

ChillPex Product Installation and Training





ChillPex Fittings and Installation Tools

ChillPex is a complete system that has been independently tested for compliance to Australian Plumbing and Building Codes. The system is comprised of both Water Pex™ pipe & fittings. The Couta Group provides a wide range of fittings in the ChillPex range to ensure installation is as simple as possible. ChillPex fittings are forged from DR brass to ensure that they are suitable and approved for use with potable water systems.

A full listing of the fittings range is available at www.chillpex.com.au The list of fittings is regularly updated so check back periodically to keep up to date with the latest information.

Reamers

- > For rounding the pipe after cutting
- > Bevelling the inner lip to allow easy insertion of the fitting for jointing

<div>Triangular Plastic Reamer</div> <div><ul style="list-style-type: none">> Used where a number of joints are needed> Plastic reamers available for 16-32mm ChillPex piping systems</div>	<div>GPZ-ZYD</div> <div></div>
<div>Metal Reamer</div> <div><ul style="list-style-type: none">> Removable handle> Reamer fitted to a drill for easy operation> Useful for large bore pipe, or smaller bore pipe where there are many joints to be prepared> Available for 16-63mm ChillPex piping systems</div>	<div>GPZ-JD</div> <div></div>

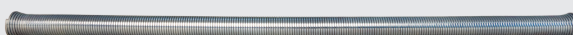

Pipe Cutters

- > Designed for smooth, even cutting, the tools jaw should fit firmly over the pipe to allow a square, burr-free cut.

Ratchet pipe cutter	GPZ-SC1
<ul style="list-style-type: none"> > Used for square cutting and without burrs of pipe > Only use ratchet pipe cutter for cutting PEX-Al-PEX pipes in sizes 16-32mm 	
Barrel pipe cutter	GPZ-QGQ
<ul style="list-style-type: none"> > Used for square cutting and without burrs of pipe > Only use this pipe cutter for cutting PEX-Al-PEX pipes in sizes 40-63mm 	

Pipe Bending Tools

- > The ChillPex piping system may be bent with a maximum bending radius of 5 times the pipe Outside Diameter (OD).
For example, a length of 20mm pipe can have a bending radius of not less than 100mm ($5 \times 20 = 100$) or a 32mm pipe a bending radius of not less than 160mm ($5 \times 32 = 160$).
- > In addition it is important to note that Copper tube benders may also be used to successfully bend ChillPex product. For example an 18mm copper bender can be used for 16mm ChillPex pipe, 20mm copper bender for 20mm ChillPex pipe, etc.

Product Code	Product Description	
GPZ-EXSP-16	16mm External Bending Spring	
GPZ-EXSP-20	20mm External Bending Spring	
GPZ-EXSP-25	25mm External Bending Spring	
GPZ-EXSP-32	32mm External Bending Spring	
GPZ-WH-1216	16mm Internal Bending Spring	
GPZ-WH-1620	20mm Internal Bending Spring	
GPZ-WH-2025	25mm Internal Bending Spring	
GPZ-WH-2632	32mm Internal Bending Spring	

Pipe bending tools for Water Pex piping systems

Pressing Tools

> The Couta Group supplies a range of high quality manual and battery pressing tools for the ChillPex piping system. All the jaws for the ChillPex piping system are a designated "U"-profile. Spare jaws can be purchased as required.

