Ferret Leak Locator
User Manual

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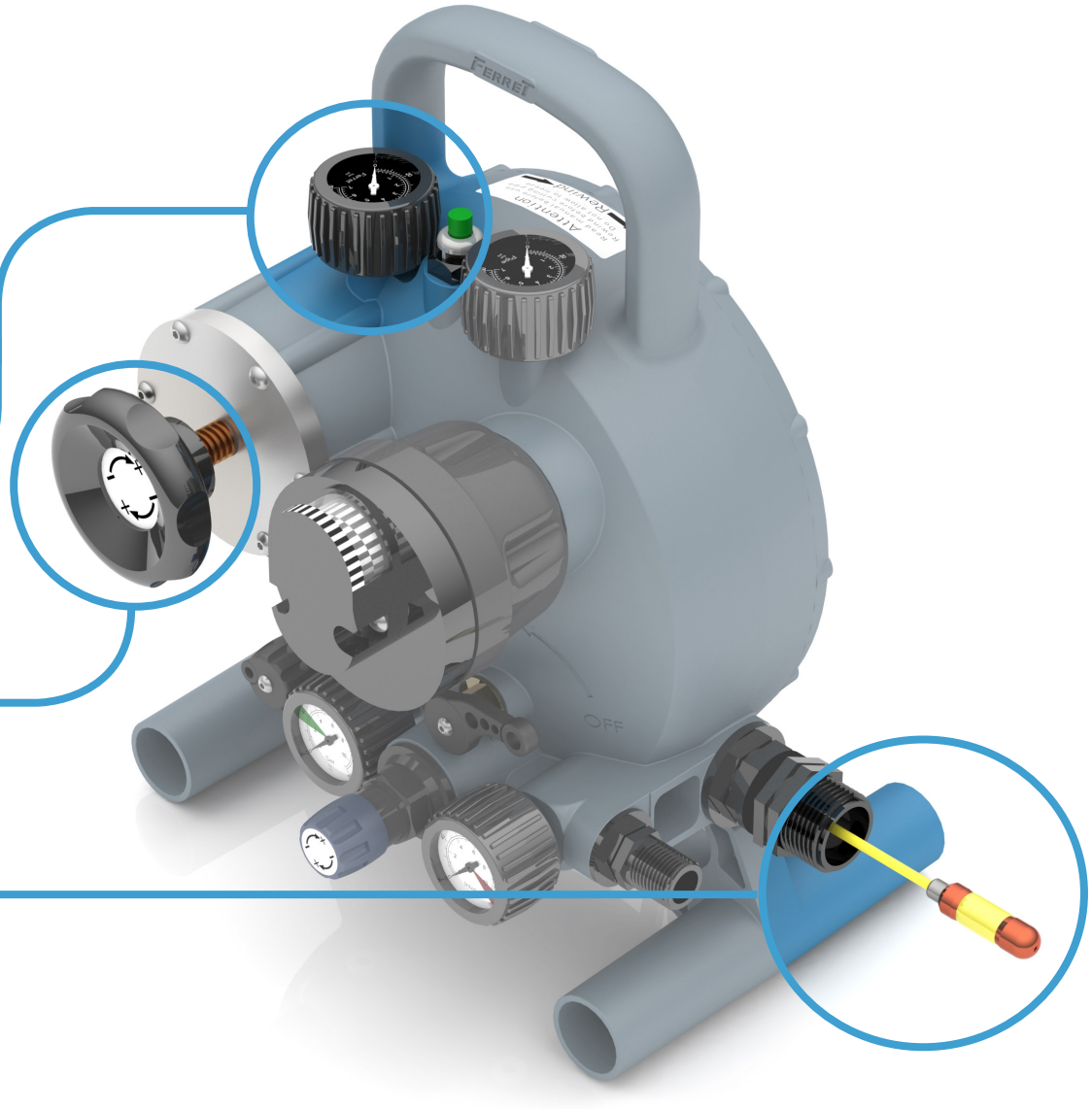
Controls

