

# elson

EPS PEX

## LEAD FREE\* Plumbing Solutions



99.9% Lead Free

< 0.1% Pb

### EPS LEAD FREE\* CRIMP WATER PEX PLUMBING SYSTEM MANUAL



Lead Free

\* Elson Lead Free copper alloy products are 99.9% Lead Free and contain less than 0.1% Lead by weight.

Version 2.5

## ABOUT ELSON

Elson is an Australian owned and operated company since 1993 with our head office and national distribution centre based in Minchinbury NSW. Elson plumbing products are designed specifically for the Australian market. We have been manufacturing quality plumbing products since 1999 in our ISO9001 certified factory. Elson set a higher quality benchmark by introducing 99.9% Lead Free copper alloy plumbing products in 2016 with the launch of elson Lead Free PRESS fittings and we have continued to expand our Lead Free range to include Water Meter Ball Valves, PRV Boundary Valves, Hot Water Valves – PRVs, PLVs & Non-Return Isolating Valves, Press Ball Valves, Dual Check Valves, BUSHPEX Ball Valves, elson innovative Union Ball Valves, and elson EPS Lead Free Crimp Water & Gas Dual PEX Plumbing System, EPS Lead Free Push-fit PEX Plumbing System. Elson has established a reputation for quality without compromise. We continue to develop our product ranges with innovative quality plumbing products.



Elson is the leading manufacturer providing LEAD FREE Plumbing Solutions.

A 3-year transition period to support Australia's path to reducing allowable lead levels in drinking water plumbing products commenced on 1 May 2023.

Clause A5G4 of NCC 2022 Volume Three (Plumbing Code of Australia) specifies that copper alloy plumbing products in contact with drinking water must limit the allowable lead content to a weighted average lead content of not more than 0.25%.

Elson's journey as being the leading manufacturer of 99.9% lead free plumbing products began in 2016 well before the initiative by ABCB to implement the reduction of lead in Australian plumbing copper alloy products for drinking water to 0.25% by weight. Elson's 99.9% Lead free copper alloy products meet the More Stringent European Lead Free Guideline of containing less than 0.1% by weight. Our Lead free copper alloy products contain a maximum of 0.1% lead by weight setting a higher benchmark than the new standard requirements to be mandatory on the 1st September 2025.

### Benefits to You: CLEAN HEALTHY DRINKING WATER

- Contribute to provide clean healthy drinking water in contact with lead free brass products.
- AS 4020 Materials in contact with drinking water compliance.
- Compliance to European lead free Copper alloy guideline limit under 0.1% lead.
- Elson 99.9% Lead Free exceeds NCC2022 Guidelines.



### Caring for our ENVIRONMENT

- Elson lead free Copper alloy products offer an environmentally friendly advantage while still maintaining the proven product quality you expect from Elson Australasia.
- Lead free Copper alloy can be recycled maintaining the environmental benefits.



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elson EPS Lead Free Crimp Water & Gas Dual PEX Plumbing System is **the Australia's 1st Lead Free PEX System.**

This system is suitable for both Water & Gas applications. EPS 99.9% LEAD FREE Crimp fittings have been designed to be dual purpose for both water and gas applications.

Combined with either EPS pex water pipes or EPS Pex-Al Gas pipes.

Connection to either pipe is fast and easy using EPS crimping tools.

Same tool for both water and gas.

### Why do we need to have EPS PEX Crimp?

- Leak before crimp design
- Fast & Easy and Secure installation
- Dual approved fittings for both water and gas
- Same tool for both water and gas
- 99.9% Lead Free

### Features

- Pipe-Grippa™ design prevents pipes from falling out during installation.
- Ring-Grippa™ design. No more rings falling off.
- Ring collar guide for easier jaw positioning & crimping.
- Four witness holes to observe full pipe insertion, from multiple angles.
- Full depth pipe insertion – NEW improved design.
- Protection caps, prevent damage to copper rings.



elson EPS Lead Free Crimp Water & Gas Dual PEX Plumbing System is manufactured and tested to comply with AS/NZS 2537.2, AS 2492 & AS/NZS 5601.

This manual mainly introduces elson EPS Lead Free Crimp Water PEX Plumbing System.

## EPS 99.9% LEAD FREE CRIMP FITTINGS

Elson EPS LEAD FREE Crimp fittings are manufactured in our ISO 9001 Certified Factory. All fittings use only LF DR BRASS <0.1%Pb (Dezincification Resistant) which is batch tested and conforms to AS 2345. Fittings with a Copper Crimp ring have four pipe engagement witness holes. All fittings have stamped detail into their Copper Crimp Rings clearly showing Brand, Size, Pressure Rating, Standards and watermark certificate Number. Lead Free Identification stamping also appears on the brass fitting where possible or it will display the letters "LF". Elson EPS LEAD FREE Crimp fittings have been tested and approved in accordance with the Australian and New Zealand Standard AS/NZS 2537.2 with watermark certificate WMKA 21276.



### Benefits of EPS 99.9% LF Crimp Water & Gas fittings

- Leak before crimp design
- Fast & Easy and Secure installation
- Dual approved fittings for both water and gas
- Same tool for both water and gas
- 99.9% Lead Free

## EPS PEX WATER PIPE PROPERTIES

EPS PEX pipes are manufactured from virgin material to exceed the performance requirements of AS 2492. EPS PEX pipe is the preferred choice for hot and cold potable water and recycled water applications. EPS crosslinked polyethylene pipes are manufactured by changing the polymer which chemically links the molecular structure to form a three dimensional, cross-linked structure. This process increases the durability, temperature and pressure capacity. EPS PEX pipe provides flexibility with improved mechanical, thermal and chemical properties.



