TECHNICAL MANUAL

EZIPEX SLIDE™

WATER & GAS SOLUTIONS

Contents

Overview

The Ezi Pex Slide ™ system has been developed to deliver plumbers, builders and home owners a high quality yet cost effective pipe system for use with hot and cold water, rainwater, hydronic heating and recycled water distribution.

One of the key requirements was the need for a quick and effective jointing method combined with the peace of mind provided by the performance benefits of our Ezi Pex ™ pipe. It was also clear that customers had a definite preference to continue using our existing and already proven Ezi Pex™ pipe.

Ezi Pex Slide™ joins the other family (Ezi Pex Crimp™, Ezi Pex Push™ and Ezi Pex Gas™) providing a total solution for all your water and gas applications.

The Ezi Pex ™ product range is based on a premium quality cross-linked polyethylene pipe which is used in conjunction with either of our 3 available ranges of DZR brass fittings, Slide, Crimp and Push.

All installations should be carried out by an appropriately licensed tradesperson and in full accordance with the Ezi Pex Slide ™ installation guidelines, the relevant Australian standards and any additional local authority requirements. When installed subject to the above conditions the Ezi Pex Slide ™ system will provide years of trouble free service.

Application

The Ezi Pex Slide™ system is an axial crimp system (more commonly known as a compression system) to produce a secure joint in a minimal amount of time. This method involves drawing a sleeve along the pipe over a barbed fitting to form a perfect seal every time, and eliminates the need for call backs to repair partially welded joints etc.

Ezi Pex Slide™ Water fittings may be used in accordance with AS/NZS 3500 for water applications including:

- Hot and Cold Potable Water
- Rainwater
- Recycled Water (non-potable)
- Hydronic Heating

For optimum performance results please take the time to become familiar with the installation considerations outlined from page 8 in this booklet.

Pipe

Ezi Pex ™ pipe is a high quality Pex-a cross linked pipe. Pex is an industry accepted name for cross linked polyethylene pipe. In general terms polyethylene in its normal state is not capable of handling high pressure or temperature loads. However once subjected to the cross-linking process, its ability to handle these conditions is increased substantially.

Ezi Pex ™ pipe consists of an inner section of Pex-a material encased in an outer layer of tough HDPE.

Ezi Pex ™ also offers a pipe specifically for use in hydronic heating. This pipe is identified by its bright pink colour. Ezi Pex ™ pink pipe is a similar construction to the standard Ezi Pex ™ pipes. However it also incorporates a layer of EVOH material which acts as an oxygen barrier, thus preventing the entry of additional oxygen into the sealed heating system.

Ezi Pex ™ pipe is available in the following sizes DN16, DN20, DN25, DN32, in either coil form or straight lengths.

Ezi Pex ™ pipe - standard supply units

Nom pipe size	Straight lengths (all)	Coil length (black)	Coil length (red)	Coil length (green)	Coil length (lilac)	Coil length (pink)
16mm	5m	50m 100m	50m 100m	50m 100m	50m	200m
20mm	5m	50m 100m	50m 100m	50m 100m	50m	100m
25mm	5m	50m	50m	50m	50m	50m
32mm	5m	25m	25m	25m	25m	25m
16mm black conduit		50m				
20mm black conduit		50m				

The Ezi Pex ™ pipe is colour coded to assist the installer in avoiding cross connections

	BLACK	Hot & cold potable water
	GREEN	Rainwater
	LILAC	Recycled water (non-potable)
	PINK	Hydronic heating
	RED	Hot Water
	CONDUIT	In/under slab hot & cold water

Ezi Pex ™ pipe dimensions

Nom. Size	Mean OD (mm)	Wall thickness (mm)
16mm	16.15	2.20
20mm	20.15	2.80
25mm	25.15	3.50
32mm	32.15	4.40

