

## Fusion Technology Product Range

	Electrofusion			Socket		Contact Butt or Socket Manual	Contact Butt (Hydraulic)				Infrared (IR)				Bead and Crevice Free
	Electro Plus	MSA 250	Easy Fuse	MSE Hand Tool	SG-110	SG-160	GF 160	GF 250	GF 315	GF 500	IR 63 Plus®	IR 110 Plus®	IR 225 Plus®	IR 315 Plus®	BCF® Plus
PROGEF® Standard	N/A	N/A	N/A	16-110	16-110	32-160	40-160	75-250	90-315	200-400	20-63	20-110	63-225	N/A	N/A
PROGEF® Natural	N/A	N/A	N/A	N/A	N/A	32-90	N/A	N/A	N/A	N/A	20-63	20-90	63-90	N/A	20-90
PPro-Seal™	½"-3"	½"-3"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SYGEF® Plus®	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20-63	20-110	63-225	250-315	20-110
SYGEF®	N/A	N/A	N/A	16-63	16-63	32-160	N/A	N/A	N/A	200-315	20-63	20-110	63-225	250-315	20-110
Fuseal®	1½"-12"	1½"-12"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fuseal 25/50™	1½"-6"	1½"-6"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fuseal Squared™	1½"-12"	1½"-12"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PE100	N/A	N/A	2"-26"	N/A	N/A	N/A	2"-4"	N/A	4"-10"	8"-18"	2"	N/A	2"-8"	N/A	N/A

# Fusion Technology

## Equipment for Cutting Plastic Pipe

### PPC Plastic pipe cutter

**D**



- For cutting plastic pipes d10 - d160

d-d [mm]	Article	Part No.		closest inch	
10 - 63	PPC 63, s max. = 7.2mm	<b>790 109 001 *</b>		1/8 - 2	
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002 *</b>		1 1/2 - 4	
110 - 160	PPC 160, s max. = 19.0mm	<b>790 109 003 *</b>		4 - 6	

### Replacement cutting wheels

**D**



- for plastic pipe cutter

d-d [mm]	Article	Part No.		
10 - 63	SR 63 max. s=7,2 mm	<b>790 109 011 *</b>		
50 - 110	SR 110/160 max. s=12,7 mm	<b>790 109 012 *</b>		
110 - 160	SR 160 max. s=19,0 mm	<b>790 109 013 *</b>		



### KS 355 Plastic Pipe Cutter

**D**

- 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

#### Technical data:

Dimension Range: 160-355mm

Voltage: 230V AC

Power: 1520 Watt

Frequency: 50-60 Hz

RPM: 7600

Sound Level: 85 dB (A)

Weight: 15.4 Kg

d-d [mm]	Part No.		
160 - 355	<b>790 202 001 *</b>		

### KS 355 Saw blade Ø 180x30

**D**



Part No.		
<b>790 202 011 *</b>		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## KS 1600 Plastic Pipe Cutter

**D**



The KS 1600 is used for cutting plastic pipes fast, cleanly and properly right-angled- from diameter 355 mm up to 1600 mm with a wall thickness of max. 60 mm. For each pipe diameter, the appropriate chain length is necessary. The saw is to be put on the tensioned chain as per user manual which serves as a guiding device for the saw over a full 360° turn.

The guard plate covers the saw blade also during operation and provides full protection for the user at all times.

The KS 1600 basic kit consists of a circular-hand saw, 230 V / 2200 W with carriage, 2 tension chains for d560 mm and d630 mm as well as a chain tensioner. The whole equipment comes in a convenient and robust transport box.

The easy handling and the optimal safety features make this tool indispensable on every building site.

### Scope of delivery:

1 Circular-hand saw, 1 tensioning chain d560 mm, 1 tensioning chain d630 mm, 1 chain tensioner, 1 hex-wrench size 5, 1 hex-wrench size 6, 1 operating instruction, transport-box

### Technical data:

Dimension range:	d355 –1600 mm (In combination with the respective tensioning chain)
Plug:	EU-Plug
Voltage:	230 V AC
Power:	2200 Watt
Frequency:	50-60 Hz
Circular saw blade outer-Ø:	240 mm
RPM:	4100
Sound level:	104 dB (A)
Weight saw:	15, 5 kg
Weight KS 1600 Basic-Kit:	43,5 kg
Dimensions saw (WxHxD):	790 x 330 x 335 mm
Dimensions Transport-Box:	950 x 400 x 395 mm

d-d [mm]	Type	Part No.		
355 - 1600	KS 1600 Basic Kit	790 109 600 *		



## KS 1600 Chain Holder

**D**

- Chain tensioner is included in the scope of delivery of the KS 1600 Basic Kit (790 109 600).

d-d [mm]	Part No.			
355 - 1600	790 109 616 *			



## KS 1600 Tensioning Chains

**D**

- Chains for d560 and d630 mm are included in the scope of delivery of the KS 1600 Basic-Kit (790 109 600).

d [mm]	Part No.			
355	790 109 602 *			
400	790 109 603 *			
450	790 109 604 *			
500	790 109 605 *			

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## AQUATAP Installation Tools

**D**

Number	Description	Part No.		
1-7	Complete Tool Box Kit (Includes Items 1-7)	799 530 200 *		
2	Heater Plate Protector	799 530 001 *		
3	5/8" Flare - Heater Bushing	799 530 155 *		
4	Flare Mandrel	799 530 156 *		
5	Tubing Hex Jaw Pliers	799 530 157 *		
6	Tube Cutter (KTS 125)	799 530 158 *		



