

# Auspex Manual Crimp Fittings and Pipe



**A TRADITION OF TRUST**

## 1997

1997 was a big year for John and Glenn Bines, the father and son team who brought a whole new way of plumbing to Australia.

Not content with retirement, it was John who first discovered the PEX products in Europe and jumped at the chance to bring it home.

After roping in his son Glenn, they worked for three solid years performing test after test to ensure the product would work in Australian conditions.

So in 1997, when they were satisfied they had something great, they launched Auspex and haven't looked back.

## Focus

The commitment and focus that helped John and Glenn launch Auspex has maintained, and in many ways got stronger over the years.

Not happy sticking with their core range of products and tools, they have continued to evolve with one goal in mind – to give plumbers a reliable and time saving product they can trust.

Whether it's the ever-growing range of adaptors or the fittings and pipe, they are focussed on quality.

From day one they've had a philosophy of 'measure twice, cut once', because they understand it's not good enough to have a good product – you want a great product.

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## The Auspex Crimp System, made for both cold and hot water applications, has revolutionised pipe fitting with its 'cut, fit, crimp, done' process.

The crimp system comprises PEX pipe, DR brass fittings, copper crimp rings and a specially engineered jointing tool, ensuring that all your jobs are quick, hassle free, cost effective and of the highest quality. The fittings are manufactured and tested to conform with the performance requirements of AS/NZS 2537.

Auspex are constantly working to improve the crimp system to make it as plumber-friendly as possible.

### Advantages Of Auspex Crimp System

1. Simple and quick installation
2. Neat, compact fittings
3. No brazing, soldering or lagging unless required by AS/NZS 3500



**Auspex pipe is a cross-linked polyethylene (PEX) pipe manufactured to comply with AS/NZS 2492 – cross-linked polyethylene (PEX) pipe for hot and cold water applications.**



Auspex pipe is intended for use by licensed plumbing tradesmen, who are experienced in working to accepted plumbing practices.

## Auspex Pipes

### Advantages of the Auspex Pipe

1. The pipe does not have to be expanded or reverted to make the joint
2. Tighter manual bending
3. Light weight
4. Corrosion resistant
5. Dampens water hammer noise
6. Pipe bores of Auspex 16mm, 20mm, 25mm and 32mm are greater than SDR7.4 pipes
7. No corrosion or scale build up
8. Quiet water flow (see acoustic tables in this manual)

Installations should be carried out in accordance with accepted plumbing practices and instructions provided in this manual. However, the installer should also be aware of local authority codes and by-laws relevant to plumbing, which take precedence over these guidelines in any area where they vary.

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.

### Maximum Working Pressure

PEX pipe manufactured to AS/NZS 2492 and designed to operate with a working pressure of 1,600kPa at 20°C can be operated continuously at 70°C with a maximum working pressure of 1,000kPa. See special conditions relating to Recirculating Systems on page 4.

Temperatures above 70°C for any period will affect the life of the pipe.

### Fire and Excessive Heat

- Keep PEX a minimum of 500mm from sources of high heat such as heating appliances, flues from heating appliances etc.
- Keep PEX 1500mm from slow combustion type stoves and flues used to heat hot water or cooking (wet back type).
- Leave 300mm minimum space between PEX pipe and light fittings or other electrical fixtures.
- PEX should not be positioned within 150mm of gas or central heating vents or flues
- Where fire collars or the like are required, installers should contact the manufacturer of those products to ensure they have certification for PEX pipes

## Uncontrolled Heat Sources

In the case of uncontrolled heat sources (e.g. slow combustion stoves, water heating coils, wet back boilers, solar, or similar) PEX pipe should not be used. The primary flow and returns on these types of heaters should not be installed in PEX pipe. Secondary flow and returns must be controlled so that the temperature / pressure requirements are not exceeded.

In the interest of safe temperature and to protect the user, tempering valves should be installed in accordance with AS/NZS 3500.

When using solar systems, installers should consult with manufacturers to ensure that water leaving the storage facilities does not exceed the performance capabilities of the pipe. Primary flow and returns should not be installed in Auspex pipe and secondary flow and returns must be controlled.

## Direct Sunlight Exposure

Auspex pipes manufactured after March 2010 meet the requirements of AS/NZS 2492 for carbon black content. As far as the standard is concerned relating to UV stability, the black pipe meets all of the requirements. As a conservative company, we still believe that good plumbing practice would see exposed external pipes protected.

## General Installation Requirements

The pipe is manufactured in 16mm and 20mm sizes and supplied in 100m or 50m coils and 5m straight lengths. 25mm pipe is available in 25m coils and 5m straight lengths, and 32mm pipe is available in 5 metre straight lengths. The pipe is manufactured in accordance with AS/NZS 2492, which is far more exacting than other approved plastics materials. Because the pipe is flexible and available in coils you can often use less fittings on a job.

## Recirculating Hot Water Systems

Recirculating Hot Water Systems or Ring Mains are a good way to minimise the time it takes to get hot water to an outlet on larger installations and can reduce water consumption. It is also known that the continual flow of water and exposure to high temperatures make this a very demanding application, whether copper, PEX, or other piping materials. If not configured correctly, the entire plumbing system may have a significantly reduced service life.

