

EDITION .01

# WaterPex INSTALLATION PROCEDURE

For WaterPex Multilayer  
Pex/Al/PeX and PeX-b with F5 Fittings



*If it's Couta... It's the Best!*







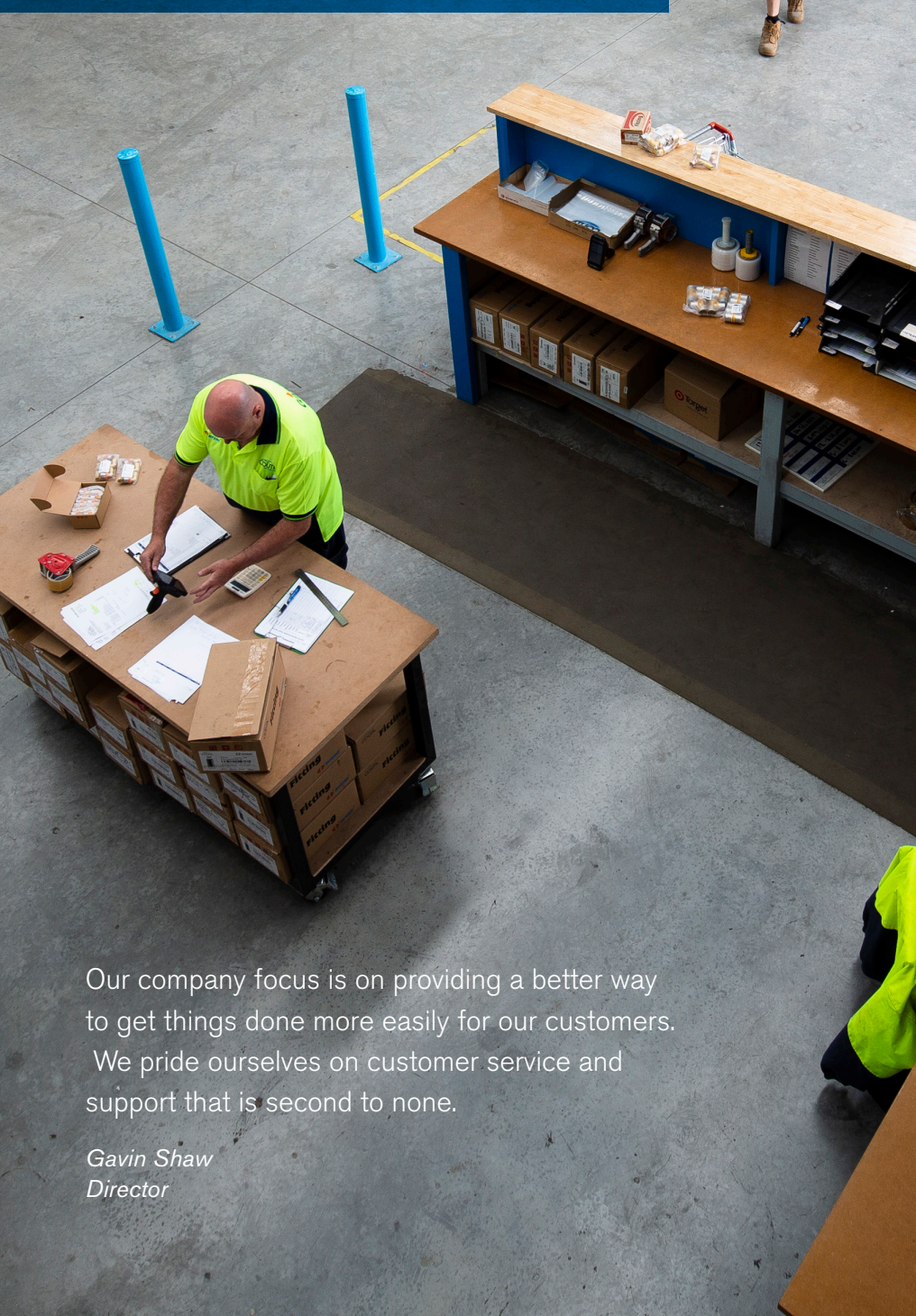
# Our job is to make your job easier.