1.1 Ferret Controls: how to adjust the pressure in the Ferret.



Ferret Pressure Gauge

Shows the pressure inside the Ferret

Ferret Pump

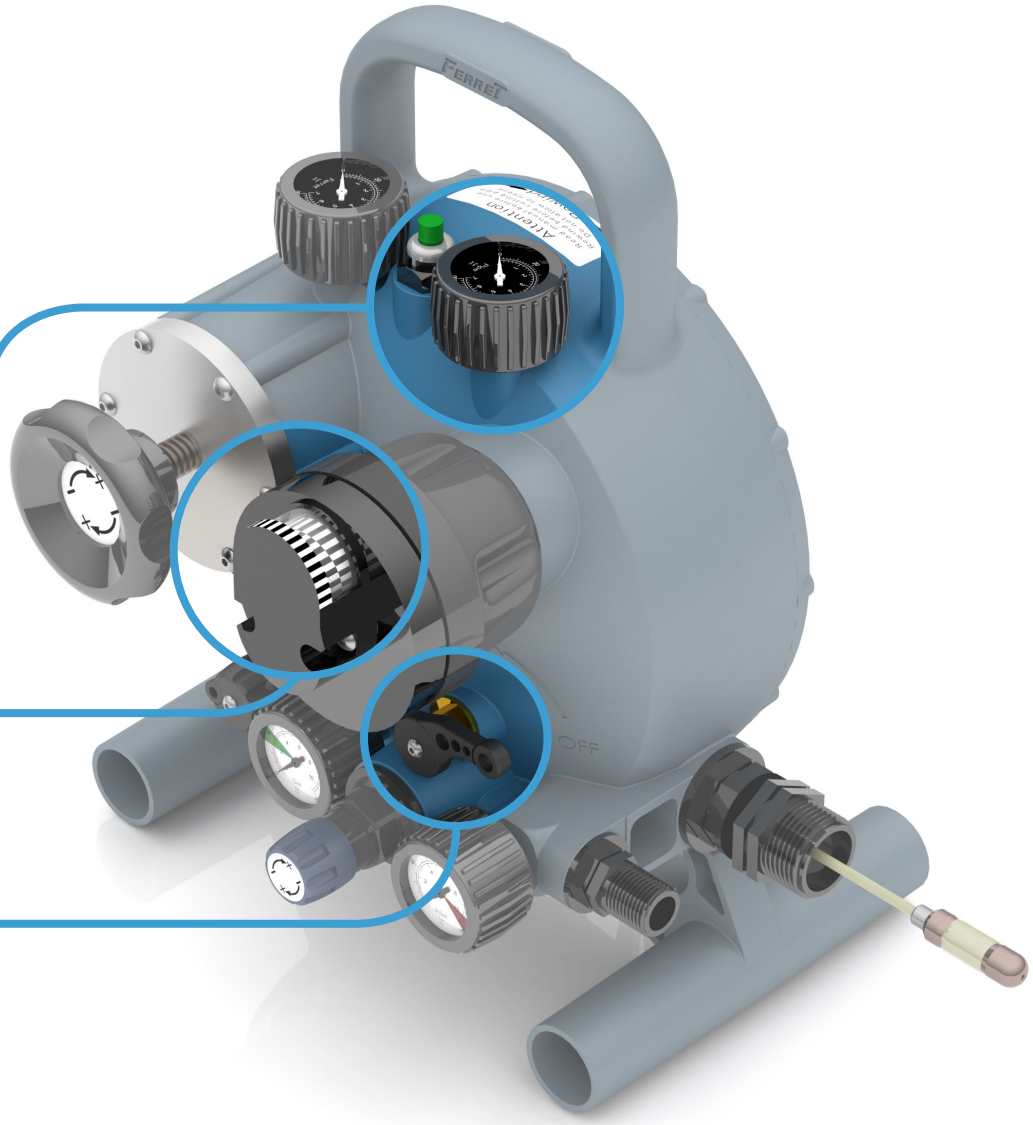
Inflates/deflates the Ferret

Ferret

Blocks the flow in the leaking pipe when inflated

Controls

1.2 Leaking Pipe Controls: how to adjust the flow in the leaking pipe.



Pipe Pressure Gauge

Shows the pressure inside the leaking pipe

Flow Gauge

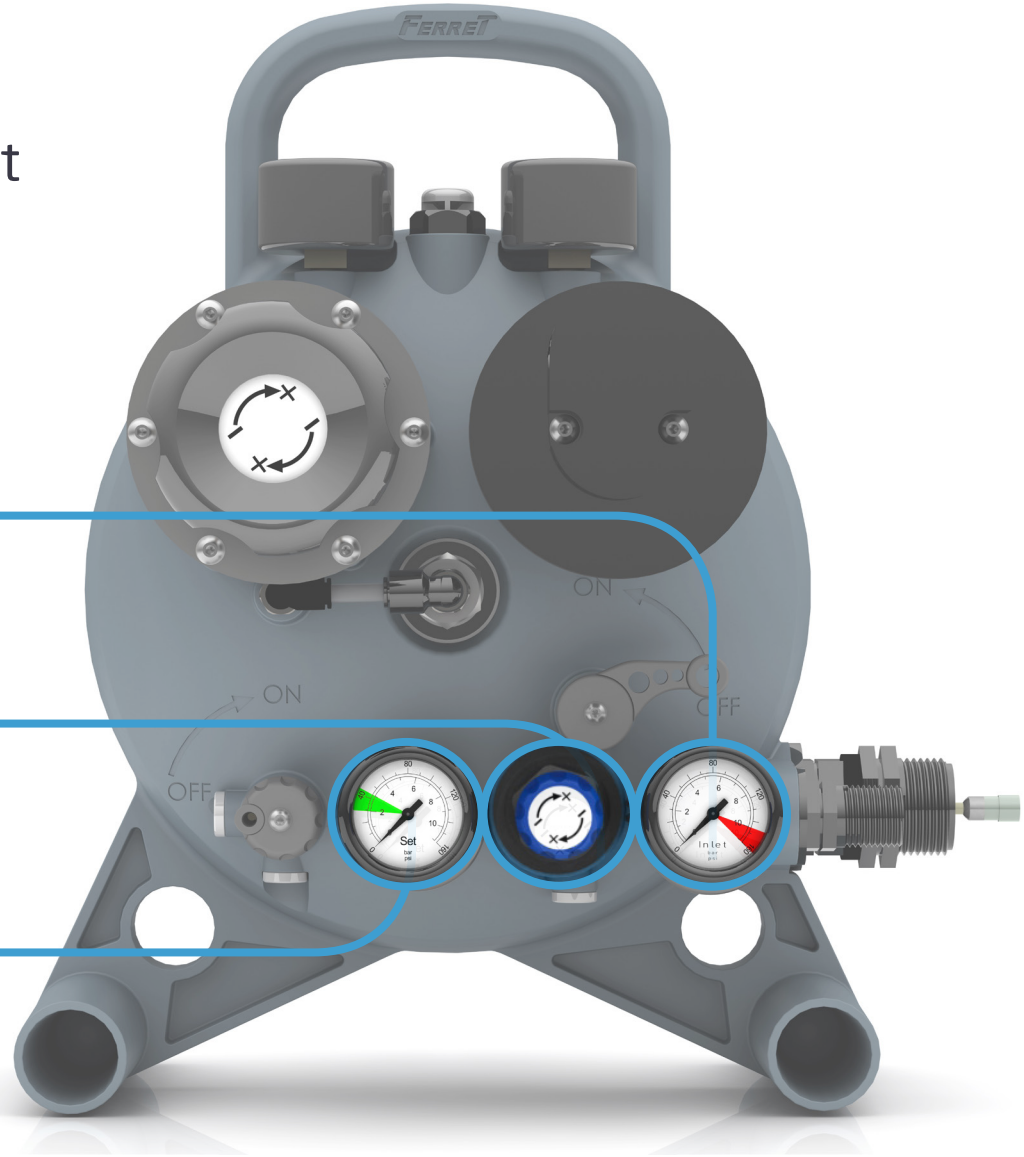
Shows when water is flowing through the Ferret Leak Locator