^ = 40% Restock Charge  
 \* = Non-Cancelable/Non-Returnable

## Electrofusion Process Times

Electrofusion	Product	½"	¾"	1"	1½"	2"	3"	4"	6"	8"	10"	12"
Electro Plus and MSA 250	PPro-Seal™	1:20	1:27	1:32	1:36	1:50	1:30					
	Fuseal®				1:20	1:30	1:40	1:55	3:10	4:00	4:00	5:00
	Fuseal 25/50™				1:26	1:39	1:52	2:10	3:55			

\*All times in minutes: seconds and are approximate based in 68°F/20°C ambient temperature. These times are only for the fusion process and do not include the cooling times.

## Number of Joints Possible per Cycle

Electrofusion	Product	½"	¾"	1"	1½"	2"	3"	4"	6"	8"	10"	12"
Electro Plus and MSA 250	PPro-Seal™	4	4	4	4	4	4					
	Fuseal®				4	4	4	4	4	2	2	2
	Fuseal 25/50™					4	4	4	4			

# Fusion Technology

## Electro Plus & Accessories

### Electro Plus®

**D**



#### Advantages

Intuitive user interface  
 Multiple joint capability for speedy installations  
 Integral carrying case for ease of transportation  
 One-button repeat fusion cycle for same size joints  
 Self-diagnostic error detection system  
 Automatic compensation for ambient temperature

The Electro Plus® fusion machine can be used to join the following piping systems:  
 Fuseal 1½-12", Fuseal Squared 1½-12", Fuseal 25/50 1½-6" and PPro-Seal ½-3".

This complete machine includes:

Fusion Power Unit, Hand Held Unit and the Cable Assembly.

#### Technical Data

Operating Temperature 14°F (-10°C) to 113°F (45°C)  
 Input Voltage 100-130 V AC / 200-250 V AC  
 Input Frequency 50Hz - 60 Hz  
 Output Voltage 0 – 28.5 V AC  
 Output Current 0-50 Amps  
 Power Consumption 1200 Watts max.  
 Power Cable Length 5ft. (1.5m)  
 Fusion Cable Length 18ft. (5.5m)  
 Remote Cable Length 20ft. (6m)  
 Dimensions (WxHxD) 22x14x10 inch  
 Weight 45lbs (20.5kg)

Description	Part No.		
Electro Plus	150 000 001 *		



### Hand Held Unit

**D**

Complete hand held unit with connection cable and protection case.  
 This is a replacement unit which can be used on any Electro Plus machine.

Description	Part No.		
Hand Held Unit	150 000 003 *		



### Cable Assembly

**D**

Complete cable assembly with connector plug.  
 This is a replacement unit which can be used on any Electro Plus machine.

Description	Part No.		
Cable Assembly	150 000 004 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Fusion Power Unit

D



Complete fusion power unit with main power cable.

This is a replacement unit which can be used with any hand held unit and cable assembly.

Description	Part No.		
Fusion Power Unit	150 000 002 *		

# Fusion Technology

## MSA250 & Accessories



### MSA Plus 250 EX Multi Automatic Electrofusion Unit

**D**

**NEW, environmental friendly manufactured electrofusion unit according EU directive 2002/95/EU (RoHS).**

Monovalent automatic electrofusion unit with barcode scanner. The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is robust, light and easy to use. Single push-button operation, display shows fusion time and energy consumed. Inclusive transport box, 1 pair of angle adapter clips 4.0mm, cable assembly, barcode set with continuity tester and instruction manual.

The MSA Plus 250 EX Multi can be used to join the following piping systems: PE Ø 20-400; INSTAFLEX PB Ø 125, 160, 225; Fuseal Sea Drain Ø 1½-12"; Fuseal 1½-12"; Fuseal Squared 1½-12"; Fuseal 25/50 1½-6"; and PPro-Seal.

#### Technical Data

Ambient temperature	14°F (-10°C) to 113°F (+45°C)
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	20"x15"x10"
Weight incl. cables	25.5 lbs (11.5 kg)
Display	LED 1 x 4 N, 7 Segments
Size display (WxH)	50 x 18 mm

Type	Part No.	Description
MSA Plus 250 EX Multi	799 350 520 *	barcode scanner, transport case



### Barcode Set with Continuity Tester

**D**

Replacement barcode set with barcode cards for the following systems:  
Fuseal 1 ½-12", Fuseal 25/50 1½-6" and PPro-Seal ½-3".

Description	Part No.
Barcode Set with Continuity Tester	799 350 900 *
Continuity Tester	799 350 901 *
Operation Mode Cards MSA250 EX Multi	799 350 902 *

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



# Fusion Technology

## MSA Fusion Cables

D



Replacement MSA fusion cables 5 feet long.

Description	Part No.		
Single Cable	<b>799 350 910 *</b>		
Cable Assembly	<b>799 350 911 *</b>		



## Barcode Reader Pen

D

- Compatible with MSA 250-400 and MSA Plus 250-400 Electrofusion control units. (As additional/replacement component. A bar code reader pen or scanner is provided with all MSA 250-400 and MSA Plus 250-400 units).