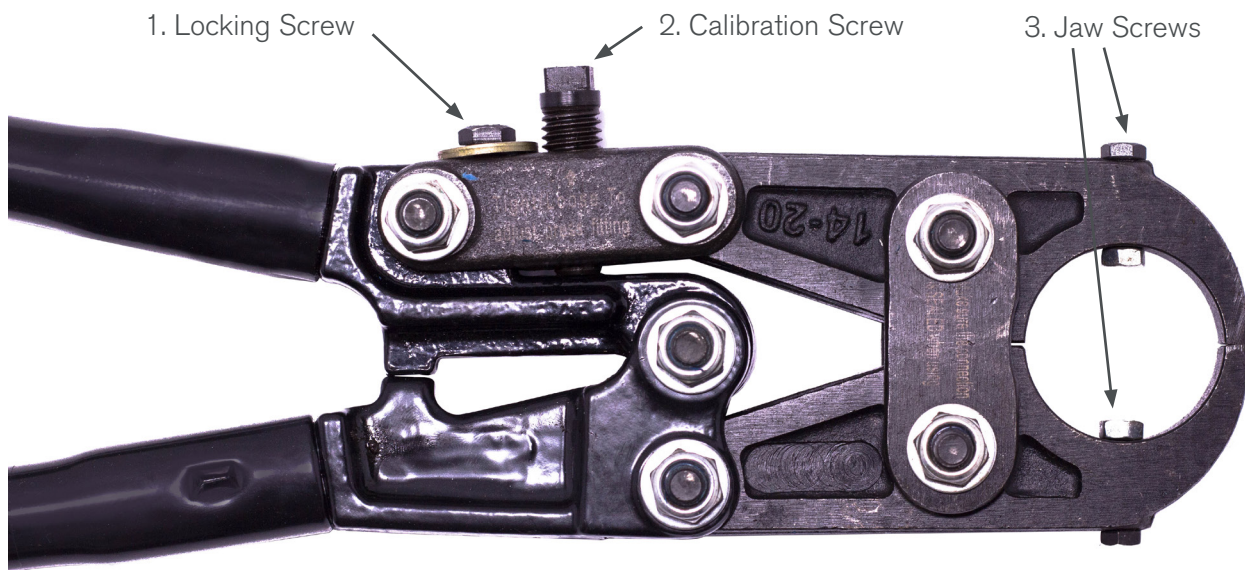
<div>Manual Pressing Tools</div> <div><div><div>> The manual pressing tools come in kit forms and include all jaws and reamers required to get the job done.</div><div>> High quality and inexpensive manual tools for crimping 16-32mm ChillPex piping systems</div></div></div>	<div>GPZ-32AKIT</div> <div></div>
<div>Battery Pressing Tools</div> <div><div><div>> Battery pressing tools are available in both kit form or alternatively tool and jaws can be purchased separately</div><div>> Mini battery tools available for crimping 16-40mm ChillPex piping systems</div><div>> Large battery tools available for crimping 16-63mm ChillPex piping systems</div></div></div>	<div>GPZ-REM</div> <div></div>

Note: All the jaws for the ChillPex Systems are designated "U"-profile. Spare jaws can be purchased for both tools as required.

Set up and operating instructions for manual pressing tools

Our Manual Pressing Tool kits are consistent in their set up and operation. Tools need to be calibrated prior to use and the calibration process is similar across our tools.

Lengthened manual pressing tool with key part names

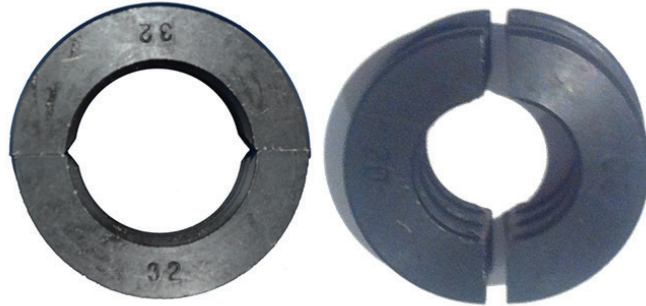


ChillPex Installation and Training

a) Preparation for use

Choose the correct pressing jaws. The correct jaws must be chosen for the pipe size to be jointed. For 16mm pipe joint, use the 16mm jaws, etc. The jaws are engraved on the face to show the sizing for the pipe outer diameter.

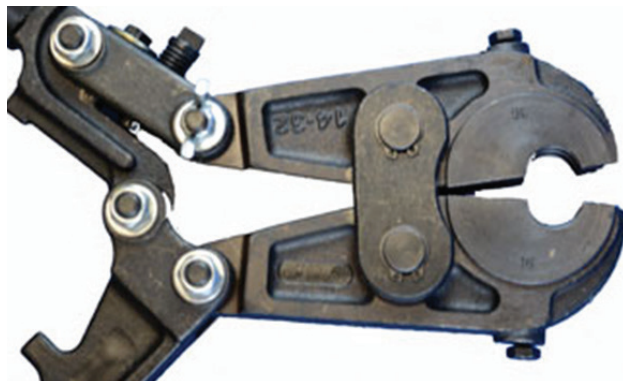
Pressing jaw with
engraved sizing on face



