



# Technical Manual

## A+ Press (Copper)

Copper press fit connection  
system for Water & Gas.



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# Overview

**The AUPURIT™ A+ Press (Copper) system provides a complete press fit system for copper tubes with size ranges from DN15 to DN100 and broad range of fittings for water and gas applications.**

- Traditional installation methods like brazing, soldering or flaring 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
- Yellow HNBR seals for gas application
- Manufactured from high quality copper and DZR brass in compliance with AS 1432 and AS 3688

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

# Application

The AUPURIT™ A+ Press (Copper) 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.

**Gas fittings shall be installed in accordance with AS/NZS 5601 for gas applications including:**

- Natural Gas
- Liquid Propane Gas (L.P.G)

**Water fittings shall be installed in accordance with AS/NZS 3500 for water applications including:**

- Hot and Cold Potable Water
- Grey Water
- Waste and Drainage

For optimum installation results, please take time to familiarise with the installation considerations outlined on Pages 7-11 in this technical manual.

# Copper Pipes & Fittings

## copper pipes

**AUPURIT™ A+ Press Type B copper tubes are manufactured from high quality copper and in compliance with AS 1432.**

AUPURIT™ A+ Press (Copper) gas fittings are suitable for use on all copper tube/pipe provided it complies with AS 1432 (being either Type A or B) and must be installed in accordance with AS/NZS 5601 for pressure applications not exceeding 200kPa.

Fittings are suitable for installation using annealed copper tube.

AUPURIT™ A+ Press (Copper) water fittings are suitable for use on all copper tube/pipe which complies with AS 1432 (being either Type A or B) and must be installed in accordance with AS/NZS 3500. Fittings are suitable for installation using annealed copper tube.

## Fittings – Gas

**AUPURIT™ A+ Press (Copper) Gas fittings are manufactured from high quality copper and/or DZR brass material with a factory-fitted high performance yellow Hydrogenated Nitrile Butadiene Rubber (HNBR) sealing element.**

HNBR is widely known for its physical strength and retention of properties after long-term exposure to heat, oil and chemicals. HNBR is not suitable for

food contact applications and cannot be used in drinking water applications.

All Gas fittings have a yellow external indicator ring for easy identification.

All Gas fittings are manufactured to comply with AS 3688. Installations should be carried out in accordance with AS/NZS 5601.

## Fittings – Water

**AUPURIT™ A+ Press (Copper) Water fittings are manufactured in high quality copper and/or DZR brass material 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.

All water fittings have a blue external indicator ring for easy identification

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

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

## Primary Check Press Warning Indicator

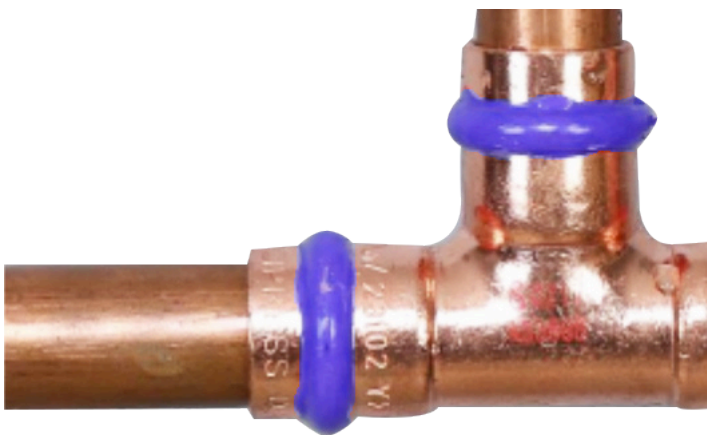
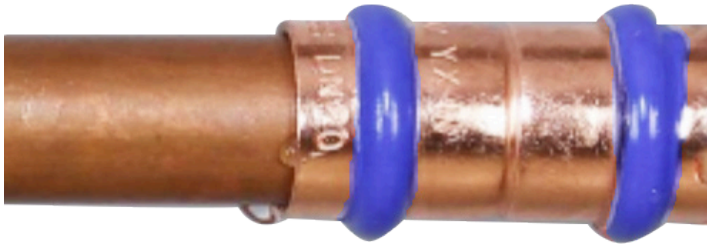
**All AUPURIT™ A+ Press (Copper) fittings have an external-coloured press indicator ring. Once pressed, it is shattered and stripped away from the fitting to give the contractor a visual indication to ensure the fitting has been pressed.**



