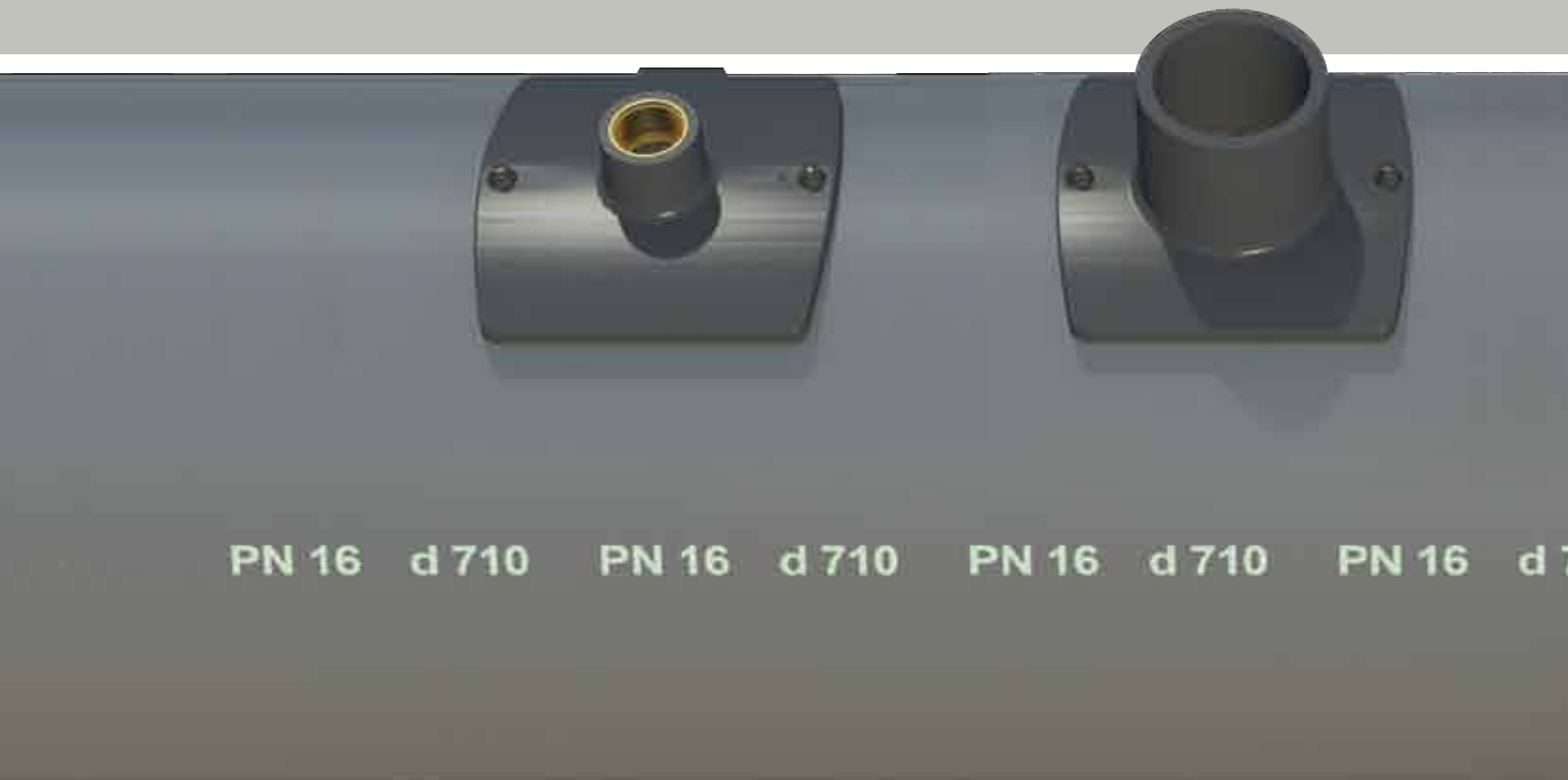




Plasson Solutions for Large Bore Pipes

Innovative Design | Simpler Installation | Plasson Quality and Reliability



Plasson Large Bore PE Fitting Systems

The use of PE has become well established in pipeline applications since its introduction in the 1950s. PE's numerous benefits over other materials include its flexibility, corrosion resistance and the option of fully welded systems has led to PE systems being used in increasingly larger diameters.