b) Mount pressing jaw on to clamp

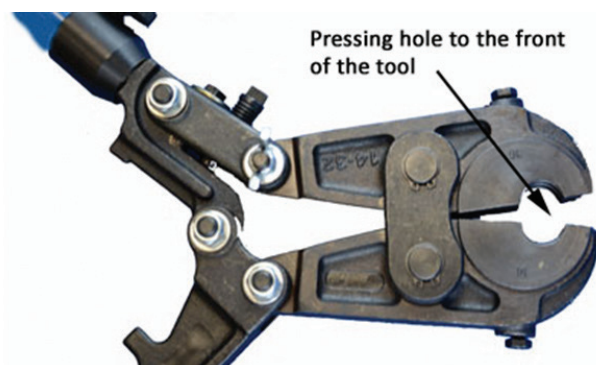
Open the handles of the pressing tool and undo the Jaw screws (part number 3) so that the jaws can be inserted into the clamp head.

Pressing jaw with
engraved sizing on face



Position the two jaws in the clamp head ensuring that the two jaws are evenly positioned and the specification number on each of the two jaws is facing up. Then retighten the screws to fix the jaw.

Pressing hole to front
of tool



ChillPex Installation and Training



Pay attention to the jaw direction ensuring that the centre of the pressing hole is adjacent to the jaw opening direction.

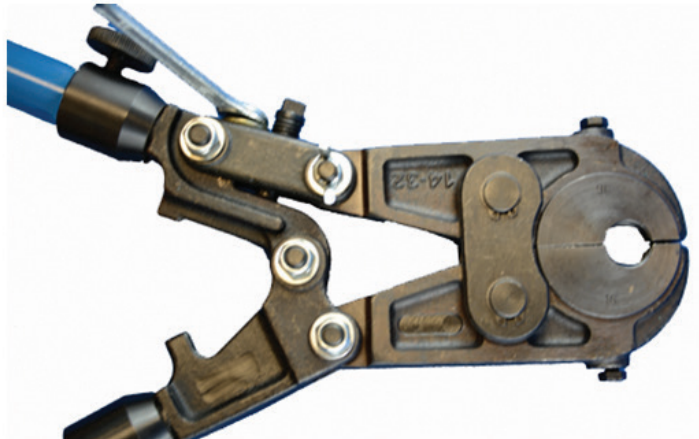
c) Check the calibration of the tool

Try to close the clamp without a fitting or pipe in place. The appropriate Trial-Clamping-Force required to fully close the clamp jaws should be about 20Kg. This will require firm pressure to close the jaws and handles fully. If closing the handles requires only light pressure then the clamp will need adjustment before use. Please refer to next step for how to adjust.

d) Adjustment of the crimping force of the manual tool

Open the clamp and loosen the "locking screw" (part No. 1) anti-clockwise for about 3 turns.

Pressing jaw tool
with clamp



If the Trial-Clamping-Force was too loose, you should turn the "calibration screw" (name No. 2) clockwise for about 1/4 turn.
If the Trial-Clamping-Force is too great, then you should turn the "calibration screw" anticlockwise. You should repeat this process until the Trial-Clamping-Force is around 20kg – requires firm force to close.

Pressing jaw tool
with clamp open



ChillPex Installation and Training



The calibration screw should not be touched again when the Trial-Clamping-Force reaches 20Kg. The clamp should be immediately locked using the locking screw.

Close the clamp and tighten the 'locking screw'.

With the preliminary adjustment of the tool now complete, it is important to confirm that the crimping is sufficient by completing a joint using the required sized pipe and fitting and testing with a gauging tool supplied in the tool kit.

Gauging tool



The gauge should slip over the grooves in the sleeve of the crimped fitting without touching the sides. If the tool scrapes the stainless steel sleeve, needs force, or simply will not go over the crimped sleeve then the fitting has not been fully crimped. In these cases the tool must be recalibrated and the joint re-crimped.

Notes for operation

It is not necessary to use lengthened handles when pressing fittings no bigger than 25mm. Lengthened handles are necessary for pressing fittings 32mm. When pressing fittings, the contact points on right and left handles (see main part name No. 10 and 11) must contact.

Adjustment should be made on the following occasions:

- > First use of the tool
- > Every time heads are changed
- > Every 60 crimps
- > Each day prior to use
- > The closed clamp handles can be opened freely with little or no force

The clamp should be maintained periodically by cleaning and adding lubrication oil to pins (key part No. 3, 5,6,7). As a minimum this should be done once every month.