Flow Valve

Turns flow to the leaking pipe on and off

Controls

1.3 Leaking Pipe Controls: how to adjust the working pressure in the leaking pipe.



Inlet Pressure Gauge

Shows the pressure within the incoming water supply

Pressure Regulator

Controls the working pressure.
Pull out to adjust and push in to lock

Set Pressure Gauge

Shows the working pressure in the leaking pipe

Connecting the Ferret Leak Locator

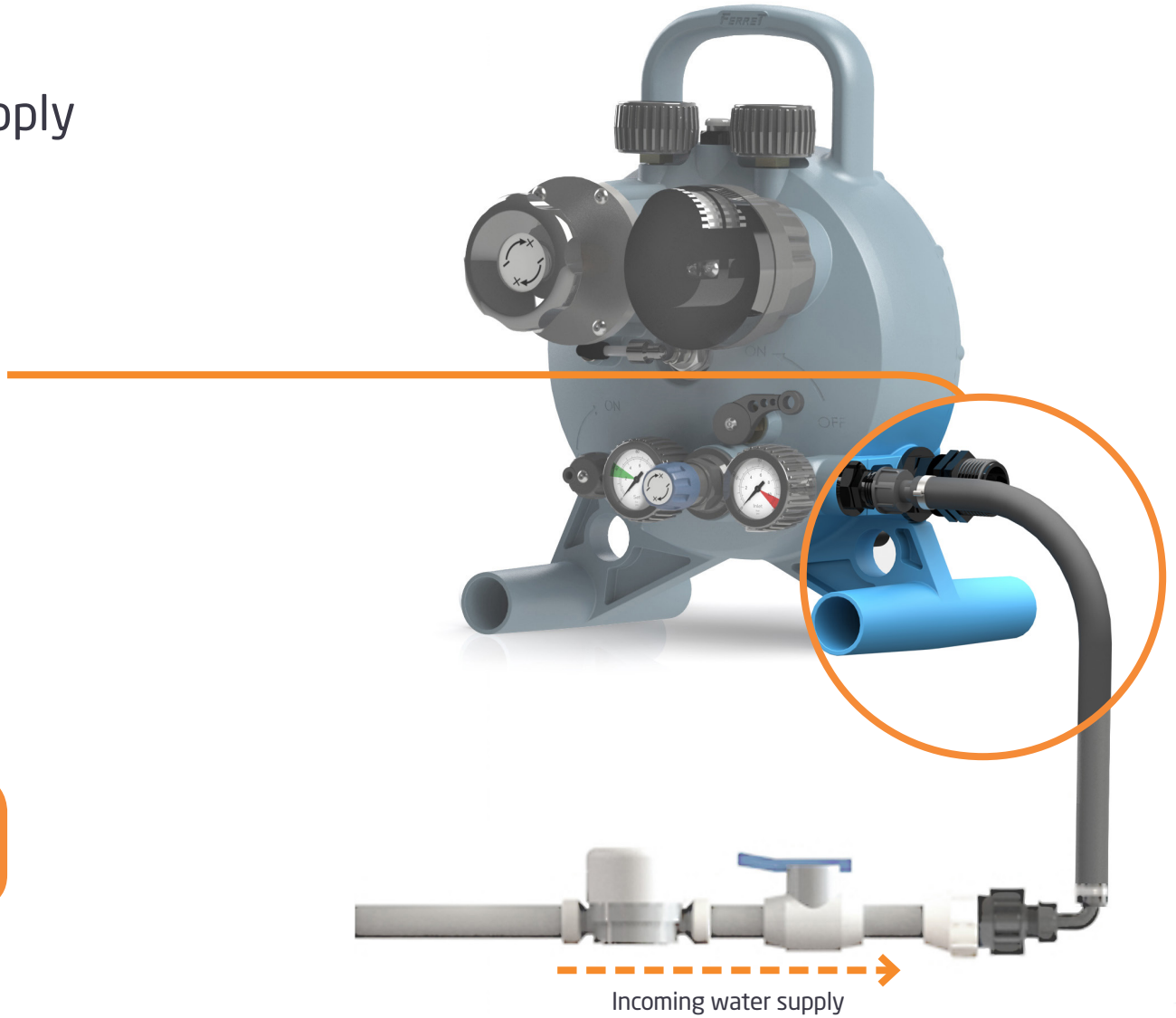
2.1 Connecting a water supply

Step 1.
Turn **off** the incoming water supply.

Remove a fitting or cut the pipe, then use the black **Inlet Hose** and a **suitable fitting** to connect the incoming water supply to the **inlet** on the Ferret Leak Locator.

The connection hoses have internal O-ring seals at the ends that connect to the Ferret Leak Locator. **They should only be hand tightened.**

