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# Overview

Ezi Pex Push™ is a push-fit piping system for hot & cold water where the only tool required is a cutter. It provides the ultimate in speedy installation as well as the benefit of full-flow fitting design with minimal bore restriction.

The Ezi Pex Push™ product range is based on a premium quality cross-linked polyethylene pipe which is used in conjunction with DZR brass push-fit fittings.

The simple push fit jointing method speeds up installation time and increases productivity without the burden of expensive tooling costs. Ezi Pex Push™ is currently available to suit pipe sizes 16, 20 & 25mm.

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

## 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 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.


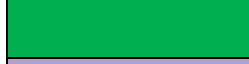



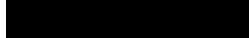


Ezi Pex™ pipe is available in the following sizes DN16, DN20, DN25, in either coil form or straight lengths.

## 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
16mm black conduit		50m				
20mm black conduit		50m				

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

	<b>BLACK</b>	Hot & cold potable water
	<b>GREEN</b>	Rainwater
	<b>LILAC</b>	Recycled water (non-potable)
	<b>PINK</b>	Hydronic heating
	<b>RED</b>	Hot Water
	<b>CONDUIT</b>	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

## 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.

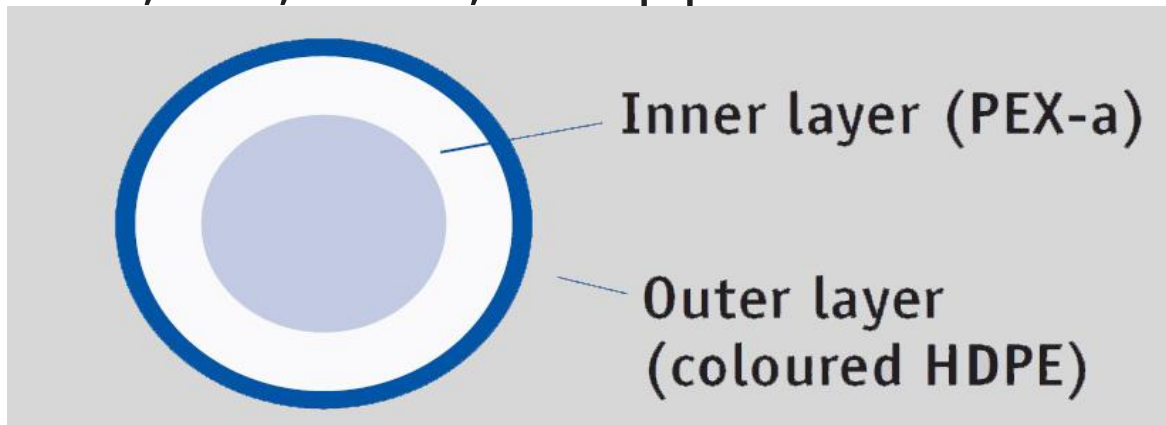
## Ezi Pex™ pipe heat & pressure performance

