



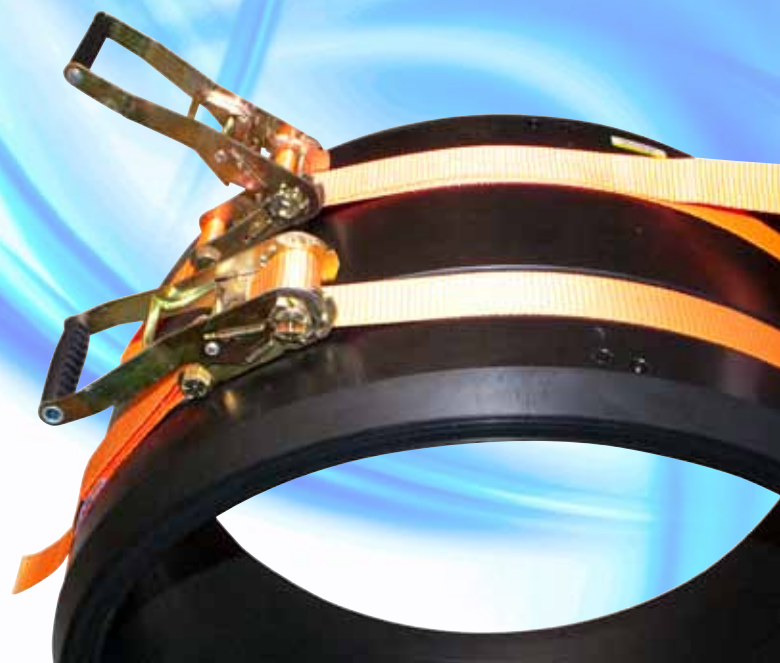
# ELECTROFUSION FITTINGS

MADE OF PE 100 AND PE 100-RC



**agru**

Worldwide Competence  
in Plastics





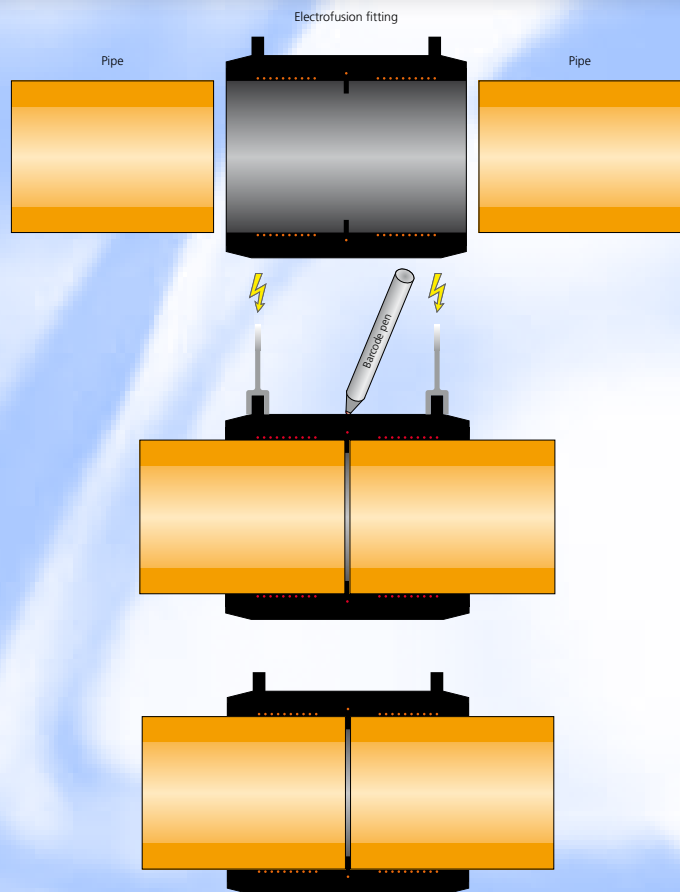
## Worldwide competence in plastics

AGRU Kunststofftechnik GmbH is a family-owned, highly productive enterprise headquartered in Austria with worldwide activities. These include the production and sales of high-quality thermoplastic polymer products. One of our core competences are piping systems made of polyethylene (PE).

Our product group AGRULINE offers a complete top quality range of pipes, fittings, valves and special parts. The main focus is the environmentally friendly and safe supply with natural gas and potable water as well as the disposal of wastewater.

State-of-the-art production facilities assure highest product quality by processing high quality PE 100 material types. Furthermore, we ensure that AGRULINE pipe and fitting components are always kept up-to-date and fulfil the technical requirements of the municipal natural gas and water supply.

## ELECTROFUSION FITTINGS



## Products

AGRU electrofusion fittings enable an efficient installation and trouble-free operation of supply and disposal systems. Electrofusion fittings, which were produced by injection moulding, offer superior advantages to the user.

- Simple and safe installation
- Entirely embedded resistance wire
- Excellent long-term behaviour



# FOR SUPPLY AND DISPOSAL



## Application areas

AGRU electrofusion fittings are used for permanently leak-proof connections of PE pipes and fittings. Electrofusion sockets are applied at above-ground and underground pipelines. The most compact welding machines and the possibility to weld in small or difficult to access spaces characterise electrofusion welding.

AGRU electrofusion fittings are weldable with pipes made of PE 80, PE 100, PE 100-RC as well as PE-Xa. Depending on the dimension they can be used for pipes from SDR 33 up to SDR 7.4. Welding can be executed at an ambient temperature from -10 °C to +45 °C.