Part No.		Description	
<b>799 350 335 *</b>		Barcode reader pen	
<b>799 160 411 *</b>		Pouch for pen suitable for MSA 250-400 and MSA Plus 250-400	



## MSA Barcode Scanner

D

- Robust, handy barcode scanner with a high reading performance made for the construction site. Quick, safe and professional!  
Compatible with MSA 500, MSA 3000, MSA 250-400 and MSA Plus 250-400 Electrofusion control units.

Part No.		Description	
<b>799 350 419 *</b>		Barcode scanner with pouch and instructions	



## MSA Carrying Case

D

Description	Part No.		
MSA Carrying Case, 20x10x15"	<b>799 350 473 *</b>		

### Socket Fusion Process Times\*

Socket Fusion	Product	16	20	25	32	40	50	63	75	90	110
MSE Handtools or SG 125	PROGEF® Standard	15	15	21	24	38	44	62	68	88	110
	PROGEF® Natural	15	15	21	24	38	44	62	68	88	
	SYGEF® PVDF	14	16	18	26	28	34	44			

\*All times in seconds and are approximate based on 68°F/20°C ambient temperature. Times do not account for facing, peeling, and cleaning per the GF Fusion Training program.

# Fusion Technology

## SG 125 Socket Fusion Machine

### SG 125 Socket Fusion Machine

D

**For fusion joining of PP, PE, PB and PVDF pipe 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
- Fast selection of insertion depth according to the pipe dimension
- **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.
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times

d-d [mm]	Performance	Part No.		
20 - 125	115 V/1500 W	790 310 036 *		



### Transportation Box SG125

D

Description	Part No.		
Transportation Box SG125	155107276U *		



### Universal prismatic clamping device, complete

D

d-d [mm]	Part No.		
20 - 125	790 310 040 *		



### Backstop, complete

D

d-d [mm]	Part No.		
20 - 110	790 310 012 *		



### V-shaped pipe support, complete

D

d-d [mm]	Part No.		
20 - 125	790 310 041 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Replacement heating element SG125

**D**



d-d [mm]	Performance	Description	Part No.		
20 - 125	115 V/1500 W	electronic	<b>790 310 045 *</b>		

## MSE 63/MSE 110 Socket fusion tools

**D**



- For fusion joining of PP, PE and PVDF pipes and fitting
- 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	Part No.		
16 - 63	MSE 63 T	115 V/800 W	<b>790 105 096 *</b>		
16 - 110	MSE 110 T	115 V/1500 W	<b>790 105 126 *</b>		

## MSE 63/MSE 110 - Set - Socket fusion tools

**D**



- For fusion joining of PP, PE and PVDF pipes and fitting
- 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	Part No.		
16 - 63	MSE 63 T	115 V/800	<b>790 105 098 *</b>		
16 - 110	MSE 110 T	115 V/1500	<b>790 105 128 *</b>		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Heating spigots and bushes

**D**



- Aluminum, PTFE coated
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)

d [mm]	Part No.		
16	799 300 155 *		
20	799 300 156 *		
25	799 300 157 *		
32	799 300 158 *		
40	799 300 159 *		
50	799 300 160 *		
63	799 300 161 *		
75	799 300 162 *		
90	799 300 163 *		
110	799 300 164 *		

## Manual pipe peeling tool

**D**



d [mm]	Part No.		
20	799 300 260 *		
25	799 300 270 *		
32	799 300 280 *		
40	799 300 290 *		
50	799 300 300 *		
63	799 300 310 *		
75	799 300 320 *		
90	799 300 330 *		
110	799 300 340 *		

## Replacement Blade Peeling tool blade

**D**



d [mm]	Part No.		
20	799 300 266 *		
25	799 300 276 *		
32	799 300 286 *		
40	799 300 296 *		
50	799 300 306 *		
63	799 300 316 *		
75	799 300 326 *		
90	799 300 336 *		
110	799 300 346 *		

## Chamfering Tools

**D**



- 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]	Part No.		
16 - 200	790 309 003 *		
63 - 400	790 309 004 *		

## Contact Butt Fusion Process Times\*

Machine	Product	32	40	50	63	75	90	110	160	200	225	250	315	355	400	450
SG 160	PROGEF® Standard	7.00	8.00	11.00	12.00	15.00	18.00	21.00	29.00							
GF 160	PROGEF® Standard		8.00	11.00	12.00	15.00	18.00	21.00	29.00							
GF 250	PROGEF® Standard						18.00	21.00	29.00	35.00	38.00	42.00				
GF 315	PROGEF® Standard						18.00	21.00	29.00	35.00	38.00	42.00	52.00			
GF 315	PROGEF® Standard						18.00	21.00	29.00	35.00	38.00	42.00	52.00			
GF 500	PROGEF® Standard									35.00	38.00	42.00	52.00	56.00	63.00	70.00

\*All times in minutes:seconds and are approximate based on 68°F/20°C ambient temperature. Times only account for heating, joining and cooling of products per the GF Fusion Training Program. GF recommends IR Plus® fusion for SYGEF® PVDF products.

# Fusion Technology

## SG 160 Combined Butt and Socket Fusion Machine



### SG 160 Combined Butt and Socket Fusion Machine D for fusion jointing PP, PE and PVDF pipes and fittings size range for butt fusion d 32 - 160

Mobile, very compact and universal plastic fusion machine for use in the workshop and on job sites.

Butt fusion d 32 - 160 mm, all pressure ratings up to PE/PP SDR 11; PVDF SDR 21.

