

FRANKLIN
DELIVERING INNOVATIVE SOLUTIONS SINCE 1954

JCT Trade

represents a manufacturing company which specialises in supplying Plumbing Products. We provide a complete range of cost effective solutions to the plumbing and building industries to help get the job done quicker, easier and at a lower cost.



WM74650
WM74651
WM74750
AMI74689

Australian
Standard
AS/NZS 2492
AS/NZS 2537
AS4176

Disclaimer: All care has taken to ensure the information provided in this brochure is accurate and reliable but it must be treated as being of a general nature only. Products in this brochure may change as JCT Trade is committed to continuous product improvement. JCT Trade provide no guarantee nor accept responsibility for information contained in this brochure.

JCT Copper Crimp for Water, 16mm to 25mm.

JCT Slide for Water 16mm to 32mm.

JCT Stainless Steel Crimp for Water 16mm to 25mm.

JCT Stainless Steel Crimp PEX-AL-PEX System for Gas, 16mm to 32mm.

JCT Stainless Steel Crimp PEX-AL-PEX for GAS and **JCT Stainless Steel Crimp for WATER** use the same JCT Crimp tools.

JCT Water System is licensed by ApprovalMark International to Australian Standards and complies with Australian and New Zealand Standards AS/NZ 2492:2007 for Pipe (Licence WM 74650) and AS/NZS 2537:2011 for Fittings (Licence WM 74651).

JCT Gas System is licensed by ApprovalMark International to Australian Standards and complies with Australian Standards AS 4176.8-2010 for Pipe (Licence AMI74689) and Fittings (Licence AMI74689).

JCT Pipe Systems (excluding tooling) carries a 25 year manufacturers warranty when the system is installed by a licensed plumber or gasfitter in accordance with AS/NZS3500 and Local Authority Requirements. This is backed by Franklins Comprehensive Insurance Cover.

TEST PROCEDURES FOR WATERMARK COMPLIANCE

Listed below are the characteristics that are being tested for as well as the code from which the method for testing is followed:

- Carbon black or Pigment Dispersion - ISO 18553
- Diameter and Wall Thickness - AS/NZS 1462.1
- Degree of Cross Linking - ISO 10147
- Effect on Water - AS4020
- Elongation at Break - ISO 6259-1, ISO 6259-3
- Hydrostatic Strength - ISO 1167 or AS 1462.6
- Long Term Stability - ISO 1167 or AS 1462.6
- Longitudinal Reversion - ISO2505
- Opacity - ISO7866
- Resistance to Weathering - ISO 14531-1
- Slow Crack Growth - ISO 13479
- Thermal Stability - ISO-TR 10837

PN20 PE-Xa Water Pipe

JCT PN20 PE-Xa Pipe is made from Peroxide - cross linked polyethylene and manufactured under strict quality controls to Australian Standards AS/NZS 2492:2007 for hot and cold water applications under Licence WM 74650.

JCT PN20 PE-Xa Pipes are completely Non Toxic and are approved to AS4020.

The great advantage of JCT PN20 PE-Xa Pipe is that it can be used with **JCT Copper Crimp** and **JCT Slide** Fittings to complete two systems using the same pipe but utilising two different jointing methods.

JCT PN20 PE-Xa Pipe is colour coded to assist the installer in avoiding cross connections. The piping is available in two colours. It is recommended that unprotected pipe not be exposed to direct sunlight on a permanent basis.

JCT PN20 PE-Xa Pipes carries a 25 year manufacturers warranty when the system is installed by a licenced plumber in accordance with AS/NZS3500 and Local Authority Requirements. This is backed up by Franklins Comprehensive Insurance Cover.

Black - cold potable water

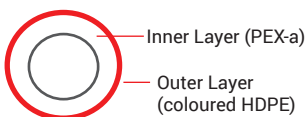
Red - hot potable water



AS/NZS 2492



WM74650



Inner layer: combination of HDPE & crosslinking agent
 Outer layer: HDPE compound

Performance

The use of JCT PN20 PE-Xa 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. JCT PN20 PE-Xa 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.

Pipe Sizes and Tolerances

Nom.O.D (DN)	Mean Outside Diameter (mm)	Maximum Out-of-Roundness (mm)	Wall Thickness (mm)
SDR 7.4 PN20			
16	16.0	1.2	2.2
20	20.0	1.2	2.8
25	25.0	1.2	3.5
32	32.0	1.3	4.4

Pressure Ratings

Pipes for water applications are classified in terms of the nominal pressure rating (PN) at water service temperature of 20°C. JCT PEX Pipe has a pressure rating of PN20 and a nominal working pressure of 2,000kPa at 20°C. The following table shows the relationship of the pipe working pressure and pipe material temperature (PMT).

Working Pressure, kPa

PMT	200C	600C	700C	General Working
PN20	2000	1500	1300	1000

- Maximum Working Temperature: 95°C
- Maximum Continuous Working Pressure: 1000kPa
- Maximum Continuous Working Temperature: 70°C
- Short Term Extension Limit: 100°C
- Linear Thermal Expansion Co-Efficient: 0.15
- Thermal Conductivity: 0.35W/(m.K)
- Pipe Internal Roughness: 0.007mm
- Maximum bending radius with preformed bend: 4x Ø
- Maximum bending radius without preformed bend: 8x Ø

PN20 PE-Xa WATER PIPE can be used with **JCT Copper Crimp** and **JCT Slide** Fittings to complete two systems.

PE-Xa PIPE TECHNICAL DATA

Water Quality

JCT fittings are made from high quality DZR brass which provides good resistance to corrosive water conditions. However, if water conditions are outside the NZ drinking water guidelines of pH 6.5 - 8.5, JCT Pex DZR fittings should not be used.

