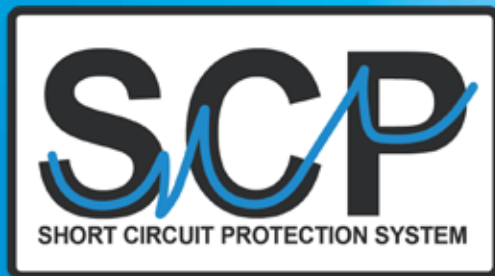


SCP- System

electrofusion
welding machines



Electrofusion welding

Electrofusion welding has been a reliable method of joining polyethylene or polypropylene pipes and fittings used in gas, water, sewage and industrial applications for decades.

Proper, secure and durable welding connections require the following essential components:

1



**HIGH QUALITY
PIPES AND
FITTINGS**

2



**EXPERIENCED
AND CERTIFIED
WELDERS**

3



**SUPERIOR
WELDING
EQUIPMENT**

DATA TRANSFER TO
AGRU WELDCONNECT
APP VIA BLUETOOTH

COMPACT AND
EASY-TO-CARRY

GPS TRACKING
AND RECORDING

LABEL PRINTER

USB CONNECTION

INTUITIVE
INTERFACE

BARCODE SCANNER
ISO 13950; ISO 12176

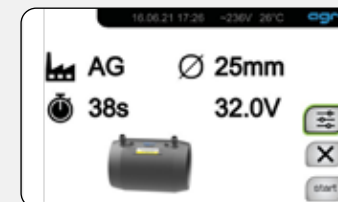
WELDER CODE

EXTRA LARGE
DISPLAY

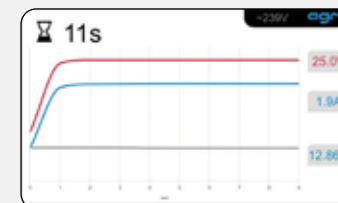
AGRU EF 1600



STEP BY STEP INSTRUCTIONS



COMPLETE RECORDING AND DOCUMENTATION



PROGRESSION DIAGRAM OF WELDING PARAMETERS

1



AGRU electro- fusion fittings

AGRU electrofusion fittings (PE 100-RC or PPR) ensure maximum safety with a fully embedded heating wire for easy cleaning, corrosion resistance, and protection during handling and pipe insertion.



Smooth internal surface for easy and safe weld preparation.



Fully embedded heating wire with no risk of damage or displacement during pipe insertion.



Homogeneous and durable weld due to gentle & even heat distribution.



Welding quality

There are several influencing factors in electrofusion welding (if installation and welding guidelines are not followed) that are difficult to control. These factors can lead to short circuits and subsequent ignition of the material.

INFLUENCE FACTORS:



Incomplete pipe insertion, or pipe ends cut not square.
The welding zone is not properly covered which leads to overheating.



Angular deviation of the inserted pipes.
This results in high stress during the welding process and might lead to melt escape.



Conical pipe end collapse due to improper production or storage.
The welding zone is not fully covered which might lead to overheating and melt push out.



AGRU electrofusion welding machines with SCP „Short Circuit Protection“

Detects short circuits and stops the welding process immediately

Inadequate welding preparation can cause excessive movement of the heating wire during welding, which might lead to:

- undetected short circuits,
- overheating,
- material escape,
- ignition of the plastic material.

Newly available AGRU electrofusion universal machines with built-in SCP (Short Circuit Protection) system, detect short circuits based on variations in fittings heating wire resistance. These resistance changes are documented and analysed by the SCP system, which stops the welding process accordingly.

The SCP system works for all AGRU injection moulded fittings from OD 20 mm up to OD 500 mm and is implemented in all new AGRU electrofusion welding machines.

By using AGRU electrofusion fittings and AGRU welding machines with SCP system, maximum safety is applied to your piping system.

Notwithstanding all safety mechanisms, it is the welder's responsibility to evaluate the weld preparation, the welding process and the suitability of the weld for the intended purpose.

Full documentation and traceability: AGRU Weld^{NET}

All new AGRU electrofusion welding machines are equipped with comprehensive documentation and SCP system. The entire weld history can be seamlessly integrated into the AGRU WeldNet data management system. This comprehensive system documents, evaluates and identifies all

welds, including those affected by short circuits. The AGRU WeldNet system is at the heart of your entire welding operation. Welding reports can be easily retrieved from the machine via a USB stick and analysed using the AGRU WeldNet system, as well as printed directly from the machine.



The high-performance tool for dimensions up to OD 1600 mm. Extra-large display, complete documentation and step-by-step instructions for maximum focus on the essentials!



Small but powerful. A perfect solution for general infrastructure applications up to OD 1600 mm.



The all-rounder, perfect for all common applications in infrastructure.



Lightweight, easy to handle. The choice for small dimensions in the domestic or industrial sector.

AGRU EF 1600	
DETAIL	INFO
AGRU Code	SHR1600EF00
Automatic data logging	Yes, 20 000 Welds
Internal cooling system	Yes
Operating range, diameters	≤ 1600 mm
Power supply	230 V, 50 Hz, 2800 W
Output voltage	MAX 130 A
SCP Software	Yes
Dimension	236x295x330 mm
Weight	12 kg

AGRU HST 300 PRICON 2.0	
DETAIL	INFO
AGRU Code	SHR300PRI00
Automatic data logging	Yes, 20 000 Welds
Internal cooling system	Yes
Operating range, diameters	≤ 1600 mm
Power supply	230 V, 50 Hz, 2800W
Output voltage	MAX 130 A
SCP Software	Yes
Dimension	236x295x330 mm
Weight	12 kg

AGRU HST 300 PRINT PLUS	
DETAIL	INFO
AGRU Code	SHR300PLU10
Automatic data logging	Yes, 10 000 Welds
Internal cooling system	No
Operating range, diameters	≤ 500 mm, larger with limitation
Power supply	230 V, 50 Hz, 3295 W
Output voltage	MAX 110 A
SCP Software	Yes
Dimension	236x295x330 mm
Weight	16 kg

AGRU HST 300 SMART	
DETAIL	INFO
AGRU Code	SHR300SMA00
Automatic data logging	Yes, 500 Welds
Internal cooling system	No
Operating range, diameters	≤ 160 mm
Power supply	230 V, 50 Hz, 1680 W
Output voltage	MAX 65 A
SCP Software	Yes
Dimension	260x260x29
Weight	8 kg