Socket fusion d 16 - 110 mm

#### Base machine

- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- All clamping possibilities for base clamping plates, pipe supports, back stop and prismatic clamping devices.

#### Planer

- planing device made of light cast aluminium
- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends 620 W
- integrated pick up for easy mounting of calibration tools for machining of pipe ends in socket fusion

#### Heater

- high-performance and precision heater with electronic temperature control 1500 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE fabric (Teflon)

#### Additional standard equipment on the basic model

- V-shaped pipe supports d 16 - 160 mm for fittings
- timer to clock fusion times
- tool set specified to machine

d-d [mm]	Performance	Part No.		
16 - 160	115 V	790 103 033 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Transportation crate

**D**



Part No.		
790 103 099 *		



## Inserts, left/right

**D**

- For base clamping plate or bracket
- Left or right

d [mm]	Part No.		
32	790 103 019 *		
40	790 103 020 *		
50	790 103 021 *		
63	790 103 022 *		
75	790 103 023 *		
90	790 103 024 *		
110	790 103 025 *		



## Base clamping plates

**D**

- In order to improve the quality of the fusion joint, and for reliable clamping of long pipes, we recommend using the maximum number of clamping devices.
- For welding of long pipes we recommend to use the outer left and outer right base clamping plates as well.
- L = left
- R = right

d [mm]	Type	Part No.		
160	L	790 103 010 *		
160	R	790 103 011 *		



## Clamping bracket, left

**D**

- For base clamping plate or bracket
- L = left
- R = right

\* Threaded clamping bracket, for mounting inserts d 32 - 140 mm. An additional insert must be used instead of clamping brackets d 32 - 140 mm, i.e. twice the number of inserts listed must be ordered.

d [mm]	Type	Part No.		
* 160	L	790 103 048 *		
* 160	R	790 103 068 *		



## SG 160 1 Set Planer Blades

**D**

Part No.		
790 103 548 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



# Fusion Technology

## SG 160 1 Set PTFE Fabric Sheets

D

- (set of 2 pieces)
- High-quality, easy to replace, non-stick PTFE fabric (Teflon) for the heater

d [mm]	Part No.		
160	790 103 306 *		

^ = 40% Restock Charge  
\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## CNC Butt Fusion Machines GF 160-315 with SUVI 400 and Automatic Heating Element



### GF 160, GF 250, GF 315 CNC with automatic heating element D

- For fusion joining 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.

#### Planer, Heating element, Hydraulic hose package, Case, Tools set

- Including transport packaging, without accessories and without reduction inserts

Type	d-d [mm]	Performance	Description	Part No.		
GF 160	40 - 160	230 V/1850 W		<b>790 114 191 *</b>		
GF 250	75 - 250	230 V/2490 W		<b>790 115 191 *</b>		
GF 315	90 - 315	230 V/4170 W		<b>790 112 191 *</b>		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Manual Butt Fusion Machines GF 160-500 with Automatic Heating Element



### TM 160 - 250 - 315 TOP Machine complete

**D**

- High quality, flexible and user-friendly heating element butt fusion machine for fusion joining PE, PP, and PVDF pipes and fittings on building sites and in trenches
- Scope of delivery includes: innovative TOP hydraulic unit, flexible base machine, powerful planer, WR 100, 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	Part No.		
TM 160 TOP	40 - 160	230V/1900W	<b>790 150 011 *</b>		
TM 250 TOP	75 - 250	230V/3270W	<b>790 151 011 *</b>		
TM 315 TOP	90 - 315	230V/3870W	<b>790 152 026 *</b>		



### Machine GF 400 complete, 230 V

**D**

- High quality, long-lasting heating element butt fusion machine for fusion joining PP, PE and PVDF pipes and fittings. For complete pressure range up to PN 16.
- Machine complete with remote control
- The GF butt fusion machines can be assembled with the welding recorder WR 100 or configured as a CNC machine with the SUVI® 400.
- Including transport packaging (wooden crate), without accessories and without reduction inserts

d-d [mm]	Performance	Part No.		
125 - 400	230 V/5700 W	<b>790 127 001 *</b>		



### GF 500 Butt Fusion Machine

**D**

- High quality, long-lasting heating element butt fusion machine for fusion joining 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 can 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 (wooden crate), without accessories and without reduction inserts

d-d [mm]	Performance	Part No.		
200 - 500	400 V/6250 W	<b>790 116 040 *</b>		

# Fusion Technology

## Facing Tool Blade Sets for GF 160-500



### 1 set planer blades GF 160

**D**

- (1 set = 2 blades)

d-d [mm]	Part No.		
40 - 160	790 113 056 *		



### 1 set planer blades GF 250

**D**

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

d-d [mm]	Part No.		
75 - 250	790 115 024 *		



### 1 set planer blades GF 315

**D**

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

d-d [mm]	Part No.		
90 - 315	790 112 110 *		



### 1 set planer blades GF 500

**D**

Description	Part No.		
Blade has 2 cutting edges (1 set = 2 blades)	790 116 041 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



IR-63 Plus®



IR-225 Plus®



IR-315 Plus®

## IR Plus® Infrared Butt Fusion Technology

### Features

- Non-contact Infrared heating
- Completely controlled and repeatable fusion process using our proven overlap system
- Minimized and defined weld bead
- Proven reliability and safe high purity fusion system
- Controlled cooling process based on ambient and bead temperature
- PCMCIA-interface for electronic downloading of fusion data
- Integrated interface for label and standard printers (hard copy printout)