## Secondary Check Internal Leak Path Design

(DN15-DN50)

The AUPURIT™ A+ Press (Copper) 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

## Size Range DN15 – DN100

- Fittings available for most tasks

## 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 (Copper) Gas should always be installed in compliance with AS/NZS 5601. AUPURIT™ A+ Press (Copper) Water 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 (Copper) installation guidelines, the relevant Australian standards and any additional local authority requirements. Most installation requirements can be sourced from this document.

## Copper Tube Cutting

It is recommended that copper 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 copper tube prior to insertion of any AUPURIT™ A+ Press (Copper) fitting.

## Working Pressure

AUPURIT™ A+ Press (Copper) Gas is suitable for use in applications covered by AS/NZS 5601, where all consumer piping is restricted to 200kPa maximum pressure.

All AUPURIT™ A+ Press (Copper) Water and Gas fittings have been tested to a maximum operating pressure of 1600kPa.

## 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 (Copper) is suitable for connection to most existing pipe work systems by utilizing our range of A+ Press (Copper) threaded adaptors. When installing an A+ Press (Copper) 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.

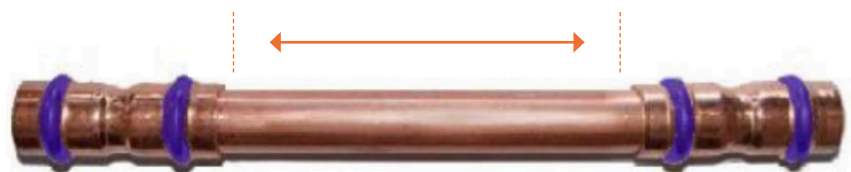
## Minimum Clearances

When installing two A+ Press (Copper) 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.

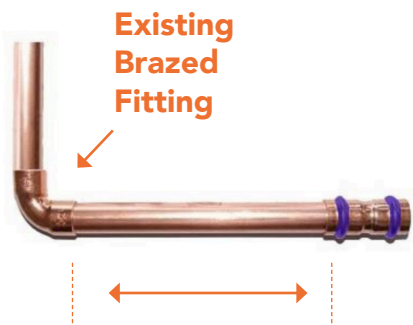
**The table below provides the minimum clearances required between two fittings:**

Nom Size	Minimum Clearance (mm)
DN15	5
DN20	5
DN25	5
DN32	15
DN40	20
DN50	20
DN65	20
DN80	20
DN100	20

### Minimum clearance



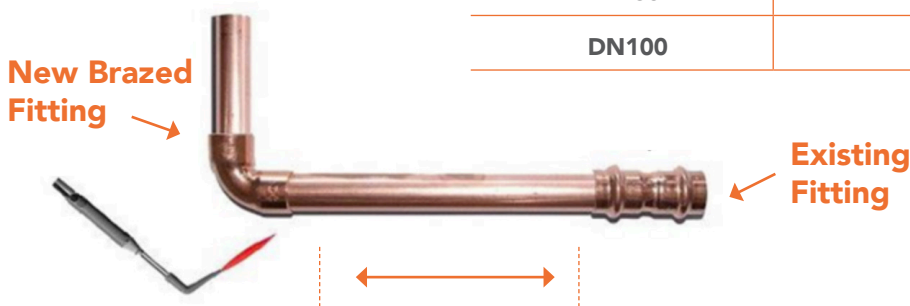
When an A+ Press (Copper) fitting is being installed close to an existing brazed fitting, the clearances in the following table need to be observed. This will ensure that the press fitting is kept clear of tube that may have been excessively annealed during the brazing process.



**Minimum clearance**

Nom Size	Minimum Clearance (mm)
DN15	20
DN20	20
DN25	30
DN32	30
DN40	40
DN50	40
DN65	40
DN80	40
DN100	40

Brazing close to A+ Press (Copper) 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's also recommended that additional heat suppression methods are employed to prevent damage to the joint.



