# Electrofusion welded fittings ELGEF+

## Georg Fischer


The ELGEF+ Series from GF is a complete package of PE electrofusion welded fittings with various certifications for PE-100, PE-80 and PE-63 pipes. Electrofusion welded fittings have a moulded-in heater coil that ensures welding of the fitting to the PE pipe as soon as voltage is applied. This results in a high-quality joint.

### APPLICATION

High-quality PE couplings for gas and water transport (with certification)

### CHARACTERISTICS

- Electrofusion welded fittings from 20 to 630 mm diameter
- Modular system consisting of (adapter) couplings, branch pieces, elbows and saddles
- Extremely simple welding process by connecting the welding transformer to the fittings by means of a 4 mm connecting nipple
- Dynamically distributed heater coil for added security
- Packed with a printed barcode sticker per product
- For combination with welded fittings from the ELGEF package
- Welding unit and other equipment can be hired or purchased separately from Netafim

### INSTALLATION & MAINTENANCE

- Up to 63 mm, the fittings are supplied with integral clamping screws. With larger sizes, external fixing is necessary during welding.
- In addition to the fittings, Netafim also supplies and hires the necessary scraping tools (i.a. rotary scrapers, fixing clamps and welding machines).
- Transitions from PE pipes to other materials (e.g. PVC) can be made by means of flanges.

### TECHNICAL DATA

| | |
|---|---|
| Dimensions | : 20 - 630 mm (depending on type) |
| Option | : adapter couplings from PE to alternative materials |
| Max. pressure | : 16 bar (water) and 10 bar (gas) |
| Max. temp. | : 60°C (with decreasing max. pressure) |
| Material | : PE-100 |
| Connection | : 4 mm connecting nipple |
| Certifications | : CE and ISO 9001 (general) |
| | : GASTEC / KIWA (Netherlands) |
| | : ELECTROLABEL (Belgium) |
| | : DVGW, TüV (Germany) |
| | : ÖVGW (Austria) |
| | : SVGW (Switzerland) |
| | : Gas Natural / WRAS (Great Britain) |
| | : DS (Denmark) |
| | : GdF (France) |

### WELDING PROCEDURE

Electrofusion welded joints can be easily made by following a few basic rules. Note that 80% of the quality of the joint made is determined by closely following these rules.

1. Start the welding process by inspecting the welding machine and the materials to be welded.
2. Remove any coarse soiling and shorten the pipe at right angle using a pipe cutter or saw.
3. Clean the pipe section to be welded with a dry cloth and then manually scrape 0.2 mm off the surface layer. Use a rotary scraper for this. Never use sandpaper or emery cloth.
4. Degrease the welding zone immediately before assembly using a cleaning cloth or suitable PE cleaning agent (use non-linting, non-pigmented paper).
5. Mark the insertion depth on the pipe.
6. Only now take the fitting out of the packaging. Important: If the welding surface of the fitting has been touched by hand, this must also be cleaned using a cleaning cloth.
7. Push the fitting over the pipe up to the mark or stop and tighten the screws of the integrated positioning pieces (fittings up to 63 mm diameter). With larger diameters, position the pipe with the fitting in fixing camp and tighten securely.

8. Connect the plugs of the welding device to the fittings using the 4 mm adapter plugs.
9. Read in the welding data from the bar code stick er on the product and check the data on the dis- play. Start the welding process and monitor the welding progress. Record on the pipe the time at which the clamps can be removed again (after welding and cooling time). During welding, the welding indicators on the fitting pop up to indicate that the welding process has started.
10. When the cooling time has expired, the welding clamps can be removed and the fitting is ready for use.

### Minimum cooling time

| Diameter (mm) | 20 - 63 (min.) | 75 - 110 (min.) | 125 - 160 (min.) | 180 - 225 (min.) | 250 - 400 (min.) |
|---|---|---|---|---|---|
| Remove clamp | 6 | 10 | 15 | 20 | 30 |
| Pressure test (< 6 bar) | 10 | 20 | 30 | 45 | 60 |
| Pressure test (< 24 bar) | 30 | 60 | 75 | 90 | 150 |
| Saddles (< 6 bar) | 10 | 20 | 20 | 20 | 20 |
| Saddles (< 24 bar) | 30 | 60 | 60 | 60 | 60 |