ASSEMBLY OF COMPRESSION FITTINGS

SIZES 20 UP TO 63MM

Cut pipe to length with pipe cutters for a clean swarf free finish.

Use chamfer tool to remove sharp edge off the pipe and facilitate insertion through the O-Ring.

Witness mark the insertion depth.

Lubricate the pipe if needed with water or siliconespray.*

Undo the nut up to the last thread, do not remove the nut from the body. Insert the pipe through the nut into the fitting until it meets the stop.

Firmly hand tighten the nut. Check witness mark.

For sizes 40-63, use a nut wrench to tighten the nut a further half turn.

SIZES 75 UP TO 110MM

Cut pipe to length with pipe cutters for a clean swarf free finish.

Use chamfer tool to remove sharp edge off the pipe and facilitate insertion through the O-Ring.

Loosen the nut and grip ring off the fitting and assemble onto the pipe a distance about 2x the pipe diameter.

Assembly is easier if the pipe and inside of fitting is lubricated with water or silicone spray.*

Insert the pipe through the O-Ring until it meets the stop.

Slide the grip ring and nut forward until they touch the fitting, then hand tighten.

For sizes 75 -110mm use two nut wrenches to tighten the nut. Nut should be firmly tightened, but does not need to actually meet the external stop.

*Lubrication with water, soapy water or silicone spray will assist inserting the pipe through the O-Ring.
Do not use silicone spray if intended use is for powder coating, spray painting or breathing air.
Do NOT use fluids such as WD40, 5-56, Penetrene, etc.

WELDING GUIDELINES

SOCKET FUSION WELDING 20MM TO 63MM

- Heating element Socket Fusion to welding guidelines AS/NZS 2033-2008.
- Weld surfaces must be clean and dry.
- Welding tool must be up to temperature 260°C before commencing.
- Protect against cold and windy conditions.
- Do not realign joint after adjusting time
- Do not over scrape pipe - interference fit must be retained.
- Do not twist pipe into fitting when fusing.

Pipe O.D. (mm)	Pre-heating (sec)	Adjusting (sec)	Cooling (min)
20	5	4	2
25	7	4	2
32	8	6	4
40	12	6	4
50	18	6	4
63	24	8	6
90	40	8	6
110	50	10	8

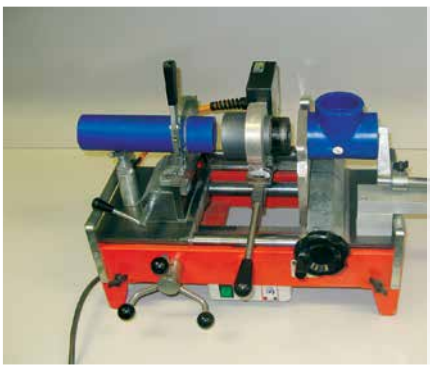
1.Turn on welder. Do not attempt welding unless tool is up to temperature (250°C). The indicator LED will cycle on/off with thermostat control when temp is correct. Cut pipe to length with approved cutters for a square swarf-free finish.

4. Remove pipe and fitting from heating element, immediately insert pipe into fitting without twisting.

2. Use scraper to remove oxide layer from pipe and ensure correct tolerance. Use welding wipes to clean surfaces if needed.

5. Check alignment within 'adjusting seconds' as per table. During 'cooling' avoid mechanical strain or movement on welded joint.

3. Simultaneously insert pipe and fitting onto socket and spigot to full depth without twisting Hold for 'pre-heat' time as per table.



The bench mounted socket fusion welder is recommended for 90mm and 110mm, but is great for 63mm and smaller sizes. It provides mechanical advantage and consistency for the larger sizes.

ELECTROFUSION WELDING

Recommended for 63mm and larger. Available for smaller sizes.

- We recommend being trained by UPG prior to undertaking electrofusion welding
- Fittings for electrofusion comply with AS/NZS 4129.
- Automatic control box tool reads inbuilt resistor and sets and welds the correct time. Fittings are also labelled for manual setting times.
- Weld surfaces must be clean and dry.
- Do not over scrape pipe. Use correct scrapers. Do not use emery or metal files.
- Ensure uninterrupted electricity supply during weld cycle.
- IMPORTANT: Do not allow movement in the joint until cooling period (marked on fitting) has been completed. In some cases, clamps may be required.

1. Cut pipe to length with approved cutters for a square swarf-free finish.

2. Use scraper to remove oxide layer approx. 0.3mm from pipe and ensure correct tolerance.

3. Use welding wipes to clean pipe and fitting surfaces. Allow cleaner to evaporate

4. Witness mark correct insertion depth.

5. Assemble pipe and fitting making sure pipe is fully inserted, check witness mark. Clamps can be used to stabilise joint during welding.

6. Connect welder leads onto fitting terminals (non specific). If using manual setting follow weld time as per label on fitting. Press start to commence weld cycle. Rising melt indicators confirm successful completion of weld. Remove leads and allow to cool without movement or strain on joint.