**Minimum clearance**

Nom Size	Minimum Clearance (mm)
DN15	400
DN20	500
DN25	700
DN32	900
DN40	1000
DN50	1300
DN65	1700
DN80	2100
DN100	2600

## Protection from Physical Damage

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

Where A+ Press (Copper) fittings and/or copper 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 (Copper) fittings and copper tube from abrasion.

## Clipping

All A+ Press (Copper) fittings should be clipped by way of a recognized fixing which complies with the requirements of AS/NZS 5601 for gas applications or 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
DN40	2.5
DN50	3.0
DN65	3.0
DN80	3.0
DN100	3.0

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 (Copper) fittings and copper tube are installed in chases or cast in slabs the installation must be in accordance with AS/NZS 5601 for gas applications and AS/NZS 3500 for water applications and/or any other relevant building regulations or standards.

## Underground

A+ Press (Copper) fittings and copper 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 (Copper) 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.

## Appliance Connection

A+ Press (Copper) Gas fittings can be installed as an appliance connection in accordance with AS/NZS 5601, provided that an appropriate means of disconnection is incorporated.

## Testing

All testing should be undertaken in accordance with AS/NZS 5601– Appendix E (pressure testing for gas installations) or AS/NZS 3500 for water installations in addition to any other local regulations or requirements.

During testing all joints should be checked for leaks.

# Jointing Instructions

## 1. Cut Copper 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 Copper Tube

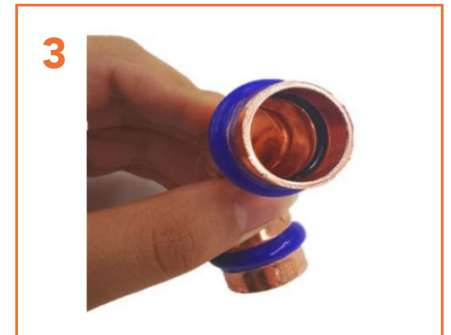
Ensure to deburr both inside and outside of tube to avoid damaging the fitting seal when inserting tube.

*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.



## 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.



## 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 5601 (Gas installations) or AS/NZS 3500 (Water installations) in addition to any other local regulations or requirements.



# A+ Press


## (Copper) Fittings

Product description	Size	Part number (water)	Part number (gas)
#1 COUPLING 	DN15	A10000015000	A11000015000
	DN20	A10000020000	A11000020000
	DN25	A10000025000	A11000025000
	DN32	A10000032000	A11000032000
	DN40	A10000040000	A11000040000
	DN50	A10000050000	A11000050000
	DN65	A10000065000	A11000065000
	DN80	A10000080000	A11000080000
	DN100	A10000100000	A11000100000


Product description	Size	Part number (water)	Part number (gas)
SLIP REPAIR COUPLING 	DN15	A10002015000	A11002015000
	DN20	A10002020000	A11002020000
	DN25	A10002025000	A11002025000
	DN32	A10002032000	A11002032000
	DN40	A10002040000	A11002040000
	DN50	A10002050000	A11002050000
	DN65	A10002065000	A11002065000
	DN80	A10002080000	A11002080000
	DN100	A10002100000	A11002100000




Product description	Size	Part number (water)	Part number (gas)
<p>#1R REDUCING COUPLING - SOCKET X SOCKET</p>	DN20 X DN15	A10003020015	A11003020015
	DN25 X DN15	A10003025015	A11003025015
	DN25 X DN20	A10003025020	A11003025020
	DN32 X DN15	A10003032015	A11003032015
	DN32 X DN20	A10003032020	A11003032020
	DN32 X DN25	A10003032025	A11003032025
	DN40 X DN20	A10003040020	A11003040020
	DN40 X DN25	A10003040025	A11003040025
	DN40 X DN32	A10003040032	A11003040032
	DN50 X DN20	A10003050020	A11003050020
	DN50 X DN25	A10003050025	A11003050025
	DN50 X DN32	A10003050032	A11003050032
	DN50 X DN40	A10003050040	A11003050040
	DN65 X DN25	A10003065025	A11003065025
	DN65 X DN32	A10003065032	A11003065032
	DN65 X DN40	A10003065040	A11003065040
	DN65 X DN50	A10003065050	A11003065050
	DN80 X DN40	A10003080040	A11003080040
	DN80 X DN50	A10003080050	A11003080050
	DN80 X DN65	A10003080065	A11003080065
DN100 X DN50	A10003100050	A11003100050	
DN100 X DN65	A10003100065	A11003100065	
DN100 X DN80	A10003100080	A11003100080	