### EPS Pex Pipe benefits

- EPS PEX pipe has a larger internal bore for better flow
- Low water flow noise.
- Reduced water hammer compared to metal pipes.
- Higher resistance to surge pressures.
- Resistant to freezing and has high impact strength.
- Chemical resistance to glycols, latex paints, silicone and most acids and bases.
- Proven long life and durability.
- Light weight and easy to install.
- Sizes 16,20,25 & 32mm.
- Colours black, red, lilac & green.
- Coils and Straight lengths available.
- Coils provide faster installation, less joints and cost saving.
- **EPS pipe is compatible with both - EPS Crimp & EPS Push-Fit fittings.**

**Black** – Suitable for potable hot and cold water in domestic and commercial applications.

**Red** – Specifically for hot water lines.

**Lilac** – Specifically for recycled, non-potable water.

**Green** – Specifically for Rainwater.

### Maximum Working Pressure

EPS Pipe is manufactured to AS/NZS 2492 and designed to a maximum working pressure of 1600 kPa @20°C

Temperature °C	Maximum Working Pressure (KPa)
20° C	1600 kPa
60° C	1190 kPa
70° C	1090 kPa

### Exposure to heat

Exposure to excessive heat can damage the integrity of the pipe and joint and will significantly reduce the service life of the EPS plumbing system. Be mindful of exposure to radiant heat sources i.e. high wattage lighting and other radiant heat sources. While welding or soldering during construction and maintenance in close proximity to the EPS Plumbing system. EPS Plumbing system exposed to heat emissions must be permanently protected. Never expose EPS plumbing system to a naked flame. Replace all pipe and fittings that have been compromised due to direct or radiant heat. Always follow required installation procedure as per AS/NZS 3500.

\* Elson Lead Free copper alloy products are 99.9% Lead Free and contain less than 0.1% Lead by weight.

## INSTALLATION REQUIREMENT

### CARE & HANDLING

EPS LEAD FREE\* CRIMP Pipe & fittings. Must be protected from damage through all stages of the process from transport to storage and installation in accordance with AS/NZS3500. Provision for pipe and fittings protection includes but is not limited to the following:

- Care must be taken to keep the pipe and fittings free of grit, dirt, dust, sand and any foreign matter.
- Pipe must be protected from physical damage. Including cuts, abrasions, dents, kinks, tears, holes, etc.
- Pipes, either black, red, green or lilac, must not be installed in direct sunlight.
- Pipe must be protected from long term or permanent U.V. exposure, by way of lagging, or encasing in a conduit etc.
- Pipe and fittings must be protected from excessive heat or burning, chemical / solvent attack, animal or rodent attack, machinery damage, other external threats, etc.
- Pipe must never be installed where it could be exposed to a naked flame. In accordance with AS/NZS3500, all plastic pipe for water supply must be protected from excessive ambient heat.
- In chemical or corrosive environments, pipe must be protected, fittings must be wrapped, and sealed, protected this includes all underground installations for all fittings.

### Important!

- Pipe expansion and contraction needs to be accommodated during installation to allow for movement due to thermal Linear Expansion. Failure to do so may exceed the torsional pull-out allowances on fittings resulting in leakage. Refer to the Pipe Specification Chart for the Thermal Expansion Co-efficient.
- EPS pipe is flexible but requires care when bending to avoid kinks or other permanent deformation that may restrict flow or put undue pressure on joints. If the pipe is kinked or damaged in any way it must be cut-out and replaced.
- Elson EPS Crimp profile pipe bends are available when required. Refer to the Pipe Specification Chart for minimum bending radius.
- Connecting Barb soldered connection require special attention. Solder the brass connection barb first then allow to cool before jointing.
- In accordance with AS/NZS 3500, regions with extreme hot or cold temperatures, require appropriate insulation for protection and compliance. Consideration should also be given to insulating the pipe for energy efficiency as well as the prevention of condensation which can occur in hot and cold lines.

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**Pipe support and clipping**

Pipe support and clipping, both vertically and horizontally is required to ensure conformance for vibration, excessive tension, torsion or compressive stresses on fittings and pipe. Refer to Pipe Specification Chart for spacing.

- Pipe penetrations through timber and steel frames and concrete sections must conform and may require protection using grommets, fire collars, sleeving or wrapping. Holes, notches and cut-outs must be accurately drilled “in-line” to allow movement for expansion and contraction of the pipe and fittings so joints are not exposed to excessive stress. Refer to Pipe Specification Chart for timber frame cut-out limitations.
- Pipe expansion and contraction needs to be accommodated during installation to allow for movement due to thermal Linear Expansion. Failure to do so may exceed the torsional pull-out allowances on fittings resulting in leakage. Refer to the Pipe Specification Chart for the Thermal Expansion Co-efficient.
- EPS pipe is flexible but requires care when bending to avoid kinks or other permanent deformation that may restrict flow or put undue pressure on joints. If the pipe is kinked or damaged in any way it must be cut-out and replaced. EPS Push-Fit elbows are recommended for tight bends.  
Refer to the Pipe Specification Chart for minimum bending radius and tools for bending.
- In accordance with AS/NZS 3500 regions with extreme hot or cold temperatures require appropriate product selection and/or insulation for protection and compliance. Consideration should also be given to insulating the pipe for energy efficiency as well as the prevention of condensation which can occur in hot and cold lines. Hot water lines require insulation / lagging – Refer to AS/NZS 3500.