Flush Pipes so they are clean and ready for use.

Handling and Storage

UV radiation can damage PE-Xa pipes, so always protect JCT pipe from direct sunlight.

Avoid damage to the pipe surface from dragging pipes across rough surfaces.

Protect uninstalled pipes from entry of harmful liquids.

Protect DZR fittings from corrosion.

Pressure Loss Tables for PN20 PE-Xa Pipe

Cold Water at 250C				
Peak Flow Rate Qs (l/s) 0.01 to 0.50	16mm x 2.2mm Head Loss (kPa/m)	20mm x 2.8mm Head Loss (kPa/m)	25mm x 3.5mm Head Loss (kPa/m)	32mm x 4.4mm Head Loss (kPa/m)
0.05	0.3465	0.1242	-	-
0.10	1.1650	0.4141	0.1430	0.0430
0.15	2.3930	0.8455	0.2905	0.0866
0.20	4.0077	1.4090	0.4822	0.1430
0.25	5.9950	2.1001	0.7160	0.2122
0.30	8.3490	2.9143	0.9908	0.2927
0.35	11.0620	3.8498	1.3053	0.3846
0.40	14.1295	4.9036	1.6589	0.4879
0.45	-	6.0756	2.0510	0.6018
0.50	-	7.3633	2.4808	0.7266

Hot Water at 600C				
Peak Flow Rate Qs (l/s) 0.01 to 0.50	16mm x 2.2mm Head Loss (kPa/m)	20mm x 2.8mm Head Loss (kPa/m)	25mm x 3.5mm Head Loss (kPa/m)	32mm x 4.4mm Head Loss (kPa/m)
0.05	0.2913	0.0135	0.0358	0.0106
0.10	1.0002	0.3520	0.1205	0.0357
0.15	2.0803	0.7270	0.2475	0.0731
0.20	3.5175	1.2222	0.4140	0.1218
0.25	5.3030	1.8343	0.6185	0.1814
0.30	7.4321	2.5605	0.8685	0.2515
0.35	9.9026	3.3998	1.1392	0.3318
0.40	12.7115	4.3509	1.4535	0.4223
0.45	-	5.4121	1.8038	0.5228
0.50	-	6.5836	2.1891	0.6329

Pipe Supports

- Fixing of JCT PE-Xa must comply with AS/NZS3500.
- Hot Water lines must be fixed as to allow for thermal linear expansion.
- Never fix a clip directly onto DZR brass fittings.

Horizontal Pipes

Clip Spacing ϕ

Pipe	(metres)
16mm	0.60
20mm	0.70
25mm	0.75
32mm	0.85

Vertical Pipes

Clip Spacing ϕ

Pipe	(metres)
16mm	1.20
20mm	1.40
25mm	1.50
32mm	1.70

NOTE: Horizontal hot water lines may require closer clip spacing to maintain straight lines and avoid sagging.

Expansion and Contraction

Expansion

JCT PE-Xa will expand with heat so allowance must be made for expansion in the system. The use of anchor points can ensure the expansion occurs in the desired direction. By securely clipping to one side of a fitting, expansion will occur in the opposite direction. All other clips and holes through which JCT PE-Xa passes should allow the pipe to slide longitudinally. For long runs on the hot water service an offset bend Fig. 1 or U bend Fig. 2 may be required.

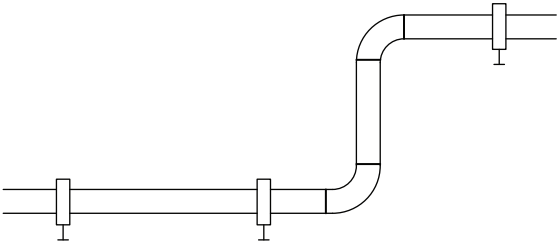


Fig.1: Expansion absorption through bends

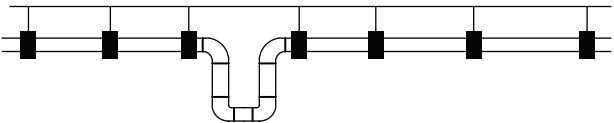


Fig.2: Expansion absorption through U Bend

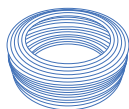
Thermal Insulation

Although JCT PE-Xa has excellent insulating properties local authorities may require further insulation to reduce heat loss. JCT PE-Xa should be insulated against freezing conditions to reduce the chances of damage to the pipe work. In extreme conditions it is not possible to prevent static water freezing, so the complete system should be drained.

Water heaters and Uncontrolled Heating Sources.

JCT PE-Xa for potable water systems are designed to operate within a tempering valve controlled hot water system limited to max 70°C. Although JCT PE-Xa has a maximum operating temperature of 95°C and will survive a short period of 100°C, this situation is not recommended and would only occur in the event of a tempering valve failing.

Connection of JCT PE-Xa to a water heater must comply with AS3500 and connect via a minimum 1 metre of copper pipe. JCT PE-Xa is not suitable for flow and return lines of solar panels as temperatures can reach 140°C.



CODE	SIZE	PACKING
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Black Pipe - Water

CTPEX1650	16mm	50m/coil
CTPEX16L5	16mm	5m/len
CTPEX16100	16mm	100m/coil
CTPEX20100	20mm	100m/coil
CTPEX20L5	20mm	5m/len
CTPEX2550	25mm	50m/coil
CTPEX25L5	25mm	5m/len
CTPEX3250	32mm	50m/coil
CTPEX32L5	32mm	5m/len

Red Pipe - Hot Water

CTPEX16L5R	16mm	5m/len
CTPEX16100R	16mm	100m/coil
CTPEX20L5R	20mm	5m/len
CTPEX20100R	20mm	100m/coil

Lilac Pipe - Recycled Water

CTPEX1650LILAC	16mm	50m/coil
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Blue Pipe - PEX-a Cold Water

CTPEX16L5B	16mm	5m/len
CTPEX16100B	16mm	50m/coil
CTPEX20L5B	20mm	5m/len
CTPEX20100B	20mm	50m/coil

Pipe Clips - Black

JCT16B	16mm	100/bag
JCT20B	20mm	100/bag
JCT25B	25mm	100/bag
JCT32B	32mm	100/bag

JCT Slide System

JCT Slide product range is a complete PEX Plumbing System comprising JCT PN20 PE-Xa Water Pipe, a full range of DR brass fittings and a set of easy to use tooling.