### Recommended working pressure relative to pipe material temperature

Temp (°C)	20	40	60	80
Pressure (Kpa)	2000	1800	1500	1330

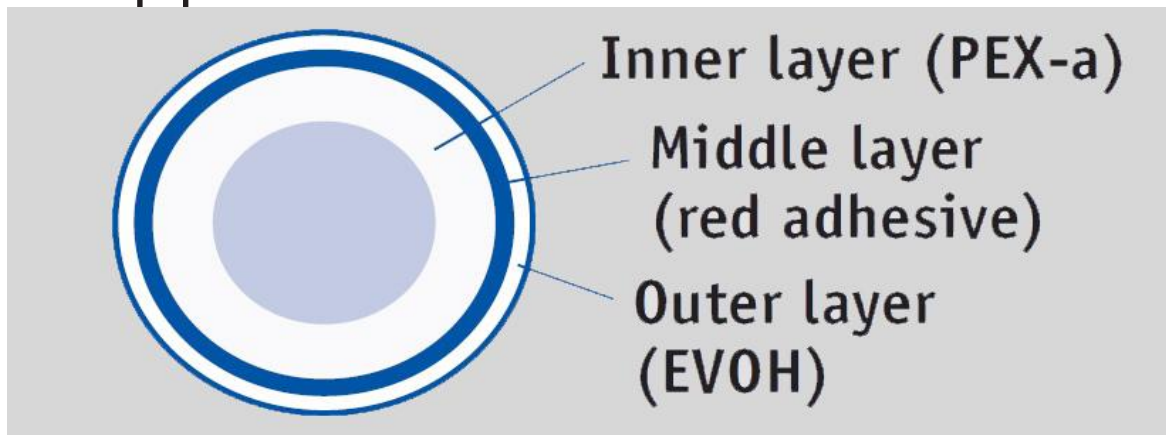
## Cross-section

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 <sup>TM</sup> 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

The bodies of all Ezi Pex Push™ fittings are manufactured from DZR brass. In the jointing process, Ezi Pex™ pipe easily passes through the sleeve, over the pipe support and into the grab ring. This jointing method provides minimal flow restriction through the fittings. If the fitting is incorrectly installed simply apply the disassembly clip, depress the release collar and remove the pipe. Fittings may be re-used but it is advisable to discard any pipe sections that have previously been marked by the retaining ring.

Ezi Pex Push™ is one of the three fittings offered to suit the same range of Ezi Pex™ pipe. It will generally come down to the installer's individual preference as to which system to use, all three systems comply fully with the relevant Australian Standards and are Watermark approved making it one of the most versatile pex systems on the Australian market.

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



# Features and Benefits

## Push Jointing Method

- Fast
- Secure
- Simple to use
- Less time on the job
- Less capital outlay on tooling

## 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 – DN25

- Fittings available for most tasks

## Acoustics

- Low noise transmissions in pex pipe
- Quieter, reduce water hammer

# Installation Considerations

Ezi Pex Push <sup>™</sup> 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 Push <sup>™</sup> 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 <sup>™</sup> 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 6)*

## **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 <sup>™</sup> 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 <sup>™</sup> 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**

<b>Nom Size</b>	<b>Min Bending Radius (mm)</b>
16mm	130
20mm	162
25mm	202

## **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**

<b>Nom Size</b>	<b>Vertical Run Spacing (m)</b>	<b>Horizontal Run Spacing (m)</b>
16mm	1.2m	0.6m
20mm	1.4m	0.7m
25mm	1.5m	0.75m

## **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 <sup>™</sup> 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 Push™ system.

# Joining instructions

## 1. Cut pipe

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



## 2. Connect

Insert the pipe into the fitting. Use indicator marks on pipe to ensure full engagement.



## 3. Pressure Test

At completion, carry out pressure testing as required in AS/NZS 3500 and or any requirements specified by local authorities.






## 4. Disconnect

All Ezi Pex Push™ fittings can be disconnected by applying the release clip to the fitting and depressing the pipe release sleeve. Ensure system is relieved of pressure and drained prior to disconnection.














# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
<b>#1 STRAIGHT COUPLING</b> 	DN16	PP1101
	DN20	PP1102
	DN25	PP1103
<b>#1R REDUCING COUPLING</b> 	DN20-16	PP1104
	DN25-16	PP1105
<b>#2 CONNECTOR</b> 	DN16X1/2''F	PP1112
	DN16X3/4''F	PP1182
	DN20X3/4''F	PP1113
	DN25X1''F	PP1114
<b>#3 CONNECTOR</b> 	DN16X1/2''M	PP1106
	DN16X3/4''M	PP1109
	DN20X1/2''M	PP1110
	DN20X3/4''M	PP1107
	DN25X3/4''M	PP1111
	DN25X1''M	PP1108
<b>#12 ELBOW</b> 	DN16	PP1115
	DN20	PP1116
	DN25	PP1117




