



Technical Manual



A+ Press (Stainless Steel)

Stainless Steel press fit
connection system for Water



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Overview

The AUPURIT™ A+ Press (Stainless Steel) system provides a complete press fit system for stainless tubes with size ranges from DN15 to DN32 and broad range of fittings for water applications.

- Traditional installation methods like brazing, soldering, or welding are no longer required. All joints are simply assembled with a pressing tool for a quick, consistent, and secure result every single time.
- Incorporates a dual indicator system to help minimise errors during installation:
 - “Press Indicator Coating” which is applied to the outside of each fittings.
 - “Leak Path Design O-ring” which allow tradesmen to detect un-pressed joints during the pressure test phase.
- Black EPDM seals for water application
- Manufactured from high quality AISI 316L stainless steel in compliance with AS 5200 and AS 3688

All installations are to be carried out by licensed tradesperson and in full accordance with the AUPURIT™ A+ Press (Stainless Steel) installation guidelines, relevant Australia & New Zealand standards, and any additional local authority requirements. When installed subject to the above conditions the AUPURIT™ A+ Press (Stainless Steel) system will provide years of trouble-free service.

Application

The AUPURIT™ A+ Press (Stainless Steel) system uses pressing tool to produce a secure joint in a minimal amount of time. The crimping method produces a consistent level of compression around the full circumference of the crimp ring, guaranteeing a perfect seal every time.

A+ Press (Stainless Steel) system fittings shall be installed in accordance with AS/NZS 3500 for water applications including:

- Hot and Cold Potable Water
- Treated and Process Water
- Fire Systems

For optimum installation results, please take time to familiarise with the installation considerations outlined on Pages 11-19 in this technical manual.

Stainless Steel Pipes & Fittings

Stainless Steel Pipes Fittings

AUPURIT™ A+ Press stainless steel tubes are manufactured from high quality AISI 316L stainless steel and in compliance with AS 5200.

AUPURIT™ A+ Press (Stainless Steel) fittings are suitable for use on all stainless steel tube/pipe which complies with AS 5200 and must be installed in accordance with AS/NZS 3500.

AUPURIT™ A+ Press (Stainless Steel) fittings are manufactured in high quality AISI 316L with a factory-fitted high-performance black Ethylene Propylene Diene Monomer (EPDM) sealing element.

EPDM is a synthetic rubber product that is strong and flexible, resists decay and provides good resistance to aging, ozone, sunlight, weathering, and hot water. This makes it ideal for seals in a broad range of applications. It is also recommended for drinking water applications.

In accordance with AS 3688, A+ Press (Stainless Steel) fittings can operate within temperature range of -20°C to 95°C.

All water fittings are manufactured to comply with AS/NZS 3688. Installations should be carried out in accordance with AS/NZS 3500.

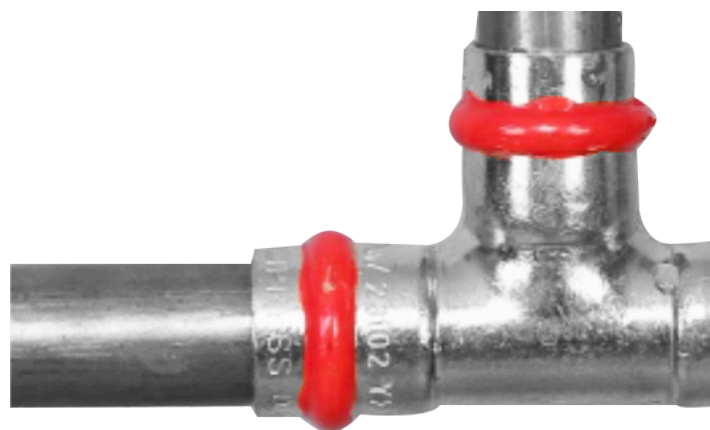
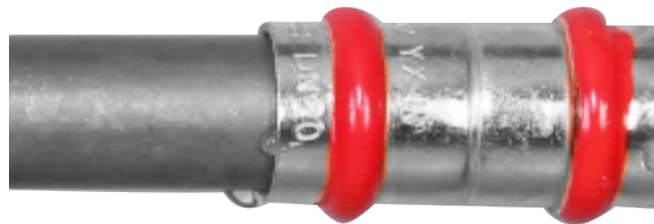
Primary Check Press Warning Indicator

All AUPURIT™ A+ Press (Stainless Steel) fittings have an external-coloured press indicator ring. Once pressed, it is shattered and stripped away from the fitting to give the contractor a visual indication to ensure the fitting has been pressed.