JCT Slide System is a simple and secure sliding sleeve jointing system which means total peace of mind and a simple visual inspection confirms water tightness.

JCT Slide Fittings are especially designed and engineered to compliment the JCT PE-Xa Pipe.

JCT Slide All JCT fittings are made from high quality Dezincification Resistant (DR) brass, heat treated and chemically enhanced for increased strength, durability and reliability.

JCT Slide system complies with Australian Standards AS2537 and AS2492 and is certified by ApprovalMark (Licences WM74651 and WM74650 respectively) for use with crosslinked polyethylene (PE-Xa) for hot and cold water installations.

JCT Slide System carries a 25 year manufacturers warranty when the system is installed by a licensed plumber in accordance with AS/NZS3500 and Local Authority Requirements. This is backed by Franklins Comprehensive Insurance Cover.



AS/NZS 2537



WaterMark

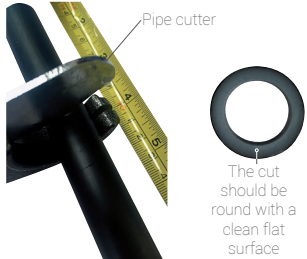
WM74651

WM74650

INSTALLATION INSTRUCTIONS

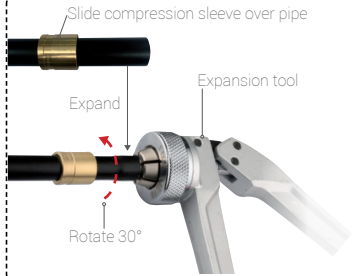
STEP 1:

Measure the pipe and cut to correct angle, ensuring it is straight and burr free. Always use a PEX pipe cutter.



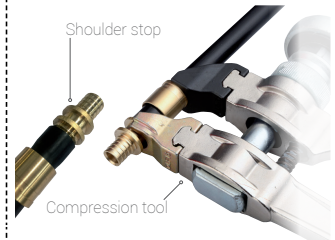
STEP 2:

Slide the compression sleeve over the pipe with the bevelled end facing towards the fitting. Expand the pipe using the expansion tool, rotate the pipe 30° and repeat the process, ensuring the pipe is evenly expanded.



STEP 3:

Insert the fitting into the expanded pipe; use the compression tool to slide the sleeve towards the fitting, making sure the two surface areas (shoulder stop and PEX pipe) meet completely flat and evenly all around in order to achieve a super seal.

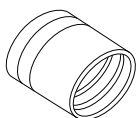


STEP 4:

At completion, carry out pressure testing as required per AS/NZS 3500 and or any requirements specified by local authorities prior to burying or concealing the JCT Slide System.

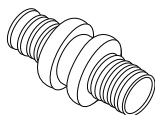
IMPORTANT:

This system must be installed by a licensed plumber in accordance with this procedure otherwise warranty will be void.



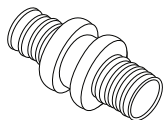
Sliding Sleeve

TSS16	16mm
TSS20	20mm
TSS25	25mm
TSS32	32mm



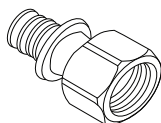
Straight Connection

TSC16	16mm
TSC20	20mm
TSC25	25mm
TSC32	32mm



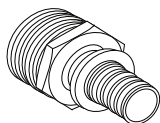
Reducing Connection

TRC2016	20mm x 16mm
TSC2520	25mm x 20mm
TSC3225	32mm x 25mm



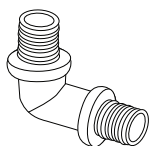
Female Connection

TFC16	16mm
TFC20	20mm



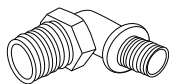
Male Connection

TMC16	16mm
TMC20	20mm
TMC25	25mm



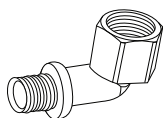
Equal Elbow

TEE16	16mm
TEE20	20mm
TEE25	25mm
TEE32	32mm



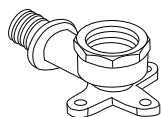
Male Elbow

TME16	16mm
TME20	20mm



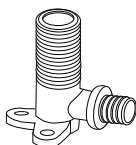
Female Elbow

TFE16	16mm
TFE20	20mm



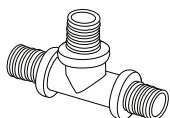
Female Wingback

TFWB16	16mm
TFWB20	20mm



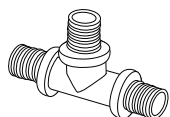
Male Wingback

TMWB161565	16mm x 15mm BSP x 65mm
TMWB161590	16mm x 15mm BSP x 90mm



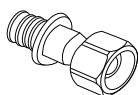
Equal Tee

TET16	16mm
TET20	20mm
TET25	25mm
TET32	32mm



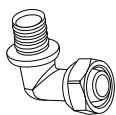
Reduced Tee

TRT201616	20mm x 16mm x 16mm
TRT202016	20mm x 20mm x 16mm
TRT2016	20mm x 16mm
TRT251616	25mm x 16mm x 16mm
TRT2516	25mm x 16mm
TRT252516	25mm x 25mm x 16mm
TRT252020	25mm x 20mm x 20mm
TRT2520	25mm x 20mm
TRT252520	25mm x 25mm x 20mm
TRT322525	32mm x 25mm x 25mm
TRT3225	32mm x 25mm