Performance

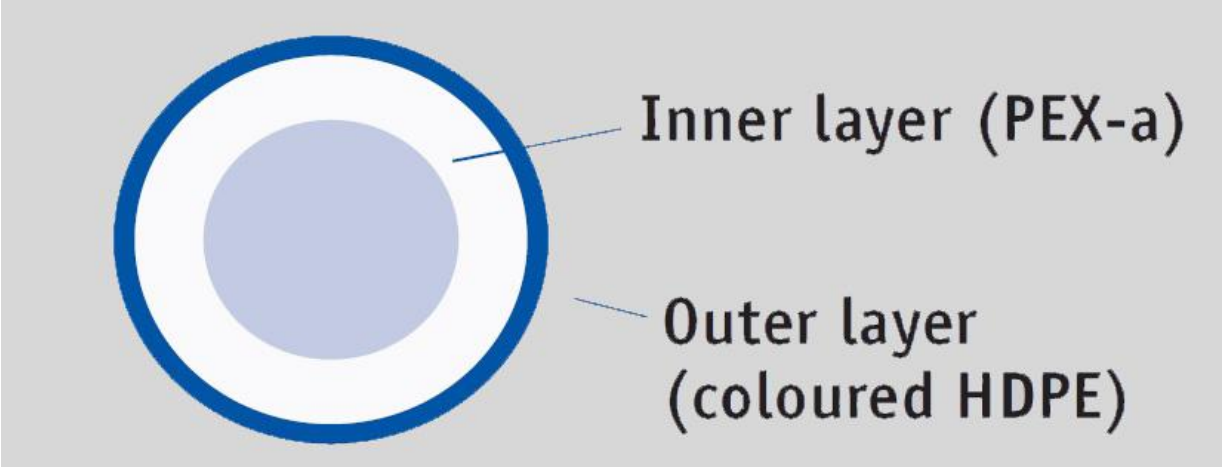
The use of Ezi Pex ™ pipe provides users with many advantages over traditional piping materials. It has excellent flexibility, is not adversely affected by freezing, offers excellent pressure and temperature resistance, is lightweight and also has low noise and heat transmission qualities. The Ezi Pex ™ pipe provides very low levels of friction loss and therefore can often save users needing to upsize piping when installing long runs. As jointing methods are mechanical it does not require the use of solvents. Nor does it require soldering, welding or brazing.

Ezi Pex ™ pipe heat & pressure performance

Recommended working pressure relative to pipe material temperature				
Temp (ºC)	20	40	60	80
Pressure (Kpa)	2000	1800	1500	1330

