

# Solid As A Rock

Electrofusio**n** Unit

MSA 315

MSA 330

MSA 340



# The Benefits

Reliable and easy to use – these are the main characteristics of the MSA 315/330/340. These MSA enhance your daily operations tremendously thanks to numerous features which support safety, speed and accuracy.

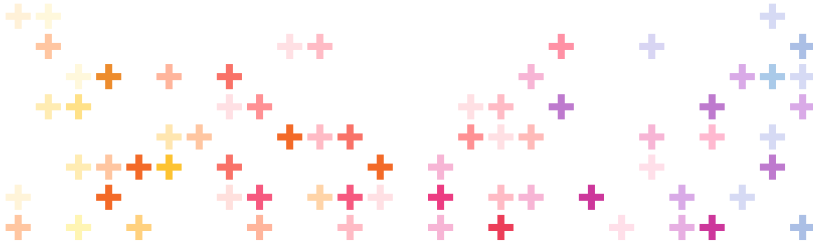
## + Everything needed



# The System

The right solution for everyone thanks to different types.

The MSA 315 is the entry level which allows the installer to weld fittings up to 315mm; the MSA 330 enables a larger range, while the MSA 340 includes the ability to record automatically traceability and GPS coordinates. All encompass an easy and intuitive handling.



## Easy and intuitive

Easy and intuitive operation on site is given by the practical electronic keypad, to navigate through a clearly structured work flow. With one-button (START) operation, the user is guided from preparation to the finalization of the fusion process. Steps and language can be adjusted to the personal requirements. At the beginning of each welding, additional information like operator ID (ISO 12176-3) and job number can be entered, to be part of the final fusion record.



## Automatic data mode

All MSA have a barcode scanner as standard, to simplify the work to the installer, even in cramped, difficult spaces. Based on an USB interface, the scanner is either connected to the USB port on the rear (MSA 315) or, via extension cable, as closer as possible to the joint (MSA 330/340). Obviously manual entry is also possible, in case of emergency.



## Robust design

The robust design of the aluminum housing preserves the electrical components, giving an outstanding protection factor, in its category, against dust and water.

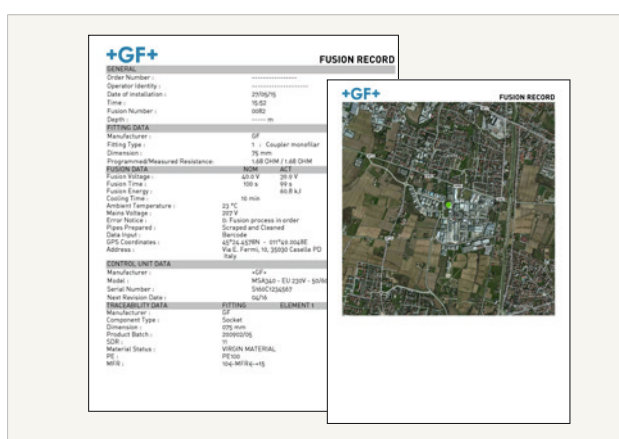
The die casted enclosures contribute to reduce the overall weight and provide an excellent heat dissipation to enable welding in series.

The fusion unit is ideally balanced in weight ensuring ergonomic handling and transportation.

The professional storage box – suitable for even the roughest conditions – may complete the package.

# The Details

To ensure high quality fusion cycles, the MSA units automatically adjust the welding time. The entire fusion process is supervised, in case of anomalies – like inadequate input voltage – a specific error message will pop up. Depending on the ambient temperature, the machine automatically adjusts the welding time for the correct distribution of energy to the fitting. When the fusion process has been completed, the cooling time of the joint is displayed.



## Comfortable handling

The housing, handle and feet have been designed to adjust to the needs of the end users, e.g. for comfortable cable winding, ergonomic transport and ground separation. The power cord and the fusion cable, flexible and made of high quality material, are stored securely and tidily on top. Angle pin adapters are supplied in the pouch of the barcode scanner. No annoying sharp edges on the housing get in the way when using, especially under rough conditions.

## Easy data transfer

All machines allow fusion data recording to the internal memory; the data are easily transferred via standard USB memory key, to a personal computer for print out or import to a digital archive, like the WeldinOne. No additional data management software must anyway be installed, as the fusion protocols are already available in PDF format.

## Greatest scope of recorded data

Each protocol may contain up to 40 different data fields, including fusion parameters, operator ID, job number and monitored values. The MSA 340 stores the GPS coordinates of the jointing, thanks to its built-in receiver, to identify the geographical location (i.e. with Google Earth) and the traceability codes of fitting and pipeline components (according to ISO 12176-4).

# The Applications

The polyvalent electrofusion machines facilitate the job on all construction, providing quality and efficiency.

## + Versatile



### Transport and distribution

The MSA 315/330/340 electrofusion units are used in all applications you have to weld PE and several PP fitting types. No matter if they are new installations, renovation, repair or extension of existing water and gas lines. If your installations are dealing with transportation lines, then the MSA 330/340 are capable of welding large diameters. For distribution lines down to house connections, where you have smaller diameters, these electrofusion units offer an unbeatable price-performance ratio.



### Building technology and industrial treatment

The MSA 315/330/340 control boxes feel comfortable in a large variety of other applications, too. Big infrastructures set up, like a stadium or an airport terminal. Waste treatment pipelines in harsh environment or sewage network under the river. Everywhere, these reliable electrofusion units contribute to leak proof connections.