## Installation Procedure for Waterpex Multilayer Pex/Al/PeX and PeX-b with F5 Fittings

### Contents

---

1. Cutting of the pipe
2. Bending of the pipe
3. Reaming of the pipe
4. Insertion of the pipe onto the fitting
5. Crimping of the fitting
6. Inspection of the crimp
7. Testing
8. Installation faults
9. Common installation faults that lead to leakage and failure of joints



Our company focus is on providing a better way to get things done more easily for our customers.

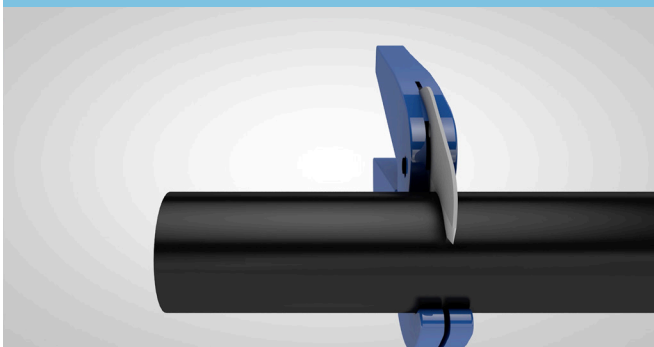
We pride ourselves on customer service and support that is second to none.

Gavin Shaw  
Director

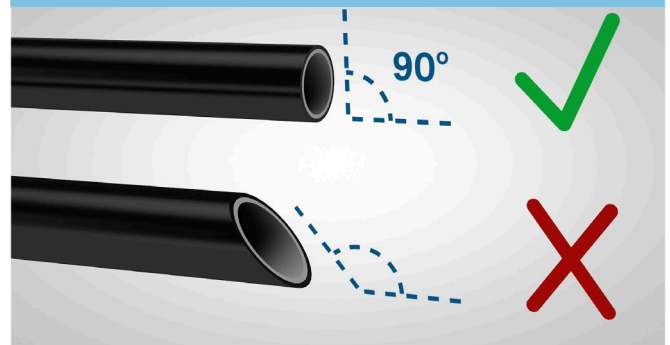


## Step 1. Cutting of pipe

Use your pipe cutting tool to cut the pipe to your desired length.

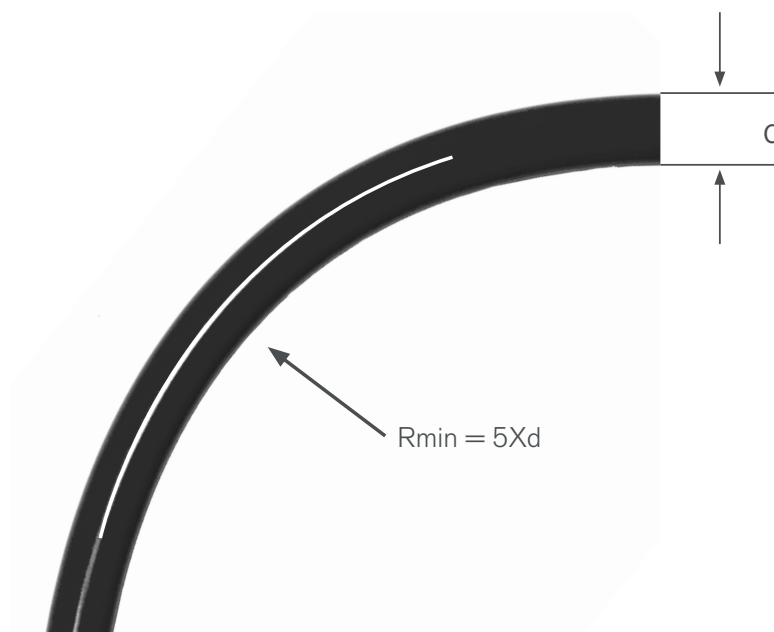


Ensure you have a 90° degree cut.



## Step 2. Bending of the pipe

When bending the pipe the minimum bending radius is  $5 \times D$  where  $D$  is the nominal outside diameter of the pipe. Bending may be accomplished by hand with an internal or external bending spring or a copper tube bender.



## Step 3. Reaming of the pipe

The plastic and metal reamers perform 2 functions. The first function of the reaming tool is to round the pipe. The 2nd function of the reaming tool is to bevel the leading edge of the pipe to prevent damage to and rolling of the o-rings when the pipe is pushed on to the fitting.