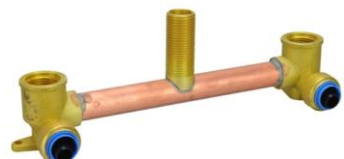
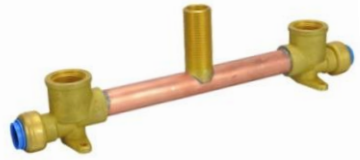
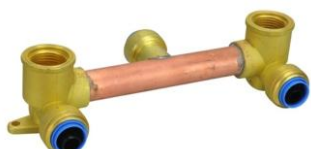
# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
<b>#13 ELBOW</b> 	DN16X1/2''M	PP1121
<b>#14 ELBOW</b> 	DN16X1/2''F	PP1124
<b>#15BP ELBOW</b> 	DN16X1/2''F DN20X3/4''F	PP1158 PP1159
<b>#19BP ELBOW</b> 	DN16X1/2''M - 75mm Long DN16X1/2''M - 100mm Long DN16X1/2''M - 185mm Long DN20x3/4''M - 200mm Long	PP1164 PP1165 PP1166 PP1167


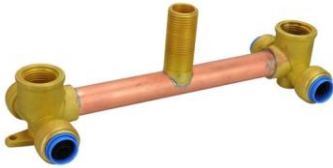



# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
<b>#24 TEE EQUAL</b> 	DN16	PP1127
	DN20	PP1128
	DN25	PP1129
<b>#25 TEE RED. BRANCH</b> 	DN20X20X16	PP1130
	DN25X25X20	PP1131
<b>#26 TEE RED. END</b> 	DN20X16X20	PP1132
<b>#27 TEE RED. END &amp; BRANCH</b> 	DN20X16X16	PP1133
<b>#61 STOPPER</b> 	DN16	PP1143
	DN20	PP1144
	DN25	PP1145

# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
<b>#62 STRAIGHT TAP CONNECTOR - FLAT SEAT + WASHER</b> 	DN16X1/2''F	PP1137
	DN20X3/4''F	PP1138
<b>#63 BENT TAP CONNECTOR</b> 	DN16X1/2''F	PP1140
	DN20X3/4''F	PP1141
<b>FLARED COPPER COMPRESSION UNION</b> 	DN16X16''	PP1160
	DN20X3/4''	PP1161
<b>BATH/LAUNDRY ASSEMBLY RIGHT ANGLE</b> 	200mm CENTRES	PP1170
	300mm CENTRES	PP1171
<b>BATH/LAUNDRY ASSEMBLY STRAIGHT</b> 	200mm CENTRES	PP1172
	300mm CENTRES	PP1173
<b>SHOWER ASSEMBLY RIGHT ANGLE</b> 	150mm CENTRES	PP1174
	200mm CENTRES	PP1175

# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
<b>SHOWER ASSEMBLY RIGHT ANGLE BARBS UP</b> 	150mm CENTRES	PP1176
	200mm CENTRES	PP1177
<b>BATH/LAUNDRY ASSEMBLY RIGHT ANGLE (Low Inlet)</b> 	200mm CENTRES	PP1178
	300mm CENTRES	PP1179
<b>COPPER CONVERSION JOINER</b> 	16mm x DN15 CU	PP1168
	20mm x DN20 CU	PP1169
<b>CONVERSION JOINER</b> 	16mm PN16 x 16mm PN20	PP1180
	20mm PN16 x 20mm PN20	PP1181
<b>CONVERSION ELBOW</b> 	16mm PEX x 15CU	PP1183
	20mm PEX x 20 CU	PP1184

# Ezi Pex Push™ Fittings

PRODUCT DESCRIPTION	SIZE	PART #
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## CONVERSION TEE



16PEX x 16PEX x 15CU	PP1185
20PEX x 20PEX x 20CU	PP1186
15CU x 15CU x 16 PEX	PP1187
20CU x 20CU x 20 PEX	PP1188

## DISASSEMBLY CLIPS



16PEX	PPDC16
20PEX	PPDC20
25PEX	PPDC25
CU DN15	PPDCU13

For more information visit [www.ezipex.com.au](http://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 practices.*

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