

## INNOGAZ ½" IPS to 8" IPS Coupling and Reducer QUICK REFERENCE INSTALLATION INSTRUCTIONS

Assembly of Pressure Couplings and Reducers  
½" CTS – 8" IPS for  
Pipes PE2406 – PE2708 - PE3408 - PE4710

### Observe the further applicable documents

This brief instruction is part of the technical documentation for this product.

Other applicable documents are:

- Innogaz General Installation Guide
- Technical Data sheets
- Operation instructions for tools

Any deviations from the Innogaz General Installation Guide or a failure to observe the safety instructions can cause death, serious injuries or damages to properties.

### Intended use and areas of application

Innogaz fittings are used for fused joints at pressure pipes made of high density & medium density polyethylene in gas distribution systems with a wall thickness ranging from SDR 17 to 11. Other SDR range on request.

Innogaz fittings are tested and approved according to ASTM F1055, ASTM D2513, and CSA B137.4 for a maximum operating pressure up to 128 psi (Gas).

Innogaz fittings are suitable for installation in ambient temperatures ranging from -22°F to 120°F (-30°C to 50°C) and operating temperatures from -22°F to 140°F (-30°C to 60°C).

### Obligations of the installer

All persons involved in the installation of Innogaz Electrofusion fittings should

- be qualified fusion fitting operators
- strictly observe this brief instruction used in conjunction with company approved electrofusion installation procedure

### Transport and storage

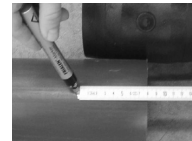
- in original packed conditions
- UV-protected
- transport and storage temperature from 32°F up to 122°F (0°C up to 50°C)

Observe safety advice in the detailed assembly instructions contained in the Innogaz General Installation Guide.

1. Clean pipe of rough contaminations.



2. Measure and mark the insertion depth (half of the coupling length)



3. Remove the oxide layer from the pipe surface using a scraper tool. Marked scraping area should exceed fitting perimeter by ½" (12mm).



Use appropriate tool to remove min .006" (.15 mm) to max of .01" (.25mm) for ≤ 2" IPS and .014" (.35mm) for ≥ 3" IPS

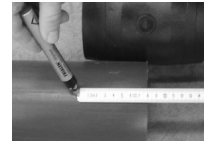
4. If required, chamfer the external and internal cutting edges (e.g. with hand scraper).



5. Clean the surfaces to be fused (surface of the pipe (a) to be fused and the interior surface of the fitting (b)) with the prescribed cleaning agent, let evaporate.



6. Mark the insertion depth again.



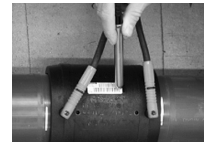
7. Insert the pipe up to the marking, ensure a tension free and deflection free assembly of the components.



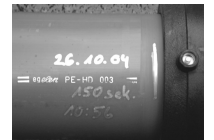
8. Use Clamping tools to prevent movement during fusion and to restore pipe irregularities or ovality if necessary.



9. Connect fusion control unit, read in the barcode and start fusion process.



10. At the end of the fusion, note the parameters on the pipe. Cooling time CT\* (defined on back page) must be strictly observed.



## Fusion parameter table cylindrical fittings

Fitting	Clamp time minutes	Rough handling time minutes	Before applying pressure time minutes	Fusion time at 23C / 74F seconds	Fusion time at -30C / -22F seconds	Fusion time at 50C / 122F seconds
¼ X ½ CTS	4	SAME	SAME	23	28	21
1 CTS X ½ CTS	4	SAME	SAME	20	26	18
1 CTS X ¾ IPS	5	SAME	SAME	27	33	24
1 CTS X 1 IPS	5	SAME	SAME	29	38	25
2 IPS X 1 ¼ IPS	10	SAME	SAME	65	86	58
½ CTS	3	SAME	SAME	17	21	15
½ IPS	3	SAME	SAME	22	26	19
¾ IPS	6	SAME	SAME	27	33	24
1 IPS	6	SAME	SAME	37	45	33
1 CTS	6	SAME	SAME	29	35	26
1 ¼ IPS	6	SAME	SAME	46	56	41
1 ½ IPS	9	SAME	SAME	50	61	45
2 IPS	10	SAME	SAME	85	103	76
3 IPS	10	SAME	30	65	88	60
4 IPS	10	SAME	30	120	162	110
6 IPS	20	SAME	60	360	486	328
8 IPS	20	SAME	60	485	655	442

### Joint Acceptance Criteria

#### NOTICE

The described sequence of the processes is absolutely to be adhered to.

Ensure the pipe was scraped properly and a minimum of .006" (.15 mm) wall thickness but not more than .01" (.25mm) for ≤ 2" IPS and .014" (.35mm) for ≥ 3" IPS of the wall thickness was removed.

1. Ensure the pipe ends were fully stabbed to the markings.
2. Ensure the pipe and coupling were aligned and secured during the fusion and cooling cycles.
3. Ensure the proper fusion cycle was completed with no interruption or error code from the electrofusion control box.
4. Ensure the proper cooling time was followed.
5. Ensure there is no "outflow" anywhere around the base of the fitting. If there are visible signs of "outflow", the fitting must be replaced. Outflow is defined as any material visible beyond the fitting when viewed from a 90 degree angle.
6. Check the pop-up indicators were acceptable and meet the criteria stated in the procedures.

On all FRIALEN and INNOGAZ electrofusion fittings, movement of the fusion indicator is only a witness that a fusion cycle has been done. This indicator is under no circumstances the proof of a proper joint. Any movement of the fusion indicator(s) is just a visual verification that energy / heat during the fusion were in place.

In case of no movement, confirm the following:

- all steps in the preparation of the joint (scraping, cleaning & clamping) have been respected
- a visual check to ensure no melt outflow is present

#### ⚠ WARNING!

Fusion with escaping media is not permissible.

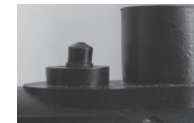
- no errors are shown on the fusion unit display

Provided this criteria are met, the fusion joint may be accepted and subject to normal pressure test requirements.

Limited or no movement



Normal movement



Above normal movement



Outflow



#### NOTICE

Any fusion not meeting the Joint Acceptance criteria above must be cut out and replaced accordingly.