Product description	Size	Part number (water)	Part number (gas)
#3 MALE ADAPTOR 	DN15 X DN15	A10014015012	A11014015012
	DN20 X DN15	A10014020012	A11014020012
	DN20 X DN20	A10014020034	A11014020034
	DN25 X DN25	A10014025001	A11014025001
	DN32 X DN32	A10014032114	A11014032114
	DN40 X DN40	A10014040112	A11014040112
	DN50 X DN50	A10014050002	A11014050002


Product description	Size	Part number (water)	Part number (gas)
#4 FEMALE ADAPTOR 	DN15 X DN15	A10015015012	A11015015012
	DN20 X DN20	A10015020034	A11015020034
	DN25 x DN25	A10015025001	A11015025001
	DN32 X DN32	A10015032114	A11015032114
	DN40 X DN40	A10015040112	A11015040112
	DN50 X DN50	A10015050002	A11015050002


Product description	Size	Part number (water)	Part number (gas)
#12 ELBOW 90° - SOCKET x SOCKET 	DN15	A10005015000	A11005015000
	DN20	A10005020000	A11005020000
	DN25	A10005025000	A11005025000
	DN32	A10005032000	A11005032000
	DN40	A10005040000	A11005040000
	DN50	A10005050000	A11005050000
	DN65	A10005065000	A11005065000
	DN80	A10005080000	A11005080000
	DN100	A10005100000	A11005100000


Product description	Size	Part number (water)	Part number (gas)
<b>ELBOW 45° - SOCKET X SOCKET</b> 	DN20	A10007020000	A11007020000
	DN25	A10007025000	A11007025000
	DN32	A10007032000	A11007032000
	DN40	A10007040000	A11007040000
	DN50	A10007050000	A11007050000
	DN65	A10007065000	A11007065000
	DN80	A10007080000	A11007080000
	DN100	A10007100000	A11007100000

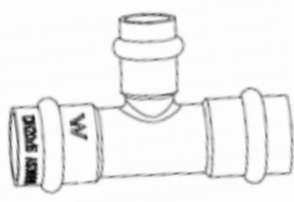
Product description	Size	Part number (water)	Part number (gas)
<b>ELBOW 90° - SOCKET X SPIGOT</b> 	DN15	A10006015000	A11006015000
	DN20	A10006020000	A11006020000
	DN25	A10006025000	A11006025000
	DN32	A10006032000	A11006032000
	DN40	A10006040000	A11006040000
	DN50	A10006050000	A11006050000

Product description	Size	Part number (water)	Part number (gas)
<b>#13 MALE ELBOW</b> 	DN15 X DN15	A10022015012	A11022015012
	DN20 X DN20	A10022020034	A11022020034

Product description	Size	Part number (water)	Part number (gas)
#14 FEMALE ELBOW 	DN15 X DN15	A10023015012	A11023015012
	DN20 X DN20	A10023020034	A11023020034
	DN25 X DN20	A10023025034	A11023025034

Product description	Size	Part number (water)	Part number (gas)
#24 EQUAL TEE 	DN15	A10010015000	A11010015000
	DN20	A10010020000	A11010020000
	DN25	A10010025000	A11010025000
	DN32	A10010032000	A11010032000
	DN40	A10010040000	A11010040000
	DN50	A10010050000	A11010050000
	DN65	A10010065000	A11010065000
	DN80	A10010080000	A11010080000
	DN100	A10010100000	A11010100000

Product description	Size	Part number (water)	Part number (gas)
#62 UNION 	DN15 X DN15	A10022015012	-
	DN20 X DN20	A10022020034	-

