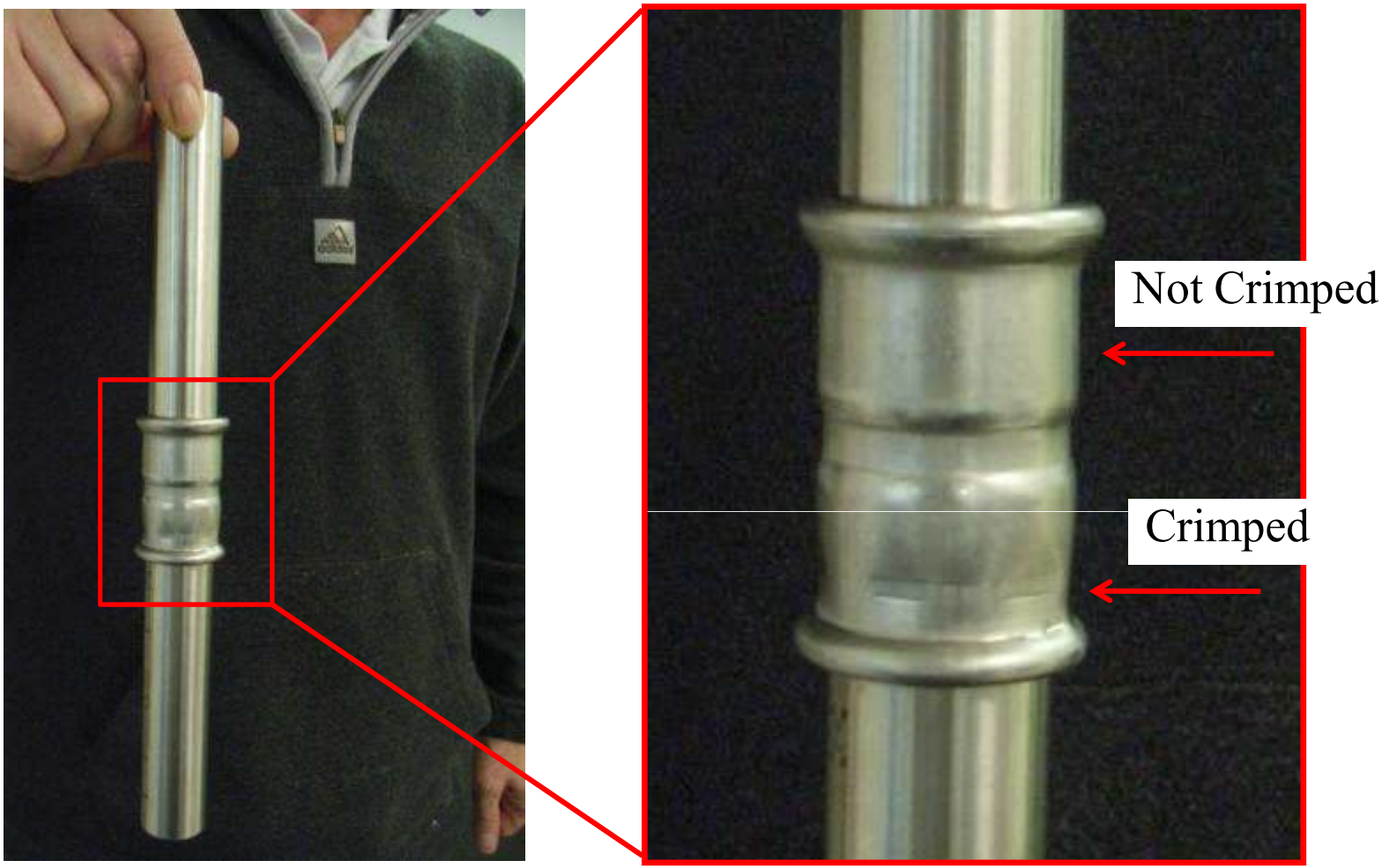
Press Fit (No Weld) Piping Systems

Press Fit Piping System

How does it Work?