Plasson has developed a new range of innovative and intelligently designed couplers, saddles and installation tools, ensuring end users and installers have all that is required in order to perform their task in the easiest and most convenient way.

The new range continues Plasson's reputation for products that far exceed the performance requirements of the toughest international standards with products and tools to simplify the installation process.



Plasson Large Bore Couplers

Our new large bore couplers utilise new and innovative design features to simplify the welding procedure. These design features enable our large bore couplers to be welded using Plasson technology - one weld time across its operating range of -10° to +45°C, without the need for time consuming pre heating cycles.

Straps

- Prevent expansion during weld
- Allow coupling to shrink during cooling – reduces stress on weld during cooling period
- Can be removed after welding – not a structural element of the finished weld

Dual weld zones

Can be welded simultaneously or in sequence



Product geometry

- Extra material at areas of maximum load
- Customised thickness profile to improve weld quality
- Long insertion depths allow longer weld and cold zones to improve weld performance

Rising pin weld indicator

- Located in middle of strap buckle
- Tapered design prevents melt out

Wires precisely embedded in coupling

- Prevent damage during assembly
- Ensure even heat transfer during welding

Diameter Range (mm)	Rating	Pipe SDR Compatibility
450 – 710	PN16, PE100, SDR11	11 - 17
450 – 800	PN10, PE100, SDR17	17 - 33

Plasson Large Diameter Saddles

Plasson saddles are designed to deal with the challenges of connecting to large PE pipes, including ovality and pipe deformation resulting from handling and storage.

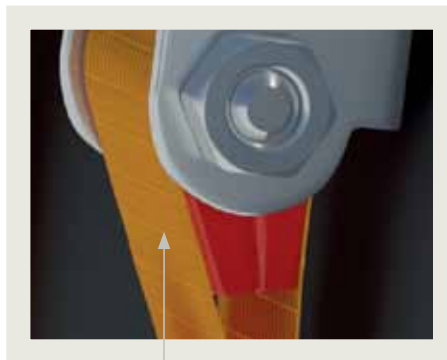
Using a simple and robust strap arrangement combined with clear and simple indicators, ensures that operators install the saddle correctly.

In addition, the saddles are the only product available that include a simple method for pressure testing the assembly prior to tapping. This system avoids the risk of expensive and time consuming mistakes resulting from tapping incorrectly welded saddles.



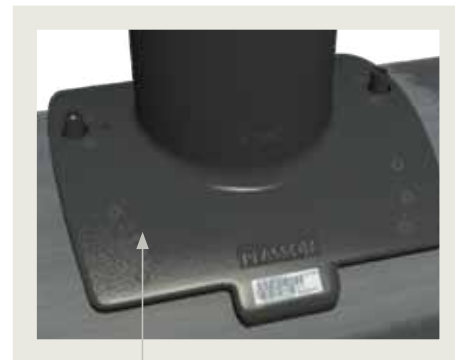
Weld integrity test

- Special test port is incorporated into the saddle to enable pressure test before cutting into the pipe.



