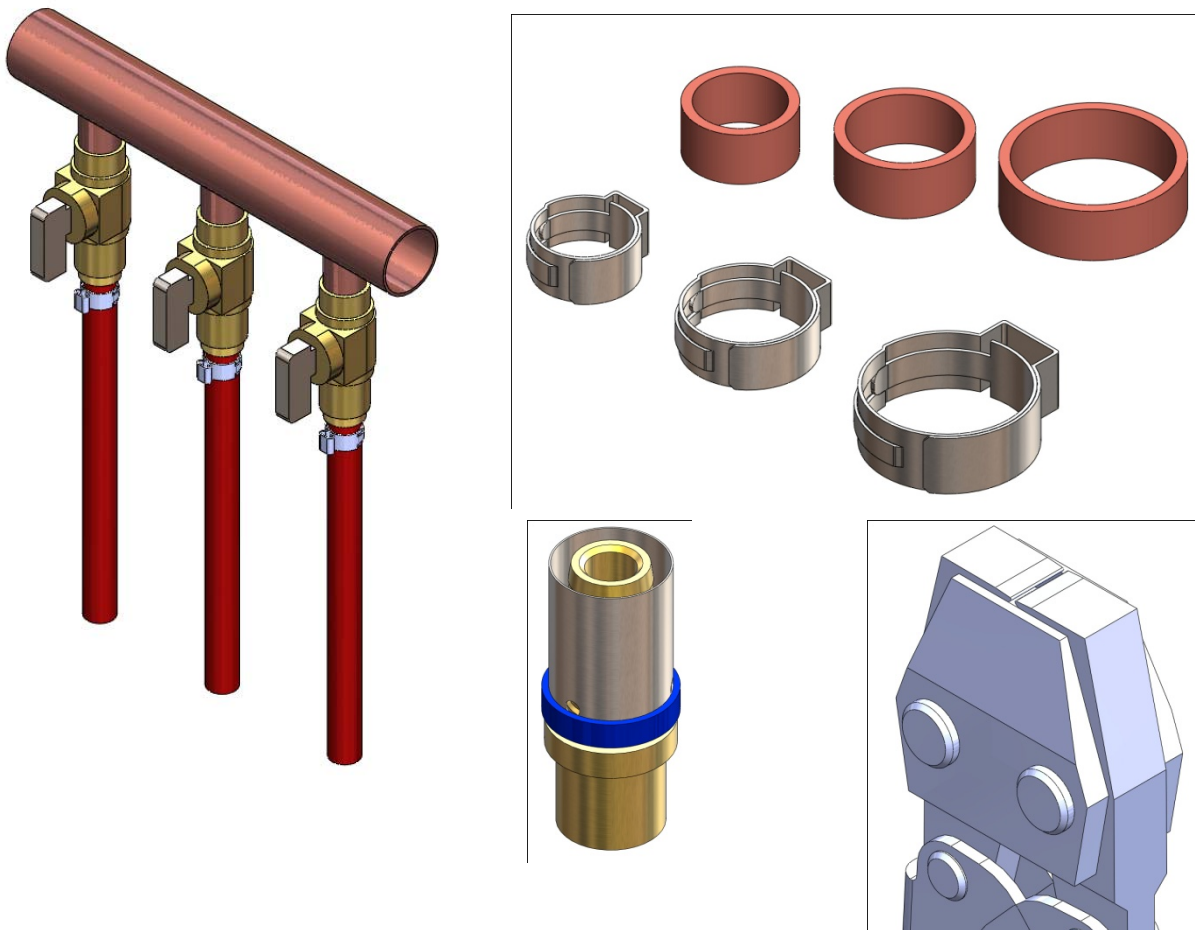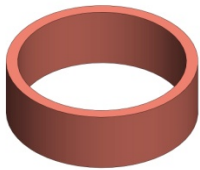# Product Guide

Crimp Fittings
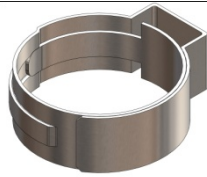
Version (A)

Introduction

Infloor carries a complete line of crimp fittings for PEX and PAP tubing. This document covers the differences between the different methods, the tools and the various parts Infloor carries for this type of fitting.