Do not use a wrench



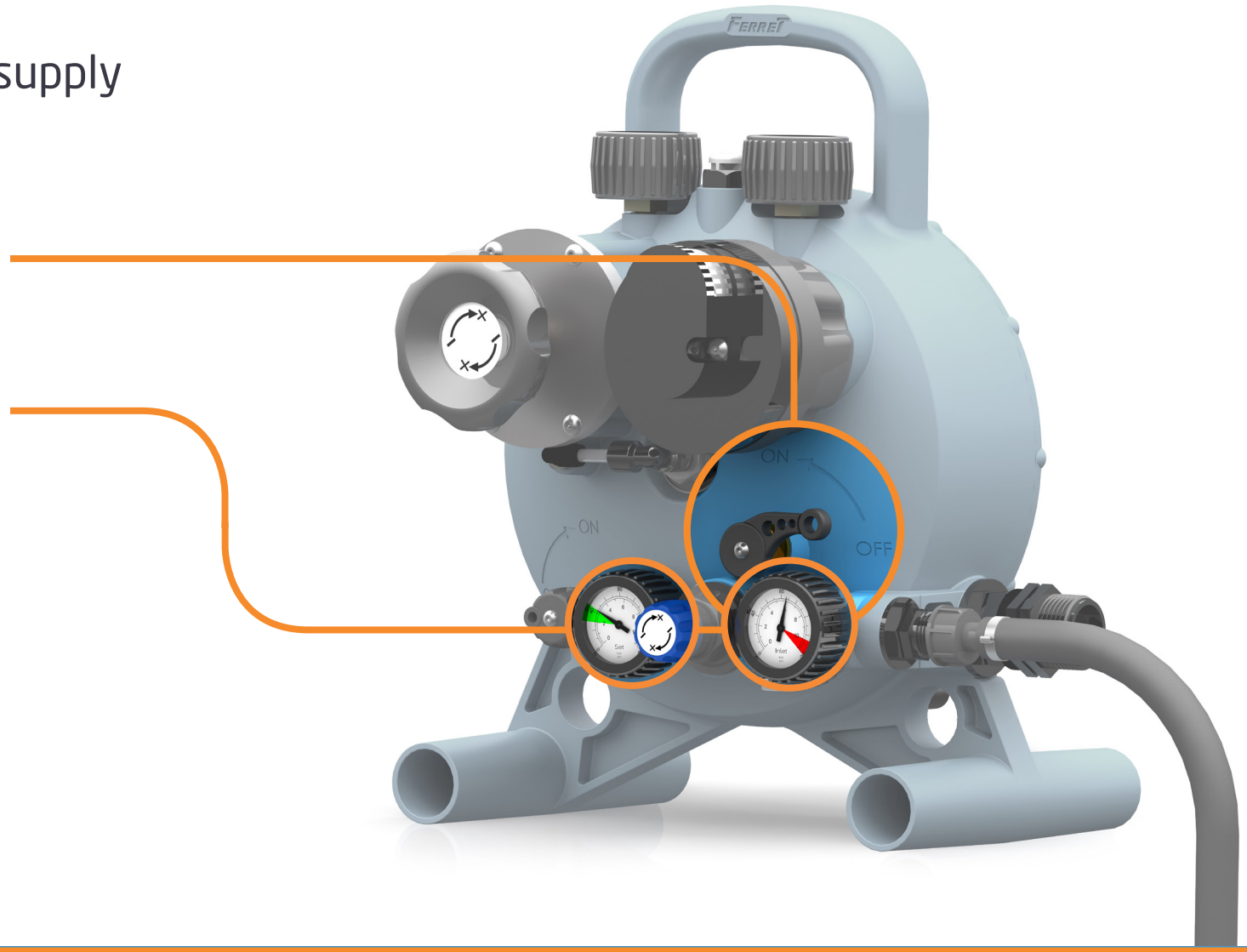
Connecting the Ferret Leak Locator

2.1 Connecting a water supply

Step 2.

Make sure the **Flow Valve** is in the **off** position and then turn the incoming water supply back on.

You should now see pressure registering on the **Set** and **Inlet Pressure Gauges**.

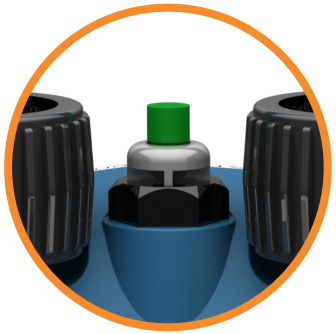


Connecting the Ferret Leak Locator

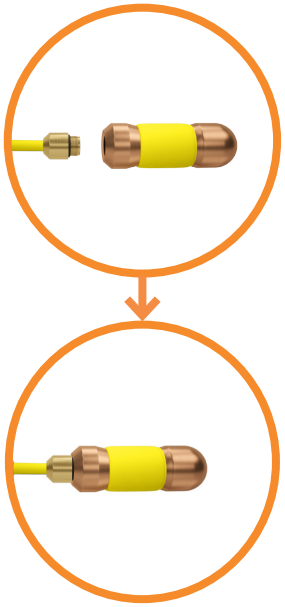
2.2 Fitting the Ferret to the Ferret Leak Locator

Step 1.
Pass the yellow Ferret Pipe through the **Outlet Hose** and connection fitting, then connect the **Outlet Hose** to the Ferret Leak Locator.

Step 2.
Remove the **Green Cap** from the end of the Ferret Pipe and put it here for safe keeping.



Step 3.
Screw the Ferret on hand tight.



IMPORTANT:

Always replace the Green Cap as soon as the Ferret is removed to prevent air and dirt from getting into the Ferret inflation system.

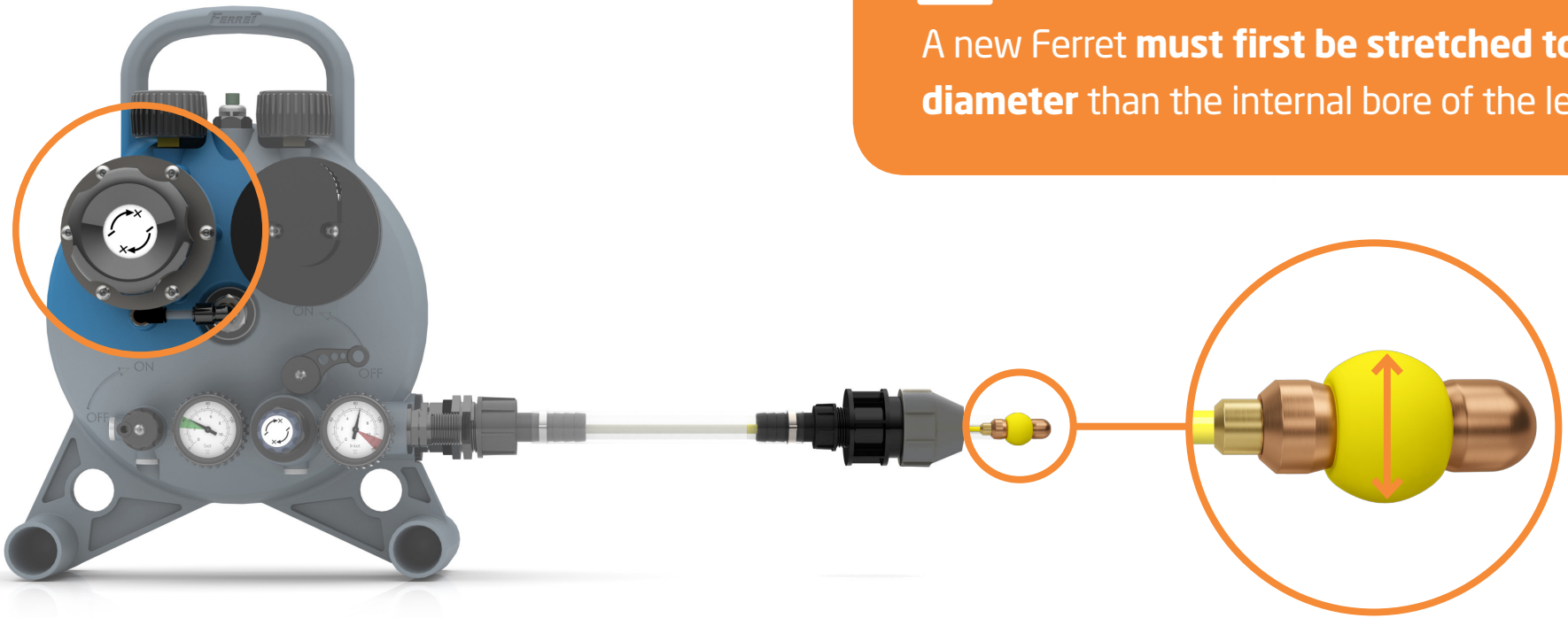
Connecting the Ferret Leak Locator

2.3 Stretch and test the Ferret.

Use the **Ferret Pump** to **inflate** the Ferret to check it is not damaged. Then deflate the Ferret.