# Technical Overview

The MSA family gives you the freedom to choose the appropriate tool for your day-to-day business – a significant cost benefit for you. MSA 315 offers you a solid base machine, MSA 330 supports more functionalities, both in 230V and 115V versions, while MSA 340 offers, in addition, geolocalization and traceability features.



| MSA 3 family overview                         | MSA 315  | MSA 330  | MSA 340  |
|-----------------------------------------------|----------|----------|----------|
| Fittings dimension range (Ø mm)               | 20÷315   |          |          |
| Multiple weldings in sequence                 | ✓        | ✓        | ✓        |
| <b>Operating procedures check</b>             |          |          |          |
| Automatic temperature compensation            | ✓        | ✓        | ✓        |
| Fusion current monitoring (short/interrupt)   | ✓        | ✓        | ✓        |
| Electrical (thermal and fuse) protection      | ✓        | ✓        | ✓        |
| <b>Data input</b>                             |          |          |          |
| Barcode scanner                               | ✓        | ✓        | ✓        |
| Manual fusion input                           | ✓        | ✓        | ✓        |
| Welder pass                                   | ✓        | ✓        | ✓        |
| <b>Data recording</b>                         |          |          |          |
| Documentation of fusion (number of protocols) | ✓ (500)  | ✓ (1000) | ✓ (1000) |
| Traceability documentation (ISO 12176-4)      | -        | -        | ✓        |
| GPS support (GPS accuracy)                    | -        | -        | ✓ (3m)   |
| <b>Operations control</b>                     |          |          |          |
| Display brightness configurable               | ✓        | ✓        | ✓        |
| Acoustic alert                                | ✓        | ✓        | ✓        |
| Different levels of access (admin/user)       | -        | ✓        | ✓        |
| Configurable languages                        | 16       | 11       | 11       |
| <b>Serviceability</b>                         |          |          |          |
| Programmable maintenance interval             | -        | ✓        | ✓        |
| Programmable rental time interval             | -        | ✓        | ✓        |
| Software upload via USB memory stick          | ✓        | ✓        | ✓        |
| <b>Usability</b>                              |          |          |          |
| Configurable workflow                         | -        | ✓        | ✓        |
| Problem recognition (fittings, generators)    | ✓        | ✓        | ✓        |
| Clear messages to the operator in the display | ✓        | ✓        | ✓        |
| User guidance                                 | ✓        | ✓        | ✓        |
| Indication of energy, fusion and cooling time | ✓        | ✓        | ✓        |
| Data protocol format                          | PDF,CSV  | CSV,PDF  | CSV,PDF  |
| Transport box                                 | Optional | Optional | ✓        |

# Specifications

Engineering at its best: high-end components in liaison with the possibility of individual configuration support your work flow perfectly. Depending on the power supply range (230V or 115V), the MSA330 and MSA 340 offer distinguishing traits to comply with national standards.



| Technical specifications          | MSA 315 230V             | MSA 330/340 230V            | MSA 330/340 115V            |
|-----------------------------------|--------------------------|-----------------------------|-----------------------------|
| <b>Operating conditions</b>       |                          |                             |                             |
| Working temperature range         | min. -10 °C, max. +45 °C | min. -10 °C, max. +45 °C    | min. -10 °C, max. +45 °C    |
| <b>Electrical data</b>            |                          |                             |                             |
| Input voltage range (Vac)         | 190 – 265                | 180 – 265                   | 90-135                      |
| Frequency range (Hz)              | 50 - 60                  | 50 - 60                     | 50 - 60                     |
| Current consumption (Max, A)      | 13 A                     | 16 A                        | 32 A                        |
| Output voltage (V ac)             | 8 – 42                   | 8 – 48                      | 8 – 48                      |
| Output current (max, A)           | 70                       | 90                          | 90                          |
| Input power (kW)                  | 3.0                      | 3.6                         | 3.6                         |
| Type of protection                | IP64                     | IP64                        | IP54                        |
| Electrical switch type            | ON / OFF                 | ON / OFF                    | Emergency switch            |
| <b>Data and operation control</b> |                          |                             |                             |
| Communication interface           | USB Type A               | USB Type A                  | USB Type A                  |
| Buttons                           | 2+Start+Stop             | 5+Start+Stop                | 5+Start+Stop                |
| Display                           | LCD16x2 s                | LCD20x4 s                   | LCD20x4 s                   |
| <b>Mechanical data</b>            |                          |                             |                             |
| Dimensions (mm)                   | 280x480x220              | 280x480x220                 | 280x480x320                 |
| Weight (Kg)                       | 17                       | 19                          | 22                          |
| Case material                     | Aluminum                 | Aluminum                    | Aluminum                    |
| Mains cable length                | 4m                       | 4m                          | 4m                          |
| Fusion cable length               | 3m                       | 4m                          | 3m                          |
| Detachable fusion cable           | -                        | -                           | ✓                           |
| Mains plug                        | Schuko 16A               | Schuko 16A                  | IEC 60309                   |
| Connectors                        | 4mm                      | 4mm                         | 4mm                         |
| Adapters (90°)                    | 4.0 – 4.0 mm             | 4.0 – 4.0 mm / 4.0 – 4.7 mm | 4.0 – 4.0 mm / 4.0 – 4.7 mm |
| <b>Norms compliance</b>           |                          |                             |                             |
| EMC (EN61000)                     | ✓                        | ✓                           | ✓                           |
| Safety (EN60335)                  | ✓                        | ✓                           | ✓                           |
| ISO12176-2/3                      | ✓                        | ✓                           | ✓                           |
| <b>Electrofusion unit code</b>    |                          |                             |                             |
| MSA 315                           | 230 V<br>790 128 041     | 230 V<br>-                  | 115 V<br>-                  |
| MSA 330                           | -                        | 790 160 005                 | 790 160 017                 |
| MSA 340                           | -                        | 790 160 007                 | 790 160 014                 |

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