Crimp Fittings

There are three different types of crimp fittings that are available; two for PEX tubing and another set for PAP fittings. A summary of which crimp ring goes with which crimp tool is shown below:

Crimp Rings

Part Number	Size	Crimp Tool Part Number
24000	3/8"	26020
24001	1/2"	26021
24002	3/4"	26022
24003	1"	26023

Clamp Rings

| Part Number	Size	Clamp Tool Part Number
24005	3/8"	
24006	1/2"	
24009	5/8"	26025
24007	3/4"	
24008	1"	

PAP Crimp Fittings

PAP crimp rings come with the fittings. A crimp tool is required along with a set of jaws that are sized for crimping the ring.

Part Number	Size	Crimp Tool Part Number
24540	1/2"	
24542	3/4"	24538
24543	1"	
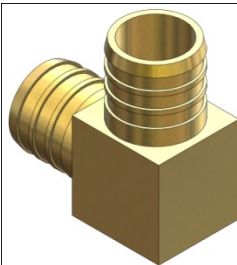
PAP Crimp Fittings

A smaller tool is offered for 1/2" PAP only.

Part Number	Size	Crimp Tool Part Number
24536	1/2"	24535

If you are working with PEX, there is basically no difference between using the crimp rings and clamp rings in terms of performance of the joint. Crimp rings are slightly cheaper, but require a different tool for each size, where as the clamp rings are a little more, but require a single tool. Both systems use the same barb fitting.
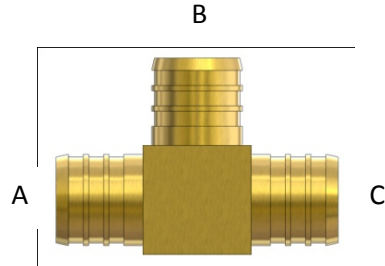
Many different fittings are available to adapt PEX to a pipe thread, sweat, or to another section of PEX. The fittings have a common barb on them for different sizes of PEX. Be sure to order the fitting for the size PEX you are using, as the barbs are not interchangeable between different sizes of PEX. A summary of the different fittings offered by Infloor and their part numbers are shown on the following page.
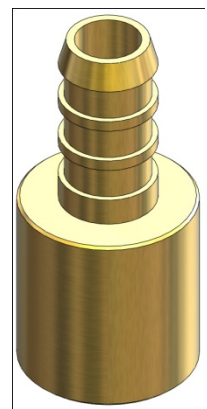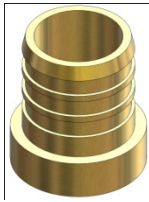
Crimp Couplings

Part Number	Side 1 Size	Side 2 Size
24010	3/8"	3/8"
24012	1/2"	1/2"
24013	1/2"	3/4"
24014	3/4"	3/4"
24015	1/2"	3/8"
24016	1"	1"

90° Couplings

Part Number	Size
24020	3/8"
24021	1/2"
24022	3/4"
24023	1"
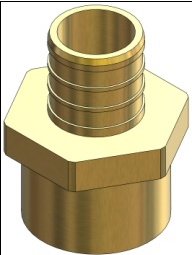
Crimp Tees

Part Number	"A" Size	"B" Size	"C" Size
24030	3/8"	3/8"	3/8"
24031	1/2"	1/2"	1/2"
24032	1/2"	1/2"	3/4"
24033	3/4"	3/4"	3/4"
24034	3/4"	3/4"	1/2"
24035	3/4"	1/2"	3/4"
24036	3/4"	1/2"	1/2"
24037	1"	1"	1"
24038	1"	1"	3/4"
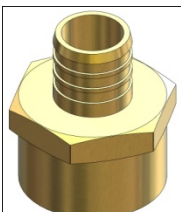
Plugs

Part Number	Size
24041	1/2"
24042	3/4"
24043	1"

Copper Fitting Adaptor (MSWT)

Part Number	PEX Size	Copper Size
24051	3/8"	1/2"
24052	1/2"	1/2"
24053	3/4"	3/4"
24054	1"	1"

Copper Fitting Adaptors (FSWT)