To ensure the expected system service life and to cater for performance tolerances of boilers and other heat sources, the following installation and water quality parameters must be followed on any recirculating hot water systems using the Auspex plumbing system in order to maintain the product warranty.

- The maximum water temperature in the system is to be limited to 60°C
- The water pressure within the ring main must be limited to 500kPa (as per AS/NZ 3500)
- The pipe work and recirculating pumps must be sized to limit the maximum water velocity to the requirement of AS/NZS 3500 for non-metallic piping. Where copper pipe is part of the installation, the velocity restrictions for this material must be adhered to
- A timer operated recirculation pump must be used with a maximum circulation time of 12 hours per 24-hour period. It is recommended that the pipe work be insulated and that the recirculating pump also have a thermostat control, to further reduce stress on the system and minimise energy consumption
- The pipe layout should be designed to use wide sweeping bends in the pipe with minimal fittings
- Water quality conditions are typical of major Australian city potable water reticulation systems as defined in the Australian Drinking Water Guidelines

## Minimum Cold Bending Radii

Ten times the outside diameter of the pipe used.

DIAMETER	RADII
16mm	160mm
20mm	200mm
25mm	250mm
32mm	320mm

Bending of the pipe for change of direction is preferable to elbows, however fittings will be required where sharp bends are necessary. Tighter bends can be achieved by using a bend support.



Do not use pipes that have kinks, cuts, deep scratches, squashed ends, imperfections or have been in contact with grease or tar substances. Any of the above should be cut out and replaced, as these conditions may affect the integrity of the system.

## Clipping

AS/NZS 3500 recommend the following spacings:

Diameter	Horizontal	Vertical
16mm	600mm	1200mm
20mm	700mm	1400mm
25mm	750mm	1500mm
32mm	850mm	1700mm

The above is a guide only. Good plumbing practice requires that clipping be installed so that stress is not imposed on the joint. When bending close to a joint, clips should be placed near the fitting in a manner not to stress the joint.

## Expansion and Contraction

The pipe can handle thermal expansion because of its flexibility. It should freely move through the clips, studs, plates or walls. Synthetic clips are recommended.

Care should be taken in regard to contraction. Where pipes are installed between fixed points, allow 10mm slack per metre for contraction to overcome undue pressure on the joints if contraction occurs.

### The Formula For Calculating Expansion Rates

$$\Delta L = a \times L \times \Delta T$$

$\Delta L$  = linear expansion in mm

$a$  = coefficient of linear expansion is 0.15 mm/mK

$L$  = length of pipe in metres

$\Delta T$  = temperature difference

The approximate expansion rate of PEX is 7.5mm per metre in a change of temperature of 50°C.

## Timber Frames

Drill holes through studs, plates etc. large enough so that the pipe can move freely through the holes to allow for expansion and contraction and pressure surges.

To avoid noises where pipes pass through studs, plates etc. that have large holes, consideration should be given to the use of a non-aggressive compound, grommet or sleeve in the annular space in the stud or plate. Ensure that pipe is protected when bending against frames etc.

## Steel Frames

Ensure that where a pipe passes through a steel frame, a suitable sleeve or grommet is used to protect the pipe against raw edges so it can still move through the protective medium.

## Pipes In Chases Ducts Or Conduits

- Pipes in chases must be continuously wrapped with an impermeable flexible material
- Auspex supply pre-covered 5m lengths suitable for this purpose
- Ducts shall be fitted with removable covers
- Conduits embedded in walls or floors should comply with the requirements of the Australian or New Zealand Building Codes as applicable

## Under Concrete Slabs

Refer AS/NZS 3500.

## Water Quality and Chlorine

Potable water is sourced using a variety of methods. The Australian Drinking Water Guidelines provides a framework to govern potable water. To achieve this, chlorine and other agents are sometimes used as constituents of the water, or for commissioning purposes. In these situations, the manufacturer must be consulted to ensure that the water composition will not affect the pipe or fittings. Due to the variance of water quality and treating, the installer must ensure that the pipe and fittings suit the application.

## Non-Potable Water Pipe (Not For Human Consumption)

The pipe is manufactured in accordance with AS/NZS 2492 however it is coloured in a special lilac colour, specified and branded in accordance with the authorities requirements for the distribution of water not suitable for human consumption. This water is generally used for watering gardens and supply to cisterns.

## Rainwater

Green pipe is available for rainwater applications. For larger bore DuoPEX Water (normally black) an approved lay flat sleeving is available to signify this purpose.

## Precautions

### Chemicals

Always check with the manufacturer before using PEX pipe for applications other than for potable water.

Always check with the manufacturer if the pipework is to be installed in a known contaminated area, in contaminated soils or may be subject to chemical spills.

### Electrical

It is of the utmost importance that if a metallic pipe is being replaced or installed in part or in its entirety by a plastic pipe or other non-metallic fittings or couplings, the requirements of AS/NZS 3500 must be followed. No work should be carried out until the earth requirements have been checked by an electrical contractor and modified if necessary.

## Pipe Flow Tests

### Flow Chart Worked Example

**Q:** How much head loss (pressure drop) occurs in an Auspex 16mm PEX pipe carrying hot water at 70°C with a required flow rate of 0.1 Litres/Second?