### NEW! IR-110 Plus®

## Infrared (IR) Plus® Fusion Process Times\*

Times are for the new platform IR Plus machines

Machine	Product	20	25	32	40	50	63	75	90	110	125	140	160	200	225	250	315
IR-63 Plus®	PROGEF® Standard PN 10	2:00	2:30	3:00	4:00	4:30	6:00										
	PROGEF® Natural PN 10	2:00	2:30	3:00	4:00	4:30	6:00										
	SYGEF® PN 16	1:30	1:30	2:00	2:00	3:00	3:00										
IR-110 Plus®	PROGEF® Standard PN 10	2:30	3:00	3:00	4:00	4:30	5:00	6:00	7:00	8:00							
	PROGEF® Natural PN 10	3:30	3:30	4:00	4:30	5:00	5:30										
	PROGEF® Natural PN 6								5:00								
	SYGEF® PN 10								2:00	2:30							
	SYGEF® PN 16	1:00	1:00	1:30	1:30	2:00	2:00	2:30	3:30	4:00							
IR-225 Plus®	PROGEF® Standard PN 10						4:00	4:30	5:30	7:00	8:00	8:30	10:00	12:30	14:00		
	PROGEF® Natural PN 6								5:00								
	SYGEF® PN 10							2:30	2:30	3:00	3:00	3:30	3:30	4:00	4:30		
	SYGEF® PN 16						2:30	2:30	3:00	3:00							
IR-315 Plus®	SYGEF® PN 10															8:00	10:00

\*All times in minutes:seconds and are approximate based on 68°F /20°C ambient temperature. Times only account for heating, joining and cooling of products per the GF Fusion Training Program.

# Fusion Technology

## IR-63 Plus® Fusion Joining Machine and Accessories



### IR-63 Plus® Fully-Equipped Machine

**D**

#### Model:

- Fully-equipped fusion joining machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100 in dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater assembly (1 pcs.)
- Remote weld device (1 pcs.)
- Facing tool (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-63 mm (8 pcs. per dimension)
- End caps PE d 20-63 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Extension cable for remote weld device (1 pcs.)
- Extension cable for heater (1 pcs.)
- Extension cable for facing tool (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon key 3 mm (1 pcs.)
- Hexagon key 4 mm (1 pcs.)
- Heater protection shield (1 pcs.)
- Clamping unit extension (8 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Screw driver, Size 0 (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Part No.		
20 - 63	790 131 005 *		

### Power Converter

**D**

Description	Part No.		
Power Converter 115/230V AC	790 103 095 *		



### Clamping inserts

**D**

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d [mm]	Part No.	Pieces	
20	790 131 038 *	1	
25	790 131 039 *	1	
32	790 131 040 *	1	
40	790 131 041 *	1	
50	790 131 042 *	1	
63	790 131 043 *	1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Replacement Blades for Facing Tool

**D**



- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d [mm]	Part No.		Pieces	
20 - 63	790 131 045 *		2	

## PE Pipe End Caps

**D**



- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Part No.		Pieces	
20	790 131 030 *		4	
25	790 131 031 *		4	
32	790 131 032 *		4	
40	790 131 033 *		4	
50	790 131 034 *		4	
63	790 131 035 *		4	

## Heater Shield

**D**

Description	Part No.		
Heater Shield IR63	155 131 001 *		

## Extension Cable clamping carriage

**D**



- Extension cable for remote fusion.

d-d [mm]	Part No.		Pieces	
20 - 63	790 131 047 *		1	

## Extension Cable facing tool

**D**



- Extension cable for remote fusion.

d-d [mm]	Part No.		Pieces	
20 - 63	790 131 048 *		1	

## Extension Cable heater

**D**



- Extension cable for remote fusion.

d-d [mm]	Part No.		Pieces	
20 - 63	790 131 049 *		1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



# Fusion Technology

## Power Cord IR63

D

Description	Part No.		
Power Cord IR63	150 131 246 *		



## Pipe Stop

D

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Part No.		Pieces	
20 - 63	790 131 046 *		1	

## Adjustment Tools

D

Description	Part No.		
Allen Wrench 3mm	24387003 *		
Allen Wrench 4mm	790 131 264 *		
T-10 Torx Wrench	790 131 129 *		

# Fusion Technology

## IR-110 Plus® Fusion Joining Machine and Accessories



### IR-110 Plus® Fully-Equipped Machine

**D**

#### Model:

- Fully-equipped fusion joining machine for welding SYGEF® Standard, SYGEF® Plus, PROGEF® Standard, PROGEF® Natural, PROGEF® Plus, PE 100 (PFA/ECTFE on request) in dimensions d 20-110 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater and facing tool assembly (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-90 mm (8 pcs. per dimension)
- End caps PE d 20-110 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon keys 4 mm (1 pcs.), 5 mm (1 pcs.), 6 mm (1 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Part No.		
20 - 110	790 132 001 *		



### Clamping inserts

**D**

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d [mm]	Part No.		Pieces
20	790 132 051 *		1
25	790 132 052 *		1
32	790 132 053 *		1
40	790 132 054 *		1
50	790 132 055 *		1
63	790 132 056 *		1
75	790 132 057 *		1
90	790 132 058 *		1