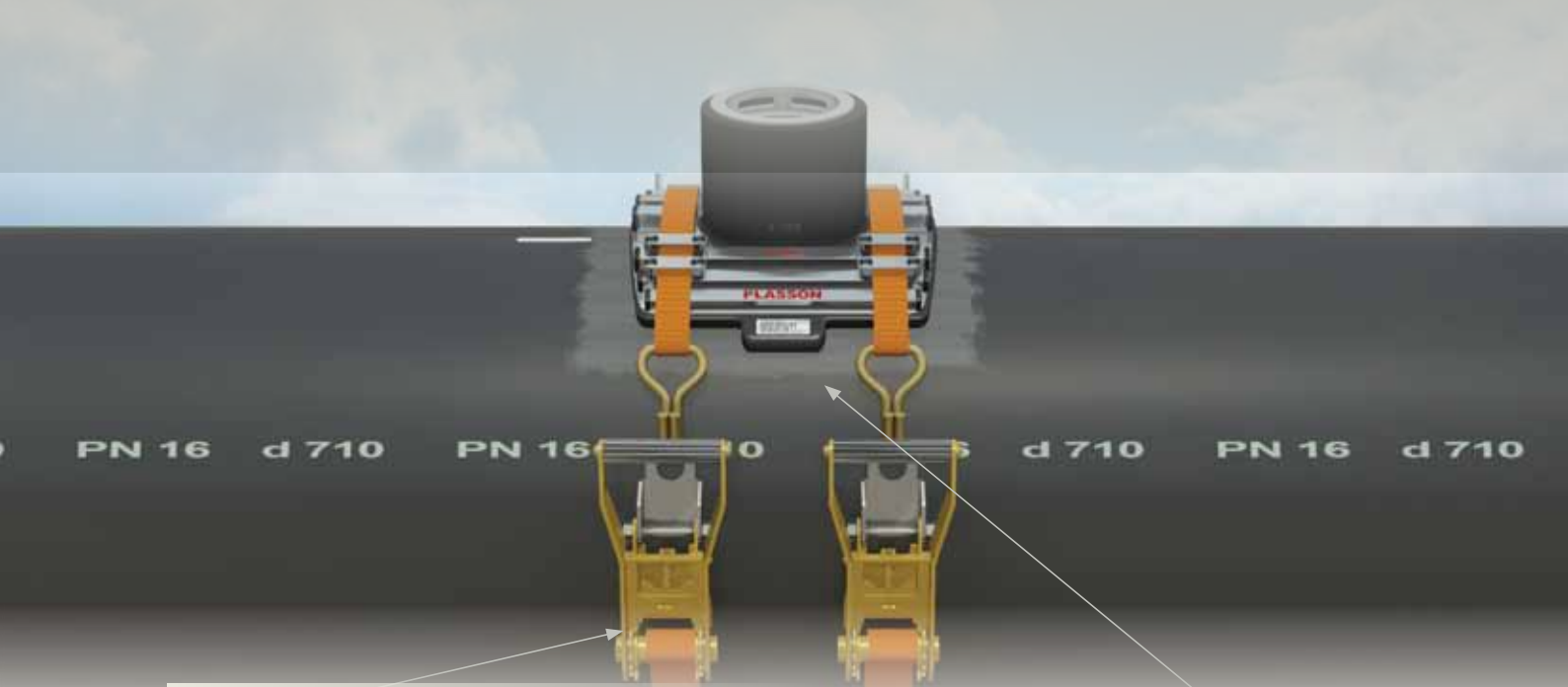
Correct tightening force indicator

- Indicated with visual gauge built into strap mechanism



Correct clamp use indicator stamp

- Integrated into the tool - leaves a mark on the saddle to show if the correct sized clamps have been used and at the correct tension.



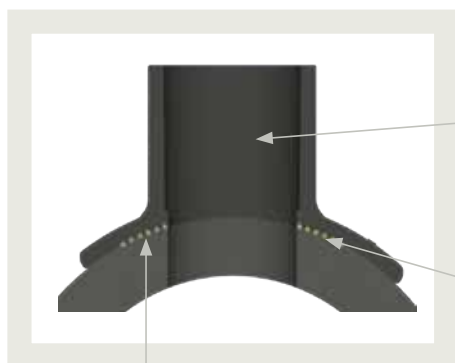
Fast and simple installation

Use of an innovative field friendly clamping system:

- Designed to obtain full contact along the welding zone, even when pipe is oval or deformed
- Lightweight.
- No need for additional tools.