**A:** Place a ruler on the 0.1 Litres/Second mark on the bottom of the chart and measure up to cross the sloping line for the 16mm pipe. From this point draw a horizontal line to the line left hand side of the chart. This gives a head loss of 0.8 kPa/metre of pipe length. Multiply this value by the length of the total pipe to give the total head loss in the pipeline in kPa. The velocity of flow in the pipe is approximately 0.9 metres/second.

### Flow Chart Temperature Corrections

The Auspex flow charts are calculated for water at 70°C temperature. Where the water is at a different temperature the values from the chart need to be adjusted. Multiply the head loss by the appropriate factor in the table.

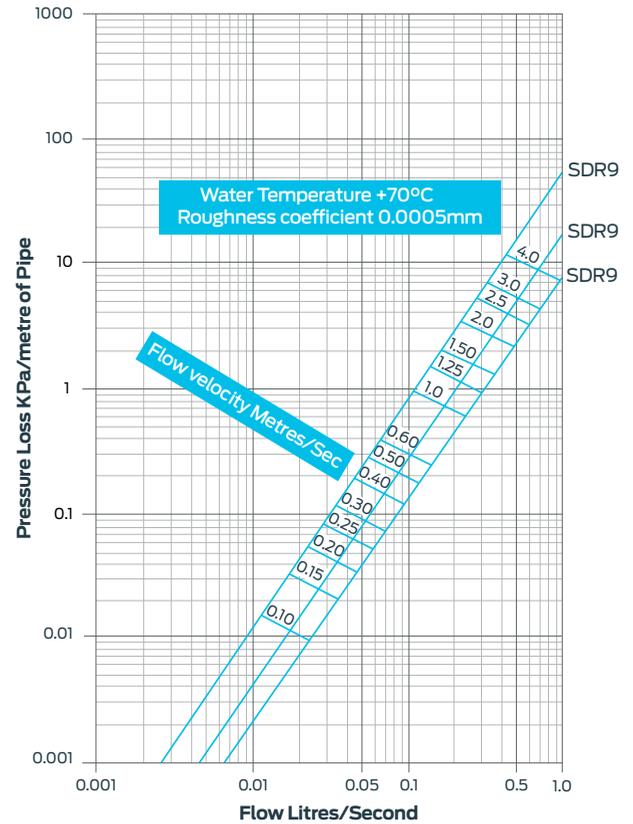
### Dimensions

Auspex pipes are made to AS/NZS 2492 dimensions for SDR9 pressure ratings.

### Thermal Conductivity

Temperature loss from PEX is very low compared to metallic products. For more specific calculations, the formula for thermal conductivity is:

$1.1 \times 10^{-3} \text{ cal/sec/cm/}^\circ\text{C}$   
or  $0.46 \text{ W/mK}$  (Watts per metre Kelvin)



Size	Mean OD	Min Wall	Max Mean ID
16mm	16.0	2.0	12.3
20mm	20.0	2.3	15.7
25mm	25.0	2.8	19.7

Factor	1.20	1.14	1.10	1.05	1.02	0.98	0.95
Water °C	20	30	40	50	60	80	90

## Acoustic Tests

### Results Summary

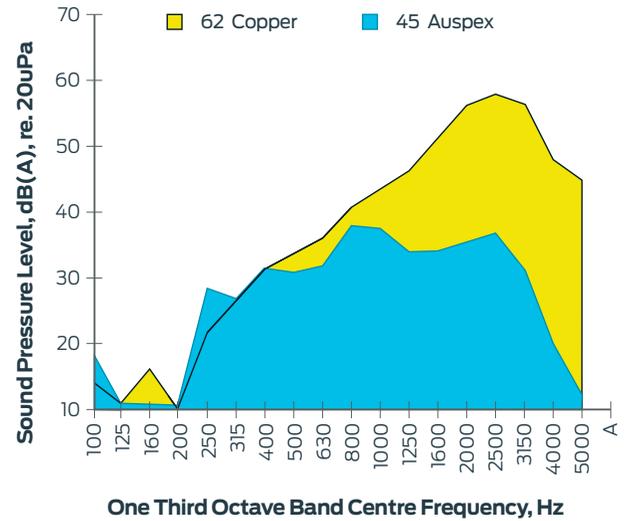
- The noise emitted by the pipes through the wall was mainly evident in the mid to high frequencies of the A-weighted spectrum
- Noise emitted at frequencies below 250Hz was affected by the level of background noise in the room
- The change in radiated noise level was greater with the change in water flow compared with the change in water pressure
- In all cases the overall noise level emitted by the Auspex pipe was less than for the copper pipe. For the same flow conditions the differences in overall noise level between the pipes was between 14 and 17dB(A)

### Conclusion

Measurements of noise emitted from nominal 15mm bore pipes attached to the other side of a concrete block wall with water flowing through them and a noise source in the pipe showed that the Auspex cross-linked polyethylene pipe was between 14 and 17dB(A) quieter than the standard copper pipe.