**Clipping Distance**

Pipe support and clipping, both vertically and horizontally is required to ensure conformance for vibration, excessive tension, torsion or compressive stresses on fittings and pipe. Refer to Pipe Specification Chart for spacing.

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

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### Minimum Bend Radius

10 x the outside diameter of pipe

Pipe Size	Horizontal
16mm	160mm
20mm	200mm
25mm	250mm
32mm	320mm

### Underground Installation/Concrete slabs

NOTE: It is a requirement to pressure test the pipe and fittings in accordance with AS/NZS 3500 prior to burying or concealing the EPS Plumbing System. Underground installation of EPS pipe and fittings must be in accordance with AS/NZS 3500 including but not limited to the following:

- Minimum buried depth required by standards.
- Minimum pipe separation distance.
- Wrapping and protection.
- Conduit sleeving through slab penetration.
- Underground Piping installation recommended with no joints.
- Concrete slab piping must be continuous with no Joints.

### Exposure to UV Rays.

Pipe must be protected from long term or permanent U.V. exposure, by way of lagging, or encasing in a conduit. AS/NZS 3500 outlines installation practices and considerations the installer must abide by.

EPS PEX pipe is specifically designed for the EPS CRIMP plumbing system in conformance with AS 2492 with watermark certificate WMKA21274. EPS PEX pipe is compatible with all two EPS jointing systems for water including:

- EPS LF Crimp
- EPS LF Push-Fit

### System Testing

Pipe and joint system testing must be carried out in accordance with AS/NZS 3500 and any other applicable local authority requirements prior to burying or concealing the EPS Pex Plumbing System. It is the responsibility of the Licensed Installer to ensure that all joints and fittings are inspected, tested and checked for leaks to ensure safety and compliance. It is recommended to incorporate a checking procedure to ensure that each joint has been correctly and completely jointed.

### ELECTROCUTION WARNING!

The potential threat of electrocution and death must be recognised if an earth line is disconnected by cutting metal pipes. ALWAYS check with a licenced electrician prior to proceeding.

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### Ring Mains/Recirculating Hot Water Systems

If not configured correctly, the entire plumbing system may have a dramatically reduced service life.

Recirculating Hot Water Systems or Ring Mains minimise the time it takes to get hot water to reach an appliance or outlet. It is also known that the continuous flow of water with exposure to high temperatures and high velocity makes this a very extreme and demanding application, whether using copper, Pex, or other piping materials.

To ensure system service life is maximised and to cater for the performance tolerances of heat sources, the following installation and water quality guidelines must be followed on any circulating hot water systems using EPS plumbing system in order to maintain the product warranty.

Maximum pressure within the ring mains / recirculating hot water systems must be limited 500kPa (as per AS/NZS 3500).

Maximum water temperature must not exceed 60°C.

The pipe work design and recirculating pumps must be sized to limit the 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 is extremely critical and must not be exceeded.

A timer controlled recirculation pump must be used with a maximum circulation time of 12 hours per 24-hour period. All pipe work should be insulated and the recirculating pump must be thermostatically controlled, to further reduce stress on the system and minimise energy consumption.

The system layout of pipework and fittings should be designed with long wide sweeping pipe bends with limited use of fittings.

Water quality - Australian city potable water reticulation systems as defined in the Australian Drinking Water Guidelines.

elson EPS CRIMP PEX Technical Information				
Outside Diameter For SDR9 PEX (mm)	16.0 - 16.3	20.0 - 20.3	25.0 - 25.3	32.0 - 32.3
Internal Diameter For SDR9 PEX (mm)	11.4 - 12.3	14.6 - 15.7	18.6 - 19.7	23.8 - 25.1
Wall Thickness For SDR9 PEX (mm)	2.0 - 2.3	2.3 - 2.7	2.8 - 3.2	3.6 - 4.1
Nominal Pressure / Ambient Temp	1600kPa @ 20 °C	1600kPa @ 20 °C	1600kPa @ 20 °C	1600kPa @ 20 °C
Standard Pipe / Fittings	AS 2492 / AS/NZS 2537.2	AS 2492 / AS/NZS 2537.2	AS 2492 / AS/NZS 2537.2	AS 2492 / AS/NZS 2537.2
Licence Number For Pipe / Fittings	WMKA 21274 / WMKA 21276	WMKA 21274 / WMKA 21276	WMKA 21274 / WMKA 21276	WMKA 21274 / WMKA 21276
Max Clip Distance Horiz / Vertical (mm)	600 / 1200	700 / 1400	750 / 1500	850 / 1700
Min Bend Radius (mm)	160	200	250	320
Colours Available	Black, Red, Lilac, Green	Black, Red, Lilac, Green	Black, Red, Lilac, Green	Black
Coil Sizes Metres (Black, Red, Lilac, Green)	25m Black / 50m All / 100m Black	25m Black / 50m All / 100m Black	25m Black & Red / 50m All	25m & 50m All
Straight Lengths Metres (Black, Red, Lilac, Green)	5m lengths available in all colours	5m lengths available in all colours	5m lengths available in all colours	5m Black
Coefficient Of Linear Expansion / Thermal Expansion	1.53mm / metre / 10 °C	1.53mm / metre / 10 °C	1.53mm / metre / 10 °C	1.53mm / metre / 10 °C
Temp / Operating Pressure	70 °C @ 1090kPa	70 °C @ 1090kPa	70 °C @ 1090kPa	70 °C @ 1090kPa
Temp / Operating Pressure	60 °C @ 1190kPa	60 °C @ 1190kPa	60 °C @ 1190kPa	60 °C @ 1190kPa

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## Pressure Loss

Pressure loss calculations using the Hazen-Williams equation. The pressure loss was calculated for both the internal mean inside diameter of SDR 9 of AS/NZS 2492:2007. To generate the theoretical calculations, the following assumptions were applied:

- Friction coefficient of plastic pipe at 15.5°C was taken as 140.
- The internal diameter used for calculation was taken at the theoretical mean diameter as per the manufacturing tolerances featured in Table 3.1 of AS/NZS 2492:2007 for SDR 9.