Secondary Check Internal Leak Path Design

(DN15-DN32)

The AUPURIT™ A+ Press (Stainless Steel) fittings have a water leak path design on the sealing ring where the water will leak from the fitting until the pressing operation is completed adequately. Testing is suggested to be at 200-300kPa to enable the leak function to operate successfully.



Features and benefits

Press Jointing Method

- Fast
- Secure
- Simple to use
- Reduced risk of installation errors
- Dual indicator system to identify unpressed fittings

Flame-free Assembly

- Increased safety
- No need for gas cylinders or Hot Works permits
- Reduced costs on welding consumables

Full Flow Fittings

- In most cases fittings maintain full bore size of tube

Dedicated Tooling

- Installed with special pressing tools, which puts the product out of reach of non-tradespeople, preventing improper handling of products

Installation Considerations

AUPURIT™ A+ Press (Stainless Steel) fittings should always be installed in compliance with AS/NZS 3500.

All installations should be carried out by appropriately licensed tradespeople, in full accordance with the AUPURIT™ A+ Press (Stainless Steel) installation guidelines, the relevant Australia & New Zealand standards and any additional local authority requirements. Most installation requirements can be sourced from this document.

Stainless Steel Tube Cutting

It is recommended that stainless steel tube should only be cut with a wheel-type tube cutter. To prevent damage to the sealing ring, it is essential to deburr both the inside and outside of all stainless steel tubes prior to insertion of any AUPURIT™ A+ Press (Stainless Steel) fittings.

Working Pressure

AUPURIT™ A+ Press (Stainless Steel) fittings have been tested to a maximum operating pressure of 4000kPa for DN16 to DN20 and 2500kPa for DN25 to DN32.

Protection of Sealing Element

The sealing element is critical to the integrity of the joint. Care should be taken to protect it from damage. Simple precautions include:

- Ensuring the seal ring is properly located in the fitting,
- Ensuring the ring is well lubricated, and
- Ensuring the ring is not contaminated by any foreign material.

Connection to Other Materials

AUPURIT™ A+ Press (Stainless Steel) is suitable for connection to most existing pipe work systems by utilising our range of A+ Press (Stainless Steel) threaded adaptors. When installing an A+ Press (Stainless Steel) threaded adaptor, it is recommended that the threaded connection be installed first, before performing the pressing operation. It is important that the spanner flats on the fittings are used rather than gripping the tube section of the fitting.

Minimum Clearances

When installing two A+ Press (Stainless Steel) fittings near one another, it is essential that a minimum clearance should be maintained between the two. This ensures that the tube being pressed is free of any deformities which might be caused in the pressing process.

The table below provides the minimum clearances required between two fittings:

Nom Size	Minimum Clearance (mm)
DN15	5
DN20	5
DN25	5
DN32	15

Minimum clearance



When an A+ Press (Stainless Steel) fitting is being installed close to an existing welded fitting, the clearances in the following table need to be observed. This will ensure that the press fitting is kept clear of tube that may have been excessively annealed during the welding process.

Nom Size	Minimum Clearance (mm)
DN15	20
DN20	20
DN25	30
DN32	30



Minimum clearance

Welding close to A+ Press (Stainless Steel) fitting joints should be avoided as the heat generated by the process can damage the seals of the fitting. To ensure that damage is not caused, the minimum clearances in the following table should be observed. It is also recommended that additional heat suppression methods are employed to prevent damage to the joint.

Nom Size	Minimum Clearance (mm)
DN15	400
DN20	500
DN25	700
DN32	900



Minimum clearance

Protection from Physical Damage

Due care should be taken to protect A+ Press (Stainless Steel) fittings from any mechanical or chemical damage both prior to, during and after installation.

Where A+ Press (Stainless Steel) fittings and/or stainless steel tube penetrate timber or metal framework, appropriate precautions should be taken to protect it from damage. Holes should be sized to allow for longitudinal movement, expansion and contraction, whilst still securing the pipe adequately. Suitable grommets or sleeves should be used in metal frames to protect the A+ Press (Stainless Steel) fittings and stainless steel tube from abrasion.

Clipping

All A+ Press (Stainless Steel) fittings should be clipped by way of a recognized fixing which complies with the requirements of AS/NZS 3500 for water applications.

Fixing spacing should be observed for both horizontal and vertical pipe runs as outlined on the table below.

Nom Size	Vertical or Horizontal Run Spacing (m)
DN15	1.5
DN20	1.5
DN25	2.0
DN32	2.5

For pipe work being suspended on rod hangers the minimum diameter of the rod hanger should be 9.5mm for all tube sizes up to and including 50mm and 12.7mm up to 100mm.

Chases, In-Slab, Under-floor

Where A+ Press (Stainless Steel) fittings and stainless steel tube are installed in chases or cast in slabs the installation must be in accordance with AS/NZS 3500 for water applications and/or any other relevant building regulations or standards.