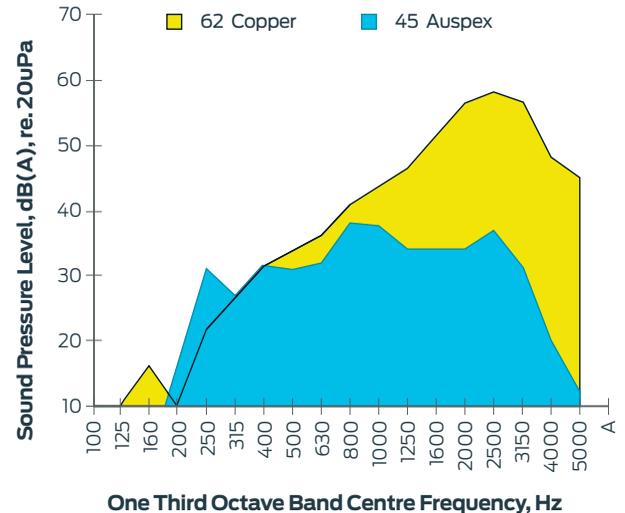
Waterflow l/min	Water Pressure kPa	Measured Noise Level dB(A)		Difference dB(A)
		Auspex	Copper	Copper – Auspex
15	300	38	55	17
15	600	40	54	14
20	600	45	62	17
20	700	45	62	17

Measured noise level of water flow through nominal 15mm bore Auspex and copper pipe, 20L/min, 600kPa with DIN 52218 noise source.



One Third Octave Band Centre Frequency, Hz

Measured noise level of water flow through nominal 15mm bore Auspex and copper pipe, 20L/min, 700kPa with DIN 52218 noise source.



One Third Octave Band Centre Frequency, Hz

# Auspex Stainless Steel Range

## Austenitic Stainless Steel

Austenitic stainless steel has been identified as a suitable, cost-effective material for problem environments, primarily in applications where more aggressive water sources are present.

This series of stainless steels is known for its excellent corrosion resistance to a wide variety of chemicals and water sources, and its microstructural characteristics also provide a unique combination of strength and toughness for the material's service life.

## Alloy Designation

British Standard EN10088-1 (2005): [X5CrNiMo17-12-2]  
– Refer Table 4, alloy code 1.4401

Alloy Equivalents in ASTM cast series and  
AISI/UNS wrought series:

- ASTM – [CF-8M]
- AISI – [Type 316]
- UNS – [C31600]

## Chemical Composition (Cast Analysis)

C	Si	Mn	P max	S	N
0.07	1.00	2.00	2.00	0.015	0.11
Cr	Cu	Mo	Nb	Ni	Fe
16.50 to 18.50	–	2.00 to 2.50	–	10.00 to 13.00	REM

The British standard alloy designation 1.4401 [X5CrNiMo17-12-2] is used to describe the specific chemical composition chosen for this series of Auspex fittings.

This type of alloy is classified as a corrosion resistant cast steel that has a good resistance to both uniform and local attack which is provided by the Chromium (Cr) content in the alloy. The Cr spontaneously forms a protective oxide film which acts as a barrier to corrosion and is the base protective mechanism of stainless steel.

In addition to this, Molybdenum (Mo) is also included in the composition for increased resistance to crevice corrosion and pitting in chloride-containing environments (as found in many aggressive water sources).

These fittings will consist of ~5-20% Ferrite distributed in discontinuous pools throughout an Austenite matrix which provides a unique combination of properties appropriate for use in various potable water applications.

The Austenite phase (FCC crystal structure) possesses excellent ductility, formability and has a high fracture toughness while the presence of Ferrite (BCC crystal structure) in the alloy is beneficial for resistance to stress corrosion cracking (SCC) and intergranular attack. In the case of SCC, the Ferrite blocks crack propagation through the Austenite matrix while it also promotes resistance to intergranular cracking by preferentially precipitating carbides along its grain boundaries, rather than along the Austenite grain boundaries, where they would increase susceptibility to intergranular attack.

The presence of Ferrite is also beneficial to the tensile and yield strength of the alloy without any significant reduction in toughness. As the ~5-20% Ferrite is magnetic (Austenite is not), there will be a low magnetic response from this alloy.



# Installation Instructions

## Step 1.

Measure the pipe to the correct length and using a secateur-type tool, cut the pipe squarely and remove any burrs. The end of the pipe may need to be freshly cut to ensure smooth passage for the fitting. **Do not use a hacksaw.**



## Step 2.

The pipe is pushed over the barbed fitting and at the same time under the crimp ring. The fit should be firm. If the joint feels sloppy or hard to insert, check pipe and fittings. Do not use lubricants. Ensure the pipe is visible in both crimp ring witness holes.



The witness holes should be completely filled.

## Step 3.

**Make sure the tool jaws are centralised over the crimp ring at 90° to the joint.**

When using the manual tool, close the tool completely to compress the crimp ring. The tool will click at final compression.

When using the battery tool, press the switch until the crimp is completed.



## Step 4.

Check with the gauge supplied by sliding the opening of the gauge over the compressed ring. If the gauge passes over all parts of the ring without interference then the joint has been done satisfactorily.



If the gauge experiences any interference the joint is under crimped. The tool should then be adjusted. (See adjustment instructions in this manual). **Do not double crimp.**

## Step 5.

To ensure the joint is not stressed, use a bend support or clip.