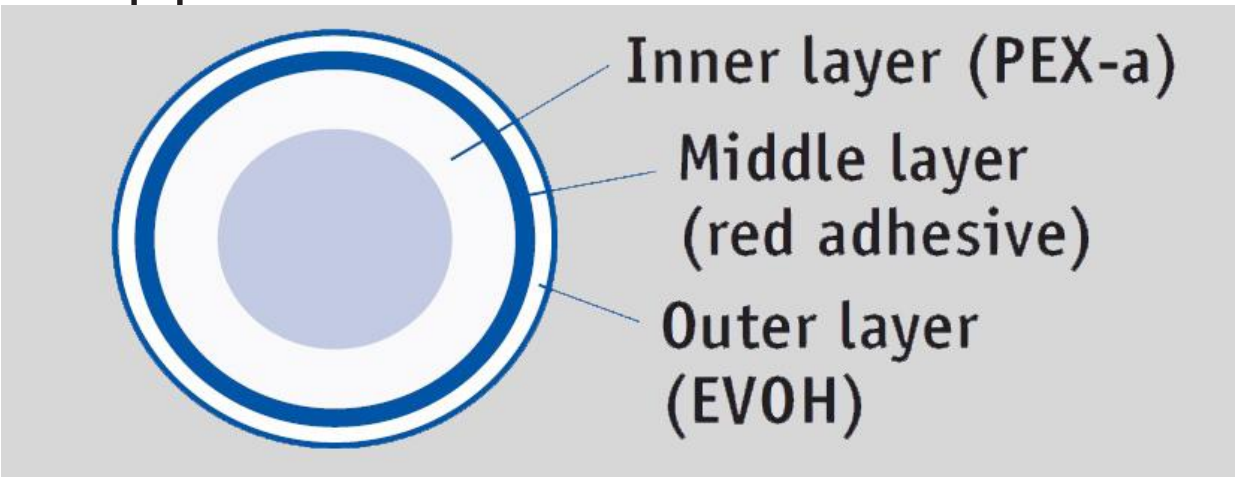
Cross-section

Black, Red, Green, Lilac pipe



1. Inner layer: combination of HDPE & crosslinking agent.
2. Outer layer: HDPE compound.

Pink pipe



1. Inner layer: the same Pex layer as standard Ezi Pex ™ pipe.
2. Middle layer: adhesive to bind internal Pex-a layer to the external EVOH layer(<0.01mm)
3. Oxygen barrier (<0.01mm). Clear outer layer which prevents oxygen from entering the pipe system from the outside atmosphere.

Fittings

Ezi Pex Slide ™ fittings are manufactured from DZR brass which provides exceptional resistance to corrosion.

All Ezi Pex Slide ™ fittings come with sleeve protection plugs to protect the integrity of fitting during shipping and storage. Other systems without these plugs are often prone to problems which can slow down the installation process considerably.

All Ezi Pex Slide ™ fittings are manufactured to comply with AS/NZS 2537 – mechanical joint fittings for use with Pex pipe for hot & cold water applications

Ezi Pex Slide ™ fitting dimensions

Nom Size	Mean Bore (mm)
16mm	10
20mm	12.5
25mm	15.3
32mm	20

Features and Benefits

Compression Jointing Method	• Fast • Secure • Simple to use • Less time on the job • Less capital outlay on tooling • Internal sealing method reduces leaks due to scratched pipe
Stock Consolidation	• Same pipe for Ezi Pex Push™, Ezi Pex Slide™ & Ezi Pex Crimp™ • One pipe 3 systems
Flame-free Assembly	• Increased safety • No need for gas cylinders or Hot Works permits • Reduced costs on welding consumables
Size Range DN15 – DN32	• Fittings available for most tasks
Acoustics	• Low noise transmissions in pex pipe • Quieter, reduce water hammer

Installation Considerations

Ezi Pex Slide ™ should always be installed in compliance with AS/NZS 3500. Most installation requirements can be sourced from this document.

Proximity to flame / external heat sources

The Ezi Pex Slide ™ system should not be installed in positions where it is likely to be exposed to a naked flame. If it is, there's a danger the pipe could ignite and continue to burn even after the source of the flame is extinguished. In accordance with AS/NZS 3500 all plastic pipes for water supply must be protected from excessive ambient heat

Thermal expansion

Ezi Pex ™ pipe has an expansion rate of approx. 0.3mm per metre for every 10°C change in temperature. Care should be taken not to pull the pipe tightly between fixed points during installation as the pipe may later contract causing excessive tensile force to any joints. This could cause a joint failure.

Heat & Pressure performance

As with all plastic pipe systems the ability of the pipe to withstand pressure decreases as the pipe temperature increases. *(Refer to table on page 7)*

Protection from physical damage

Due care should be taken to protect pipe and fittings from any physical damage both prior to, during and after installation. Possible causes of physical damage may include (but are not limited to) sharp edges or implements, machinery, rodents, excessive heat, long term uv exposure, radiation, mechanical forces, corrosive agents.

Framework Penetrations

Where Ezi Pex ™ pipe penetrates 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 of pipe whilst still securing the pipe adequately. Suitable grommets or sleeves should be used in metal frames to protect the pipe from abrasion.

Pipe Bending

Do not apply bending forces to joints which have already been completed. Finish all bending operations prior to installing the fitting.

Due care should be taken during bending to ensure that the pipe is not damaged or kinked. If you do encounter a kinked or damaged section of pipe it should be cut out and replaced as a precaution.

Ezi Pex ™ pipe can be easily bent by hand, the radius of the bend should be not less than 8 times the diameter of the pipe.