IMPORTANT:

A new Ferret **must first be stretched to a larger diameter** than the internal bore of the leaking pipe.



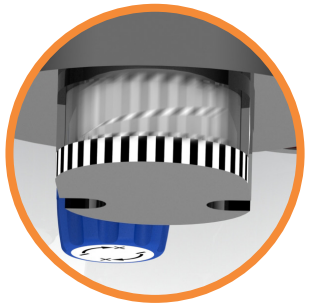
Connecting the Ferret Leak Locator

2.4 Connecting to the leaking pipe

Step 1.
Feed the **Ferret** into the leaking pipe and then connect the **Outlet Hose** to the leaking pipe.

Step 2.
Open the Flow Valve and wait for the **pipe pressure to register**.

Step 3.
You should now see the **leak flow registering** on the Flow Gauge.



Step 4.
Open a vent at the far end of the leaking pipe. The Flow Gauge will now **spin faster**.

IMPORTANT:

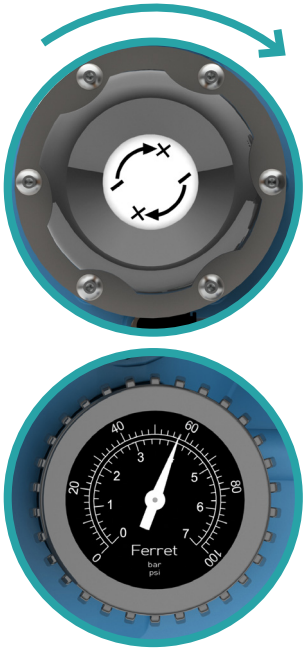
If there is no flow you will need to use the Pressure Regulator to increase the pressure in the leaking pipe until the leak flow registers

Moving the Ferret along the leaking pipe

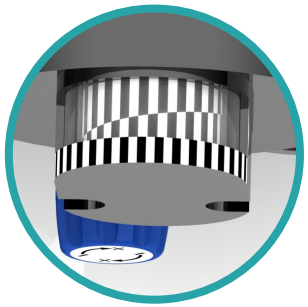
3.1 Inflating the Ferret to block the pipe

Step 1.
Turn the Flow Valve **off**.

Step 2.
Turn the Ferret Pump to inflate the Ferret to approximately **1bar (15psi)** above the working pressure.



Step 3.
Turn the Flow Valve back on and wait for the Flow Gauge to stop.



IMPORTANT:

If the Ferret starts to move or the Ferret Winder turns, close the Flow Valve and increase the pressure in the Ferret, then open Flow Valve again.

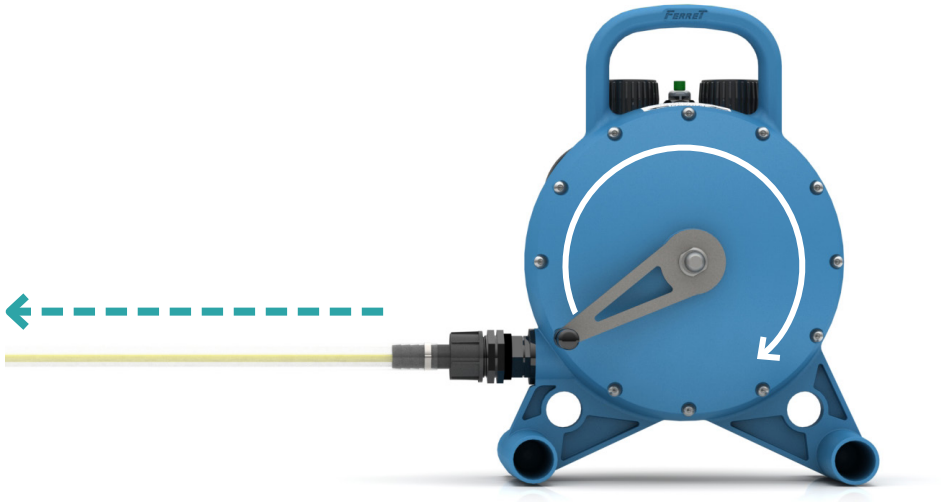
Moving the Ferret along the leaking pipe

3.2 Moving the Ferret forwards

Step 1.
Slowly turn the **Ferret Pump** to deflate the Ferret.

Step 2.
At the same time watch the Ferret Pipe and Ferret Winder to see when they **start to move**. As soon as they start to move **stop deflating** the Ferret.

Note.
When working with smaller Ferrets and in metallic pipes you may need to **help the Ferret Winder** turn to allow the Ferret to move freely.



IMPORTANT:

