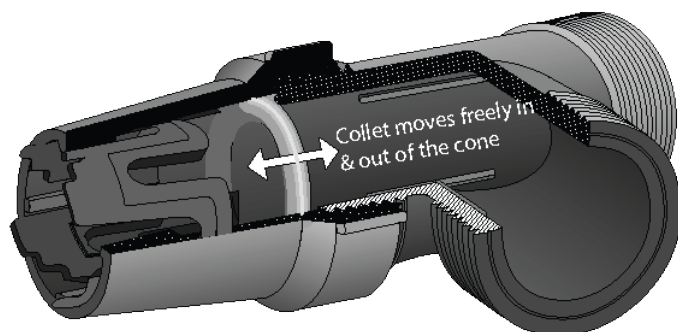


INSRUTIONS: Kiwitech Quick Connect 25mm Hydrant Tee (WF THY25)

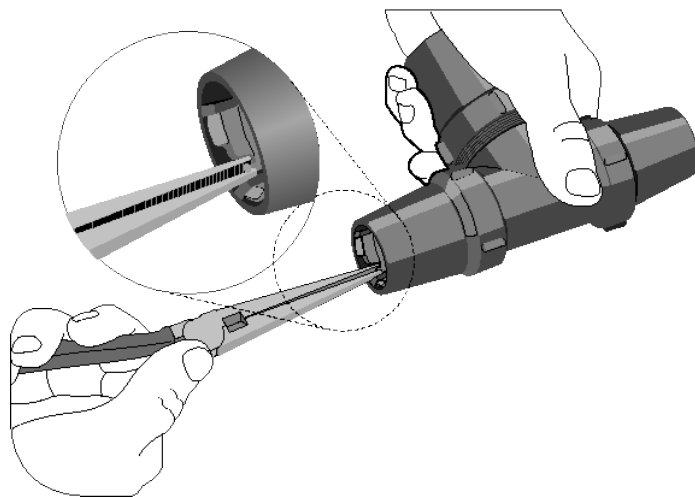
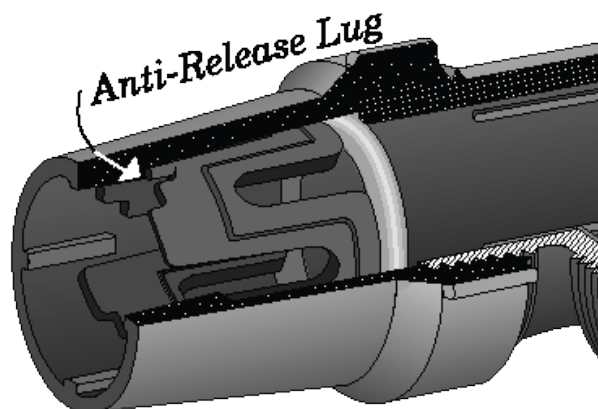
The fitting works best at pressures between 1 and 4 Bar (15-60 psi) and its native pipe fit is 25mm (ISO METRIC) or 20mm(3/4") Low Density Pipe (LDPE/Alkathene). Please read the section "Third Party Fittings and Pipe" for use of Low Density Pipe.

Our fitting is different so please read the instructions carefully first. The main difference is that you **Do not uncouple the collet and nut from the main tee body to install the pipe.**

Check the product first.



When you receive a hydrant put your finger inside the cone to feel that the seal is square and the collet is able to move back and forth with your finger - it is in its "unlock" position.

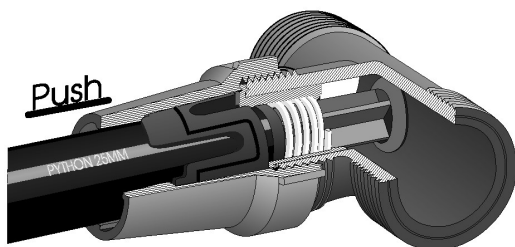


Does the collet still have the "anti-release lug" on it? This will mean you won't be able to pull the pipe out of the fitting. If working with the portable trough or a valve leg, you will want to remove this lug. You can do so using a flat screwdriver or some pliers.

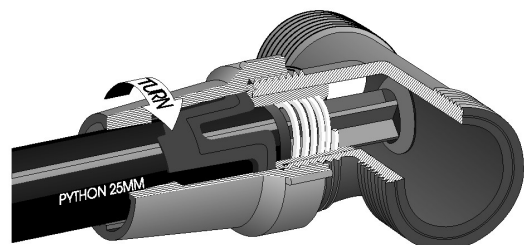
Test that the cone is tight enough - it should be just past hand tightness so you shouldn't be able to twist it off the tee.