Press Fit Piping System

Cut Pipe to required length, debur, slip pipe into fitting and crimp. Crimp provides mechanical strength and O-ring provides pressure seal.



Press Fit Piping System

Pictures show top of fitting not crimped. This secure arrangement allows system to be fully trial assembled in situ before permanently securing (crimping) – hence no rework!

Material available in

- **Stainless Steel (304 & 316L)**
- **Galvanised Steel**
- **Copper Nickel (CuNi), and**
- **Copper**

Press Fit Piping System

Applications

Aggressive Fluids - various	High Rise Sprinklers
Anti Freeze	Hot & Chilled water for Air Conditioning
Brake Fluid	Hot Water (max 120°C)
Brine	Lubricants
Canola oil dosing lines	Machinery fresh water cooling systems
Caustic	Oil
Chemicals - Various	Oxygen
Chilled Water	Petrochemicals
Chlorides (recommend CuNi Press Fit)	Petrol
Compressed Air	Potable Water
Control Air	Process Waters
De-Ionised/De-Mineralised Water	Reagents systems
Diesel Lines	Sea Water Systems (also in CuNi Press Fit)
Ethanol	Solvents
Flocculent Lines	Sprinkler System (Dry and Wet)
Fuel	Vacuum Lines
Fuel Farm services	Watermist System
Gases - Inert, Flammable, Aggressive	Has been used as electrical / cable conduits.
Grey Water	

Press Fit Piping System

Press Fit Piping System

Pipe size range from
15mm to 108mm diameter

Press Fit Piping System

60 different types of fittings

Elbows, tees, threaded outlets (tees), adaptors, unions, reducers, flanges, valves, end plugs, manifolds, flexible metal wire pipe.

Connecting Press Fit Tubing to Existing Piping Systems

Joining **flange to flange** (showing carbon steel to stainless steel).

Joining to **threaded fittings** such as unions (can be removed) or adaptors (become permanent).

Using a **Straub Coupling** to connect

- steel to plastic
- imperial to metric
- dissimilar metals

Press Fit Piping System

Operating Pressures for Chibro SS316 Press Fit Piping System for Various Pipe (Tube) Sizes

(for non-marine applications)

Outside Dia.	Wall Thickness	Max. Operating Pressure		Burst Pressures		Max. Vacuum
mm	mm	psi	kPa	psi	kPa	bar
15	1	580	4,000	3,480	24,000	-0.95
18	1	580	4,000	3,480	24,000	-0.95
22	1.2	580	4,000	1,958	13,500	-0.95
28	1.2	362	2,500	1,958	13,500	-0.95
35	1.5	232	1,600	1,450	10,000	-0.95
42	1.5	232	1,600	1,450	10,000	-0.95
54	1.5	232	1,600	1,450	10,000	-0.95
76	2	232	1,600	957	6,600	-0.95
89	2	232	1,600	957	6,600	-0.95
108	2	232	1,600	957	6,600	-0.95

For Marine applications, max. operating pressure is 1600 kPa for all pipe sizes.

Press Fit Piping System

Operating Temperature from -20°C up to 120°C

The above operating parameters will vary based on pipe size, temperature, cyclic loading, type of fluid carried through the piping system and industry application. Please confirm your application and parameters with MEI first to ensure suitability.

Product Benefits

- No welding required
- No fire hazard during installation
- Can utilise non skilled manpower
- Very quick and easy installation
- Weight reduction (compared to threaded pipe)
- No more workshop labour
- Job can be started and completed on site
- Simplified at design stage
- Reliability in severe service condition
- Corrosion resistance
- Quick and easy maintenance, even when piping is wet.

Press Fit Piping System

Required Tooling for Crimping

Hire or buy power tools

Battery powered tool crimps the pipe.

Press Fit Piping System

Pressing Tool in Operation

Press Fit Piping System

Benefits of Press Fit Piping System

Major Benefits

1. Significantly reduce installation time.
2. No welding required. Lower skilled labour can be used to install piping system.
3. Can construct piping system on site and in situ, no off site spooling required.
4. Rework reduced to approx. 0%.
5. Customers repeatedly advise of savings of 20 to 30% as compared to stainless steel pipe welding.