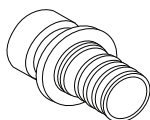
Swivel Connector

TSWC16	16mm
TSWC20	20mm
TSWC25	25mm



Swivel Elbow

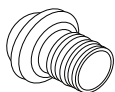
TSE16	16mm
TSE20	20mm



Connecting Barb

TCB16	16mm
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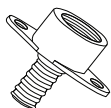
TCB20	20mm
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Plug

TP16	16mm
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TP20	20mm
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Hose Plate

THP16	16mm
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JCT Copper Crimp System

JCT Copper Crimp product range is a complete Pex Plumbing System comprising JCT PN20 PE-Xa water pipe, a full range of DR Brass Fittings and a set of easy to use tooling.

JCT Copper Crimp is a solid DZR brass fitting using robust copper rings with inspection windows and equally the longest joining barb on the market ensuring a water tight join every time.

JCT Copper Crimp has no O'rings which results in increased bore size and better flow and removes the risk of installer error because of dirty, damaged or dislodged O'rings.

Simple Crimp jointing system results in quick and simple installation.

JCT Copper Crimp All JCT fittings are made from high quality Dezincification Resistant (DR) brass, heat treated and chemically enhanced for increased strength, durability and reliability.

JCT Copper Crimp system complies with Australian Standards AS2537 and AS2492 and is certified by ApprovalMark (Licences WM74651 and WM74650 respectively) for use with crosslinked polyethylene (PE-Xa) for hot and cold water installations.

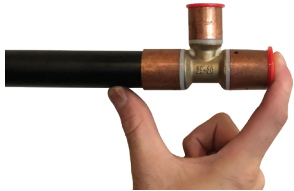
JCT Copper Crimp carries a 25 year manufacturers warranty when the system is installed by a licenced plumber in accordance with AS/NZS3500 and Local Authority Requirements. This is backed by Franklins Comprehensive Insurance Cover.

INSTALLATION INSTRUCTIONS

STEP 1:
Cut pipe at right angle.



STEP 2:
Insert fitting.



STEP 3:
Observe window for correct position of fitting.



STEP 4:
Position crimping tool.



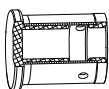
STEP 5:
Crimp fitting.



STEP 6:
Test with Pressure Gauge.

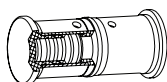


IMPORTANT:
This system must be installed by a licensed plumber in accordance with this procedure otherwise warranty will be void.



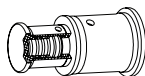
Ring Only

CCC16	16mm
CCC20	20mm
CCC25	25mm
CCC32	32mm



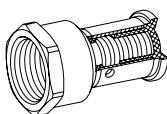
Straight Connection

CSC16	16mm
CSC20	20mm
CSC25	25mm
CSC16BUTE	16mm



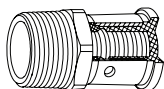
Reducing Connection

CRC2016	20mm x 16mm
CRC2516	25mm x 16mm
CRC2520	25mm x 20mm



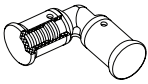
Female Connection

CFC16	16mm
CFC2015	20mm x 15mm BSP
CFC20	20mm



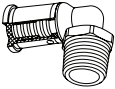
Male Connection

CMC16	16mm
CMC2015	20mm x 15mm BSP
CMC20	20mm
CMC2520	25mm x 20mm BSP
CMC25	25mm



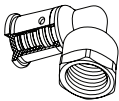
Equal Elbow

CEE16	16mm
CEE20	20mm
CEE25	25mm



Male Elbow

CME16	16mm
CME2015	20mm x 15mm BSP
CME20	20mm
CME25	25mm



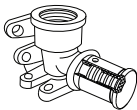
Female Elbow

CFE16	16mm
CFE20	20mm



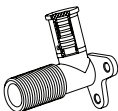
Female Wingback

CFWB16	16mm
CFWB1620	16mm x 20mm BSP
CFWB2015	20mm x 15mm BSP
CFWB20	20mm



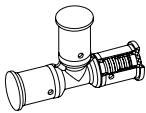
Female Double Fix Wingback

CFWB16DF	16mm
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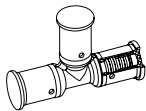
Male Wingback

CMWB161565	16mm x 65mm
CMWB161590	16mm x 90mm
CMWB1615150	16mm x 150mm



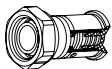
Equal Tee

CET16	16mm
CET20	20mm
CET25	25mm



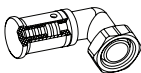
Reducing Tee

CRT201616	20mm x 16mm x 16mm
CRT2016	20mm x 16mm
CRT202016	20mm x 20mm x 16mm
CRT2516	25mm x 16mm
CRT2520	25mm x 20mm
CRT252020	25mm x 20mm x 20mm
CRT252516	25mm x 25mm x 16mm
CRT252520	25mm x 25mm x 20mm



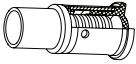
Swivel Connector

CSWC16	16mm
CSWC1620	16mm x 20mm BSP
CSWC20	20mm
CSWC2015	20mm x 15mm BSP
CSWC25	25mm



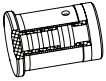
Swivel Elbow

CSE16	16mm
CSE20	20mm
CSE2015	20mm x 15mm BSP



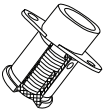
Connecting Barb

CCB16	16mm
CCB20	20mm



Plug

CP16	16mm
CP20	20mm



Hose Plate

CHP16	16mm
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PN16 PE-Xb Water Pipe

JCT PN16 PE-Xb Pipe is made from Silane - Cross Linked Polyethelene and manufactured under strict quality controls to New Zealand Standards AS/NZS 2492:2007 for hot and cold water applications under Licence WM 74650.