Connecting pipe to the Kiwitech Hydrant Tee

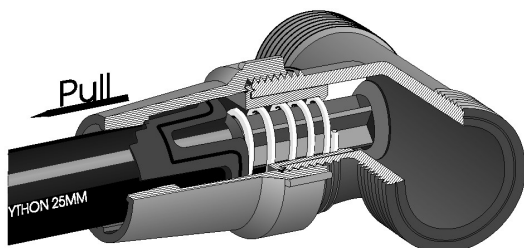
Whether plugging into the valve leg or any other leg of the hydrant, the process is the same. There are three distinct movements and is the same as if you were plugging in a bayonet light bulb.



Push the pipe in past the collet and seal. For the first few installations it is a good idea to mark on the pipe where it should finish after having been pushed inside the fitting. The length of pipe inside the fitting should be the same length as the cone (most people usually scratch mark the pipe using any tool at hand). This way you can be sure you have pushed the pipe past the collet AND seal.

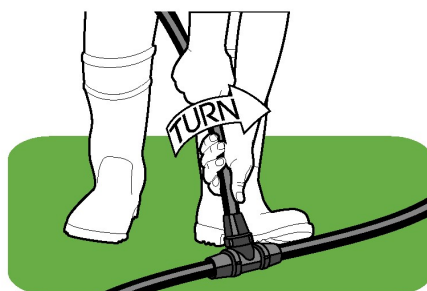


Turn the pipe clockwise. (Only about an 1/8th of a turn). The collet turns with the pipe so that the Collet Lugs are free to pass up the front voids of the cone



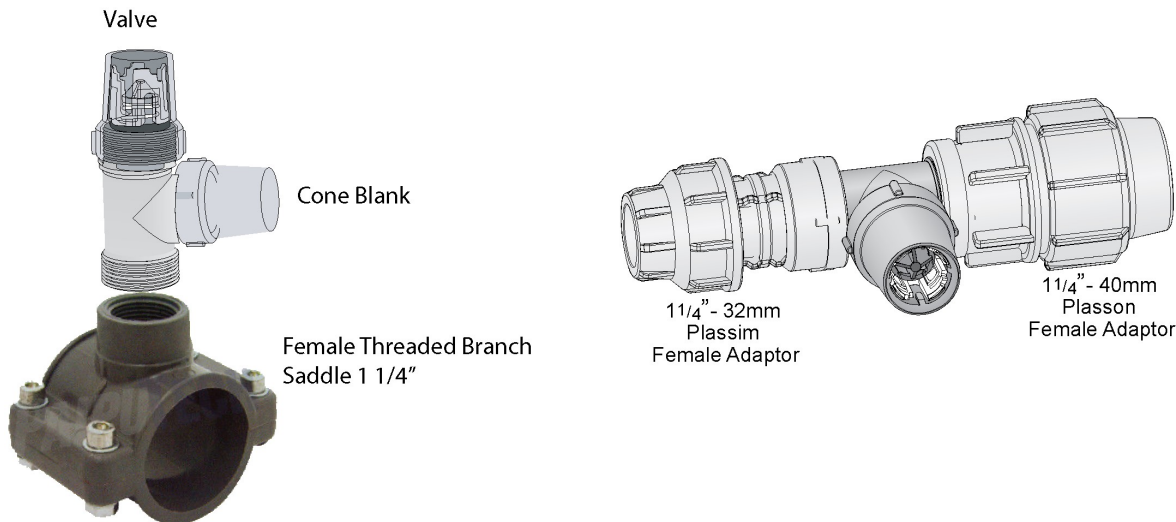
Pull the pipe out of the fitting. The collet lugs will follow and start to extrude past the cone compressing over the pipe. Water pressure will assist you.

Unplugging the pipe is the reversal of this process: Plant your feet securely on the permanent water line and hydrant. Push the pipe in, rotate it in an anti-clockwise direction and then pull. When you rotate it anti-clockwise the collet lugs get caught behind the struts of the cone so it can not grip onto the pipe as you pull it out.



Third Party Fittings & Pipe

The Kiwitech Hydrant Tee has a 1 1/4" BSP Male Thread and an internal bore equivalent to fittings of similar sizes. If you have larger pipe and you want to use the fitting, you will have to find an adaptor that suits your pipe and screws onto a male 1 1/4" BSP thread. The native fit for 1 1/4" is 40mm.