### Replacement Blades for Facing Tool

**D**

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d [mm]	Part No.		Pieces
20 - 110	790 132 061 *		2

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## PE Pipe End Caps

**D**



- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Part No.		Pieces	
20	790 131 030 *		4	
25	790 131 031 *		4	
32	790 131 032 *		4	
40	790 131 033 *		4	
50	790 131 034 *		4	
63	790 131 035 *		4	
75	790 133 036 *		4	
90	790 133 037 *		4	
110	790 133 038 *		4	



## Pipe Stop

**D**

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Part No.		Pieces	
20 - 110	790 132 059 *		1	

# Fusion Technology

## IR-225 Plus® Fusion Joining Machine and Accessories



### IR-225 Plus® machine complete with stainless steel work table and label printer

**D**

#### Model:

- Fully-equipped fusion joining machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100 in dimensions d 63-225 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 VL1/L2/L3/N/PE
- Machine base (1 pcs.)
- Facing tool (1 pcs.)
- Heater assembly (1 pcs.)
- Working table, HP (1 pcs.)
- Movable clamping units (1 pcs.)
- Clamping inserts d 63-225 mm (8 pcs. per dimension)
- End caps PE d 63-225 mm (4 pcs. per dimension)
- Transportation lock (1 pcs.)
- Pipe stop (1 pcs.)
- Hexagon key 5 mm (1 pcs.)
- Hexagon key 6 mm (1 pcs.)
- Combination ring /open-jaw wrench 13 mm (1 pcs.)
- Cleaning brush (1 pcs.)
- Connecting cable 400 V - 230 V (1 pcs.)
- Ball for lever (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Part No.		
63 - 225	790 133 009 *		



### HP Stainless Steel Work Table and Transportation Container

**D**

- Multifunction working table for the IR-225 Plus® fusion joining machine with two integrated drawer. Especially for the use in clean room environment. The working table is made of steel with a stainless steel table.

Part No.		Pieces	
790 133 021 *		1	



### Pipe Clamp Inserts

**D**

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d [mm]	Part No.		Pieces	
63	790 133 026 *		1	
75	790 133 027 *		1	
90	790 133 028 *		1	
110	790 133 029 *		1	
160	790 133 032 *		1	
200	790 133 033 *		1	
225	790 133 034 *		1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Replacement Blades for Facing Tool

**D**

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d [mm]	Part No.		Pieces	
63 - 225	790 133 046 *		2	

## PE Pipe End Caps

**D**

**\*on request**

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Part No.		Pieces	
63	790 131 035 *		4	
75	790 133 036 *		4	
90	790 133 037 *		4	
110	790 133 038 *		4	
160	790 133 041 *		4	
200	790 133 042 *		4	
225	790 133 043 *		4	

## Pipe Stop

**D**

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Part No.		Pieces	
63 - 225	790 133 047 *		1	

## Adjustment Tools

**D**

Description	Part No.		
Allen Wrench 5mm	24387005 *		
Allen Wrench 6mm	790 101 238 *		
T-25 Torx Wrench	790 133 577 *		
Open Wrench 13mm	790 133 140 *		

# Fusion Technology

## Accessories for the IR plastic fusion joining machines



### Tangit KS-Cleaning Tissues

**D**

- Wet Tangit cleaning tissues to clean the fusion faces
- One box contains 100 tissues

Part No.		
799298024A *		



### IR Plus® Win Weld Program

**D**

- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- **incl. Recordcard / USB stick**

	Part No.		Pieces	
WIN 2000/XP	790 131 471 *		1	



### IR Plus® PCMCIA Record Card

**D**

- Fusion data from the machine can be stored on an exchangeable protocol card (record card) with a storage capacity of approx. 900 fusion protocols. It allows a paperless documentation.

Part No.		Pieces	
790 131 473 *		1	



### Label Printer Package IR & BCF

**D**

Description	Part No.		
Label Printer TLP-2844	155 131 031 *		



### Thermal Transfer Labels

**D**

- The labels are made of white polyester. The printing, as well as the labels themselves, are resistant against:
- UV resistant
- Temperatures up to 140 °C (284 °F)
- Up to 95% humidity
- Cleaning agents (Isopropylalcohol etc.)
- Two identical labels are printed for each weld. Each roll contains 2500 labels.
- Label size: 38 x 19 mm
- Specification information available on request from George Fischer.

Part No.		Pieces	
790 131 028 *		1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Thermal Printer Ribbon for TLP-2742 / TLP-2844

D



- The thermal transfer ribbon is specially suited for printing polyester labels.

Part No.		Pieces	
790 131 029 *		1	

^ = 40% Restock Charge  
\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Upgrade programs for IR plastic fusion joining machines



### IR 63 Plus Upgrade

**D**

In order to give our existing IR-Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing IR-Plus machines. The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new IR-Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

Type	Part No.		
IR-63 Plus	790 131 124 *		

### IR-63 Plus Upgrade Program

**D**

Description	Part No.		
Left Side Adjustable Clamping Station	790 131 110 *		
Right Side Adjustable Clamping Station	790 131 109 *		



### IR225 Plus Upgrade

**D**

In order to give our existing IR-Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing IR-Plus machines. The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new IR-Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

Type	Part No.		
IR-225 Plus	790 133 124 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