Minimum Bending Radius

Nom Size	Min Bending Radius (mm)
16mm	130
20mm	162
25mm	202
32mm	258

Clipping

In accordance with AS/NZS 3500 fixing spacing should be observed for both horizontal and vertical pipe runs as outlined on the table below. Clipping should be by way of a recognized fixing which complies with the requirements of AS/NZS 3500. This excludes things such as bent over nails, tie wire, pierced metal strapping etc.

Clip Spacing Table

Nom Size	Vertical Run Spacing (m)	Horizontal Run Spacing (m)
16mm	1.2m	0.6m
20mm	1.4m	0.7m
25mm	1.5m	0.75m
32mm	1.7m	0.85m

Underground

Pipe should be buried with a minimum cover of 450mm. Marker tape should be installed approx 150mm above the pipe. Fittings being DZR brass 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.

When being buried beneath a building the pipe should be free of joints.

Chases, In-Slab, Under-floor

Where Ezi Pex ™ pipe is installed in chases or cast in slabs the installation must be in accordance with both AS/NZS 3500 and any other relevant building regulations or standards.

UV Exposure

Both Ezi Pex ™ Black and Ezi Pex ™ Green pipes are able to be installed in direct sunlight with no degradation likely to occur. Ezi Pex ™ Lilac and Ezi Pex ™ Red pipes should be protected from long term exposure to uv by way of either lagging or enclosing in a conduit.

Note: The above does not completely exclude the need for lagging to protect any of the pipes from temperature extremes.

Testing

All testing should be undertaken in accordance with AS/NZS 3500 for water installations and in addition to any other local regulations or requirements.

During testing all joints should be checked for leaks, prior to burying or concealing the Ezi Pex Slide ™ system.

Jointing instructions

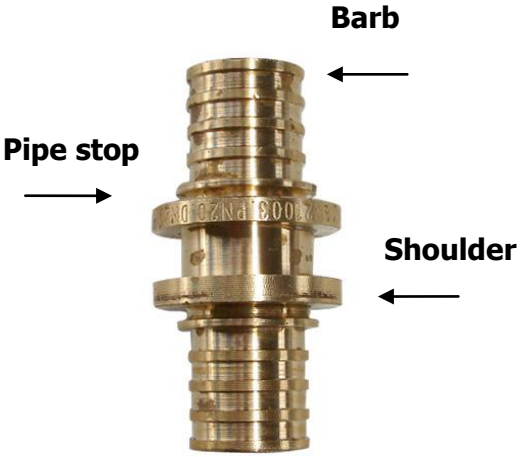
Tools

Pipe Cutters

Jointing Tool

Expanding Tool

Terminology



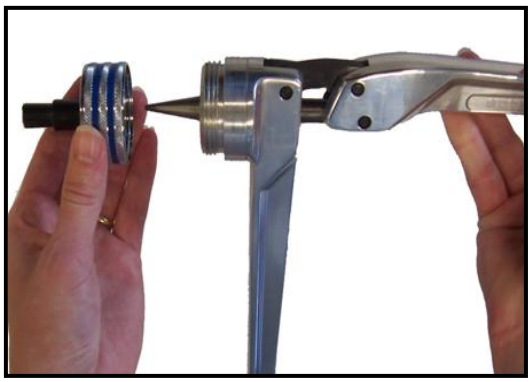
1.Cut pipe

Cut pipe to desired length. Cut should be square and free from any swarf or burrs. Use REMS pipe cutter or similar blade type cutter. Do not use a hacksaw as this creates excessive swarf.

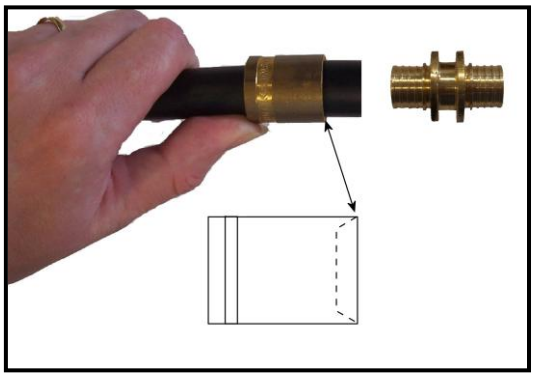
2. Pipe Expansion

Pipe must be expanded by using the Ezi Pex™ expander. Ensure that the expander heads are not faulty or broken as this will lead to the joint eventually leaking.