Part Number	PEX Size	Copper Size
24061	1/2"	1/2"
24063	3/4"	3/4"
24064	1"	1"

MPT Adaptors			
Part Number	PEX Size	MPT Size	
24070	3/8"	1/2"	
24071	1/2"	1/2"	
24072	1/2"	3/4"	
24073	3/4"	3/4"	
24074	1"	1/"	

| FPT Adaptors			
Part Number	PEX Size	FPT Size	
24081	1/2"	1/2"	
24082	3/4"	3/4"	
24083	1"	1"	

Using Crimp Rings

Slide the crimp ring over the PEX tubing and then slide the tubing over the barb on the fitting. Note the fit between the PEX tubing and the barb fitting is quite tight. Slide the crimp ring up over the barb so that it is about 1/8" away from bottoming out on the fitting. Slide the crimp tool over the crimp ring by pulling down on the handle to open the jaws fully. Make sure the crimp fitting is fully covered by the jaws of the crimp tool. Squeeze the handles of the crimp tool tightly until the tool bottoms out and remove the tool from the crimp ring.
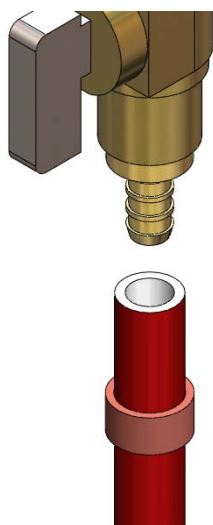
Step 1
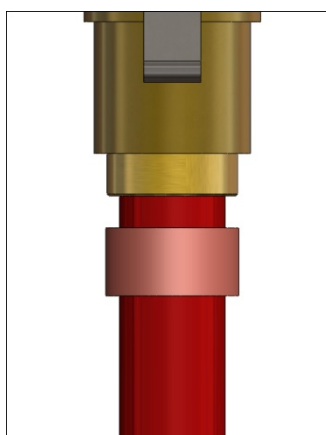
Step 2
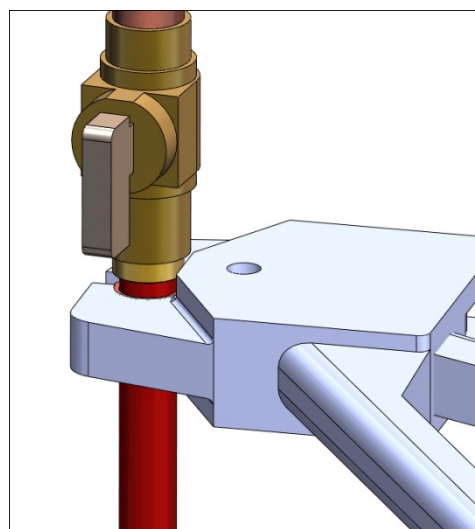
Step 3

Checking the Crimp Joint

A tool called a 'Go-No-Go Gage" is included with the crimp tools. It has three different sizes of slots to check if the crimp ring has been crushed enough, or too much. To use the gage, slide it over the crimp ring after it has been crimped in place. Be sure to not measure the bump in the crimp created where the jaws meet. Use the table below to determine the status of the joint.

Go	No Go	Status
Yes	No	Proper Crimp
No	No	Bad Crimp – Tool set too loose
Yes	Yes	Bad Crimp – Tool set too tight
No	Yes	Not possible - remeasure