To ream pipe correctly, push the reamer fully in to the pipe rotating it as it is inserted. Rotate the reamer at least 2 full turns to bevel the edge and then continue to turn the reamer as it is withdrawn from the pipe. When correctly reamed, the pipe will look as pictured left.



Triangular plastic reamer



Metal Drill Reamer

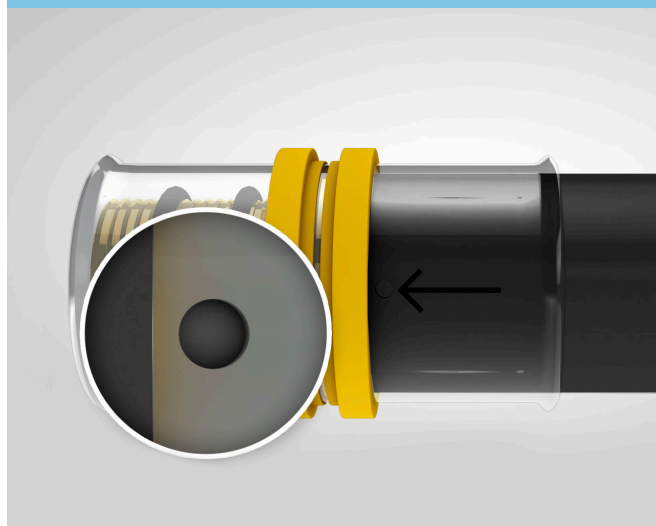
There are 2 types of reamers available. A plastic reamer as shown to the left or metal reamer shown below. The advantage of the metal reamer is the handle can be removed and it can be put in a drill for ease of use.



## Step 4. Insertion of the pipe onto the fitting

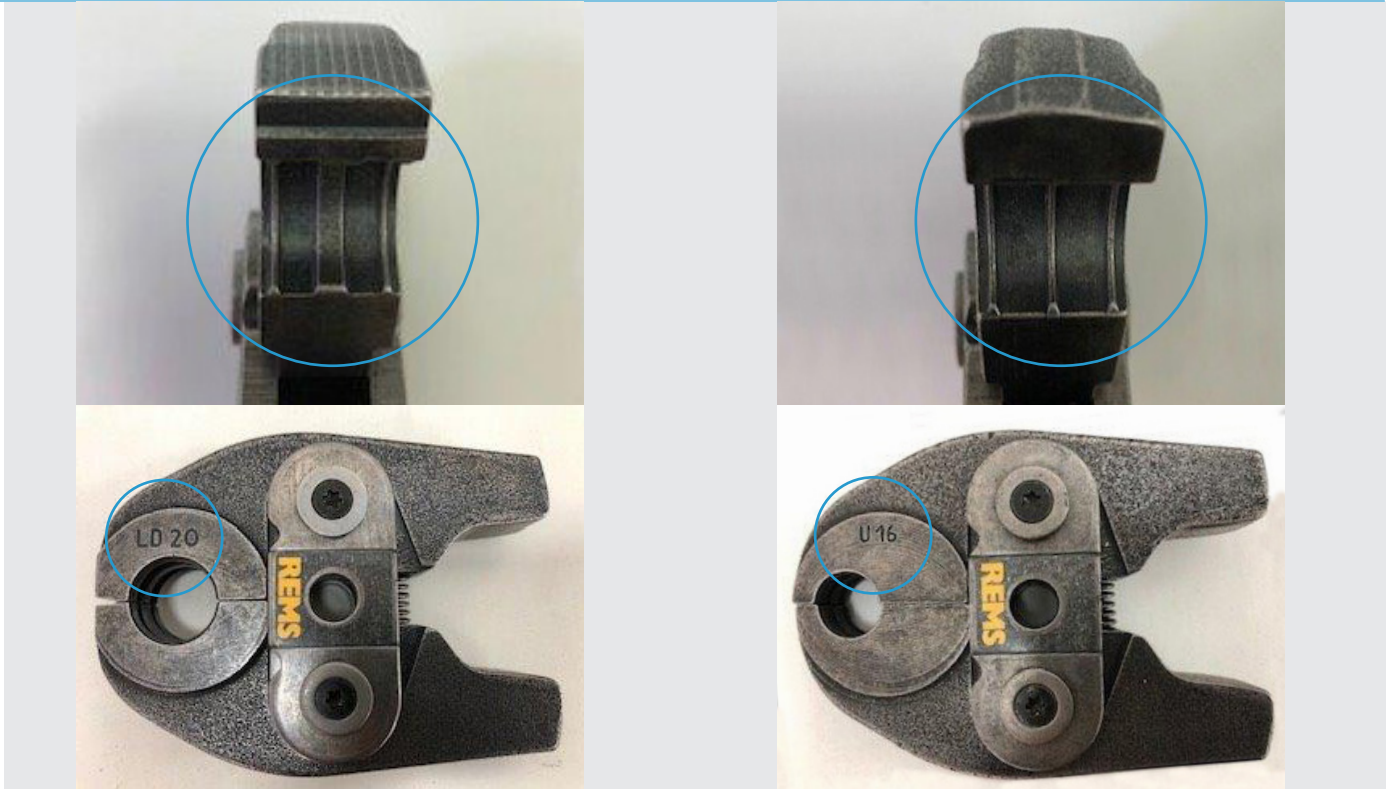
Push the pipe fully over the fittings so that it can be seen in the witness holes.