Underground

A+ Press (Stainless Steel) fittings and stainless steel tube should be buried with a minimum cover of 300mm. Bedding/backfill material must be of a type that will not have an adverse effect on the tube or fittings. Sand is recommended. Marker tape should be installed approximately 150mm above the tube. A+ Press (Stainless Steel)

Testing

Testing should be undertaken in accordance with AS/NZS 3500 for water installations in addition to any other local regulations or requirements. During testing all joints should be checked for leaks.

fittings should be able to be installed directly in the trench without any form of coating. Additional precautions should obviously be taken in areas where aggressive soil conditions are known to exist or where it may be a requirement of the local certifying authority.

Joining Instructions

1. Cut Stainless Steel Tube

Cut tube at right angle with wheel-type tube cutter.

Note: The cutter shall not have been used for other ferrous metals to avoid corrosion.



2. Deburr Stainless Steel Tube

Ensure to deburr both inside and outside of tube to avoid damaging the fitting seal when inserting tube.

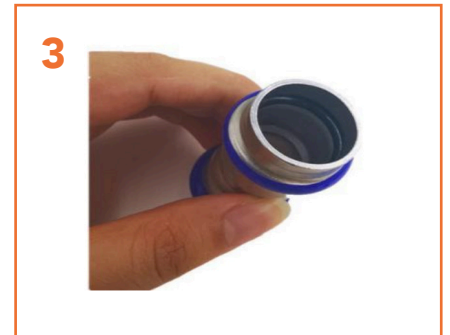
Note: The deburr tool shall not have been used for other ferrous metals to avoid corrosion.



3. Check the Seal

Check the fitting seal, ensure that it is clean, sufficiently lubricated & correctly seated.

Note: Replace fitting seal if damaged.



4. Mark

Mark the insertion depth on tube with a waterproof marker pen to ensure the tube is fully inserted.



5. Insert

Insert the tube with a slight rotation movement into the fitting until it reaches the full engagement depth as marked.

Note: Extra care should be taken to ensure that the fitting seal is not dislodged or damaged.



6. Press

Ensure that the correctly sized jaw is fitted onto pressing tool. Position jaw correctly over the fitting, the fitting ring should be positioned in the jaw groove. Start the process by pressing and holding down onto the start button for approximately 3-5 seconds until the procedure finishes. operation details on their tools.



7. Peel Off Coloured Press Indicator Ring

Peel off coloured indicator ring after pressing.





8. Pressure Test


At completion, carry out pressure testing in accordance with AS/NZS 3500 (Water installations) in addition to any other local regulations or requirements.





A+ Press (Stainless Steel) Fittings

Product description	Size	Part number
#1 COUPLING 	DN15	A20001015000
	DN20	A20001020000
	DN25	A20001025000
	DN32	A20001032000

Product description	Size	Part number
#1R REDUCING COUPLING - SOCKET X SOCKET 	DN20 X DN15	A20003020015
	DN25 X DN15	A20003025015
	DN25 X DN20	A20003025020
	DN32 X DN15	A20003032015
	DN32 X DN20	A20003032020
	DN32 X DN25	A20003032025

Product description	Size	Part number
#3 MALE ADAPTOR 	DN15 X DN15	A20014015012
	DN20 X DN15	A20014020012
	DN20 X DN20	A20014020034
	DN25 X DN20	A20014025034
	DN25 X DN25	A20014025001
	DN32 X DN32	A20014032001

Product description	Size	Part number
#2 FEMALE ADAPTOR 	DN15 X DN15	A20015015012
	DN20 X DN15	A20015020012
	DN20 X DN20	A20015020034
	DN25 X DN25	A20015025001
	DN32 X DN32	A20015032114


Product description	Size	Part number
#12 ELBOW 90° - SOCKET x SOCKET 	DN15	A20005015000
	DN20	A20005020000
	DN25	A20005025000
	DN32	A20005032000

Product description	Size	Part number
ELBOW 45° - SOCKET X SOCKET 	DN15	A20007015000
	DN20	A20007020000
	DN25	A20007025000
	DN32	A20007032000

Product description	Size	Part number
ELBOW 90° - SOCKET X SOCKET 	DN15	A20006015000
	DN20	A20006020000
	DN25	A20006025000
	DN32	A20006032000

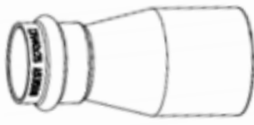
Product description	Size	Part number
#13 MALE ELBOW 	DN15 X DN15	A20020015012
	DN20 X DN20	A20020020034
	DN25 X DN25	A20020025001