JCT PN16 PE-Xb Pipes are completely Non Toxic and are approved to AS4020.

JCT PN16 PE-Xb Pipes carries a 25-year manufacturers warranty when the system is installed by a licensed plumber in accordance with AS/NZS3500 and Local Authority Requirements. This is backed up by Franklins Comprehensive Insurance Cover.

The great advantage of JCT PN16 PE-Xb Pipe is that it can be used with **JCT Stainless Steel Crimp** fittings.

JCT PN16 PE-Xb Pipe is recommended that unprotected pipe not be exposed to direct sunlight on a permanent basis.

Black - cold potable water



AS/NZS 2492



WM74650

Performance

The use of JCT PN16 PE-Xb Pipe provides users with many advantages over traditional piping materials.

JCT PE-Xb pipes have great flexibility making installation quick and easy

JCT PE-Xb pipes have good thermal and acoustic insulation properties

JCT PE-Xb use a Universal DZR Water and Gas Stainless Steel Crimp fitting.

Pipe Sizes and Tolerances

Nom.O.D (DN)	Mean Outside Diameter (mm)	Maximum Out-of-Roundness (mm)	Wall Thickness (mm)
SDR 9 PN16			
16	16.0	1.2	2.0
20	20.0	1.2	2.3

Pressure Ratings

Pipes for water applications are classified in terms of the nominal pressure rating (PN) at water service temperature of 20°C. JCT PE-Xb Pipe has a pressure rating of PN16 and a nominal working pressure of 1600kPa at 20°C. The following table shows the relationship of the pipe working pressure and pipe material temperature (PMT).

Working Pressure kPa

PMT	200C	600C	700C	General Working
PN16	1600	1200	1100	1000

PN16 PE-Xb Pipe					
Working Pressure Water	Temp. °C	20	40	60	80
	Pressure kPa, PN16	1600	1200	950	760
Continuous operation temperature	PN16	72°C at 810kPa			
Maximum operation temperature	90°C				
Minimum wall thickness	Nom.O.D (DN)	Thickness			
	16mm PN16	2.0mm			
	20mm PN16	2.3mm			
Linear thermal expansion coefficient	(m/m°C)11.4*10-4				
Thermal conductivity	0.35				
Minimum bending radius without aid	8 x diameter				

PE-Xb PIPE TECHNICAL DATA

Water Quality

JCT Stainless Steel Crimp fittings are made from high quality DZR brass which provides good resistance to corrosive water conditions. However, if water conditions are outside the NZ drinking water guidelines of pH 6.5 - 8.5, JCT Pex DZR fittings should not be used.

Handling and Storage

UV radiation can damage PE-Xa pipes, so always protect JCT pipe from direct sunlight.

Avoid damage to the pipe surface from dragging pipes across rough surfaces.

Protect uninstalled pipes from entry of harmful liquids.

Protect DZR fittings from corrosion.

Protect pipes from freezing by insulation or draining the system when not in use.

JCT PE-Xb water pipes may be installed underground or under-slab so long as all fittings are kept to a minimum and are wrapped in a "Denso" type protective coating.

No fittings should be installed within a concrete slab.

All JCT PE-Xb pipes should be sleeved as they penetrate the slab using JCT Conduit.

Installation

Do not use PE-Xb on installations with uncontrolled heat sources such as Solar or Wetbacks before a Tempering Valve

Test JCT PE-Xb Water systems at 1500 kPa for 30 minutes, check crimps visually and after testing to ensure crimps are complete and no leaks have occurred. Check Crimps using JCT Crimp Gauge for PE-Xb.

Flush Pipes so they are clean and ready for use.

Horizontal Pipes

Clip Spacing \emptyset

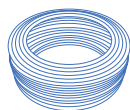
Pipe	(metres)
16mm	0.60
20mm	0.70
25mm	0.75
32mm	0.85

Vertical Pipes

Clip Spacing \emptyset

Pipe	(metres)
16mm	1.20
20mm	1.40
25mm	1.50
32mm	1.70

NOTE: Horizontal hot water lines may require closer clip spacing to maintain straight lines and avoid sagging.



CODE	SIZE	PACKING
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Black Pipe - Water

JPEX1650	16mm	50m/coil
JPEX16L5	16mm	5m/len
JPEX16100	16mm	100m/coil
JPEX2050	20mm	50m/coil
JPEX20L5	20mm	5m/len

Red Pipe - Hot Water

JPEX16L5R	16mm	5m/len
JPEX1650R	16mm	50m/coil
JPEX20L5R	20mm	5m/len
JPEX2050R	20mm	50m/coil

Lilac Pipe - Recycled Water

JPEX16L5LILAC	16mm	5m/len
JPEX1650LILAC	16mm	50m/coil

Blue Pipe - PEX-b Cold Water

JPEX16L5B	16mm	5m/len
JPEX1650B	16mm	50m/coil
JEPX20L5B	20mm	5m/len
JPEX20L5B	20mm	50m/coil

Pipe Clips - Black

JCT16B	16mm	100/bag
JCT20B	20mm	100/bag
JCT25B	25mm	100/bag
JCT32B	32mm	100/bag

PEX-AL-PEX Gas MLP Pipe

JCT Stainless Steel Crimp Gas System is a Plumbing System comprising of a multi-layer composite PEX-AL-PEX pipe using the full range of Stainless Steel dual purpose crimp fittings and a set of tooling complete with bevelling tools to ensure tool performance.