The following is a list of limitations of the Hazen-Williams equations but not limited to:

- Published literature suggests that the Hazen-Williams equation is reliable for water at 15.5°C with velocity flow less than 10 feet/s or 3.048 m/s.
- Changes in water temperature, density and media will alter the pressure loss.
- Installation where pipework which is curved or bent could alter the internal diameter.
- Installation of fitting and valves within pipeline network.
- Variations in manufacturing tolerances of wall thickness and internal diameter of the PEX pipe in each SDR class.
- Variations in the actual internal surface friction coefficient.

When used to calculate the head loss with the International System of Units, the equation becomes:

$$S = \frac{h_f}{L} = \frac{10.67 Q^{1.852}}{C^{1.852} d^{4.8704}}$$

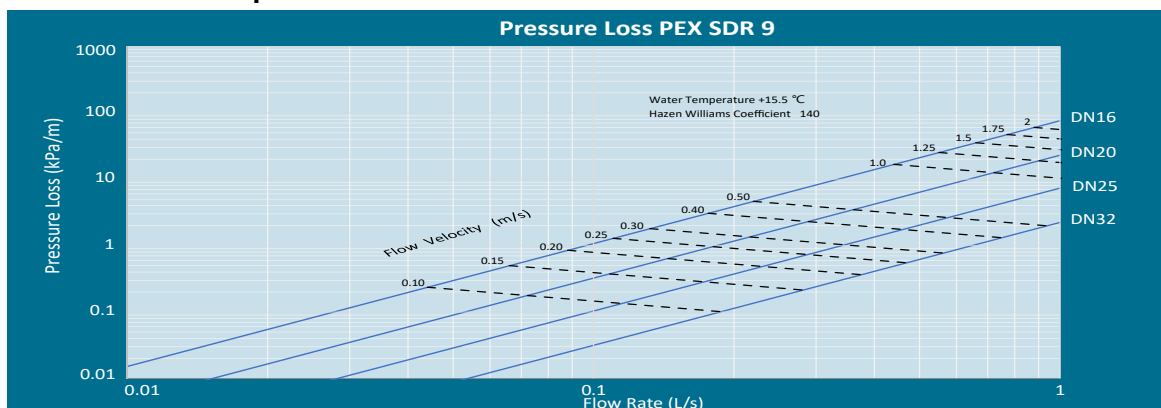
Where:

- S = Hydraulic slope
- L = length of pipe in meters
- C = pipe roughness coefficient
- hf = head loss in meters (water) over the length of pipe
- Q = volumetric flow rate, m<sup>3</sup>/s (cubic meters per second)
- d = inside pipe diameter, m (meters)

Note: pressure drop can be computed from head loss as hf × the unit weight of water (e.g., 9810 N/m<sup>3</sup> at 4 deg C)

Source: Wikipedia

## Hazen Williams equation



Only reliable for water at 15.5 degrees celcius with velocity flow less than 10 feet/s or 3.048 m/s

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## FAQ

### ***Can EPS pipe be installed under a slab?***

**YES** – with the following requirements

- Installation in accordance with AS/NZS 3500.
- Installed within Elson corrugated sleeve conduit.
- Must be sleeved when penetrating through a slab.
- Installed in a single continuous length without fittings.

### ***Can EPS pipe be used for underground cold water service applications?***

**YES** – when installed in accordance with AS/NZS 3500 requirements.

### ***Can EPS pipe and fittings be used to connect solar panels to the storage tank?***

**NO** – Australian Standards do NOT allow PE-X Pipe to be used on the flow or return lines between solar panels and solar storage vessels.

### ***Is there anything I need to do before using a Manual Crimp Tool?***

**YES** - follow all of these important steps below:

- Ensure that the tool is compatible with EPS Pex Pipe and Elson EPS Crimp Pex Fittings.
- Ensure the tool is good working order.
- Ensure that the jaws align and have no gap when closed.
- Ensure that the jaws are clean, free of defects and debris.
- Refer to Jointing Procedure in this manual for correct method.

### ***Is there anything I need to do before using the approved battery Crimp Tool?***

**YES** – follow all of these important steps below:

- Ensure that the tool is compatible with EPS Pex Pipe and Elson EPS Crimp pex fittings.
- Read and recognise the instructions contained in the manual.
- Ensure the correct jaws match the tool, the pipe and the fittings.
- Inspect the tool to ensure it functions properly.
- Inspect the jaws to ensure they're clean, dry, and free of dirt.

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***If the battery Crimp Tool does not fully compress what must I do?***

- Release the trigger and jaws by actuating the retract slide.
- Recharge the battery or replace with charged battery.
- Re- Crimp the joint and check with the crimp gauge.

***Do I need to inspect the pipe end prior to crimping?***

**YES**, always inspect the pipe and ensure it is cut square, has been “rounded & deburred”, has no rough edges and the internal and external pipe is undamaged prior to crimping.