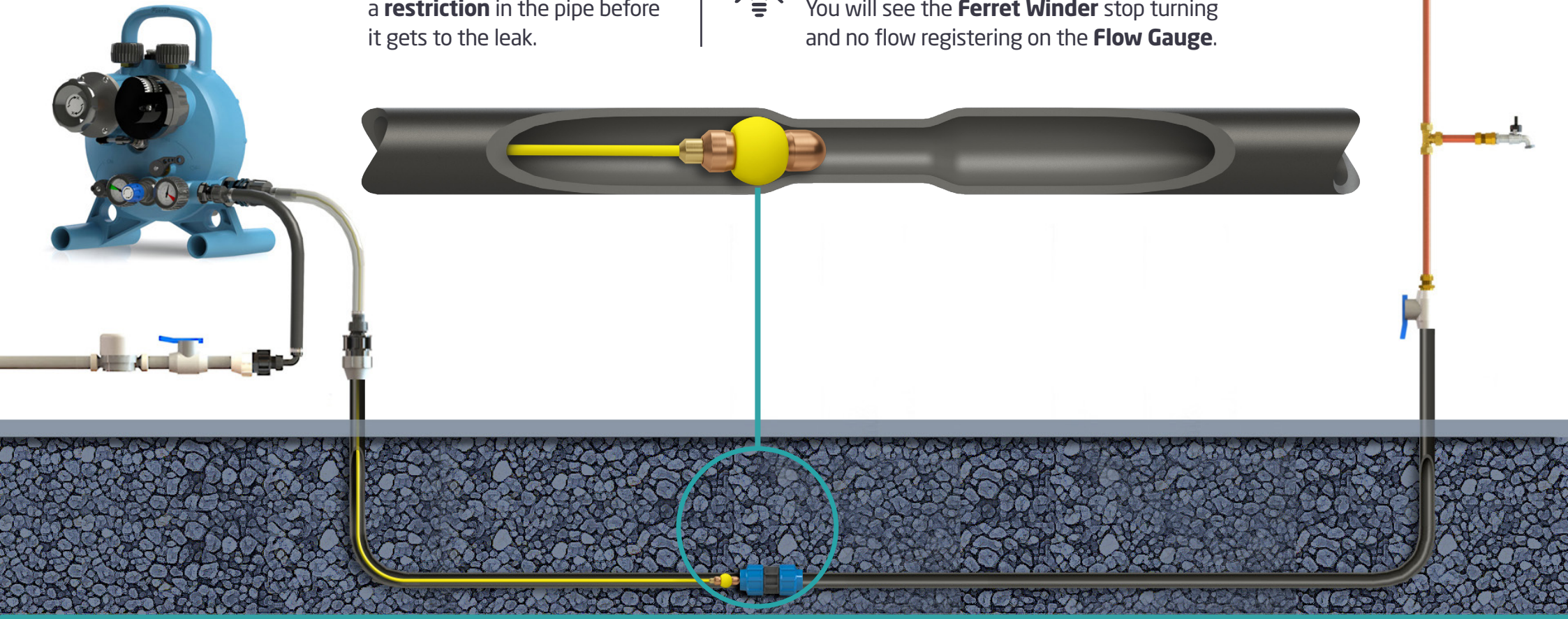
Always make sure the Ferret pipe is **moving** through the Outlet Hose when you are turning the Ferret Winder clockwise or the Ferret Pipe could become tangled inside the Ferret Leak Locator.

Moving the Ferret along the leaking pipe

3.3 Restrictions in the pipe

The Ferret will **stop** if it meets a **restriction** in the pipe before it gets to the leak.

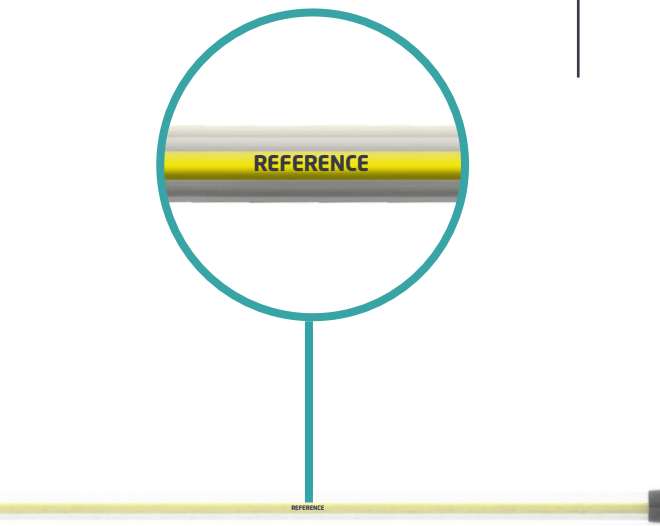
Note.
You will see the **Ferret Winder** stop turning and no flow registering on the **Flow Gauge**.



Moving the Ferret along the leaking pipe

3.4 Passing through a restriction

Step 1.
Locate a **reference point** on the Ferret Pipe.



Step 2.
Turn the Ferret Winder in the **Rewind** direction **(A)** to tension the Ferret Pipe and then turn the Ferret Winder **back a quarter turn (B)** to put some slack in the Ferret Pipe.

Step 3.
Slowly **reduce the pressure** in the Ferret until the water in the pipe pushes it through the restriction. Watch the reference point to see when this happens.

IMPORTANT:

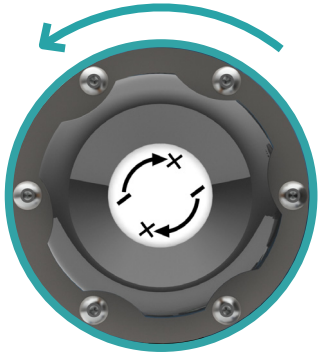
Once the deflated Ferret is back in the larger diameter pipe it will stop but the **Flow Gauge** will register the water flowing past it.

Moving the Ferret along the leaking pipe

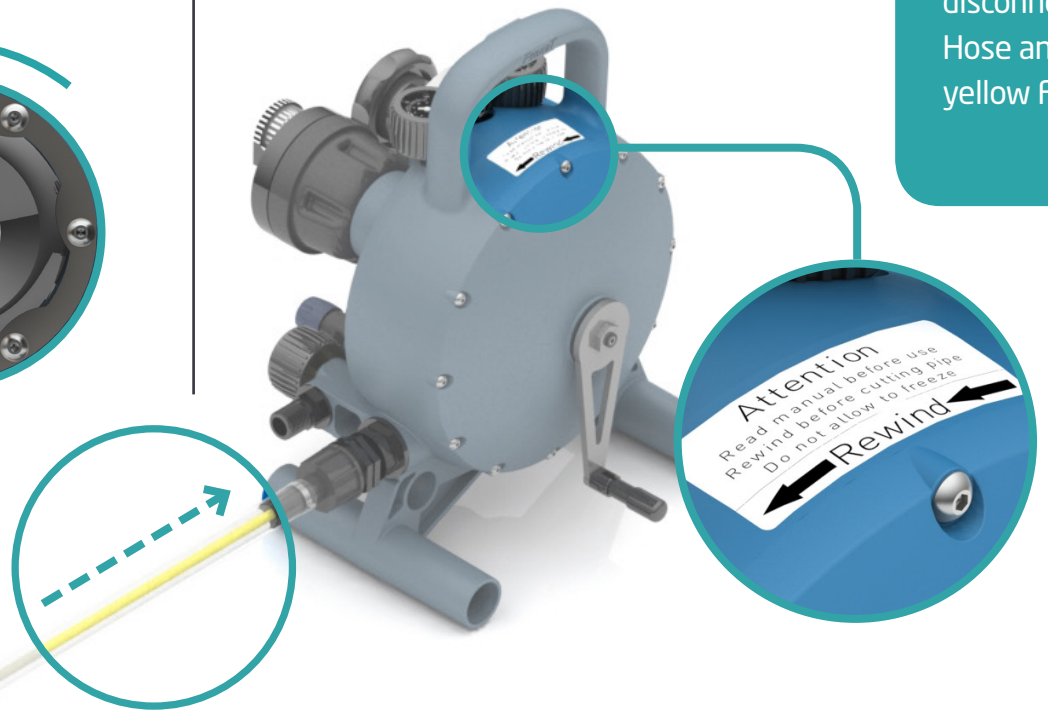
3.5 Stopping the Ferret and moving it backwards

Step 1.
Turn the Flow Valve **off** to **stop** the Ferret.