# Fusion Technology



## IR-225 Adjustable Clamping Station left

**D**

- The movable, external clamping unit ensure high operating convenience. Short pipe pieces can be clamped on both sides.
- Included in the delivery when a new IR-225 Plus® is ordered.
- Previous IR 225 fusion jointing machines can be upgraded.

d-d [mm]	Part No.		Pieces	
63 - 225	790 133 061 *		1	



## IR-225 Adjustable Clamping Station right

**D**

- The movable, external clamping unit ensure high operating convenience. Short pipe pieces can be clamped on both sides.
- Included in the delivery when a new IR-225 Plus® is ordered.
- Previous IR 225 fusion jointing machines can be upgraded.

d-d [mm]	Part No.		Pieces	
63 - 225	790 133 062 *		1	

## Bead and Crevice Free (BCF®) Plus Fusion



### Evolution of Innovation

#### Unsurpassed fusion quality

- No beads
- No crevices
- No transitions
- No dead legs and no microorganic deposits
- Very high weld strength
- Very little stress in the fusion zone, therefore less prone to stress cracking
- Controlled and secured manufacturing processes
- Globally accepted certification training for quality control personnel and installers

**BCF® Plus Fusion Process Times\***

Machine	Product	20	25	32	40	50	63	75	90	110
BCF® Plus	PROGEF® Natural PN 6							13:00	17:00	24:00
	PROGEF® Natural PN 10	6:00	7:00	9:00	11:00	14:00	20:00	16:00	21:00	30:00
	SYGEF® PN 10								15:00	20:00
	SYGEF® PN 16	7:00	7:00	10:00	10:00	12:00	13:00	18:00	24:00	36:00

\*All times in minutes:seconds and are approximate based on 68°F/20°C ambient temperature. Times only account for heating and cooling of products per the GF Fusion Training Program.

# Fusion Technology

## BCF® Plus Plastic Fusion Joining Machine

### BCF® Plus fully equipped machine d 20 - 63 mm

**D**



Fully-equipped machine for bead and crevice free jointing of SYGEF® Standard, SYGEF® Plus, PROGEF® Natural of the dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

#### Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

#### Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-63 mm (6 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Part No.		
20 - 63	790 121 002 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## BCF® Plus fully-equipped machine d 20 -110 mm

D



Fully-equipped machine for bead and crevice free jointing of SYGEF® Standard, SYGEF® Plus, PROGEF® Natural of the dimensions d 20-110 mm with integrated remote welding unit.

### Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

### Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-110 mm (9 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- Supporting tools big d 75-110 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Part No.		
20 - 110	790 121 001 *		

## BCF® Plus large dimension package d 75-110 mm

D

- This package is necessary to complete BCF® Plus machines which are only equipped for small dimensions d 20-63 mm.

### Delivery includes:

- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Supporting tools tall (2 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)

d-d [mm]	Part No.		
75 - 110	790 121 022 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## BCF® Plus Heating stations

**D**



d [mm]	Part No.		Pieces	
20	790 121 111 *		1	
25	790 121 112 *		1	
32	790 121 113 *		1	
40	790 121 114 *		1	
50	790 121 115 *		1	
63	790 121 116 *		1	
75	790 121 117 *		1	
90	790 121 118 *		1	
110	790 121 119 *		1	

## BCF® Bladder for SYGEF® PVDF

**D**

- Only suitable for welding SYGEF® PVDF and not for PROGEF® Natural. **Silver tip.**



d [mm]	Part No.		Pieces	
20	790 122 041 *		1	
25	790 122 042 *		1	
32	790 122 043 *		1	
40	790 122 044 *		1	
50	790 122 045 *		1	
63	790 122 046 *		1	
75	790 121 047 *		1	
90	790 121 048 *		1	
110	790 121 049 *		1	

## BCF® Plus Bladder for PROGEF® Natural Polypropylene

**D**

- Only suitable for welding PROGEF® Natural. **Blue tip.**



d [mm]	Part No.		Pieces	
20	790 122 091 *		1	
25	790 122 092 *		1	
32	790 122 093 *		1	
40	790 122 094 *		1	
50	790 122 095 *		1	
63	790 122 096 *		1	

## BCF® Plus Facing Tool

**D**

- Inclusive crank handle, mounting material and clamping inserts. Suitable for SYGEF® PVDF as well as PROGEF® Natural.



d-d [mm]	Part No.		Pieces	
20 - 63	790 121 052 *		1	
75 - 110	790 121 053 *		1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## BCF® Plus Facing Tool Inserts

**D**



- These dimension-specific parts are inserted into the facing tool, in order to be able to face the end of the pipes smoothly and parallel.

d [mm]	Part No.		Pieces	
20	790 121 061 *		1	
25	790 121 062 *		1	
32	790 121 063 *		1	
40	790 121 064 *		1	
50	790 121 065 *		1	
63	790 121 066 *		1	
75	790 121 067 *		1	
90	790 121 068 *		1	
110	790 121 069 *		1	

## BCF® Plus Facing Tool Mounting Plate

**D**



d-d [mm]	Part No.		Pieces	
20 - 110	790 121 055 *		1	

## BCF® Plus Clamp Inserts

**D**



d [mm]	Part No.		Pieces	
20	790 131 038 *		1	
25	790 131 039 *		1	
32	790 131 040 *		1	
40	790 131 041 *		1	
50	790 131 042 *		1	
63	790 131 043 *		1	
75	790 121 036 *		1	
90	790 121 037 *		1	

## BCF® Plus Hose Reel

**D**



- For the clean and professional storage of the air hose.