***Can I use EPS Fittings with other pex pipe systems?***

Elson will warrant the first joint only when transitioning to EPS Crimp system on connecting to an approved compatible system.

***Do I need to inspect the crimp fitting prior to every crimp joint?***

**YES** – you should visually inspect each fitting to ensure it is free of any dirt and grit, the copper crimp sleeve is properly located and all parts are undamaged - clean / replace / discard as required.

***Can EPS crimp water and Gas Dual fittings be used with EPS Pex-al Gas Pipe?***

**YES** - EPS Crimp Water and Gas Dual fittings are dual approved for water and gas.

***How can I tell if the pipe has been pushed into the fitting properly?***

- Inspect the fitting to ensure the pipe is visible through all two witness openings.

***Do I need to check every crimp joint has been compressed properly?***

**YES** – you should check every crimp joint has been Compressed properly by testing with the crimp gauge.

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## Joining Instructions

### Tool inspection

#### Manual Tools:

Must use elson EPS Manual Crimp Tools designed for EPS LEAD FREE Water & Gas Dual Pex Plumbing System.

Visually inspect to the tool ensure it is undamaged – free of defects, debris and corrosion. Also ensure all components are in good working order, function correctly. Always keep tool clean, dry and lubricated.

For more details, refer to tool instructions supplied with the tools.

**WARNING: An incompatible tool, incorrectly adjusted tool or damaged jaws may result in a joint failure, tool damage or both. It will also void the warranty!**



### Battery Tool:

Tested and approved tools include:

1. Novopress ACO153, The tool requires specific EPS Water and Gas Dual Jaws to suit the Elson EPS Crimp Water & Gas Dual plumbing system.

- Before using the battery tool it is essential that the user reads and recognises the instructions contained in the manual included with every tool. Make sure you are aware of the operating features and functions.
- Ensure that only Elson compatible jaws are used to match the tool. Check the jaw matches the diameter of the Elson Eps Crimp Water and Gas Dual Plumbing System requirements.
- Inspect and test all tools prior to use to ensure they are functioning properly.
- Visually inspect all tools and jaws to ensure they are clean, dry, free of dust, dirt, grit and corrosion.
- It is a requirement to check every crimped joint with the crimp gauge by passing the crimp gauge the copper crimp ring to ensure proper crimping function.
- If the battery warning light comes on or any detection of incomplete crimping occurs you must change the battery immediately, check the joint with a crimp gauge and re-crimp as necessary.
- If the crimping tool does not fully compress or the jaws do not fully close, release the trigger, actuate the retract slide, check the tool then re-crimp the joint and check with the crimp gauge to ensure conformance.

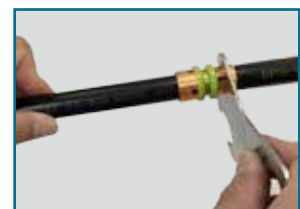


**novopress**  
because quality matters

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### Jointing Procedure:

- Cut the pipe straight and square using EPS Crimp Water & Gas Dual pipe cutters. Check for any damage to the pipe including any surface damage, cuts, scores, abrasion, kinks, splits or heat damage. Re-cut or replace and remove any physically damaged pipe.
- Remove protection cap visually inspect the fitting to ensure it is free of damage, dust, dirt and grit.
- Insert the Elson EPS pipe into the Elson EPS Crimp water & Gas Dual fitting. Ensure that the pipe is fully inserted into the fitting by viewing the pipe through the two engagement witness holes located in the copper ring.
- For Elson Manual Crimping Tools: Centralise the Elson Manual tool – sized to suit the pipe and fitting with jaws over the copper crimp. Slowly bring the lever handles together closing the jaws completely compressing the joint.
- For Elson approved Battery Crimping Tool: Align the Battery tool in center of ring. Activate the battery tool and compress the crimp ring completely until the jaw is closed.
- Check each joint has been compressed correctly by using the EPS Crimp water and Gas Dual gauge. If the EPS Crimp Gauge does not pass over the crimp ring check tooling, inspect and adjust the tool according to instructions, then re-crimp and test.
- Pressure test the installation in accordance with AS/NZS 3500.



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## EPS LEAD FREE WATER FITTINGS

### NO.1 STRAIGHT COUPLING LEAD FREE BRASS

Code	Description
LF21000	No.1 Straight Coupling 16mm
LF21002	No.1 Straight Coupling 20mm
LF21004	No.1 Straight Coupling 25mm
LF21006	No.1 Straight Coupling 32mm



### NO.1R REDUCING COUPLING LEAD FREE BRASS

Code	Description
LF21020	No.1R Reducing Coupling 20 x 16mm
LF21022	No.1R Reducing Coupling 25 x 16mm
LF21024	No.1R Reducing Coupling 25 x 20mm
LF21026	No.1R Reducing Coupling 32 x 25mm



### NO.2 STRAIGHT FEMALE CONNECTOR LEAD FREE BRASS

Code	Description
LF21060	No.2 Straight Connector 16mm x 15mm FI
LF21061	No.2 Straight Connector 16mm x Rp3/4 FI
LF21062	No.2 Straight Connector 20mm x 15mm FI
LF21064	No.2 Straight Connector 20mm x 20mm FI
LF21070	No.2 Straight Connector 25mm x 25mm FI
LF21072	No.2 Straight Connector 32mm x 25mm FI