Finding pipe that will fit the Kiwitech Tee Hydrant

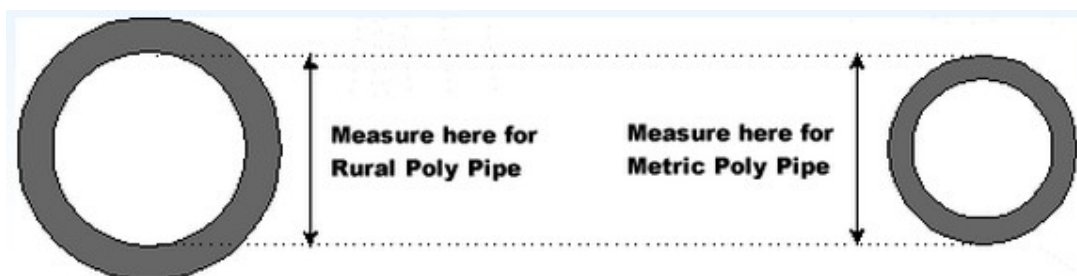
In NZ systems, we use 25mm Medium Density Polyethylene Pipe (MDPE) for our permanent water lines. This pipe lays under a fence so won't get trodden on and it is a good compromise between the larger bore of the High Density Poly and the usability of the Low Density Poly.

We use 3/4" (20mm) Low Density Polyethylene Pipe (LDPE) for connecting our portable trough into the valve leg of our hydrants which are spaced out along our permanent water line. We use low density pipe because it isn't prone to kinking like the MDPE pipe and it is softer so doesn't get damaged when animals stand on it. The internal diameter is smaller than the MDPE but it does not reduce flow significantly because it is only 8m long. The R100 portable trough includes 8m of this pipe.

The Kiwitech hydrant is a compression fitting so the outside diameter (OD) is very important. Even though metric pipe is described by international standards, manufacturers can sometimes go outside these specs (we've had this happen in NZ in the past). The OD of low density polyethylene is quite variable so it is good to test with our hydrant before purchasing a lot.

In NZ:

Alkathene™ or "Rural Poly" LDPE is the most common pipe used in NZ. It was the first generation of pipe and being an imperial dimension pipe, LDPE is known by its internal diameter (ID). In NZ, 3/4" LDPE has a similar outside diameter to 25mm MDPE or HDPE. Low Density Pipe is typically coupled by interference-fit (barbed/nipple) type fittings, such as the Easy Fit™ Hansen range of fittings. Variations between manufacturer specifications means that the outside diameter of LDPE is not consistent and the fit between your LDPE and our compression fitting may not be ideal though it will probably work. We sell our troughs with 8m of LDPE which we know is a good fit for our fittings.



Metric PE pipe

Manufactured to an international standard, metric PE pipes are described by their outside diameter (OD) and pressure rating (PN). There are a number of pressure series in this range, Metric PE pipes are manufactured from new generation PE resins, such as PE80 (MDPE/Medium Density Polyethylene) and PE100 (HDPE/ High Density Polyethylene), resulting in a decrease in wall section and larger pipe bore. The outcome is a constant pressure rating across the diameter range and improved flow rate i.e. Iplex Greenline on average delivers 30% more flow than NZ Alkathene™, given the same hydraulic gradient. External, push fit, metric compression fittings, such as the Plasson™ or Plassim™ range are used to couple these pipes and connect them to valves, pumps and other pipe systems components. By far the majority of modern high performance stock water systems are designed around metric PE pipes such as Greenline and Redline™.

In Australia:

LDPE pressure pipe: Australian standards are different from NZ standards and the Australian LDPE has an outside diameter that is too small for our fitting.

Metric PE pipe: Most metric pipe in Australia is HDPE (PE100) as the demand for MDPE (PE80) was not there.

Most Australians will adapt their low density to our low density via a third party fitting.

In the UK:

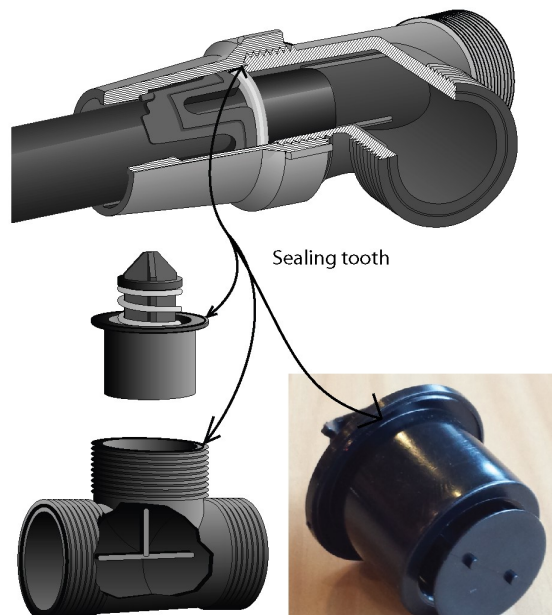
Trouble Shooting

We all know that water systems on farms can be very frustrating and when you can't see what's happening inside a water fitting, it becomes even more so. Here are some tips to help you figure out what could be going wrong.