JCT PEX-AL-PEX Gas Pipe is manufactured as a composite pipe consisting of an inner and outer layer of cross-linked polyethylene which is permanently adhered to a central core of Aluminium. The pipe is manufactured under strict quality controls to Australian Standard AS4176.8-2010 under Licence AMI74689.

JCT MLP Gas Pipe carries a 25 year manufacturers warranty when the system is installed by or under supervision of a craftsman gasfitter in accordance with AS/NZS3500 and Local Authority Requirements. This is backed up by Franklins Comprehensive Insurance Cover.



AS 4176

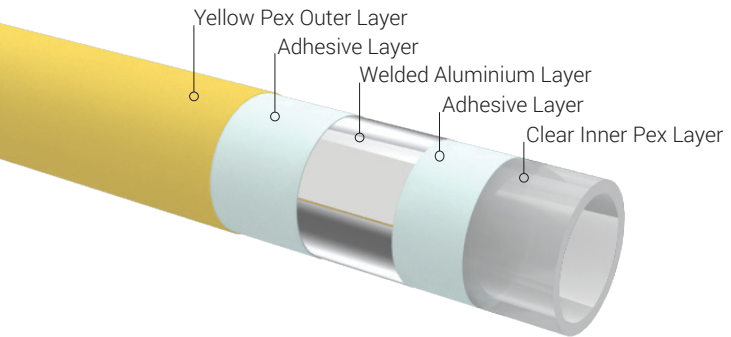


WaterMark

AMI74689

Features and Benefits of JCT Gas System

- Pipe made from five layers, the PEX and Aluminium layers provide strength and flexibility
- Light weight during transport and installation
- Non toxic
- Non corrosive
- Resistant to oxygen and gases
- Smooth inner layer reduces pressure losses
- Low levels of thermal conductivity and expansion
- Leak proof fitting connections
- No open flame during installation
- Manual crimping tools can be used for both JCT Crimp Water PEX and JCT Crimp Gas PEX-AL-PEX Systems applications
- Double "O" ring seal
- Long entry stainless steel crimp sleeve
- Easy to see witness holes to confirm full engagement of fitting onto pipe



(Natural Gas only) NATURAL GAS flow through PEX/AL/PEX Composite Pipe Crimped Fittings(MJ/h) Pressure Drop of 0.75kPa(Metre Pressure 1.1kPa) Fitting Allowance(M)

Length of run (M)	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
Pipe size 16	84	57	45	38	37	36	34	30	27	24	19	16	14	12	11	10	9	8	/	/	/	/	/	/	/
20	158	106	84	72	63	57	52	48	45	43	41	40	35	30	27	24	22	20	18	17	/	/	/	/	/
25	314	211	167	142	125	113	103	96	89	84	79	75	71	68	64	62	60	58	54	50	48	46	45	45	44
32	602	405	322	273	240	216	198	184	172	162	142	128	117	109	102	98	95	89	85	83	80	78	76	74	73
40	985	663	526	446	393	354	324	300	281	264	233	210	192	178	166	157	150	141	136	131	126	121	117	113	110
50	1900	1278	1014	860	757	682	625	579	541	510	449	404	370	343	321	302	285	272	256	248	238	229	221	214	207
63	3691	2505	1994	1696	1495	1349	1236	1146	1072	1010	889	802	734	680	636	589	567	539	515	494	474	457	452	427	414

(Natural Gas only) NATURAL GAS flow through PEX/AL/PEX Composite Pipe Crimped Fittings(MJ/h) Pressure Drop of 0.75kPa(Metre Pressure 2.75kPa)

Length of run (M)	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
Pipe size 16	315	214	168	142	125	113	103	96	90	84	74	67	61	57	53	50	47	45	42	41	39	37	36	35	34
20	589	396	314	267	235	212	194	179	168	158	139	125	115	106	99	94	88	84	80	77	74	71	69	67	65
25	1169	787	624	530	466	420	385	356	333	314	276	249	228	211	197	186	181	178	167	157	151	146	141	137	133
32	2246	1511	1199	1017	895	807	739	684	640	602	530	478	438	405	379	357	340	335	329	321	309	298	287	278	270
40	3671	2470	1960	1662	1463	1319	1207	1119	1046	985	867	781	715	663	620	583	555	526	505	484	466	449	434	420	408
50	7082	4766	3780	3207	2823	2544	2329	2158	2018	1900	1672	1507	1380	1278	1195	1125	1027	1014	936	897	863	832	804	778	756
63	13362	8995	7125	6040	5313	4784	4379	4055	3806	3586	3172	2878	2645	2452	2286	2156	2043	1946	1860	1784	1716	1654	1599	1548	1503

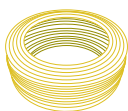
(LP Gas only) NATURAL GAS flow through PEX/AL/PEX Composite Pipe Crimped Fittings(M/J/h) Pressure Drop of 0.250kPa(Metre Pressure 2.75kPa-5.0kPa)

Length of run (M)	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
Pipe size 16	448	303	241	204	180	162	148	137	128	116	106	95	88	81	76	71	67	64	61	58	56	54	52	50	48
20	847	574	457	388	342	308	282	262	245	229	203	182	167	155	144	136	129	123	117	112	107	104	100	96	94
25	1721	1169	931	792	699	631	578	536	501	473	416	375	343	318	298	280	265	252	241	231	222	214	206	200	192
32	3463	2358	1881	1602	1414	1276	1171	1086	1016	963	844	762	698	647	606	570	540	514	491	471	453	436	421	408	396
40	4921	3354	2677	2281	2014	1819	1669	1548	1449	1366	1205	1087	997	924	865	815	772	735	702	673	647	624	603	583	566
50	9076	6197	4952	4222	3730	3370	3093	2871	1688	2534	2237	2020	1852	1719	1608	1516	1436	1368	1307	1254	1206	1162	1124	1088	1055
63	17719	12118	9694	8271	7311	6609	6068	5634	5277	4977	4396	3971	3645	3381	3166	2985	2830	2694	2586	2472	2378	2293	2216	2146	2084