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**NO.3 STRAIGHT MALE CONNECTOR LEAD FREE BRASS**

Code	Description
LF21040	No.3 Straight Connector 16mm x R1/2 MI
LF21058	No.3 Straight Connector 16mm x R3/4 MI
LF21042	No.3 Straight Connector 20mm x R1/2 MI
LF21044	No.3 Straight Connector 20mm x R3/4 MI
LF21046	No.3 Straight Connector 25mm x R3/4 MI
LF21050	No.3 Straight Connector 25mm x R1 MI
LF21041	No.3 Straight 16mm x G1/2 MI - Washer Seal
LF21045	No.3 Straight 20mm x G3/4 MI - Washer Seal
LF21043	No.3 Straight 16mm x G1/2 MI - Cone Seal
LF21047	NO.3 Straight 20mm x G3/4 MI - Cone Seal
LF21056	No.3 Straight Connector 32mm x R1 MI



**NO.12 ELBOW LEAD FREE BRASS**

Code	Description
LF21080	No.12 Elbow 16mm
LF21082	No.12 Elbow 20mm
LF21084	No.12 Elbow 25mm
LF21086	No.12 Elbow 32mm



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**NO.12R ELBOW LEAD FREE BRASS**

Code	Description
LF21088	No.12R Elbow DN20 x DN16
LF21092	No.12R Elbow DN25 x DN20



**NO.13 MALE ELBOW LEAD FREE BRASS**

Code	Description
LF21400	No.13 Elbow 16mm x 15mm MI
LF21402	No.13 Elbow 20mm x 15mm MI
LF21404	No.13 Elbow 20mm x 20mm MI



**NO.14 FEMALE ELBOW LEAD FREE BRASS**

Code	Description
LF21420	No.14 Elbow 16mm x 15mm FI
LF21422	No.14 Elbow 20mm x 15mm FI
LF21424	No.14 Elbow 20mm x 20mm FI



**NO.15 LUGGED FEMALE ELBOW LEAD FREE BRASS**

Code	Description
LF21120	No.15BP Elbow 16mm x 15mm FI
LF21122	No.15BP Elbow 20mm x 20mm FI



**NO.19BP LUGGED MALE ELBOW LEAD FREE BRASS**

Code	Description
LF21140	No.19BP Elbow 16mm x 15mm MI 65mm Long
LF21142	No.19BP Elbow 16mm x 15mm MI 90mm Long
LF21146	No.19BP Elbow 16mm x 15mm MI 150mm Long
LF21144	No.19BP Elbow 16mm x 15mm MI 200mm Long
LF21148	No.19BP Elbow 20mm x 15mm MI 95mm Long
LF21152	No.19BP Elbow 20mm x 15mm MI 200mm Long
LF21158	No.19BP Elbow 20mm x 20mm MI 200mm Long



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**NO.24 TEE LEAD FREE BRASS**

Code	Description
LF21160	No.24 Tee 16mm
LF21162	No.24 Tee 20mm
LF21164	No.24 Tee 25mm
LF21166	No.24 Tee 32mm



**NO.25 REDUCED CENTRE TEE LEAD FREE BRASS**

Code	Description
LF21180	No.25 Tee Reduced 20 x 20 x 16mm (16mm Centre)
LF21182	No.25 Tee Reduced 25 x 25 x 20mm (20mm Centre)
LF21188	No.25 Tee Reduced 25 x 25 x 16mm (16mm Centre)
LF21190	No.25 Tee Reduced 32 x 32 x 25mm (25mm Centre)



**NO.26 REDUCED END TEE LEAD FREE BRASS**

Code	Description
LF21186	No.26 Tee Reduced 20 x 16 x 20mm (20mm Centre)
LF21194	No.26 Tee Reduced 25 x 20 x 25mm (25mm Centre)



**NO.27 REDUCED CENTRE & END TEE LEAD FREE BRASS**

Code	Description
LF21184	No.27 Tee Reduced 20 x 16 x 16mm (16mm Centre+16mm End)
LF21384	No.27 Tee Reduced 25 x 20 x 20mm (20mm Centre+ 20mm End)



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**NO.61 STOPPER LEAD FREE BRASS**

Code	Description
LF21260	No.61 Stopper 16mm
LF21262	No.61 Stopper 20mm
LF21264	No.61 Stopper 25mm
LF21266	No.61 Stopper 32mm



**NO.62 STRAIGHT LEAD FREE BRASS**

Code	Description
LF21240	No.62 Straight 16mm x G1/2 L/Nut - Cone Seal
LF21242	No.62 Straight 20mm x G3/4 L/Nut - Cone Seal
LF21360	NO.62 Straight 16mm x G1/2 L/Nut - Washer Seal
LF21362	NO.62 Straight 20mm x G3/4 L/Nut - Washer Seal



**NO.63 BENT LEAD FREE BRASS**

Code	Description
LF21340	No.63 Bent 16mm x G1/2 L/Nut - Cone Seal
LF21342	No.63 Bent 20mm x G3/4 L/Nut - Cone Seal



**FLARED COMPRESSION UNION LEAD FREE BRASS**

Code	Description
LF21220	Flared Compression Union 16mm x G1/2 FL
LF21222	Flared Compression Union 20mm x G3/4 FL



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**BATH/LAUNDRY ASSEMBLY LEAD FREE BRASS**

Code	Description
LF21280	Bath/Laundry Assembly Right Angled 200mm (Floor Entry)
LF21282	Bath/Laundry Assembly Right Angled 300mm (Floor Entry)
LF21286	Bath/Laundry Assembly Straight 300mm (Side Entry)