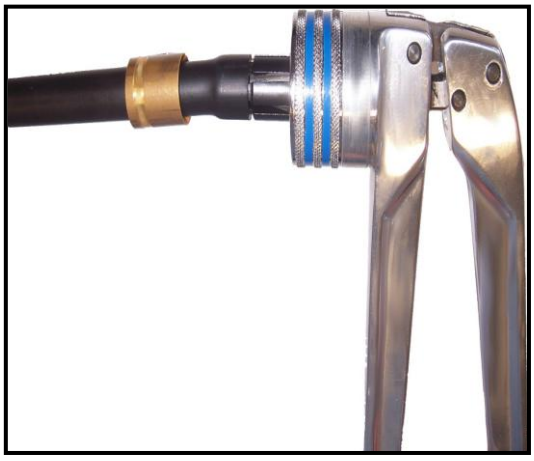
i. Holding the levers of the Expanding Tool fully open, screw on the expander head. Ensure that the expander head is screwed on fully



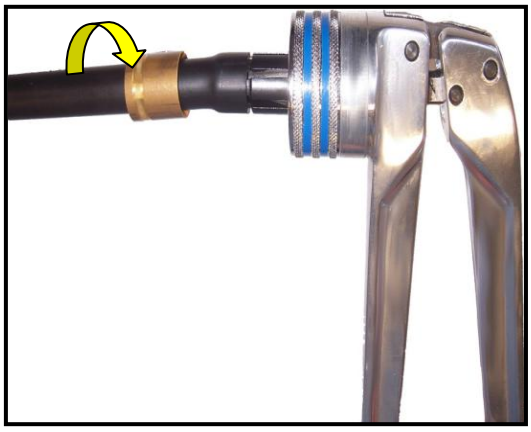
ii. Slip the jointing sleeve over the pipe with its bevelled end facing towards the fitting being joined



iii. Insert the expander head into pipe, ensuring that the expander is at right angles to the pipe. Ensure that the jointing sleeve is well clear of the area that is to be expanded



iv. To expand the pipe, fully close the levers of the expanding tool. Hold them in position momentarily then release and rotate pipe or expander approximately 30° and repeat the process. This ensures that the inside pipe surface is expanded evenly.



Note: It should not be necessary to expand more than twice. Over or under expansion of the pipe can lead to possible joint failure.

3. Joint assembly

Insert the fitting into the expanded pipe until the pipe reaches the pipe stop. (It does not need to reach to the shoulder) After a few moments the pipe will shrink and grip the fitting. Slide the jointing sleeve as far as you can towards the fitting.

4. Completion of joint

The recommended Ezi Pex Slide™ compression tool is to be used. Ensure that the tool is not damaged. Use of a damaged or non-complying tool will void warranty

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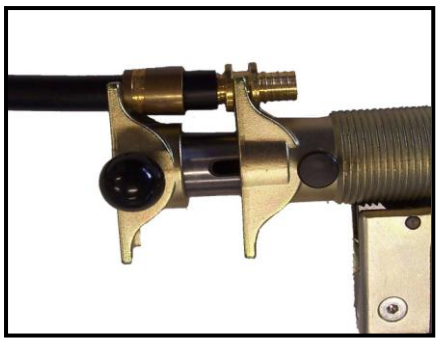
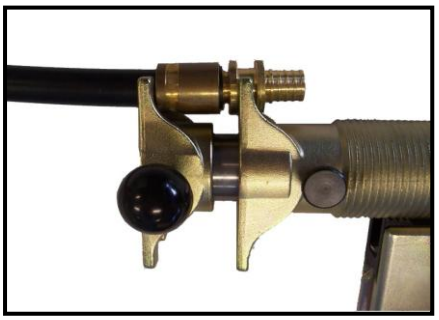
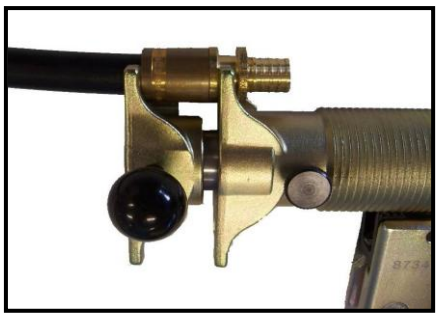
i. Position the jointing sleeve and fitting squarely within the jaws of the jointing tool