Clip the pipe with non-metallic clips. System clips are available, however in the cases where non-proprietary clips are used, they must be non-metallic and allow for thermal expansion and contraction. Cable ties are not recommended. Damage caused by non-proprietary clips are not covered by warranty. **Neutral cure silicon** is permitted in AS/NZS 3500 to protect pipes through penetrations.



## Step 6.

Pressure test the system in accordance with AS/NZS 3500 and with local requirements. Cut out any defective joints. Fittings can be re-used by cutting off the compressed ring and replacing with a new ring. Ensure that no damage is done to the brass barbs when cutting off the ring or removing the pipe.



Refer to the Trouble Shooting page for further installation tips.

# General Installation Tips

## The Gauge

The gauge is one of the quality controls of the system. It verifies firstly that the ring has been crimped and secondly, that it has been compressed enough.

Gauging of the compressed ring should be done regularly throughout each job.

When using the gauge, slide the opening over the compressed ring. If the gauge passes over all parts of the ring without interference then the joint has been done satisfactorily. Do not place the gauge over the pipe and then move it back along the pipe and over the ring. This may not give a true reading.

If the gauge experiences any interference the joint is under crimped. The tool should then be adjusted. Do not double crimp.

If the gauge is lost, it should be replaced immediately.

## Clear Plastic Ring

The plastic ring on the fitting is only there to hold the crimp ring to the fitting. It plays no part in the integrity of the joint. It may behave differently after crimping, however as a general rule, the back of this ring should be flush against the body of the fitting and the crimp ring should be attached to it. This starting position will also help to ensure full penetration of the fitting inside the pipe.

For Mark II fittings where the crimp ring is held in place without the plastic ring, the tool jaws must be aligned to the end of the crimp ring where the pipe enters the fitting.

## The Pipe

The pipe that comes out of the crimped ring at an angle may indicate that the pipe is not covering all of the barbs on one side. This situation may occur if a tight bend is made close to a joint or if the pipe has moved in some way prior to crimping. Where possible, crimp the fitting before making the tight bend and install a clip close to the joint between the bend and the joint. Use a bend stabiliser to avoid stress on the joint.

## Coloured Plastic Rings

Auspex crimp system has a range of adaptors, which are identified by a different coloured plastic ring. Do not join Auspex pipe by using a fitting with a coloured ring. To identify the uses for these adaptors, consult your supplier or Auspex directly.

## Pinched Ring

When crimping fittings which are flush to frames etc, check to ensure that the crimp ring has not pinched on the back side. Rings which are pinched in this manner should be replaced.

## Clips

The clips should be installed so that the pipe can move freely through the clip. Plastic clips are recommended.

Only Auspex approved tools can be used.

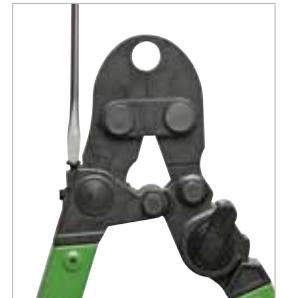


**Ratchet Tool**  
Manual tool for copper crimp ring to 25mm

## Tool Adjustment

Incorrect adjustment can cause under-crimping and failure of the joint.

1. Ensure all moving parts are always kept well lubricated
2. Open the handles fully
3. Using a flat head screwdriver, loosen (but don't fully unscrew) the locking bolt
4. Using a screwdriver, rotate the adjusting screw a quarter turn clockwise
5. The adjusting screw has 4 flat faces in a square shape for the locking bolt to fix on. Therefore the adjusting screw must always be vertical or horizontal in orientation and never at an angle or the locking bolt will damage it
6. Retighten the locking bolt
7. Crimp a new trial joint as a test away from the working location and test with the gauge
8. If OK, continue to use the tool



If the gauge fails, repeat adjustment until trial crimped joint is correct. More detailed instructions are included with the tool.

# Joining To Other Materials

Threaded fittings are available to make the transition between PEX pipe and other materials. Specialised and tested adaptor fittings are also available. Please see catalogue or contact Auspex.

## When Joining To Copper

- a. Flared copper compression to Auspex crimp adaptors are available.
- b. Brazing adaptors are available, designed so that one end can:
  - 1. Fit over 15mm, 20mm, 25mm and 32mm copper pipe
  - 2. Fit into expanded 15mm, 20mm or 25mm copper pipe
  - 3. Fit into standard copper or brass brazed fittings
  - 4. When brazing these adaptors they MUST be cold before inserting into the PEX pipe
- c. Push fit copper adaptors are available:
  - 1. Square cut the copper pipe
  - 2. Remove any burrs or loose material
  - 3. Ensure the outside of the pipe is free of scratches, marks etc.
  - 4. Push the copper fully into the fitting using a twisting motion
  - 5. Make sure the copper is not oval or out of round
  - 6. Do not use on annealed copper or coated copper e.g. chrome coating
- d. B-Press (crimp) copper to Auspex:
  - 1. See catalogue for available conversion fittings
  - 2. Follow the B-Press installation instruction for the copper crimp end
  - 3. Follow the Auspex installation instruction for crimping the PEX end of the fitting

# Trouble Shooting

The Auspex crimp system is simple and effective when executed in accordance with the jointing procedures in this manual. However, if sufficient care is not taken, this can result in an ineffective joint.

