



Plasson product information to improve performance

016 - 0303

FUSAMATIC INSTALLATION - Joining Electrofusion Socketed Fittings

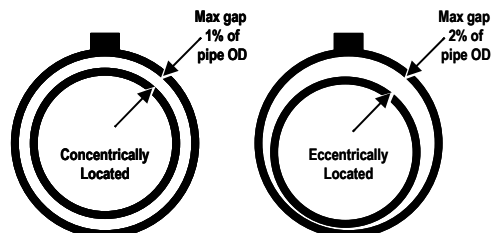
IMPORTANT Handling & Cleaning Pipe Fittings

- Fittings are packaged in a protective plastic covering and should remain packaged until ready for use. This plastic covering can be used to hold fitting during installation to prevent contamination.
- Avoid any possible recontamination of the prepared surfaces. Do not touch inside of fitting or scraped pipe surfaces with your hands. Use a shelter in wet/windy conditions.
- Never store fittings in direct sunlight.
- To clean dirty scraped pipes or fittings remove excess dirt with clean cloth. Thoroughly clean with authorised Pipewipes (Plasson – Pipewipes – Code VFPW). Must be dry before welding.



1. The pipe ends must have a square, even cut.
2. Remove any burrs or shavings from the pipe ends.
3. Clean pipe ends inside and out with Pipewipes to remove any dirt or contaminants.
4. Measure and mark the pipe ends at the proper stab depth. This is equal to half the fitting length +20mm.
5. Scrape pipe and spigot ends on fittings up to measurement mark to remove all oxidation and contaminants. Use Plasson rotational scraper. One pass or approx. 0.3mm of pipe surface is to be removed. Do not use metal files or emery paper. Clean with Plasson Pipewipes and allow to fully dry before proceeding.
6. Remove plastic bag from fitting. Slide fitting onto pipe until pipe end meets with the stops in the ID of the fitting. Check measurement mark for proper stab depth. If pipe ovality stops entry to stab depth rerounding clamps will be needed to round pipe. The pipe should be checked for ovality. If ovality causes a gap between concentrically located pipe and fitting to exceed 1% of pipe OD, then pipe must be re-rounded to ensure correct welding. After re-rounding if the gap still exceeds 1% of pipe OD then check pipe OD dimensions as it may be under specified OD. Use a Plasson rotational scraper to reduce oversize pipe.

Maximum gap between eccentrically located pipe and fitting i.e.: pipe touching fitting at one point, gap must not exceed 2% of pipe OD.



Some coiled pipes (notably DN16 and DN180 SDR 11 and SDR 17.6) may be too oval to fit into couplers, or the bend of the pipe may make alignment of the end impossible. A number of approaches have been proposed, including:

- (i) use of a mechanical pipe straightener or rerounding tool;
- (ii) butt fuse a straight length of pipe onto the end of the coil before joining.

7. Repeat steps 1 through 6 for opposite end of coupling.
8. Maintaining stab depth, place into the proper clamping tool to stop pipe movement during the fusion cycle.
9. Block pipe ends to stop wind blowing through pipe.

10. ENSURE GENERATOR HAS THE FOLLOWING PROPERTIES:

- Control box should be connected to a nominal 240V AC at 40-70 Hz power source and MUST only be switched on after power supplied to the box.
- Maximum alternating voltage range 190V (AC) to 300V (AC)
- suitable to drive inductive loads and phase cut systems
- no load voltage adjustable to 240V-260V
- output current of 18 Amps at one phase
- stable output voltage and engine speed, also at fast alternating loads
- synchronous generators with mechanical speed control preferred
- voltage peaks must not exceed 800V.

Min. required generator output power 230V, 50Hz, 1-phase	
Diameter	Output Power
20-75 mm	2 kW
90-160 mm	3.2 kW
160-355 mm	4.5kW (mechanically controlled) 5 kW (electronically controlled)

For generators with insufficient control performance or voltage control, it has to be selected 3-3.5 times higher output power than the stated ones to achieve stable operation. Electronically controlled generators tend to oscillate with the control of the welding process, which can lead to high output voltage peaks. Please test suitability before using this kind of generator.

11. When fitting is properly clamped, follow the operating instructions supplied with the Plasson-Fusamatic Control Box to complete the welding process. PF Control boxes can be operated in the temperature range of -10°C to + 50°C.