Product description	Size	Part number
#14 FEMALE ELBOW 	DN15 X DN15	A20021015012
	DN20 X DN20	A20021020034
	DN25 X DN25	A20021025001

Product description	Size	Part number
#24 EQUAL TEE 	DN15	A20010015000
	DN20	A20010020000
	DN25	A20010025000
	DN32	A20010032000

Product description	Size	Part number
REDUCING TEE (END x END x BRANCH) 	DN20 X DN20 X DN15	A20011020015
	DN25 X DN25 X DN15	A20011025015
	DN25 X DN25 X DN20	A20011025020
	DN32 X DN32 X DN15	A20011032015
	DN32 X DN32 X DN20	A20011032020
	DN32 X DN32 X DN25	A20011032025

Product description	Size	Part number
#62 UNION 	DN15 X DN15	A20016015012
	DN20 X DN20	A20016020034
	DN25 X DN25	A20016025001

Product description	Size	Part number
REDUCING COUPLING - SOCKET X SPIGOT 	DN20 X DN15	A20004020015
	DN25 X DN15	A20004025015
	DN25 X DN20	A20004025020
	DN32 X DN15	A20004032015
	DN32 X DN20	A20004032020
	DN32 X DN25	A20004032025

Product description	Size	Part number
#61 EQUAL TEE 	DN15	A20018015000
	DN20	A20018020000
	DN25	A20018025000
	DN32	A20018032000

A+ Press (Stainless Steel) Pipes

AS 5200 316L Stainless Steel Pipes – 5 metres straight lengths

Nominal Size	Outside Diameter (mm)	Wall Thickness (mm)	Part Number
DN15	12	1.0	A20000015000
DN20	22	1.2	A20000020000
DN25	28	1.2	A20000025000
DN32	35	1.5	A20000032000

A+ Press (Stainless Steel) Tools

Please see below table for approved tooling (with compliant stainless steel press jaws) to be used in conjunction with the AUPURIT™ A+ Press (Stainless Steel) system and in accordance with the AUPURIT™ A+ Press (Stainless Steel) technical manual.

Brand	Model	Size
Klauke	I PRESS	DN15-25
Milwaukee	M12 HPT	DN15-32
Milwaukee	M18 BLHPT	DN15-32
REMS	Akku Press	DN15-32
REMS	Mini Press	DN15-32
RIDGID	RP 210	DN15-32
RIDGID	RP 340	DN15-32
Rothenberger	RoMax3000	DN15-32



Certificate of Warranty

All Aupurit™ products are supplied with a 25-year warranty against any manufacturing defects. The period of the warranty commences on the date of purchase. Any defective product will be repaired or replaced free of charge.

Warranty Conditions

- This warranty is only applicable to Aupurit™ pipe & fittings used as a system and voided if used with other branded pipes, fittings, or materials.
- Installation must have been carried out by a licensed plumber and gasfitter.
- Failure is due to a fault in the manufacture of the product.
- Installation of the product has been in accordance with the instructions provided in the technical manuals
- Installation must be in full accordance with the relevant local and national plumbing regulations and AS/NZS standards (AS/NZS 3500, AS/NZS 5601)
- The system must be operated at temperatures and or pressures that is within the recommended working conditions specified in the technical manuals
- This warranty does not extend to failure or defect caused by normal wear and tear, mechanical overload, paint, adhesives, abrasion, corrosion or over pressurisation.
- No liability will be accepted for loss of profits, loss of revenue, loss of use, loss of contracts, loss of production or any other consequential loss or damage.

Claim Procedure

- This warranty is offered by the manufacturers of the Aupurit™ products and the merchant whom you purchased the product. The merchant involved should be notified of any potential claim immediately. Proof of purchase is required to validate the warranty period and if this is not available, the warranty period shall default to the date of manufacture for each product. The product needs to be inspected by an authorised representative of the manufacturer within 30 days of the alleged product failure.
- To be entitled to claim under this warranty, you must send a Warranty Claim Form to the merchant.
- Should product be returned, a sufficient length of pipe must be supplied so that all the pipe markings are visible. Should a fitting be returned, it must be supplied with the pipe still attached with sufficient length of pipe to show the markings.
- If the goods need to be returned to the manufacturer for assessment or repair, Aupurit™ will arrange delivery and bear the associated costs.
- Aupurit™, the manufacturer and the merchant also reserve the right to engage a nominated outside agent to assess any faulty product before honouring any warranty claim.
- Once a reasonable pre-approved amount is confirmed in writing by the manufacturer, repairs can begin.
- Any repairs or replacement undertaken without Aupurit™, the manufacturer's or the merchant's approval will not be covered by this warranty.

Aupurit Plumbing Systems Ltd