Product description	Size	Part number (water)	Part number (gas)
<b>REDUCING TEE</b> (END x END x BRANCH) 	DN20 X DN20 X DN15	A10011020015	A11011020015
	DN25 X DN25 X DN15	A10011025015	A11011025015
	DN25 X DN25 X DN20	A10011025020	A11011025020
	DN32 X DN32 X DN15	A10011032015	A11011032015
	DN32 X DN32 X DN20	A10011032020	A11011032020
	DN32 X DN32 X DN25	A10011032025	A11011032025
	DN40 X DN40 X DN32	A10011040032	A11011040032
	DN50 X DN50 X DN40	A10011050040	A11011050040
	DN65 X DN65 X DN50	A10011065050	A11011065050
	DN80 X DN80 X DN65	A10011080065	A11011080065
	DN100 X DN100 X DN80	A10011100080	A11011100080
	DN20 X DN15 X DN20	A10011015020	A11011015020
	DN20 X DN15 X DN15	A10011015015	A11011015015


Product description	Size	Part number (water)	Part number (gas)
<b>#69 MALE UNION</b> 	DN15 X DN15	A10016015012	A11016015012
	DN20 X DN20	A10016020034	A11016020034
	DN25 X DN25	A10016025001	A11016025001
	DN32 X DN32	A10016032114	A11016032114
	DN40 X DN40	A10016040112	A11016040112
	DN50 X DN50	A10016050002	A11016050002


Product description	Size	Part number (water)	Part number (gas)
#198P BACK PLATED MALE ELBOW	DN15 X DN15 X 75mm	A10024015012	A11024015012



Product description	Size	Part number (water)	Part number (gas)
SPIGOT X SOCKET REDUCER	DN20 X DN15	A10004020015	A11004020015
	DN25 X DN15	A10004025015	A11004025015
	DN25 X DN20	A10004025020	A11004025020
	DN32 X DN15	A10004032015	A11004032015
	DN32 X DN20	A10004032020	A11004032020
	DN32 X DN25	A10004032025	A11004032025
	DN40 X DN25	A10004040025	A11004040025
	DN40 X DN32	A10004040032	A11004040032
	DN50 X DN32	A10004050032	A11004050032
	DN50 X DN40	A10004050040	A11004050040
	DN65 X DN50	A10004065050	A11004065050
	DN80 X DN50	A10004080050	A11004080050
	DN80 X DN65	A10004080065	A11004080065
	DN100 X DN50	A10004100050	A11004100050
	DN100 X DN65	A10004100065	A11004100065
DN100 X DN80	A10004100080	A11004100080	



Product description	Size	Part number (water)	Part number (gas)
<p>#61 END CAP</p> 	DN15	A10018015000	A11018015000
	DN20	A10018020000	A11018020000
	DN25	A10018025000	A11018025000
	DN32	A10018032000	A11018032000
	DN40	A10018040000	A11018040000
	DN50	A10018050000	A11018050000
	DN65	A10018065000	A11018065000
	DN80	A10018080000	A11018080000
	DN100	A10018100000	A11018100000

Product description	Size	Part number (water)	Part number (gas)
<p>#15BP BLACK PLATED FEMALE ELBOW</p> 	DN15 X DN15	A10025015012	A11025015012
	DN20 X DN20	A10025020034	A11025020034

# A+ Press (Copper) Pipes



**AS 1432 Type B Copper Pipes –  
5 metres straight lengths**

Nominal Size	Outside Diameter (mm)	Wall Thickness (mm)	Min. Wall Thickness (mm)	Part Number
DN15	12.70	0.91	0.77	A10000015000
DN20	19.05	1.02	0.88	A10000020000
DN25	25.40	1.22	1.04	A10000025000
DN32	31.75	1.22	1.04	A10000032000
DN40	38.10	1.22	1.04	A10000040000
DN50	50.80	1.22	1.04	A10000050000
DN65	63.50	1.22	1.04	A10000065000
DN80	76.20	1.63	1.39	A10000080000
DN100	101.60	1.63	1.47	A10000100000

## Copper tools

Please see right table for approved tooling (with compliant copper press jaws) to be used in conjunction with the AUPURIT™ A+ Press (Copper) system and in accordance with the AUPURIT™ A+ Press (Copper) technical manual.

Brand	Model	Size
Klauke	I PRESS	DN15-25
Milwaukee	M12 HPT	DN15-32
Milwaukee	M18 BLHPT	DN15-100
REMS	Akku Press	DN15-100
REMS	Mini Press	DN15-32
RIDGID	RP 210	DN15-32
RIDGID	RP 340	DN15-50
Rothenberger	RoMax3000	DN15-100









## 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**





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