Universal

- Two different saddles cover the complete range of pipe diameters from 280 to 710mm, SDR 11 to 17
- Outlets available in DN90, 110, 125, 160 and Female BSP 2" thread



Embedded heating coil:

- Embedded heating coils eliminate the risk of physical damage to the wire.
- Coils protected from corrosion build-up during storage.
- Instant heat transfer between coil and PE to speed up and improve gap closing.
- High purity resistance wire with a positive temperature coefficient:
- Single welding time for ambient temperatures between -10°C to +45°C. No temperature compensation required

Full bore outlet design

- Obtains maximal flow characteristics.
- Outlet branch is full bore SDR 11 – 90, 110, 125 and 160mm

Large fusion areas

- The welding zone reaches up to the internal bore of the outlet. This design reduces the hydraulic forces induced on the fitting when pressure is applied in the system
- Ensures area of highest stress in the fitting occurs at the strongest part of the electrofusion weld
- Contributes to the robustness and durability under hard installation and operation conditions.

Tools

Scrapers for proper preparation of the pipe surface.



Rotational Scraper for pipe 250-800
Designed to cope with deformed or oval pipes. can be fitted around a continuous pipe section to prepare for saddle installation.



Electric Scraper for fast and easy pipe preparation in large bore saddle installations.

Clamping Tools

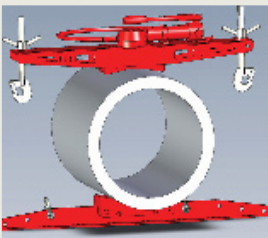


Pipe Clamp for 250-800 mm Pipe
Enables to pull the pipes into the fitting and hold the pipe in place during the fusion cycle.

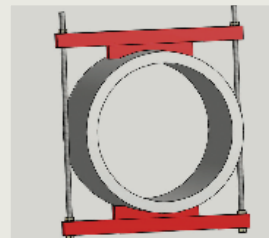


Pulling Clamp for Couplers
for easy insertion of the coupler over the pipe.

Re-rounding Tools



Hydraulic Re-rounding Tool



Mechanical Re-rounding Tool

Special control box

Designed to handle the high current and long welding times required for the welding of large diameter fittings



High frequency converter with active cooling.
can deliver up to 90 amps, for continues use up to 7000 seconds

Tooling for large bore Saddle installation



Core cutters for cutting large bore holes in thick wall PE Pipes.

Design and specifications

Plasson Electrofusion fittings are designed for optimal performance using FEA (Final Elements Analysis) software.

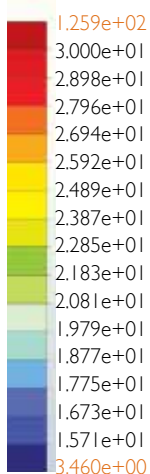
The fittings are designed to meet the performance requirements of the various standards for PE 100 systems, with estimated service lives of over 100 years.

The fittings are tested and approved to meet the following standards:

- ISO 8085
- ISO 4427, Part 3
- ISO 4437
- EN 1555, Part 3
- EN 12201, Part 3
- AS/NZS 4129:2008
- DVGW GW 335-B2

Each fitting design and each diameter is exposed to the following performance tests under extreme test definitions:

Characteristic	Test method	Test parameters
Hydrostatic strength – Ductile failure mode (short term failure mode)	ISO 1167	Induced hoop stress: 12 Mpa Duration: 100 hours Temperature: 20° c
Hydrostatic strength – brittle failure mode (long term failure mode)	ISO 1167	Induced hoop stress: 5 Mpa Duration: 1000 hours Temperature : 80° c
Hydrostatic strength – brittle failure mode (long term failure mode)	ISO 1167	Induced hoop stress: 5.4 Mpa Duration: 165 hours Temperature : 80° c
De-cohesive Resistance	ISO 13954	Percentage of brittle failure de-cohesion <33.3%



Products Range

Couplers - PN 16, Item No. 49010

Sizes: 450, 500, 560, 630, 710 mm



Couplers - PN 10, Item No. 46010

Sizes: 450, 500, 560, 630, 710, 800 mm



Branch Saddle - PN 16, Item No. 49580

Sizes: Main pipe:: 280-400, 450-710 mm (multi-size saddles)
Branch outlets: 90, 110, 125, 160 mm



Transition Saddle - PN 16, Item No. 49380

Sizes: Main pipe: 280-400, 450-710 mm (multi-size saddles)
Threaded brass outlet : 2" female BSP



PN 16 d 710 PN 16 d 710 PN 16 d 710 PN 16 d 710

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