Step 2.
Turn the Ferret Pump to **deflate** the Ferret.



Step 3.
Turn the Ferret Winder anti-clockwise, as shown on the label, to move the Ferret backwards along the leaking pipe.



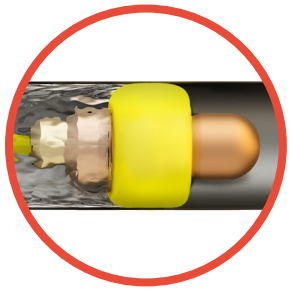
IMPORTANT:

If the Ferret gets stuck don't force the Ferret Winder, disconnect the clear Outlet Hose and **pull directly** on the yellow Ferret Pipe instead.

Locating the leak

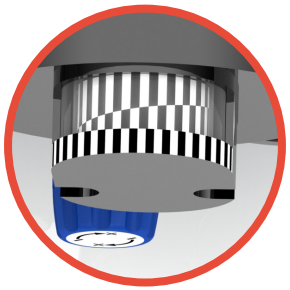
4.1 Leak testing a section of pipe

Step 1.
Stop the Ferret by closing the **Flow Valve** and inflate the Ferret so it blocks the pipe

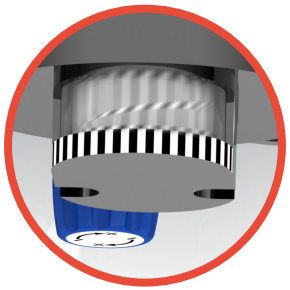


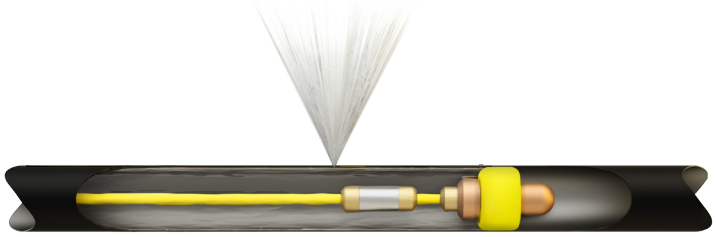
Step 2.
Turn the **flow** back on to the pipe.

- If the Ferret is before the leak the flow gauge will stop.



- If it keeps turning the Ferret is after the leak.





IMPORTANT:

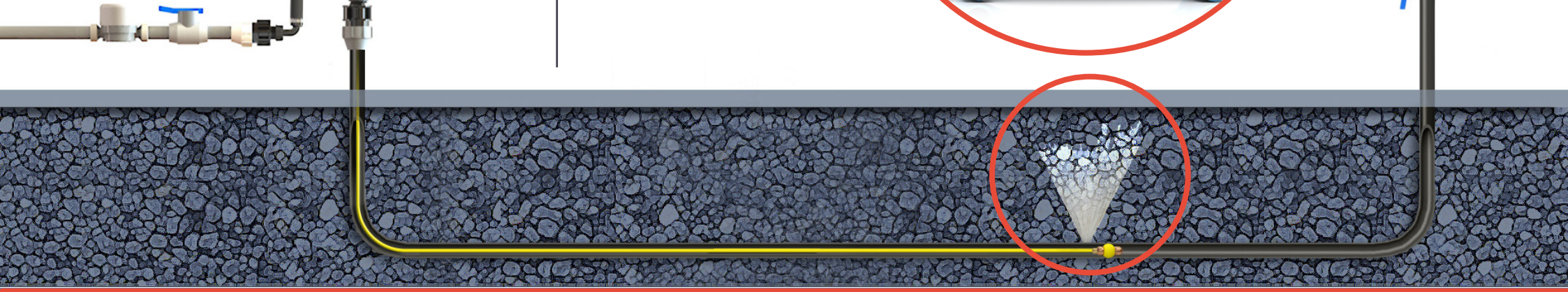
Check that no water is flowing through the open vent. This confirms that the Ferret is **blocking the pipe** and that the Flow Gauge is registering the flow of water escaping from the pipe through the leak.

Locating the leak

4.2 Pinpointing the leak

Step 1.
Move the Ferret backwards or forwards as required and repeat the leak test on the previous page.