ii. Draw the sleeve towards the fitting by closing the jaws of the jointing tool.



iii. The jointing sleeve is drawn over the pipe until it reaches the shoulder of the fitting



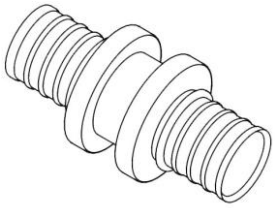
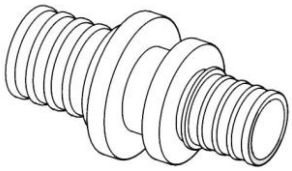
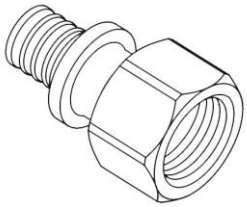
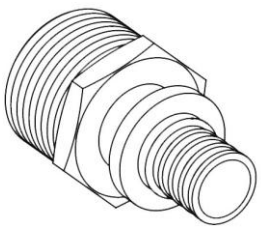
5. Inspection

All joints are to be visually inspected once installation is complete. Ensure that the sleeves are drawn all the way to the fitting shoulder and that they are secured with the bevelled end closest to the fitting and the grooved ring at the furthest point from the fitting shoulder.

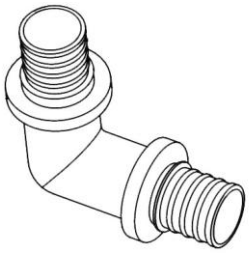
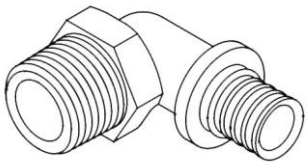
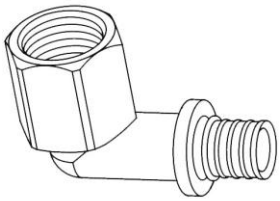
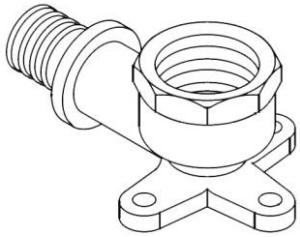
6.Pressure test

At completion, carry out pressure testing. All testing should be undertaken in accordance with AS/NZS 3500 (for water installations) and or in addition to any other local regulations or requirements.

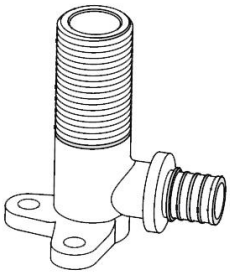
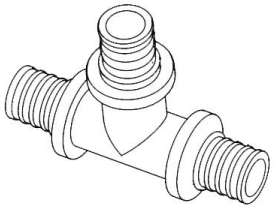
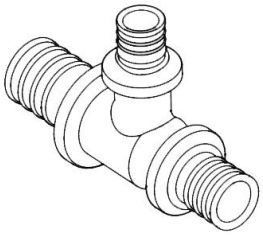
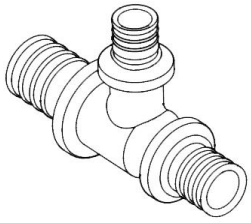
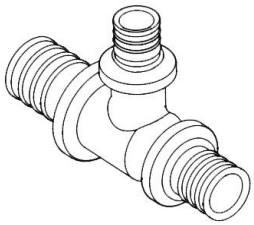
Ezi Pex Slide™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
COMPRESSION SLEEVE 	DN16	235090
	DN20	235091
	DN25	235092
	DN32	235093
# 1 STRAIGHT COUPLING 	DN16	235096
	DN20	235097
	DN25	235098
	DN32	235099
#1R REDUCING COUPLING 	DN20-16	235102
	DN25-16	235103
	DN25-20	235104
#2 STRAIGHT CONNECTOR 	DN16X1/2"BSPF	235149
	DN20X1/2"BSPF	235150
	DN20X3/4"BSPF	235151
#3 STRAIGHT CONNECTOR 	DN16X1/2"BSPM	235154
	DN20X3/4"BSPM	235156
	DN25X1"BSPM	235159
	DN32X1"BSPM	235161