If the tool needs adjustment, follow the instructions that came with the tool for proper adjustment. It is normal for tools to wear as they are used, so be sure to check all joints. Joints may not leak at first, but over time can leak if the crimp was not done properly. If a crimp is too tight, the only solution is to cut the tubing and the crimp ring out and redo it. For crimps that were not tight enough, the tool can be readjusted and aligned the same way on the fitting as it was the first time and the crimp tightened.
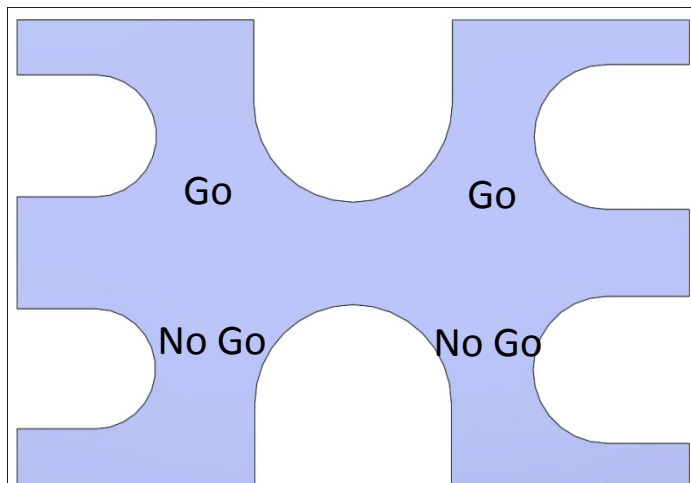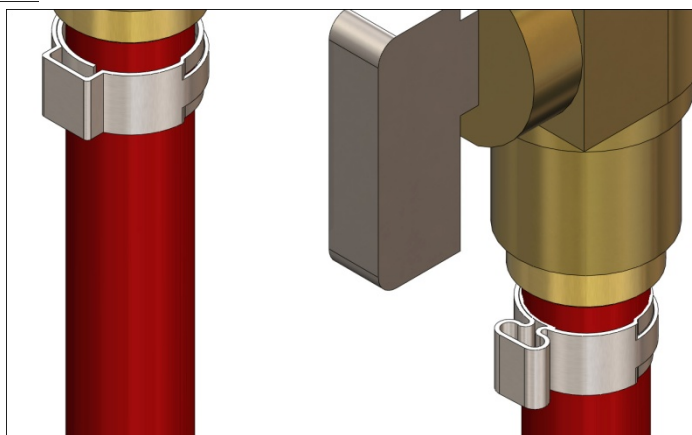
Using Clamp Rings

Clamp rings have the distinct advantage that one crimp tool will work for all sizes of tubing. To use the clamp rings, slide the ring over the PEX tubing and then push the PEX onto the barb fitting. Note that the PEX fits tight over the barb fitting. Position the clamp ring so that is about 1/8" below the bottom of the fitting. Using the crimp tool, squeeze the protrusion on the clamp ring until the tool stops and remove the tool. See the first two steps above for the crimp ring for how the clamp ring is to be positioned.
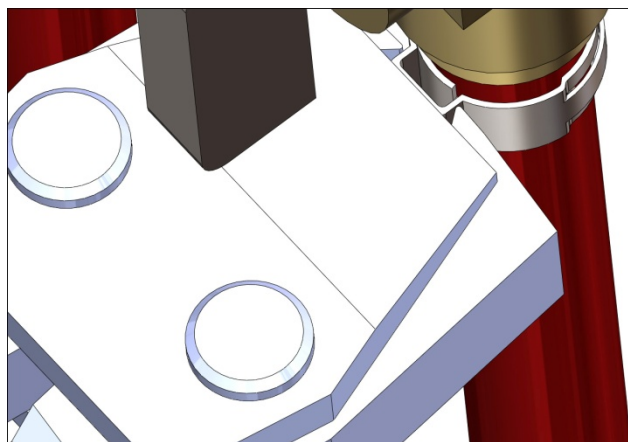
Step 3

Step 4 – Note difference between a new and crimped clamp ring

Checking Clamp Ring Tool

There is a similar gage that is included with the clamp ring tool. The gage is not used to measure the clamp rings, but rather the distance between the jaws on the clamp ring tool. The first section (thinner) of the gage should go into the jaws of the tool when it is in its fully closed position. The second section of the gage (thicker) should not go into the jaws of the tool. Use the table below to determine if the tool is calibrated correctly.

Thin Section	Thick Section	Status
Yes	No	Proper Calibration
No	No	Improper calibration – tool set too tight
Yes	Yes	Improper calibration – tool set too loose
No	Yes	Not possible - remeasure

Refer to the instructions included with the crimp tool for proper readjustment. Joints made with a tool out of calibration may leak. If the tool is set too tight, the only solution is to remove the clamp ring, cut off the section of tubing that was clamped and start over with fresh tubing and a properly calibrated tool. For rings that were not clamped enough, reclamp with a properly calibrated tool.