Part No.		Pieces	
790 121 151 *		1	

## BCF® Plus Hose

**D**



Part No.		Length [mm]	
790 122 087 *		11	

# Fusion Technology

## BCF® Plus Supporting Tool

**D**



d-d [mm]	Part No.		Pieces	
20 - 63	790 121 072 *		1	
75 - 110	790 121 073 *		1	



## BCF® Plus Bladder Removal Tool

**D**

Part No.		Pieces	
790 121 075 *		1	



## Upgrade Program

**D**

In order to give our existing BCF Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing BCF Plus machines.

The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new BCF Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

Type	Part No.		
BCF Plus	790 121 124 *		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable



# Fusion Technology

## Accessories for the BCF®Plus plastic fusion joining machine

### Tangit KS-Cleaning Tissues

**D**



- Wet Tangit cleaning tissues to clean the fusion faces
- One box contains 100 tissues

Part No.		
799298024A *		

### BCF® Plus Win-Weld Program

**D**



- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- **incl. Recordcard / USB stick**

	Part No.		Pieces	
WIN 2000/XP	790 121 471 *		1	

### PCMCIA Record Card

**D**



- Fusion data from the BCF® Plus- machine can be stored on an exchangeable protocol card (record card) with a storage capacity of approx. 900 fusion protocols. It allows a paperless documentation.

Part No.		
790 121 473 *		

### Label Printer Package IR & BCF

**D**



Description	Part No.		
Label Printer TLP-2844	155 131 031 *		

### Thermal Transfer Labels

**D**



- The labels are made of white polyester. The printing, as well as the labels themselves, are resistant against:
- UV resistant
- Temperatures up to 140 °C (284 °F)
- Up to 95% humidity
- Cleaning agents (Isopropylalcohol etc.)
- Two identical labels are printed for each weld. Each roll contains 2500 labels.
- Label size: 38 x 19 mm
- Specification information available on request from George Fischer.

Part No.		Pieces	
790 131 028 *		1	

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Thermal Printer Ribbon for TLP-2742 / TLP-2844

**D**



- The thermal transfer ribbon is specially suited for printing polyester labels.

Part No.		Pieces	
790 131 029 *		1	

^ = 40% Restock Charge  
\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## Rental Program

### Electro Plus

**D**



- Prices are monthly, prorated by calendar day
- Complete Electro Plus Fusion Machine

d-d [inch]	Description	Part No.		
½ - 12	Electro Plus	<b>R50000001</b>		

### MSA250

**D**



- Prices are monthly, prorated by calendar day
- Includes Cable Assembly, Bar Code Set with Continuity Tester and Carrying Case

d-d [inch]	Description	Part No.		
½ - 12	MSA250 SE, 115V AC	<b>R99350500</b>		
½ - 12	MSA250 EX Multi, 230C AC	<b>R99350520</b>		

### SG110 Socket Fusion Machine

**D**



- Prices are monthly, prorated by calendar day
- Rental does not include heater bushings or peeling tools; these items must be purchased separately

d-d [mm]	Description	Part No.		
16 - 110	SG110 Socket Fusion Machine	<b>R90310003</b>		

### Contact Butt Fusion Machines

**D**



- Prices are monthly, prorated by calendar day
- The GF315 is equipped with an automatic heater

d-d [mm]	Description	Part No.		
40 - 160	GF160	<b>R90114061</b>		
75 - 250	GF250	<b>R90115030A</b>		
90 - 315	GF315 CNC (SUVI400)	<b>R90112030A</b>		
200 - 500	GF500 (SUVI50)	<b>R90116040A</b>		

^ = 40% Restock Charge  
\* = Non-Cancelable/Non-Returnable

# Fusion Technology

## IR Plus Machines

**D**



- Prices are monthly, prorated by calendar day
- A power converter (115/230V AC) is included with the IR63 and IR110 machine
- The IR225 and IR315 come equipped with a label printer

d-d [mm]	Description	Part No.		
20 - 63	IR63 Plus	<b>R90131005</b>		
20 - 63	IR63 Plus with PFA Software and 1/4-2" inserts	<b>F90131005</b>		
20 - 110	IR110 Plus	<b>R90132001</b>		
63 - 225	IR225 Plus	<b>R90133009</b>		
250 - 315	IR315 Plus	<b>R90134001</b>		
-	Label Printer TLP2844	<b>R55131031</b>		

## BCF Plus Machine

**D**



- Prices are monthly, prorated by calendar day
- Rental includes facing tool and remote head. Rental does not include bladders and air hose which must be purchased separately

d-d [mm]	Description	Part No.		
20 - 63	BCF Plus	<b>R90121002</b>		
75 - 110	BCF Plus Extension Package	<b>R90121022</b>		

## Pipe Cutter Tools

**D**



- Prices are monthly, prorated by calendar day
- Rental does not include cutting blades, which must be purchased separately

d-d [mm]	Description	Part No.		
110 - 250	PPC 250	<b>R90201002</b>		
110 - 250	PPC 250 HP	<b>R90201011</b>		
160 - 315	PPC 315 HP	<b>R90109800</b>		
160 - 355	KS 355	<b>R90202001</b>		
315 - 500	KS 1600	<b>R90109601</b>		

^ = 40% Restock Charge

\* = Non-Cancelable/Non-Returnable