## Ineffective joints may occur if:

- The crimping tool has not been completely closed
- The crimping tool is out of adjustment. Re-adjust tool in accordance with the instructions supplied with the tool, and in this manual
- The copper ring has moved away from the fitting body
- The crimping tool has not been centred over the copper ring and the jaw has overhung the end of the fitting
- The crimping tool has not been at 90° to the joint being made
- The pipe has been cut badly out of square
- The witness hole is not completely filled (the fitting is not fully inserted in the pipe)
- The fitting has been double crimped

## Examples of ineffective joints:



## If an ineffective joint is detected:

- Cut out the defective joint and replace with new fitting
- Cut the copper ring, remove and replace it with new copper ring and crimp again, using the same fitting body
- Ensure when cutting off a ring that the barb on the fitting is not damaged
- Replace the section of pipe that was under the crimp ring

# Product List

## Pipe

# Product List

## Pipe

### Black Pipe

16mm x 5m Straight	AP401605
16mm x 50m Coil	AP401650
16mm x 100m Coil	AP4016100
20mm x 5m Straight	AP412005
20mm x 50m Coil	AP412050
20mm x 100m Coil	AP4120100
25mm x 5m Straight	AP422505
25mm x 25m Coil	AP422525
32mm x 5m Straight	AP433205



### Black Pipe – Pre-Lagged

16mm x 5m	AP401605LAG
20mm x 5m	AP412005LAG



For rendering or chasing, not heat retention.

### Corrugated Sleeving

16mm x 25m Coil	AP401625COR
20mm x 25m Coil	AP412025COR



### Lilac Pipe\*

16mm x 5m Straight	AP401605LIL
16mm x 50m Coil	AP401650LIL
20mm x 5m Straight	AP412005LIL
20mm x 50m Coil	AP412050LIL
25mm x 5m Straight	AP422505LIL
25mm x 25m Coil	AP422525LIL
DuoPEX Water 32mm x 5m Sleeved	DPW433205LILLAG
DuoPEX Water 40mm x 5m Sleeved	DPW444005LILLAG
DuoPEX Water 50mm x 5m Sleeved	DPW455005LILLAG
DuoPEX Water 63mm x 5m Sleeved	DPW466305LILLAG



DuoPEX Water pipes are multi-layer pipes requiring the use of hydraulic tools.

\*Lilac Pipe for recycled water. Marked in accordance with Australian Standards.

### Green Pipe

16mm x 5m Straight	AP401605G
16mm x 50m Coil	AP401650G
20mm x 5m Straight	AP412005G
20mm x 50m Coil	AP412050G
DuoPEX Water 32mm x 5m Sleeved	DPW433205GRLAG
DuoPEX Water 40mm x 5m Sleeved	DPW444005GRLAG
DuoPEX Water 50mm x 5m Sleeved	DPW455005GRLAG
DuoPEX Water 63mm x 5m Sleeved	DPW466305GRLAG



DuoPEX Water pipes are multi-layer pipes requiring the use of hydraulic tools.

### Red Pipe

16mm x 5m Straight	AP401605R
16mm x 50m Coil	AP401650R
20mm x 5m Straight	AP412005R
20mm x 50m Coil	AP412050R
25mm x 5m Straight	AP422505R
25mm x 25m Coil	AP422550R



### Red Pipe – Pre-Insulated

16mm x 25m Coil – R.3 9mm Wall	AP401625RR3
16mm x 25m Coil – R.8 13mm Wall	AP401625RR8
20mm x 25m Coil – R.3 9mm Wall	AP412025RR3
20mm x 25m Coil – R.8 13mm Wall	AP412025RR8
25mm x 25m Coil – R.3 9mm Wall	AP422525RR3
25mm x 25m Coil – R.8 13mm Wall	AP422525RR8
20mm x 50m Coil – R.8 13mm Wall “WATERPROOF”	AP412050RR8W



# Product List

## Fittings

# Product List

## Fittings

16mm – 25mm with copper rings and 32mm with stainless steel rings. 32mm fittings must be crimped with the battery tool using the 32mm DuoPEX jaw.

### Couplings

16mm x 16mm	AP011616
20mm x 20mm	AP012020
25mm x 25mm	AP012525
32mm x 32mm	AP013232
20mm x 16mm	AP022016
25mm x 20mm	AP022520
25mm x 16mm	AP022516
32mm x 20mm	AP023220
32mm x 25mm	AP023225



### Tees

16mm x 16mm x 16mm	AP03161616
20mm x 20mm x 20mm	AP03202020
25mm x 25mm x 25mm	AP03252525
32mm x 32mm x 32mm	AP03323232
20mm x 20mm x 16mm	AP04202016
20mm x 16mm x 16mm	AP04201616
20mm x 20mm x 25mm	AP04202025
20mm x 16mm x 20mm	AP04201620
25mm x 16mm x 16mm	AP04251616
25mm x 16mm x 20mm	AP04251620
25mm x 16mm x 25mm	AP04251625
25mm x 20mm x 16mm	AP04252016
25mm x 20mm x 20mm	AP04252020
25mm x 20mm x 25mm	AP04252025
25mm x 25mm x 16mm	AP04252516
25mm x 25mm x 20mm	AP04252520
16mm x 16mm x 20mm	AP04161620
32mm x 32mm x 25mm	AP04323225
32mm x 32mm x 20mm	AP04323220
32mm x 25mm x 25mm	AP04322525
32mm x 20mm x 20mm	AP04322020
20mm x 20mm x 1/2"	AP04202015F
1/2" x 1/2" x 16mm NZ Cu	APNZ04141416CX
3/4" x 3/4" x 20mm NZ Cu	APNZ04212120CX