PEX-Aluminum-PEX (PAP) Crimp Fittings

Infloor's PAP fittings use a different type of barb and crimp ring than PEX tubing does. The two systems are *not* interchangeable with each other, so be certain to order the correct fittings for the tubing that you are using. The PAP fittings come with the crimp ring held in place with a plastic ring, so there is no additional ring to purchase when using PAP.   The seal with PAP on the barb is with two o-rings, so the seal is somewhat more forgiving in how it gets crimped. There is no tool to check the crimp ring for the proper crimp dimension.
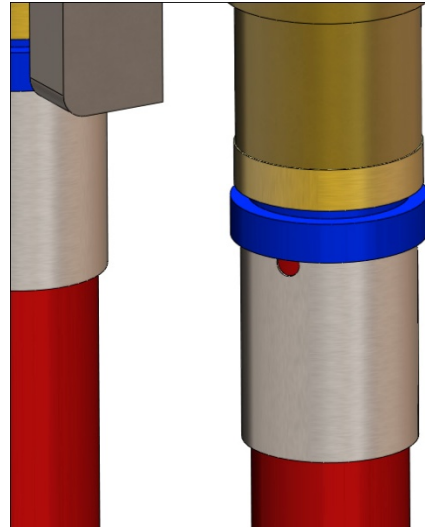
Two different crimp tools for PAP are offered, the difference being the length of the handle. The 24535 tool and the 24536 module have a short handle and are for 1/2" PAP only, where as 24538 tool has a longer handle and will work with all sizes of PAP with the appropriate die. There is a die which is bolted into the jaws of the tool for each size of PAP (refer to picture on the right). The die has the proper pattern for crimping that size of PAP and eliminates the need for multiple tools. In addition a reamer (24528 or 24529) is required to condition the tubing before it is inserted over the fitting.
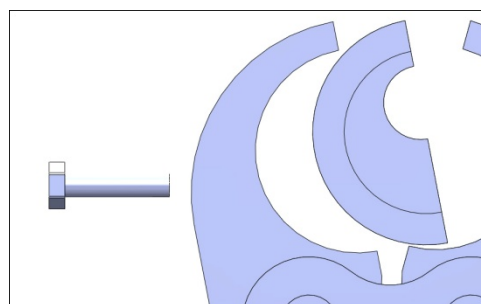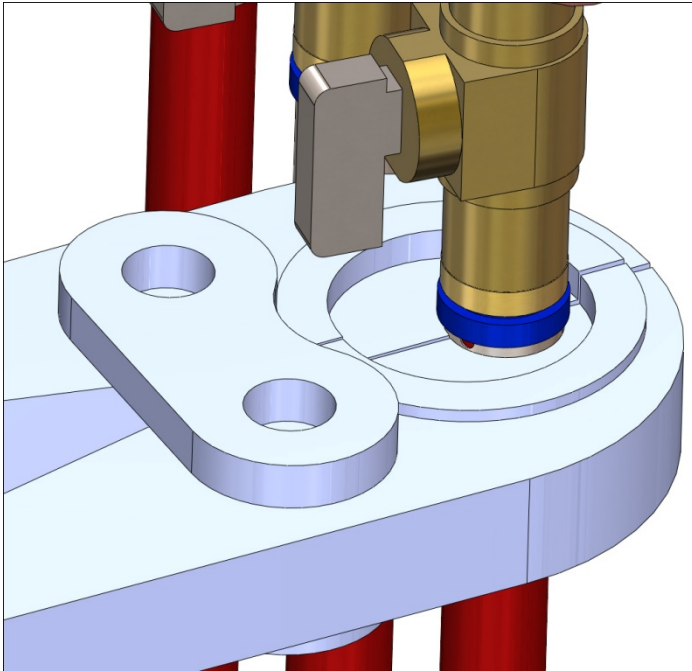
To use the PAP fittings, first insert the reamer in the end of the tube and rotate to create a small chamfer on the inside of the tubing. Remove the reamer and quickly slide the tubing on the fitting. The tubing should be inserted far enough so it can be seen through the holes on the crimp ring of the fitting. Insert the crimp tool over the crimp ring on the fitting and squeeze together until tight. There is no check required for the crimp.

Step 1

Step 2

Step 3