## Injection moulded supply range

An optimised manufacturing technology allows high shrinkage stresses in the electrofusion fittings. This guarantees the required pressure during the welding process and therefore a homogeneous joint in the complete fusion area. This enables:

- Maximum processing safety and reliability
- Closing the gap between socket and pipe



# ELECTROFUSION FITTINGS

## Modular design

Caused by the modular fitting assembly and the production process the resistance wire is completely embedded in the fitting. This leads to essential advantages throughout the application:

- Smoother inner surface and welding zone
- Easy to clean
- Resistance wire is protected against damages
- Controlled heat transfer during the welding process (constant temperature in the entire welding area)
- No thermal damage of the material
- Void-free weld zone



## E-fittings

Besides connections of pipes by means of electrofusion sockets also tees, elbows and reductions are an integral part of any piping system. AGRU offers a wide range of electrofusion fittings to ease the installation.

## E-adaptor fittings

Pipelines made of HDPE can be permanently joined with metallic pipelines and accessories. These fittings are offered as electrofusion fittings with integrated adaptors, optionally available with male or female thread made of galvanised steel or brass.

### Supply range

Fitting	SDR	from OD [mm]	to OD [mm]
E-socket	17	90	500
E-socket	11	20	500
E-tee	11	20	225
E-elbow 45° and e-elbow 90°	11	20	225
E-reducer	11	25 / 20	225 / 160
E-endcap	11	20	315

### Supply range

Fitting		SDR	from OD [mm]	to OD [mm]
E-adaptor fitting, female thread	steel	11	20 × ½"	63 × 2"
	brass	11	20 × ½"	63 × 2"
E-adaptor fitting, male thread	steel	11	20 × ½"	63 × 2"
	brass	11	20 × ½"	63 × 2"

Each one available as socket, elbow 45° or elbow 90°.

## INJECTION MOULDED SUPPLY RANGE



## E-sockets made of PE 100-RC

Pipes with integrated protective characteristics, made of PE 100-RC ("resistant to cracks"), are being successfully applied at no-dig and sandbed-free installations for years. The e-coupler programme made of PE 100-RC has to fulfil the very same stringent AGRU quality demands. In connection with Sureline® and SurePEX pipes electrofusion sockets made of PE 100-RC establish a system for highest standards.

- Outstanding resistance to slow crack growth
- Insensitive to point loads
- Suitable for sandbed-free installations
- Highest possible quality

### Supply range

Fitting	SDR	from OD [mm]	to OD [mm]
E-socket	17	90	500
E-socket	11	20	500



## Supply range

Fitting	SDR	from OD [mm]	to OD [mm]
E-socket (monofilar)	11	560	630
E-socket (monofilar)	17	560	710
E-socket (bifilar)	17	800	1400



## Machined large diameter sockets

Large diameter electrofusion sockets are especially used at rehabilitations, in small spaces or for exposed locations.

These sockets are fabricated mechanically from OD 560 mm to OD 1400 mm. E-sockets up to OD 710 mm are equipped with a monofilar heating system analogue of the injection moulded construction. Moreover e-sockets  $\geq$  OD 800 mm have a bifilar heating system. Furthermore a pre-heating function supports the gap closing prior to the actual welding process.

Starting with dimension OD 560 mm tension belts are necessary. They prevent an expansion of the socket during the welding and therefore increase the welding pressure and welding quality.

## ELECTOFUSION FITTINGS



## Accessories & welding technology

Being a full-range supplier of plastic piping systems AGRU offers equipment technology matching the electrofusion fittings supply range. This range contains universal welding machines with bar code input and protocol as well as tools for scraping, cutting and further accessories.

A safe handling of tools and a proper installation lead to a safe operation. Customers benefit from our consultancy and services of internal and external trainings or supervising on-site.



# APPROVED



## Quality

AGRU electrofusion fittings are produced according to international standards (EN 12201-3, EN 1555-3 and EN 13244-3). In the course of the internal quality control according to the quality management system ISO 9001:2008 the finished fittings are inspected with regard to:

- Dimensional accuracy
- Hydrostatic long-term strength
- X-ray control
- Peel test
- Check of the electrical resistance

In the course of regular external quality controls additional tests are performed. Approvals for the natural gas and potable water supply, as well as sewage disposal document the high quality of AGRU.

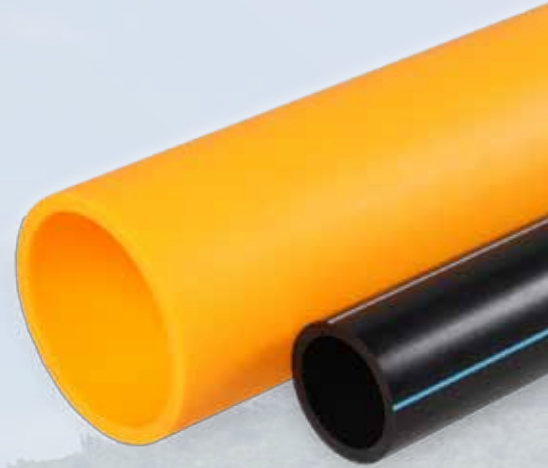




# AGRULINE

Unique and innovative solutions for natural gas, potable water, sewage and industrial pipelines

- Easy & fast
- Safe & tough
- Pressure resistant
- High durability



## AGRULINE

PIPING SYSTEMS FOR NATURAL GAS, WATER & SEWAGE

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