### Tees For For Brazing Copper Pipe

16mm x 16mm x 1/2"	AP04161608F
20mm x 20mm x 3/4"	AP04202008F



### Threaded Elbows

16mm x 16mm	AP051616
20mm x 20mm	AP052020
25mm x 25mm	AP052525
32mm x 32mm	AP053232
25mm x 20mm	AP052520
20mm x 16mm	AP052016
16mm x 1/2" Male	AP051615
16mm x 1/2" Female	AP051615F
16mm x 1/2" Loose Nut	AP051615FNZ
20mm x 1/2" Male	AP052015
20mm x 3/4" Female	AP052020F
20mm x 3/4" Loose Nut	AP052020FNZ



### Lugged Elbow (Male)

16mm x 1/2" (73mm)	AP061615S
16mm x 1/2" (88mm)	AP061615L
16mm x 1/2" (100mm)	AP061615100
16mm x 1/2" (200mm)	AP061615200
16mm x 1/2" (230mm)	AP061615230
16mm x 1/2" (88mm) Flange and Locking Nut	AP06161588
20mm x 1/2" (65mm)	AP062015
20mm x 1/2" (200mm)	AP062015200
20mm x 3/4" (200mm)	AP062020200
25mm x 3/4" (75mm)	AP06252075
16mm x 5/8" (200mm) Recycled Water	AP0658200REC
20mm x 1/2" (95m)	AP06201595



### Lugged Elbow (Female)

16mm x 1/2" BSP	AP071615F
20mm x 3/4" BSP	AP072020F



### Brazing Tails

16mm Male	AP0816M
20mm Male	AP0820M
25mm Male	AP0825M
32mm Male	AP0832M
25mm x 20mm Male	AP082520M
16mm Female	AP0816F
20mm Female	AP0820F
25mm Female	AP0825F
32mm Female Brazing Tail	AP0832F
20mm x 15mm Female	AP082015F



# Product List

## Fittings

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### Push Fit Copper Adaptors

16mm x 15mm Push Fit	AP271615
16mm x 15mm Push Fit	AP271615NZ
20mm x 20mm Push Fit	AP272020
25mm x 25mm Push Fit	AP272525



### Compression Adaptors

16mm x 15mm Copper	AP131615
20mm x 15mm Copper	AP132015
20mm x 20mm Copper	AP132020
25mm x 25mm Copper	AP132525



### B-Press Adaptors

16mm x 15mm Copper	AP281615
20mm x 20mm Copper	AP282020
25mm x 25mm Copper	AP282525



### System Adaptors

16mm Auspex x 18mm PB Adaptor	AP151618PB
18mm PB x 18mm PB x 16mm Auspex Tee	AP15181816PB
22mm PB x 20mm Auspex Adaptor	AP152022PFPB
22mm PB x 22mm PB x 20mm Auspex Tee	AP15222220PFPB
16mm Auspex x 16mm SDR 7.4 Pex Adaptor	AP151620
20mm Auspex x 20mm SDR 7.4 Pex Adaptor	AP152020
16mm SDR 7.4 Pex x 16mm SDR 7.4 Pex x 16mm Auspex Tee	AP15161616PN20
20mm SDR 7.4 Pex x 20mm SDR 7.4 Pex x 20mm Auspex Tee	AP15202020PN20
16mm Auspex x 16mm SharkBite/ EvoPEX Adaptor (SDR 9)	AP151616PN16
20mm Auspex x 20mm SharkBite/ EvoPEX Adaptor (SDR 9)	AP162020PN16



### Threaded BSP Adaptors (Male)

16mm x 1/2"	AP091615
20mm x 3/4"	AP092020
25mm x 1"	AP092525
32mm x 1 1/4"	AP093232
20mm x 1/2"	AP092015
25mm x 3/4"	AP092520
20mm x 1"	AP092025
32mm x 1"	AP093225
16mm x 1/2" Copper MI	AP091615NZ
20mm x 3/4" Copper MI	AP092020NZ



### Threaded BSP Adaptors (Female)

16mm x 1/2"	API01615
20mm x 3/4"	API02020
25mm x 1"	API02525
32mm x 1 1/4"	API03232
20mm x 1/2"	API02015
25mm x 3/4"	API02520
32mm x 1"	API03225
16mm x 1/2" Wing Back Connector	API01615WB
20mm x 3/4" Wing Back Connector	API02020WB



### Loose Nut and Tail (Female)

16mm x 1/2"	AP191615
16mm x 1/2"	AP191615NZ
16mm x 1/2" UFH Manifold Connector	AP191615H
20mm x 3/4"	AP192020
20mm x 3/4"	AP192020NZ
25mm x 1"	AP192525
25mm x 1"	AP192525NZ