After adjustment, the nominal operating force applied for crimping the fittings is shown in the following table:

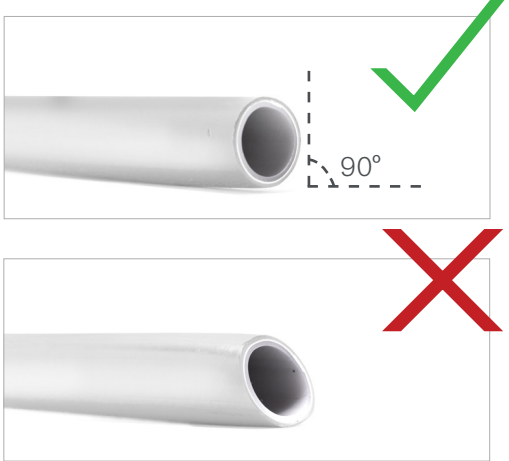

Product Specification	16mm	20mm	25mm	32mm
Operation Force (kg)	20	32	40	45

Nominal operating force applied for crimping the fittings

Installation Procedure for ChillPex System

Pipe Preparation

Cut the pipe to the required length ensuring that the cut is square (perpendicular to the length). Use the GPZ-SC1 cutter or equivalent for 16 through to 32mm pipe. The GPZ-QGQ cutter is easiest when working with larger bore piping systems

<p>Pipe end profile with appropriate right angle cut</p>		<p> Always check that the pipe end profile has been cut square.</p>
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Rounding and Bevelling

The reamer tools have the dual purpose of "rounding" the pipe after cutting and then bevelling the inner lip of the pipe to allow easy insertion of the fitting to prevent damage of the O-ring during insertion into the pipe.

Using either the plastic or metal reamer, insert the correct sized reamer into the pipe, turning as you go. This will round the pipe. Push the reamer down and continue to turn so that the reamer bevells the inner lip of the pipe. You should see pex swarf being generated at the shoulder of the reamer. Continue to ream for 3-4 turns.

Plastic reamer inserted into pipe



Rounded piping after use of reamer



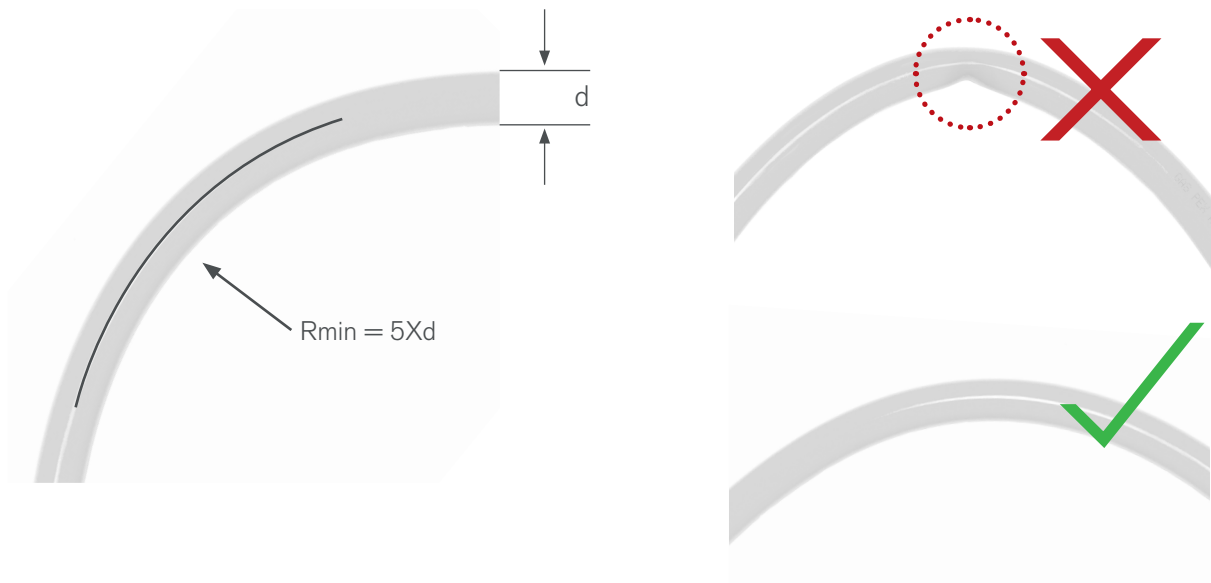
Always check the pipe has been rounded by the reamer and bevelled smoothly. Also ensure the swarf has been removed from the pipe to ensure it does not interfere with crimping of the joint.