(LP Gas only) NATURAL GAS flow through PEX/AL/PEX Composite Pipe Crimped Fittings(MJ/h) Pressure Drop of 10.0kPa(Metre Pressure 40.0kPa-70.0kPa)

Length of run (M)	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
20	6188	4347	3531	3045	2714	2470	2280	2127	2001	1894	1685	1533	1413	1316	1237	1171	1112	1063	1018	979	943	911	882	855	830
25	11467	8060	6552	5654	5042	4590	4329	3955	3721	3523	3137	2853	2632	2454	2306	2182	2075	1983	1900	1827	1762	1702	1649	1599	1552
32	24003	16887	13737	11860	10579	9635	8901	8309	7820	7406	6598	6003	5541	5168	4860	4599	4375	4181	4008	3855	3718	3593	3481	3377	3280
40	35937	25294	20582	17774	15885	14445	13447	12463	11730	11110	9903	9010	8319	7761	7299	6910	6574	6283	6024	5795	5589	5403	5233	5078	4936
50	66663	46949	38219	33016	29467	26847	24813	23174	21816	20667	18427	16775	15491	14457	13601	12878	12256	11713	11235	10809	10427	10081	9766	9478	9252
63	131992	92961	75706	65422	58407	53229	49206	45963	43279	41008	36578	33309	30771	28726	27032	25600	24369	23295	22348	21505	20748	20063	19440	18871	18364

CODE	SIZE	WALL	PACKING
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Yellow Pipe - MLP Gas

JG1650	16mm	2.0mm	50m/coil
JG16-5M	16mm	2.0mm	5m/len
JG2050	20mm	2.0mm	50m/coil
JG20-5M	20mm	2.0mm	5m/len
JG2550	25mm	2.5mm	50m/coil
JG25-5M	25mm	2.5mm	5m/len
JG3250	32mm	3.0mm	50m/coil
JG32-5M	32mm	3.0mm	5m/len



White Pipe - MLP Water

JW1650	16mm	2.0mm	50m/coil
JW16-5M	16mm	2.0mm	5m/len
JW2050	20mm	2.0mm	50m/coil
JW20-5M	20mm	2.0mm	5m/len
JW2550	25mm	2.5mm	50m/coil
JW25-5M	25mm	2.5mm	5m/len
JW3250	32mm	3.0mm	50m/coil
JW32-5M	32mm	3.0mm	5m/len



Pipe Clips - Yellow

JCT16Y	16mm	100/bag
JCT20Y	20mm	100/bag
JCT25Y	25mm	100/bag
JCT32Y	32mm	100/bag

JCT Stainless Steel Crimp System

JCT Stainless Steel Crimp product range is a complete PEX Plumbing System comprising of JCT PN16 PE-Xb Water Pipe, PEX-AL-PEX Gas Multilayer Pipe and a full range of DZR Brass Fittings with a set of tooling complete with Beveling tools to ensure tool performance.

JCT Stainless Steel Crimp and DZR fittings are dual purpose for water and gas with a double O Ring and Stainless Steel Crimp Ring.

The outlay advantage is a cost saver to the installer carrying one fitting for two applications.

JCT Stainless Steel Crimp complies with AS2537, AS2492 and AS4176 and is certified by ApprovalMark (Licences AMI74689, WM74650 and WM74651).

JCT Stainless Steel Crimp System carries a 25 year manufacturers warranty when the system is installed by a licenced plumber for water and by or under supervision of a Craftsman Gasfitter for Gas in accordance with AS/NZS3500 and Local Authority Requirements. This is backed up by Franklins Comprehensive Insurance Cover.



AS/NZS 2537



WaterMark

AMI74689

WM74650

WM74651

INSTALLATION INSTRUCTIONS

STEP 1:

Measure and cut the pipe using the pipe cutter. Make sure that the pipe is cut cleanly and squarely and there are no scores, cuts or scratches on the surface of the pipe.



STEP 2:

Round and deburr the end of the pipe by inserting the bevelling tool - ensure it is size matched to suit the pipe diameter. Insert the bevelling tool fully into the pipe using a twisting action then rotate 2-3 full turns or until it moves freely within the pipe. Visually check and remove any excess material or burrs for a clean end.



STEP 3:

Insert the pipe firmly into the crimp sleeve of the fitting body.



STEP 4:

Insert until the pipe end reaches the plastic sight sleeve and make sure the pipe can be seen through all the witness holes. Note - if an incorrect joint is made, the defective joint must be removed and replaced with a new fitting.



STEP 5:

Place the crimp sleeve in the pressing tongs and press until the jaws are completely closed.



STEP 6:

Open tongs and remove fitting, ensure the fitting body has not been damaged and that there are 3 clear crimp lines around the sleeve.

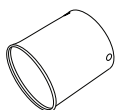


STEP 7:

At completion, carry out pressure testing as required per AS5601.1:2010 and or any requirements specified by local authorities.

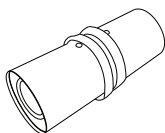
IMPORTANT:

This system must be installed by a licensed gasfitter in accordance with AS 5601.1:2010 and this procedure otherwise warranty will be void.