### End Caps

16mm	AP1416
20mm	AP1420
25mm	AP1425
32mm	AP1432



### Spare Copper Rings (With Plastic Inserts)

16mm	AP2216
20mm	AP2220
25mm	AP2225



# Product List

## Fittings

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## Fittings

### Sink Sets

200mm Right Angle Centre	API1200RA
200mm Right Angle Centre 43.6mm Body Height	API1200RA/Q
300mm Right Angle Centre	API11RA
200mm Side Entry Centre	API1200SE
300mm Side Entry Centre	API11SE

Covered by Watermark LN: W185 spec 038



### Shower Sets

150mm Bottom Entry Shower Set Centres, Short Copper Riser and Auspex Barb	API2BEC
200mm Bottom Entry Shower Set Centres Short Copper Riser and Auspex Barb	API2200BEC
200mm Bottom Entry Shower Set Centres with Copper Riser and Lugged Elbow	API2200BER
200mm Bottom Entry Bath/Shower Centres with Copper Riser and Lugged Elbow	API6BS200BER
200mm Bottom Entry Shower Breech Centre with 43.6mm Body Height	API2200BEC/Q
150mm Top Entry Shower Set Centres Short Copper Riser and Auspex Barb	API2TEC
200mm Top Entry Shower Set Centres Short Copper Riser and Auspex Barb	API2200TEC
200mm Top Entry Shower Set Centres with Copper Riser and Lugged Elbow	API2200TER
200mm Top Entry Shower Breech Centre with 43.6mm Body Height	API2200TEC/Q
150mm Side Entry Shower Set Centres Short Copper Riser and Auspex Barb	API2SEC
Vertical Shower Breech Left Hand Entry	API2150LH
Vertical Shower Breech Right Hand Entry	API2150RH
Single Bollard Breech	API6BBS
Double Bollard Breech	API6BBD

Covered by Watermark LN: W185 spec 038



### Manifolds

3 Port – Open End 16-20mm x 20mm	AP042020163
3 Port – Closed End 16-20mm	AP0420X163
4 Port – Open End 16-20mm x 20mm	AP042020164
4 Port – Closed End 16-20mm	AP0420X164



### Ball Valves

16mm x 16mm	AP601616
20mm x 20mm	AP602020
25mm x 25mm	AP602525
16mm x 15mm Female BSP	AP611615FI
20mm x 20mm Female BSP	AP612020FI
25mm x 25mm Female BSP	AP612525FI



### Crimping Tools

16mm	AP2116RN
20mm	AP2120RN
25mm	AP2125RN



### Crimp Ring Repair Tool

20mm x 25mm x 16mm	AP22252016
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### Gauges

20mm x 16mm	API72016
25mm	API725



### Bend Stabilisers

16mm	API816
20mm	API820



## Coupling

16mm x 16mm	APSS011616
20mm x 20mm	APSS012020
25mm x 25mm	APSS012525
20mm x 16mm	APSS022016
25mm x 20mm	APSS022520



## Tee

16mm x 16mm x 16mm	APSS03161616
20mm x 20mm x 16mm	APSS04202016
20mm x 20mm x 20mm	APSS03202020
25mm x 25mm x 25mm	APSS03252525
20mm x 16mm x 16mm	APSS04201616
20mm x 16mm x 20mm	APSS04201620
25mm x 25mm x 20mm	APSS04252520



## Elbow

16mm x 16mm	APSS051616
20mm x 20mm	APSS052020
20mm x 16mm	APSS052016
25mm x 25mm	APSS052525



## Lugged Elbow (Male)

16mm x 1/2" (73mm)	APSS061615S
16mm x 1/2" (100mm)	APSS061615100



## Lugged Elbow (Female)

16mm x 1/2" Female BSP	APSS071615F
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## Brazing Tail

16mm Female	APSS0816F
20mm Female	APSS0820F



## Threaded BSP Adaptors (Male)

16mm x 1/2" Male BSP	APSS091615
20mm x 3/4" Male BSP	APSS092020
25mm x 1" Male BSP	APSS092525



## Threaded BSP Adaptors (Female)

16mm x 1/2" Female BSP	APSS101615
20mm x 3/4" Female BSP	APSS102020
25mm x 1" Female BSP	APSS102525



## Sink Sets

300mm Right Angle Centre	APSS11RA
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## Shower Sets

150mm Bottom Entry Centre	APSS12BEC
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## End Cap

16mm	APSS1416
20mm	APSS1420



## Loose Nut and Tail

16mm x 1/2"	APSS191615
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## System Adaptors

16mm x 18mm PB Adaptor	APSS151618PB
18mm x 18mm x 16mm PB Adaptor Tee	APSS15181816PB







## Customer Service

Telephone (03) 9770 3600  
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Email [salesauspex@rmc.com.au](mailto:salesauspex@rmc.com.au)

[auspex.com.au](http://auspex.com.au)

For operating parameters outside those stated in the manual, please contact Customer Service.

Contents of this brochure are subject to change, please visit our website for the most up-to-date product information.



AS/NZS 2492  
AS/NZS 2537  
WMKA 1711.1  
WMKA 1711.3  
WMKA 2058

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