Installation Procedure for Chillpex System

Creating pipe Bends

Bending of the pipe may be accomplished by hand with an internal or external bending spring or copper tube benders. Bending springs are available within our range of products. It is very important to note that the minimum bending radius for pipe is $5 \times D$ where D is the nominal outside diameter of the pipe.

Bent piping



If you want to bend the pipe by hand then this is possible although not the recommended method. A bending spring is preferred.
If bending the pipe by hand it is recommended that you keep your hands 40cm (16 inches) apart during the bending process. Create the bend slowly taking care not to kink the pipe or exceed the minimum bend requirements.



If bending with an internal bending spring, insert the bending spring inside the pipe remembering to leave a minimum of 2 inches of the spring extruding from the pipe – this is necessary so that you are able to easily remove the spring after creating the bend. Create the bend ensuring that the bending radius is not less than $5 \times$ the outer diameter of the pipe. Remove the bending spring when completed.

Where an external bending spring is to be used to create the bend, insert the pipe into the bending spring and move the spring so that it centres on the point at which you require a bend. Create the bend ensuring that the bending radius is not less than $5 \times$ the outer diameter of the pipe. Remove the bending spring when completed.

Installation Procedure for Chillpex System

Connecting pipe and fittings – Sizes 16 through to 32mm

Check the fitting and pipe- The pipe end should be rounded and bevelled as previously described and the size of the fitting and pipe to be joined must be identical, e.g. 20mm fitting joined to 20mm pipe.

Push the pipe straight on to the fitting (do not “screw/turn” the pipe on to the fitting) until the pipe shows fully past the witness mark of the sleeve.

At this point, the joint is now prepared for crimping.

Piping placed fully past witness mark of fitting sleeve



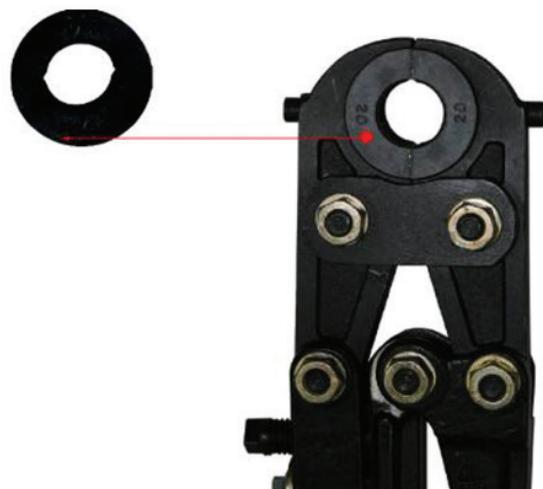
The Couta Group disclaims any responsibility or liability for product failures due to the use of any unauthorized tools or the mixing and matching the pipe and/or fittings of other manufactures with Couta Group systems.

Ensure that your crimping tool has been adjusted as recommended. Verification/calibration of the tool should be made on the following occasions

- > First use of the tool
- > Every time heads are changed
- > Every 60 crimps
- > Each day prior to use
- > The closed clamp handles can be opened freely with little or no force

Also ensure that the correct sized jaw has been fitted to the tool.

Tool and corresponding jaw



Installation Procedure for Chillpex System

Position the jaws so that the face of the jaw abuts the plastic isolating ring.

Positioning of jaw in relation to isolating ring



Fully close the handles of the crimping tool until the handles lock into their final position. Open the handles and remove the pressing tool from the fitting. Check the crimp using the gauging tool and if ok the jointing is complete.

Resulting crimped joint



The Couta Group has tested and approved the use of Novopress, Klauke, Rothenberger and REMS battery tools for effective crimping of these larger joints. Jaws are to be U-profile. Other brands of crimping tool have not been fully tested with our systems.

These Installation Guidelines outline common installation situations. Situations not covered in this document should be referred to the Couta Group for further information.

If Users meet any new case or have any questions on the above guidelines, please do not hesitate to contact The Couta Group by phoning 1300 761 916 or via email on sales@coutagroup.com.au

Testing and Commissioning of the installed ChillPex Service

Testing and commissioning of a water service shall be in accordance with Clauses 2.24.2 and 2.24.3 of AS/NZS 3500.5:2012

After testing has been completed, all fittings should be visually checked for leakage. Results of testing **MUST** be recorded on a test report or job sheet. The report must include name of job site and location of test, date, time, test parameters and testing results. The test report must be attached to the job file for later reference if required.