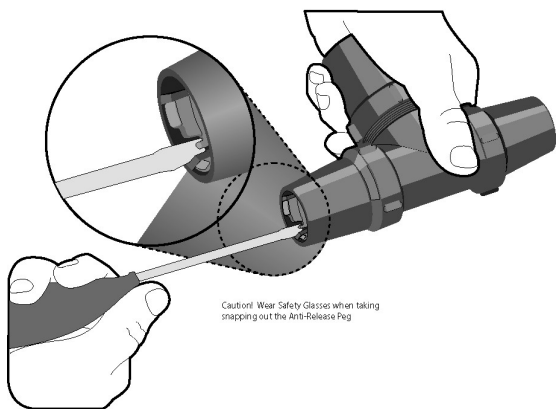
Pipe is plugged in but water is still leaking around a pipe:

The most likely cause is that you did not push the pipe through the seal. Sometimes it is quite hard to push pipe through the seal, particularly if you are using oversized low density pipe. You may want to keep measuring the pipe you are plugging into the fitting. Some silicon and chamfering the end of the pipe may also help for you to get through the seal if you are having difficulty.

Another cause could be that you tightened the cone onto the tee too tightly, squashing one of the sealing edges and allowing water to get around the outside of the pipe. The cone could also be too loose on the tee body- this is particularly problematic because it twists when the collet twists so you can't get into the lock position.



The pipe won't come out of the fitting when I try the usual de-coupling process:



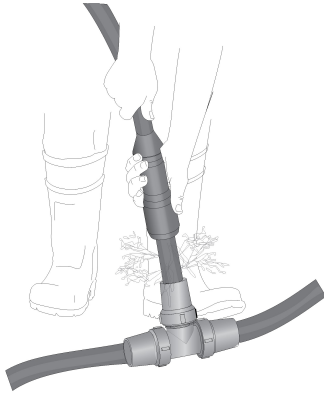
Caution! Wear Safety Glasses when taking snapping out the Anti-Release Peg

Check that the anti-release peg has been taken off the collet.

The collet could be a little too grippy on the pipe. The collet has sharp teeth on the inside following the line of the ridges – they help seal the pipe. Usually you are using medium or high density on the legs of the hydrant that are permanently fixed to the pipe so this sharpness is beneficial. When using our portable troughs, they are usually used with low density pipe (alkathene) which is softer. The first time you plug into the valve end of the hydrant you may find the collet grips a little too well to the

pipe (particularly under high pressure conditions when you are trying to unplug the pipe). If you are having difficulties, you can dull the sharpness of the collet teeth by plugging a bit of medium density pipe in and out of this leg a few times.

Your pressure at the fitting may be too high for you to push the collet back enough to get caught behind the cone struts during the first step in the uncoupling procedure.



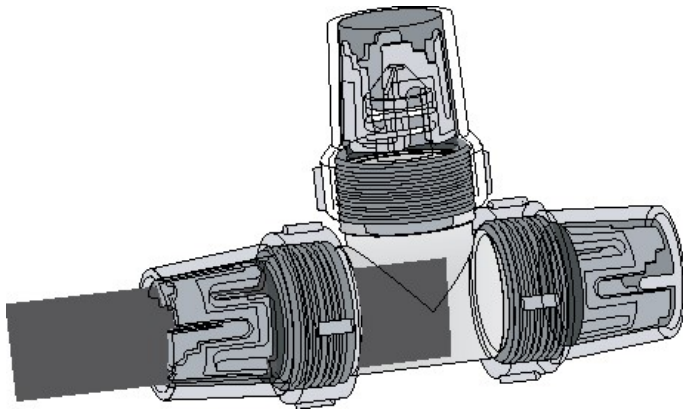
This could be due to

- The trough lead being longer than the standard 8m.
- Hydrants are used in big diameter water lines (e.g. 32mm OD)
- Hydrants are in close proximity to the pump

A couple of options are to reduce line pressure by going to a fitting closer to the pump and insert a short length of pipe to take pressure off the hydrant you are dealing with or use our high pressure release sleeve on the end of the pipe.

Important: If you have had a few failed attempts at removing the pipe, the collet may have moved into the wrong position. To fix this, pretend you are installing the pipe again but this time instead of 3 distinct actions rotate the pipe in a clockwise direction as you push the pipe in. Then attempt to decouple again.

When coupling the pipe to the fitting, the pipe pulls out rather than being locked into the fitting.



Check that the collet was rotated when you twisted the pipe and if it is being pulled out of the cone when you pull back on the pipe.

If it isn't, the collet may still be in it's unlock position and you could come back and find that the pipe has come out of the fitting altogether.

A common cause on the valve leg of the hydrant is that the pipe on the permanent water line was pushed too far into the fitting and you could not depress the valve far enough to keep it locked open.

Another reason could be that the teeth on the collet have worn away over the years and they can't grip onto the pipe enough so you will need to replace the collet. This is particularly true of high density pipe which is harder than medium density and low density pipe.

Pipe that has been in a compression fitting for a while can get permanently compressed so you may need to cut the end of the pipe off to get a better fit.