40mm & 63mm fittings do not have witness holes so you need to push the sleeve over the pipe after cutting reaming and bevelling and then slide the sleeve onto the fitting so the end of the sleeve goes into the yellow retainer.



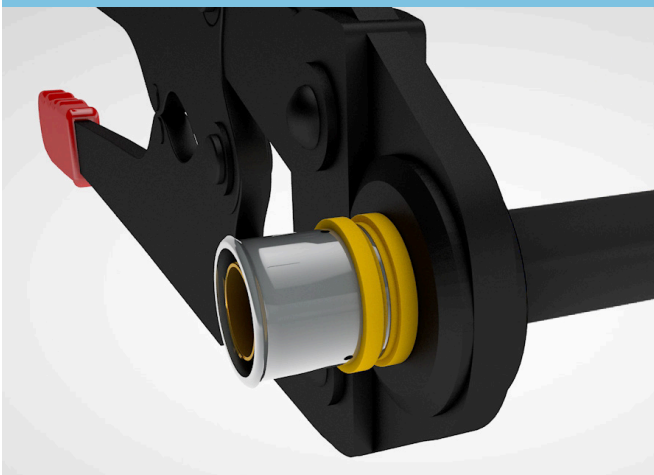
## Step 5. Crimping of fitting

There are 2 profile tongs that are approved by The Couta Group. U profile tongs have the letters U stamped on the face followed by the OD of the pipe to be used with. E.g. U 16  
This is the tong for 16mm fittings.

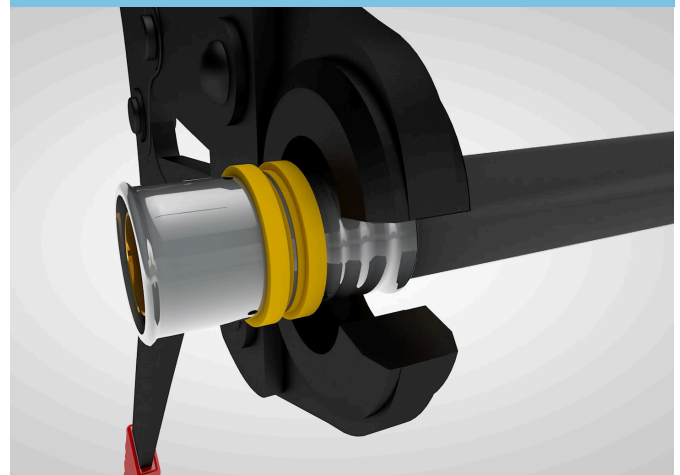


LD profile tong has the letters LD stamped on the face followed by the OD of the pipe that is to be used with. E.g. LD 20 - this is the tong for 20mm fittings

To correctly crimp the F5 fitting on to the WaterPex multilayer or Pex-b pipe, the tong must be placed hard up against the yellow retainer before proceeding to crimp.