**SHOWER ASSEMBLY LEAD FREE BRASS**

Code	Description
LF21300	Shower Assembly Right Angled 150mm (Floor Entry)
LF21302	Shower Assembly Right Angled 200mm (Floor Entry)
LF21304	Shower Assembly Right Angled Barbs Up 150mm (Top Entry)
LF21306	Shower Assembly Right Angled Barbs Up 200mm (Top Entry)
LF21320	Shower Assembly Straight 150mm (Side Entry)



**CONNECTING BARB FEMALE LEAD FREE BRASS**

Code	Description
LF21440	Connecting Barb Female 16mm
LF21442	Connecting Barb Female 20mm
LF21444	Connecting Barb Female 25mm



**CONNECTING BARB MALE LEAD FREE BRASS**

Code	Description
LF21450	Connecting Barb Male 16mm
LF21452	Connecting Barb Male 20mm



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**ADAPTOR WATER elson LF PRESS x EPS LF CRIMP LF DR BRASS**

Code	Description
LF21880	Adaptor Water elson LF Press DN15 x EPS LF Crimp 16mm
LF21882	Adaptor Water elson LF Press DN20 x EPS LF Crimp 20mm
LF21884	Adaptor Water elson LF Press DN20 x EPS LF Crimp 25mm



LF21892	Adaptor Water elson LF Press DN25 x EPS LF Crimp 32mm
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**ADAPTOR WATER PB x EPS LF CRIMP LF DR BRASS**

Code	Description
LF21896	Adaptor Water PB 18mm x EPS LF Crimp 16mm
LF21897	Adaptor Water PB 22mm x EPS LF Crimp 20mm



**ADAPTOR WATER SDR7.4 PEX x EPS LF CRIMP LF DR BRASS**

Code	Description
LF21991	Adaptor Water SDR7.4 Pex 16mm x EPS LF Crimp 16mm
LF21992	Adaptor Water SDR7.4 Pex 20mm x EPS LF Crimp 20mm



**REVERSION UNION**

Code	Description
LF21500	Reversion Union 16mm
LF21502	Reversion Union 20mm
LF21504	Reversion Union 25mm
LF21506	Reversion Union 32mm



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**HOT & COLD WATER PIPE (BLACK) STRAIGHT LENGTH**

Code	Description
21700	H&C Water Pipe (Black) 5m Length 16mm
21702	H&C Water Pipe (Black) 5m Length 20mm
21704	H&C Water Pipe (Black) 5m Length 25mm



**HOT & COLD WATER PIPE (BLACK) COIL**

Code	Description
21710	H&C Water Pipe (Black) 100m Coil 16mm
21712	H&C Water Pipe (Black) 100m Coil 20mm
21717	H&C Water Pipe (Black) 50m Coil 16mm
21718	H&C Water Pipe (Black) 50m Coil 20mm
21714	H&C Water Pipe (Black) 50m Coil 25mm
21716	H&C Water Pipe (Black) 25m Coil 32mm



**HOT & COLD WATER PIPE (BLACK) IN CONDUIT COIL**

Code	Description
21720	H&C Water Pipe (Black) in Conduit 50m Coil 16mm
21722	H&C Water Pipe (Black) in Conduit 50m Coil 20mm



**RECYCLED WATER PIPE (LILAC) STRAIGHT LENGTH**

Code	Description
21737	Recycled Water Pipe (Lilac) 5m Length 16mm
21738	Recycled Water Pipe (Lilac) 5m Length 20mm
21739	Recycled Water Pipe (Lilac) 5m Length 25mm



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**RECYCLED WATER PIPE (LILAC) COIL**

Code	Description
21730	Recycled Water Pipe (Lilac) 50m Coil 16mm
21732	Recycled Water Pipe (Lilac) 50m Coil 20mm
21734	Recycled Water Pipe (Lilac) 50m Coil 25mm



**RAIN WATER PIPE (GREEN) STRAIGHT LENGTH**

Code	Description
21747	Rain Water Pipe (Green) 5m Length 16mm
21748	Rain Water Pipe (Green) 5m Length 20mm
21749	Rain Water Pipe (Green) 5m Length 25mm



**RAIN WATER PIPE (GREEN) COIL**

Code	Description
21740	Rain Water Pipe (Green) 50m Coil 16mm
21742	Rain Water Pipe (Green) 50m Coil 20mm
21744	Rain Water Pipe (Green) 50m Coil 25mm



**HOT WATER PIPE (RED) STRAIGHT LENGTH**

Code	Description
21750	Hot Water Pipe (Red) 5m Length 16mm
21752	Hot Water Pipe (Red) 5m Length 20mm
21754	Hot Water Pipe (Red) 5m Length 25mm



**HOT WATER PIPE (RED) COIL**

Code	Description
21760	Hot Water Pipe (Red) 100m Coil 16mm
21762	Hot Water Pipe (Red) 100m Coil 20mm
21756	Hot Water Pipe (Red) 50m Coil 16mm
21758	Hot Water Pipe (Red) 50m Coil 20mm
21753	Hot Water Pipe (Red) 50m Coil 25mm



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**EPS LF CRIMP W & G DUAL BATTERY TOOL NOVOPRESS**

Code	Description
36901	Novopress ACO153 Bluetooth Press Tool Kit With 2 Batteries & 1 Charger, Less Jaw



**EPS LF CRIMP W & G DUAL BATTERY TOOL NOVOPRESS**

Code	Description
36902	Novopress ACO153 Bluetooth Press Tool Skin



**EPS LF CRIMP W & G DUAL JAW TO SUIT NOVOPRESS ACO-153 (BT) BATTERY TOOL**

Code	Description
21904	PB15 Jaw Only 16mm EPS Crimp W & G Dual Suit NV ACO-153 (BT) Bat Tool
21905	PB15 Jaw Only 20mm EPS Crimp W & G Dual Suit NV ACO-153 (BT) Bat Tool
21906	PB15 Jaw Only 25mm EPS Crimp W & G Dual Suit NV ACO-153 (BT) Bat Tool
29937	PEX Crimp Jaw 32mm Suit Novopress ACO-153 (BT) Bat Tool