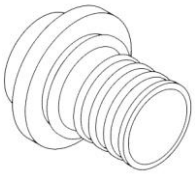
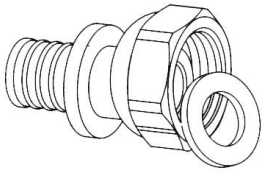
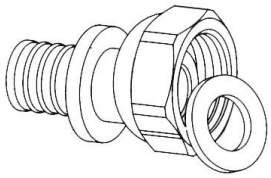
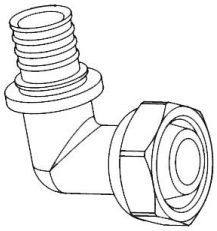
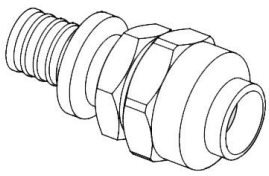
Ezi Pex Slide™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
#12 ELBOW		
	DN16	235108
	DN20	235109
	DN25	235110
	DN32	235111
#13 ELBOW		
	DN16X1/2"BSPM	235163
	DN20X3/4"BSPM	235165
	DN-25mmx1"BSPM	235167
# 14 ELBOW		
	DN16X1/2"BSPF	235169
#15BP ELBOW		
	DN16X1/2"	235178
	DN20X3/4"	235177
	DN20X1/2"	2351770

Ezi Pex Slide™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
#19BP ELBOW 	DN16X1/2" - 65mm long	235179
	DN16X1/2" - 90mm long	235176
	DN16X1/2" - 200mm long	235174
	DN20X1/2" - 95mm long	235173
	DN20X3/4" - 200mm long	235181
#24 TEE (EQUAL) 	DN16	235114
	DN20	235115
	DN25	235116
	DN32	235117
#25 TEE RED. BRANCH 	DN20X20X16	235120
	DN25X25X16	235121
	DN25X25X20	235122
#26 TEE RED. END 	DN20X16X20	235126
#27 TEE RED .CENTRE & END 	DN20X16X16	235132
	DN25X20X20	235136
	DN32X25X25	235137

Ezi Pex Slide™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
#61 STOPPER	DN16	235204
	DN20	235205
#62 STRAIGHT TAP CONNECTOR CONE	DN16X1/2"BSPF	2351831
	DN20X3/4"BSPF	2351841
#62 STRAIGHT TAP CONNECTOR FLAT	DN16X1/2"BSPF	235183
	DN20X3/4"BSPF	235184
#63 BENT TAP CONNECTOR	DN16X1/2"BSPF	235185
	DN20X3/4"BSPF	235186
FLARED COPPER COMPRESSION UNION	DN16X1/2"FL	235094
	DN20X3/4"FL	235095