Other Benefits

6. Eliminate risk of fire or explosion.
7. Compared to plastic, does not sag or deteriorate due to heat and sun, is highly chemical resistant, requires less pipe hangers, etc.

Press Fit Piping System

Press Fit Piping System

New Installation - Brine and Chiller Lines – NSW Winery.

Press Fit Piping System

New Installation - Neat and Tidy, No Welding, System Build at Height in Situ, No Rework Required, Significant Cost Savings To Customer.

Press Fit Piping System

New Installation/Diesel Lines – 316 SS piping installations now becomes a commercially viable option for plumbers without welders.

Press Fit Piping System

New Installation – Another 316 SS System Built at Height in Situ, Significant Cost Savings

316 SS Press Fit System Joined to an Existing Welded System via a Flange.

Press Fit Piping System

Press Fit Piping System

Copper Nickel (CuNi) Press Fit - Installing Press Fit Piping System to Existing Manifold via Threaded Fittings.

Press Fit Piping System

No Hot Work in Tight Spaces is a Considerable Advantage in Time and Minimising Cost Blowouts on Jobs.

Press Fit Piping System

Press Fit Piping System Used for Fire Mains.

Press Fit Piping System

New Installation- 316SS Chemical and Diesel Lines. Long distance underground run completed very quickly.

Press Fit Piping System

Copper Nickel (CuNi) Press Fit used for Bilge Seawater and Aggressive Media Applications – coming of a Valve.

New Installation,
Canola Oil
Dosing Lines
No Spooling with
316SS Press Fit
Built in Situ.

Press Fit Piping System

Press Fit Piping System

Upgrade of Existing Piping System - No Hot Work, No Requirement to Remove Cables – Significant Time and Cost Savings

Will it Leak?

- MEI Press Fit Piping System has been in use in Europe for over 25 years and in Australia for over 8 years.
- Product Type Approval Certificates from DNV, LR, BV, ABS, RINA and GL for use for potable water, hot and cold water, compressed air, fire systems.
- Fire tested to 850 degC - tested and witnessed by LR, DNV, BV and GL, to prove it holds test pressure after fire test.
- Vibration and Shock tested – Test conducted under internationally recognised military specifications.
- Acceptable for use under B313.3 (Chemical and Petroleum Refinery Piping Code) as prescribed by ASME.
- Approved for Potable Water under Australian requirements – Watermark certificates, ATS 5200.052 and AS 3688.
- Industry sectors that have adopted the press fit system are marine, defence, mining, processing, food (for non-product lines), water treatment, chemical, etc.

ATS 5200.053
C of C 40081
Global-Mark.com.au

Press Fit Piping System

What Customers are Saying

- "I lost a 316 SS pipe installation job to a competitor by 30% and after seeing Press Fit (no weld) System, I now understand why I lost the job!"
- "Considerable time savings were gained from the installation speed of the Press Fit System... We estimate that the Press Fit System takes less than 55% of the time to install when compared to a fully welded system."

Press Fit Piping System

What Customers are Saying

- Press Fit fittings are more expensive than standard butt weld fittings. However, we found that due to the significantly lower labour costs associated with installing the Press Fit System, (i.e. installation speed, lower skilled staff required, etc) overall comparison costs show that when material and labour are combined that the Press Fit System was approx. 20% cheaper than the Welded system.

What Customers are Saying

- “The product proved to save money as we had no requirement for highly skilled Stainless Steel welders. Lower cost/skilled employees where used for the installation. Estimate of saving is in excess of 50%. I definitely intend to use the product again.”

Summary

MEI Press Fit Piping System will

- Save Time - Extremely Fast and Easy to Install
- Save Money – No Welding, No Hot Work, Lower Labor Costs
- Reduce rework to about 0%
- Reduce OH&S and other Risks
- Gain a Competitive Advantage and Win More Work

Press Fit Piping System

Ph 02 9734 8711
Ask for Steve or Adrian
steve@meiaust.com.au
www.meiaust.com.au