables configuration and retrofitting of hydraulically operated butt-fusion machines for field applications, appropriate listing see next page.

The whole fusion sequence is recorded and can be retraced later. The user is guided through all the fusion steps. The selection of the fusion data like the used material, diameter and wall thickness (SDR) is supported by a menu. The highly accurate recording device WR100 controls the fusion process according to the valid national guideline (e.g. DVS, WIS or UNI). Hard plastic PE case IP65 locates a printer on board.

Performance:

- Easy configuration by operator to the different machines
- Internal memory fusion protocol with a capacity up to 100 records
- Easy user guidance
- Battery support for data recording (8 hours), no data loss during power interruption
- Configuration: User identity, Job site and order no.
- Different menu languages
- Country specific fusion parameter
- Interchangeable with SUVI®50 data logger

Data Processing:

- Individual print out directly from serial on board printer
- Collective and individual print out directly from WR 100 to external printer (only HP) (parallel interface 790 119 402)
- Collective and individual protocol download to PC using the hyper terminal communicator of windows (serial interface 790 119 403)

Power connector: Schuko, 16A

Working temperature range: -10°C up to +50°C

Including connecting cables to butt fusion machine

Type	Performance	Dimensions [mm]	Code	kg
WR 100	230 V	350x300x150 mm	790 119 401	6.000
WR 100 CYRILLIC	230 V	350x300x150 mm	790 119 425	5.500

Machines fitted with WR 100



Type	Performance	Code	kg
TM 160 WR	230V/1910W	790 150 015	136.000
TM 160 WR CYRILLIC	230V/1910W	790 150 016	136.000
TM 250 WR	230V/3280W	790 151 015	185.000
TM 250 WR CYRILLIC	230V/3280W	790 151 016	185.000
TM 315 WR	230V/3880W	790 152 025	219.000
TM 315 WR CYRILLIC	230V/3880W	790 152 016	219.000
GF 400 WR 100	400V/5710W	790 127 015	350.000
GF 400 WR 100	230V/5710W	790 127 020	350.000
GF 500 WR 100	400V/6260W	790 116 075	475.000
KL 500 TOP 1 WR 100	400V/6260W	790 340 008	475.000
KL 500 TOP 2 WR 100	400V/6260W	790 340 035	475.000
KL 630 TOP 1 WR 100	400V/11010W	790 345 008	600.000
KL 630 TOP 2 WR 100	400V/11010W	790 345 035	600.000
GF 630 WR 100	400V/11010W	790 117 075	600.000
GF 800 WR 100	400V/15010W	790 123 075	1550.000
GF 1000 WR 100	400V/19510W	790 124 075	3000.000
GF 1200 WR 100	400V/20510W	790 125 075	3210.000

Retrofit kits

Retrofit kit means all separate components to be assembled in the machine in order to connect the WR 100. The connection cables between the WR 100 and the hydraulic unit / heating element are content of the data recorder (790 119 401). The installation of the retrofit kits has to be done by a regional service centre or by GF Omicron.

Description	Code	kg	
KL 160	790 119 090	1.000	
KL 250-630	790 119 078	0.001	
GF 160-250	790 119 032	0.300	
GF 315	790 119 039	0.790	
GF 500-1200	790 119 036	3.500	

Accessories

description	Code	kg	
Serial/parallel printer cable (WR 100-Printer)	790 119 402	0.400	
Serial Data transfer cable (WR100-PC)	790 119 403	0.250	
USB Converter cable	790 119 407	0.300	
Serial Adapter M/F	790 119 408	0.100	

SUVI® System Accessories



Barcode reader pen

Code	kg	Description
799 350 335	0.165	Barcode reader pen



CTC Cooling Time Control

- Controlling of the cooling phase according to the ambient temperature (CTC)
- Reduction of the process time for PE up to 50% in comparison to DVS
- Currently available for GF 160/250/315 with SUVI® 400
- Access code to unlock the CTC fusion parameter

Code	kg
790 119 274	0.002



Memory Card

description	Code	kg
1024 kB/734 records	790 119 157	0.030



Software PIPE WIN WELD / SUVI WIN WELD

- Professional software for analysis and documentation of installed piping systems or of a defined part of it: Pipe book. With PIPE WIN WELD it is possible to create a complete electronic documentation of the installed pipes and pipe connection elements. The software works with the data bases of MSA WIN WELD and SUVI WIN WELD. The software makes it possible to work with data from other manufacturers (CSV module for data transfer).
- The software is suitable for Windows ME/NT4/2000/XP.
- Delivery: CD-ROM, USB hardlock (PIPE WIN-WELD, PIPE WIN-WELD CSV), installation guide (manuals and additional information on CD-ROM)

Type	Code	kg	Description
PIPE CSV	790 119 301	0.180	Complete package incl. CSV module for data transfer, USB hardlock
PIPE	790 119 302	0.180	Complete package, USB hardlock
SUVI	790 119 303	0.180	Complete package

Electro fusion units

MSA 210

Electro fusion unit with easy handling, welding time input manually, output voltage constantly 39,5 V. Useable for most applications like water distribution, waste water, irrigation or industrial applications.



MSA 210

MSA 210 Manual Electrofusion Unit



Monovalent electrofusion unit with easy manual entry of fusion time by the operator according to the fitting requirements. The unit can be used on the product range of +GF+ electrofusion fittings up to a nominal diameter of 500 mm SDR 17. Suitable for jointing in series, temperature excess protected. The unit stores the last fusion time and generates a consecutive fusion counter. A buzzer indicates the start and the end of the fusion cycle.