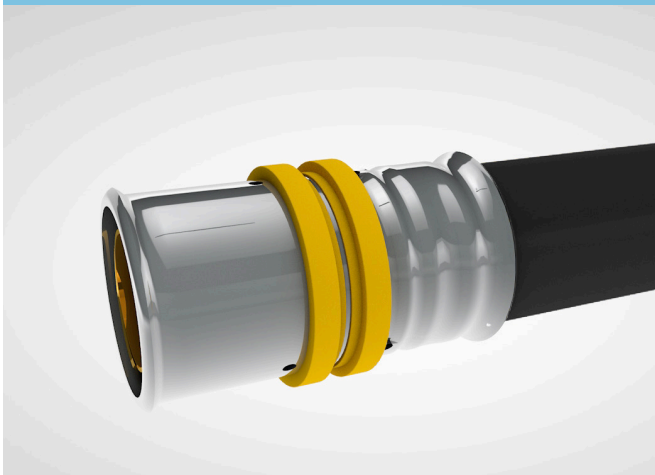


Once the tong is in position, fully close the tong to complete the crimp.  
You need only crimp once.



## Step 6. Inspecting of the crimp

A successful crimp is when the pipe has 3 crimp lines as shown in the photo.



Check the crimp with the gauging tool. The gauging tool should slide easily over the crimp and rotate without force. If this does not occur, the crimp joint has been insufficiently crimped and the tool may need calibrating. Check correct calibration of the tool after the first crimp and after 60 crimps or at the start of each day.



## Step 7. Testing

Visually check the installation and then pressure test the WaterPex systems as per AS/NZS 3500 Plumbing & Drainage-Housing installation code. This specifies a test pressure of 1500 kpa for 30 minutes with no pressure drop observed.

It is recommended that you use the SafeGuard testing system for your hydrostatic testing needs. Safeguard is a hydrostatic testing solution that provides a digital records of all tests and demonstrates that the job has been tested and conforms to requirements

## Step 8. Installation faults

If the pipe is not reamed and beveled you will damage/and or roll the O rings when you push the pipe on to the fitting. This will result in leakage of the joint.



If the pipe isn't cut at 90 degrees then you will be unable to ream the pipe correctly. This will then result in the o-rings being damaged when you push the pipe on to the fitting. Damaged o-rings will cause leakage of the joint.



If the pipe is not visible through the witness holes this will likely result in leakage and/or total failure of the joint over time



If you do not place the tongs hard against the yellow isolation ring before crimping, the crimp will be in the wrong position. In extreme cases there maybe only 2 crimp lines on the fitting. This will result in leakage or complete failure of the joint.





## Step 8. Installation faults

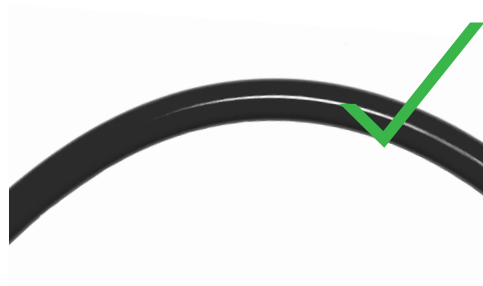
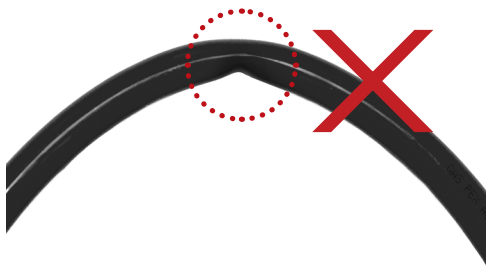
If the tongs have been correctly placed hard up against the isolating ring before crimping, you will see 3 crimp lines on the sleeve with the 1st line (closest to the isolating ring) passing through the witness mark as pictured.



If the gauging tool does not easily fit over the finished joint then it has not been sufficiently crimped and the joint will likely leak or fail in use. If this occurs then you will need to recheck the calibration of the tool.



If you kink the pipe while bending you must cut it out.





## Step 9. Common installation faults that lead to leakage and failure of joints

Pipe not cut at 90 Deg.

Pipe not reamed correctly.

Pipe not inserted all the way onto the fitting and is not visible in the witness holes.

Tong has not been placed correctly against the yellow isolation ring before crimping.

Tool not calibrated.

No visual check of fittings and not pressure tested.