**NOVOPRESS BATTERY**

Code	Description
23864	Novopress Battery 1.5AH LI-LON 12V



**NOVOPRESS BATTERY CHARGER**

Code	Description
23866	Novopress Battery Charger 12V 230V AUS



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**NOVOPRESS BATTERY CHARGER**

Code	Description
36909	Novopress Case Only Suit ACO-153 Tool



**EPS LF CRIMP W & G DUAL MANUAL CRIMPING TOOL Novopress**

Code	Description
21911	EPS Manual Crimping Tool Novopress 16mm
21913	EPS Manual Crimping Tool Novopress 20mm



**EPS LF CRIMP W & G DUAL MANUAL CRIMPING TOOL**

Code	Description
21941	ALBA EPS Manual Crimping Tool 16mm
21943	ALBA EPS Manual Crimping Tool 20mm
21945	ALBA EPS Manual Crimping Tool 25mm



**EPS PEX PIPE CUTTER**

Code	Description
29930	CUTTER PIPE PEX BUSHPEX / BUSHPEX GAS 16-32



**EPS PEX PIPE CUTTER**

Code	Description
21932	T135 Dawn Kwikcut Original Pipe Cutter 16mm-32mm



**EPS PEX PIPE CUTTER**

Code	Description
21936	PEX PIPE & PEX/AL/PEX PIPE 16mm-32mm



**RING REPAIR TOOL**

Code	Description
21934	Ring Repair Tool 16mm-25mm



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**CRIMP GAUGE**

Code	Description
21981	Crimp Gauge 16-20mm



**CRIMP GAUGE**

Code	Description
21982	Crimp Gauge 25-32mm



**CLIP MASONRY NAIL**

Code	Description
23810	Open Clip 16mm Masonry Nail
23812	Open Clip 20mm Masonry Nail
23814	Open Clip 25mm Masonry Nail



**CLIP TIMBER NAIL**

Code	Description
23816	Open Clip 16mm Timber Nail
23817	Open Clip 20mm Timber Nail
23818	Open Clip 25mm Timber Nail



**CLIP METAL SCREW**

Code	Description
23820	Open Clip 16mm Metal Screw
23822	Open Clip 20mm Metal Screw
23824	Open Clip 25mm Metal Screw



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**PROFILE BEND**

Code	Description
23830	PEX Profile Bend Bracket 90 Degree x 5D 16mm
23832	PEX Profile Bend Bracket 90 Degree x 5D 20mm
23834	PEX Profile Bend Bracket 90 Degree x 5D 25mm



**PROFILE BEND BRACKET W/ SPRING**

Code	Description
23831	PEX Profile Bend Bracket W/Spring 90 Degree 16mm
23833	PEX Profile Bend Bracket W/Spring 90 Degree 20mm
23835	PEX Profile Bend Bracket W/Spring 90 Degree 25mm



**PROFILE BEND**

Code	Description
23838	PEX Profile Bend Bracket 90 Deg x 25mm PA6



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## Warranty

The Elson EPS Crimp Water & Gas Dual Pex Plumbing System carries a 25 year product warranty which covers product manufacturing faults and defects. This warranty only applies under the following requirements:

- The system must have been installed by a licensed Plumber / Gasfitter.
- Proof of installation by a licensed Plumber/Gasfitter is required.
- Proof of purchase is required.
- Installation must be in accordance with AS/NZS 3500 & AS/NZS 5601
- Installation must be in accordance with any other relevant and applicable local authority codes which may take precedence.
- Installation must be in accordance with established installation practices.
- Installation must be in accordance with the jointing procedures included in this manual.
- Installation must only ever involve the use of the same approved EPS Pipe (watermark certificate WMKA 21274) or the approved system of EPS Crimp Gas PEX-AL pipe and fittings with license SMKP 21859 and approved tooling, Elson EPS Crimp Water & Gas Dual fittings (watermark certificate WMKA 21276) and Elson approved tooling.



Elson Australasia Pty Ltd undertakes to repair or replace product which is found to be faulty or defective in workmanship or manufacture according to the warranty conditions. The benefits provided to the consumer by Elson Australasia Pty Ltd

ABN: 45 059 613 991

38 Eddie Road, Minchinbury, 2770.

Phone: 02 9625 7899 Fax: 02 9625 7855

Email: sales@elson.net.au

Our products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

To the extent of the Law, Elson shall not be liable for any consequential loss or damage of any kind caused by any product faulty or defective in workmanship or manufacture.

This warranty are in addition to other rights and remedies available to the consumer under the law.

To make a warranty claim please contact Elson Australasia Pty Ltd with your contact details, proof of purchase and Licensed Installers documentation details. If the product has not been installed please contact the place of purchase and return. If there is a problem returning the product please contact Elson Australasia Pty Ltd. To make a claim under warranty you must abide by the warranty conditions.

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**Elson Australasia Pty Ltd**

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Disclaimer: The information provided within this Product Information and Installation Manual is designed as a guide only and is believed to be accurate at the time of printing. Elson Australasia Pty Ltd and its employees take no responsibility in regard to any specific installation. Installation must always require supervision and consultation from a licenced Plumber.