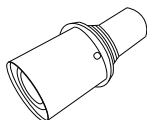
Ring Only

JSS16	16mm
JSS20	20mm
JSS25	25mm
JSS32	32mm



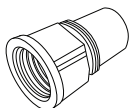
Straight Connection

JSC16	16mm
JSC20	20mm
JSC25	25mm
JSC32	32mm



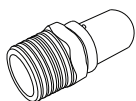
Reducing Connection

JRC2016	20mm x 16mm
JRC2516	25mm x 16mm
JRC2520	25mm x 20mm
JRC3220	32mm x 20mm
JRC3225	32mm x 25mm



Female Connection

JFC16	16mm
JFC2015	20mm x 15mm BSP
JFC20	20mm
JFC2520	25mm x 20mm BSP



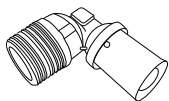
Male Connection

JMC16	16mm
JMC2015	20mm x 15mm BSP
JMC20	20mm
JMC2515	25mm x 15mm BSP
JMC2520	25mm x 20mm BSP
JMC25	25mm
JMC3225	32mm x 25mm BSP



Equal Elbow

JEE16	16mm
JEE20	20mm
JEE25	25mm
JEE32	32mm



Male Elbow

JME16	16mm
JME20	20mm
JME2520	25mm x 20mm BSP



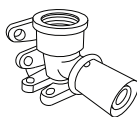
Female Elbow

JFE16	16mm
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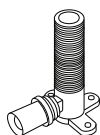
Female Wingback

JFWB16	16mm
JFWB1620	16mm x 20mm BSP
JFWB20	20mm
JFWB2015	20mm x 15mm BSP
JFWB2520	25mm x 20mm BSP



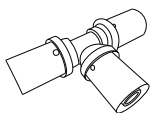
Female Double Fix Wingback

JFWB16DF	16mm
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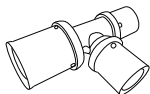
Male Wingback

JMWB161590	16mm x 15mm BSP x 90mm
JMWB1615150	16mm x 15mm BSP x 150mm
JMWB201590	20mm x 15mm BSP x 90mm
JMWB2020100	20mm x 20mm BSP x 100mm



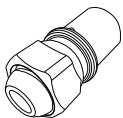
Equal Tee

JET16	16mm
JET20	20mm
JET25	25mm
JET32	32mm



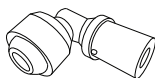
Reducing Tee

JRT201616	20mm x 16mm x 16mm
JRT202016	20mm x 20mm x 16mm
JRT2016	20mm x 16mm
JRT251616	25mm x 16mm x 16mm
JRT252020	25mm x 20mm x 20mm
JRT2516	25mm x 16mm
JRT2520	25mm x 20mm
JRT252520	25mm x 25mm x 20mm
JRT3225	32mm x 25mm



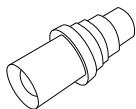
Swivel Connector

JSWC16	16mm
JSWC1620	16mm x 20mm BSP
JSWC2015	20mm x 15mm BSP
JSWC20	20mm
JSWC2520	25mm x 20mm BSP
JSWC25	25mm



Swivel Elbow

JSE16	16mm
JSE2015	20mm x 15mm BSP
JSE20	20mm



Connecting Barb

JCB16	16mm
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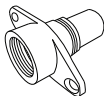
Plug

JP16	16mm
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JP20	20mm
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JP25	25mm
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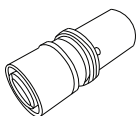
JP32	32mm
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Hose Plate

JHP16	16mm
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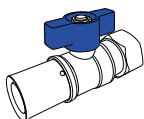
JHP20	20mm
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Straight Connection Polybuteline Adaptor

JSC16PB	16mm
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JSC20PB	20mm
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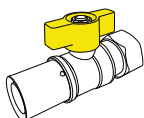


Swivel Ball Valves - Water

JBBV16SV	16mm x 1/2"
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JBBV20SV	20mm x 3/4"
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JBBV2520SV	25mm x 3/4"
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Swivel Ball Valves - Gas

JGBV16SV	16mm x 1/2"
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JGBV20SV	20mm x 3/4"
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JGBV2520SV	25mm x 3/4"
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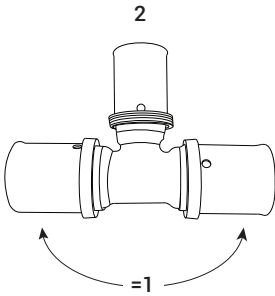
TEE CODING

The end number always represents the branch

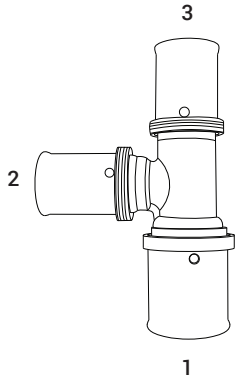
If the tee is equal on both sides and reduces at the branch then we only have two numbers not three. The larger number is always first.

e.g.

JRT2016



JRT201616



JCT Tools



Manual Crimp Tools

JCT.MC1620 CC	16mm - 20mm
JCT.C16L CC	16mm - 20mm
JCT.C20L CC	16mm - 20mm
JCT.MC1620 SS	16mm - 20mm



REMS Mini Press Tool Kit

REMS K (Copper Crimp)	16mm - 32mm
REMS U (Stainless Steel Crimp)	16mm - 32mm
REMS S (Sliding Sleeve)	16mm - 32mm



Manual Slide Tool

JCT.MS1632 Slide	16mm - 32 mm
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Pipe Cutter

PC30	16mm - 32mm
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S/S Plastic Reamer

JCT.PR1625	16 - 20 - 25mm
JCT.PR2032	20 - 25 - 32mm



90° Profile Bend

PPB016	16mm	10/bag
JCT16GALVPB	16mm	10/bag
JCT20GALVPB	20mm	10/bag
JCT25GALVPB	25mm	10/bag



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