Note: 15A Earth pin is fitted to all plugs except Monomatics which are fitted with a 10A earth pin.

FUSAMATIC INSTALLATION - 9630 Style Saddles

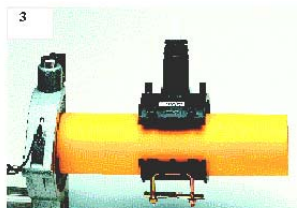
Caution:

Fusamatic is to be operated in a gas-free environment only. Since Fusamatic is an electronic device, the possibility of ignition during the joining process does exist. If users choose to use Fusamatic in a gaseous environment, they do so at their own risk.

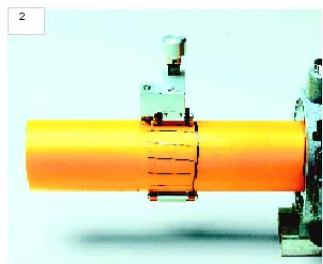
The electro fusion procedures are the same as with socketed fittings except that most Plasson Saddle fittings are supplied with their own integral under- part clamping system. Some very large saddle style fittings are supplied without integral under- part clamping systems, and in these limited cases special stack load clamping systems are provided for these fittings. The Plasson 9630 under part clamped tapping saddles have a unique patented under-pressure leak tight tapping system



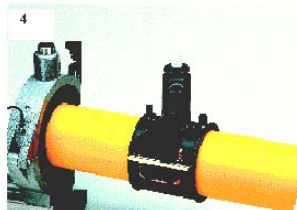
1. Clean with Plasson Pipewipes to remove dirt/contaminants and allow to fully dry before fitting saddle.



3. Remove saddle from bag and fit to scraped clean pipe surface. Equally tighten nuts until saddle makes firm contact - approximately 4Nm tightening torque.



2. Mark area on pipe where saddle is to fit – at least 150 mm in length. Scrape pipe surface with Plasson rotational scraper for one pass or to a depth of about 0.3mm. Do not use metal files or emery paper. Clean with Plasson Pipewipes and allow to dry.



4. Carry out the welding process. Allow to cool for time shown on the fitting label.

Note: If pipe or saddle dirty or contaminated, see “Handling and Cleaning Pipe Fittings”

PLASSON

Operation of Gas Tight Cutter in Plasson Fusamatic 9630 Saddles

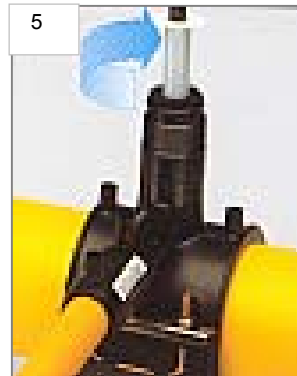


Assemble saddle and tighten nuts. Fuse saddle. Assemble and fuse branch fitting. (1)

Allow to cool for the time shown on fitting label.



Insert the hex key via the white sleeve. Carry out pressure test with the hex sleeve in place. Ensure that the white sleeve is in position by pushing and twisting it.



WITHDRAWING THE SLEEVE

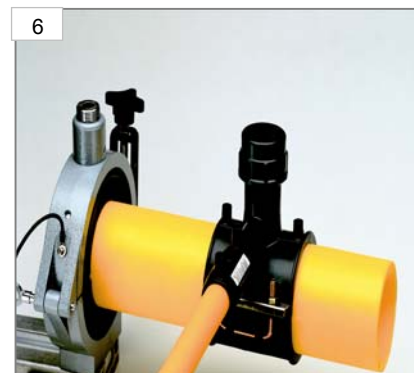
Turn the key anti-clockwise until the cutter reaches the upper stopper.

Remove the hex key and thereafter the white sleeve using a twisting motion.



CUTTING THE HOLE

Turn the hex key clockwise until the sleeve shoulder reaches the upper surface of barrel – see 4.



Tighten the cap until it is firmly locked. Note: The cap can be opened only by using a pipe wrench.

Important – Do not cut hole in pipe until welding and cooling is fully complete.

- (1) 32mm spigot offtake accepts/fits Plasson compression fittings to join to PE pipe. Spigot ends on fittings must be scraped and cleaned in the same way as PE pipes.

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