Ezi Pex Slide™ Fittings

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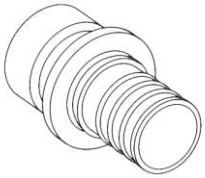
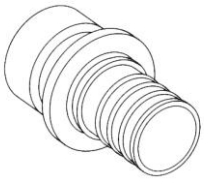
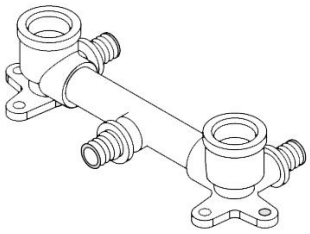
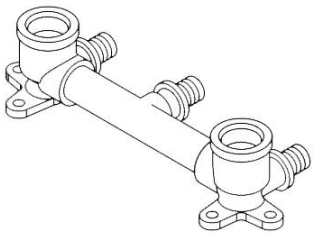
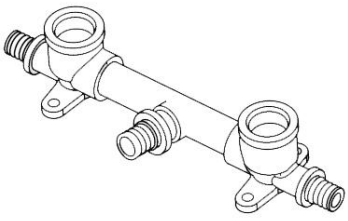
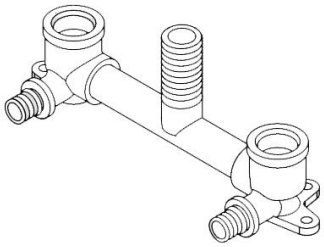
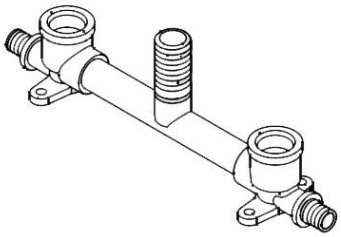
CONNECTING BARB x CU SPIGOT		
	DN16	235145
	DN20	235146
	DN25	235147
CONNECTING BARB x CU SOCKET		
	DN16	235215
	DN20	235216
	DN25	235217
	DN32	235218
SHOWER ASSEMBLY RIGHT ANGLE		
	150mm CENTRES	235195
	200mm CENTRES	235199
SHOWER ASSEMBLY RIGHT ANGLE BARBS UP		
	150mm CENTRES	235197
	200mm CENTRES	235198
SHOWER ASSEMBLY STRAIGHT		
	150mm CENTRES	235196

Ezi Pex Slide™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
BATH LAUNDRY ASSEMBLY RIGHT ANGLE	300mm CENTRES	235193
	200mm CENTRES	235194



BATH LAUNDRY ASSEMBLY STRAIGHT	300mm CENTRES	235192



Ezi Pex Slide™ Tools

REMS Ax-Press 25 ACC – For Ezi Pex Slide™ sizes DN16 to DN32

Super light, super handy. Fast. With automatic return. Optimum weight distribution for single-hand operation. Swivelling compression device. Complete assortment of REMS compression heads for Ezi Pex Slide ™

Jointing Tool - For Ezi Pex Slide™ sizes DN16 to DN32

Expanding Tool - For Ezi Pex Slide™ sizes DN16 to DN32

For alternative tools, see your local Ezi Pex Slide™ distributor...or visit www.ezipex.com.au

Disclaimer

Information provided in this publication is intended to be of a general nature only and is provided as a guide. Installation requirements may vary across different product applications or in different jurisdictions. Information provided does not in any way override that contained in the relevant Australian Standards for either product or installation practice

25 YEAR WARRANTY

The **Ezi Pex Slide™** system carries a 25 year warranty against defects in materials or manufacturing of fittings produced under the **Ezi Pex Slide™** name. This warranty is restricted by the following clauses:

i. Installation must have been carried out by a licensed plumber / gas fitter.
ii. Installation must be carried out in full accordance with the **Ezi Pex Slide™** installation instructions.
iii. Installation must be in full accordance with the relevant local and national plumbing codes and standards.

The Plumbing Plus merchant from whom your purchase **Ezi Pex Slide™** product supports the warranty on this product and as such may request suitable information or evidence from the installer to support any warranty claim. The manufacturer concerned also reserves the right to engage a nominated outside agent of its own choice to assess any faulty product before honouring any warranty claim**.**

"Our goods 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."

WaterMark®

Making life EZI... for Plumbers

EZI PEX SLIDE™
WATER & GAS SOLUTIONS