Technical Data

Ambient temperature	-10°C - +40°C
Mains voltage	180 V - 250 V AC
Mains frequency	45 Hz - 65 Hz
Fusion voltage	39,5 V
Internal Fuse	20 A
Power consumption	max. 2750 W
Protection	IP 65
Mains cable	4 m
Fusion cable	3 m
Connector	4,0 mm / 90
Dimensions (WxHxD)	270 x 480 x 150 mm
Weight incl. cables	ca. 21 kg
Display	LED 1 x 4 N, 7 segments
Size display	50 x 18 mm
Type size	14 mm
Warranty	12 months

Description	Code	kg	
Standard edition	790 128 001	21.000	



Adapter

- Adapters for electrofusion units with 4 mm connectors.
- Compatible with electrofusion units MSA 210, MSA 250-400 and MSA Plus 250-400.

Type	Code	kg	Description	
4,0 mm	799 350 340	0.055	Angle adapter, black	
4,7 mm	799 350 341	0.055	Angle adapter, grey	
4,7 mm	799 350 462	0.055	Adapter, white	

Tools and Special Machines

Belt saws

Pipe cutter

Chamfering tools

Outer bead remover

Roller supports

Alignment tool

Belt saws are mainly used in combination with work shop machines, accurate cuts reduce the preparation time for segmented fittings dramatically. The saws could be customized to your needs in respect of size and equipment. Special machines like the saddle machine are not illustrated in this catalogue, but could be offered on request!



Saws



KS 355 Plastic pipe cutter

- The KS 355 is the ideal tool for simple right angle precision cutting of PVC, PE and PP pipes, Size range d 160 to 355 mm with a wall thickness up to 40 mm. Including transport box.
- Unique clamping mechanism, no additional tools like belts, chains or reduction inserts necessary

d-d [mm]	Code	kg
160 - 355	790 202 001	15.400



KS 355 Saw blade Ø 180x30

Code	kg
790 202 011	0.485



BS 450 Belt saw size range d 90 - 450 mm

- For exact cutting of PE, PP, PVC and PVDF plastic pipes, size range d 90 - 450 mm
- Pipe cutter with sturdy tubular steel stand and integrated V-bed
- Variable clamping system for fastening the pipe in the V-bed
- Angles from 0° to 45° to one side can be freely adjusted
- Easy to disassemble into subcomponents and transport to job sites
- Spring-resilient lowering of saw bow
- Easy saw blade replacement system with centering mechanism
- Application: up to d 160 PN 10, up to d 250 PN 6, up to d 450 PN 3,2

d-d [mm]	Code	kg
90 - 450	790 109 045	160.000



BS 630 Belt saw

- Angles from 0° to 45° to one side can be freely adjusted
- For exact cutting of PE, PP, PVC and PVDF pipes, size range d 100 - 315 mm and 200 - 630 mm
- Pipe cutter with sturdy tubular steel stand
- Variable clamping system for fastening the pipe in the V-bed
- Spring-resilient lowering of saw bow
- Easy saw blade replacement system with centering mechanism

d-d [mm]	Code	kg
110 - 630	790 109 047	340.000

BS Wearing Parts

- Saw belt for

Article	Code	kg
BS 450	790 109 046	0.400
BS 630	790 109 048	0.500
BS 1200	790 109 042	7.500

Tools for pipeline construction



Chamfering tools

Tool for beveling (15° angle) the outer diameter of the thermoplastic pipes (PVC, ABS, PB, PP, PE). Sliding surface out of industrial felt.

d-d [mm]	Code	kg
40 - 200	790 309 001	1.600
50 - 315	790 309 002	3.170



Chamfering tools

- Chamfering tool (15° bevel) for plastic pipes (PVC, ABS, PB, PP, PE). Coated prism surface suitable for clean room applications. Fast and reliable adjustment to the different pipe diameters and wall thickness.

d-d [mm]	Code	kg
16 - 200	790 309 003	1.100
63 - 400	790 309 004	2.500



Spare blade for chamfering tool

Description	d-d [mm]	Code	kg
Spare blade	16 - 400	790 309 015	0.040
Counter blade	16 - 400	790 309 016	0.040



Outer bead remover

d-d [mm]	Code	kg
110 - 160	790 109 241	1.850
140 - 250	790 109 242	1.950
180 - 315	790 109 243	2.697
280 - 450	790 109 244	2.700



Replacement blades

d-d [mm]	Code	kg
110 - 160	790 109 233	0.004
140 - 315	790 109 234	0.020

Accessories for job sites



Roller support 315

- Up to d 315 mm, with base plate, galvanised
- The piping can be pulled with little effort
- Protects pipes from damage
- Reduces resistance during fusion
- Maximum load 300 kg

d-d [mm]	Code	kg	
20 - 315	790 109 110	4.000	



Support 750

- Up to d 750 mm, with base plate, galvanised
- **height adjustable** (60 mm)
- The piping can be pulled with little effort
- Protects pipes from damage
- Reduces resistance during fusion
- Maximum load 1000 kg

d-d [mm]	Code	kg	
110 - 750	790 109 109	4.115	



Alignment Tool

- To align and position pipes in the dimension range d 110 - 400 mm. The pipes are clamped in the vice, the axial movement takes place by a chain drive. The chain is totated by the ratched (square 19 mm).

Article	Code	kg	
Alignment Tool	790 109 108	15.000	
Ratch	790 109 107	1.220	

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- Butt Fusion Machines for Gas+Water Distribution



- Electro Fusion unit for Gas+Water Distribution



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