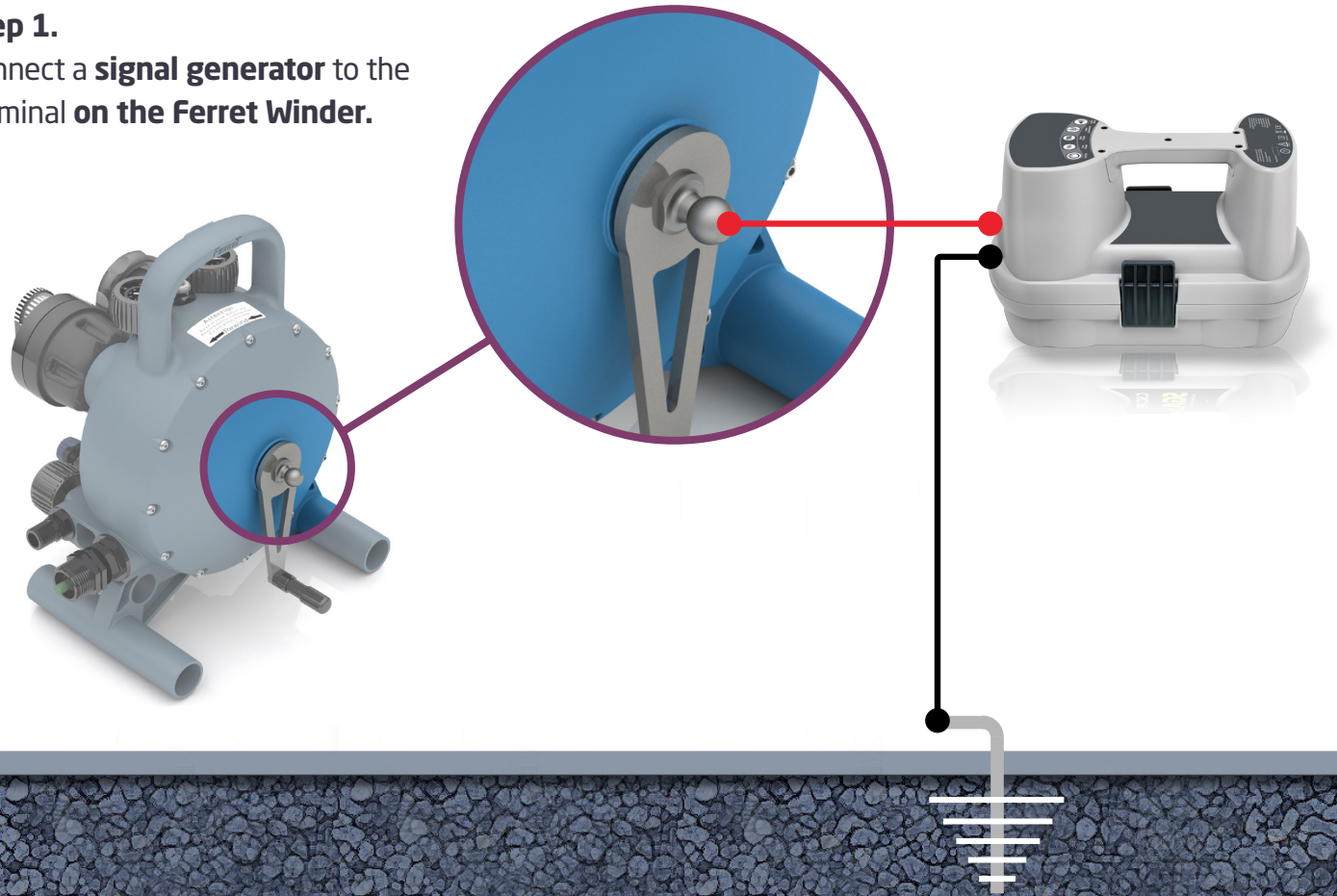
Step 2.
Repeat this process until the leak is pinpointed to within a **quarter turn of the Ferret Winder**



Locating the Ferret from above ground

5.1 Tracing the line of the pipe (without sonde)

Step 1.
Connect a **signal generator** to the terminal **on the Ferret Winder.**



Step 2.
Trace the line of the pipe as per the **manufacturer's instructions** for your tracing device.

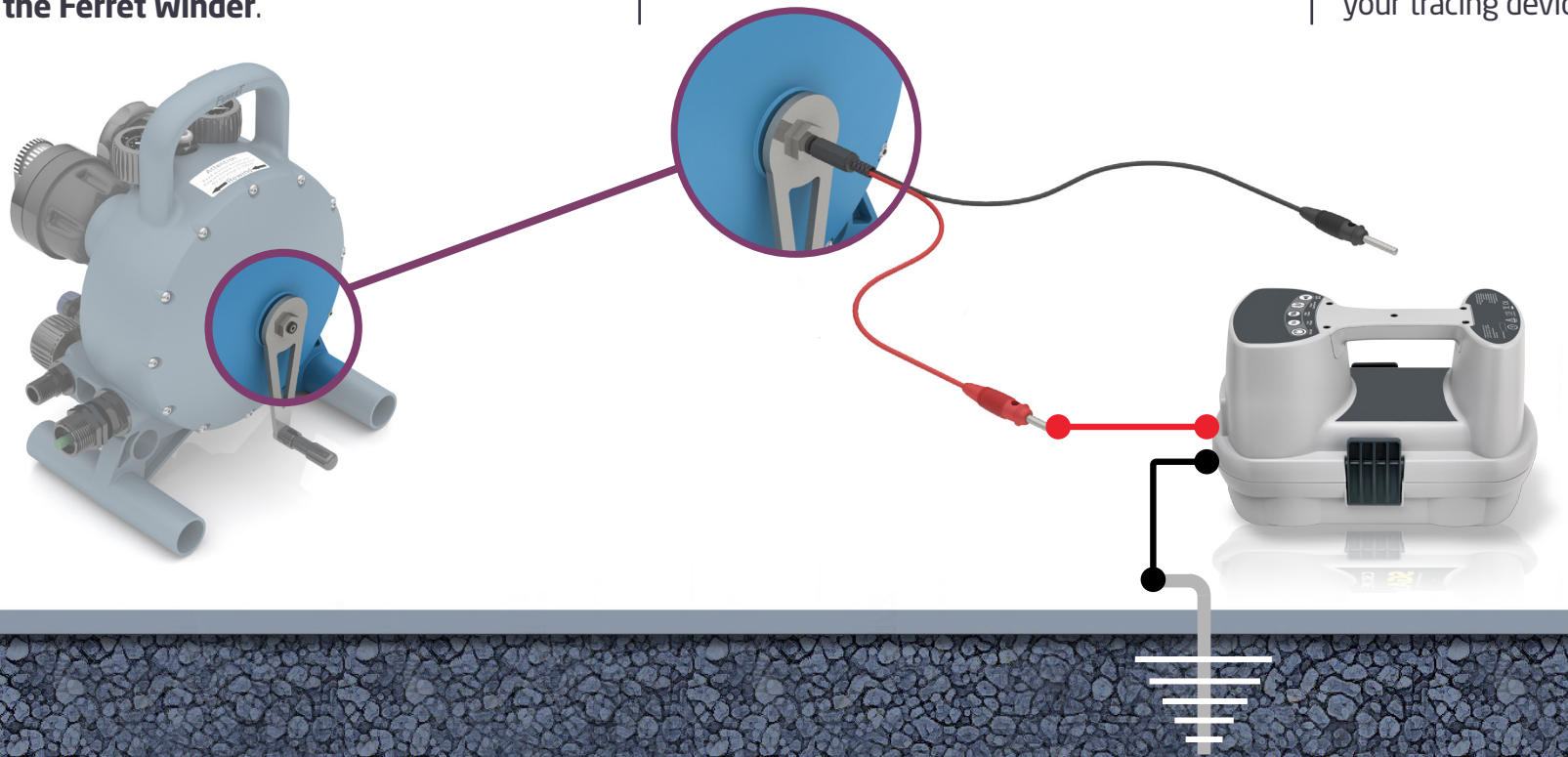
Locating the Ferret from above ground

5.2 Tracing the line of the pipe (with sonde)

Step 1.
Connect the **Trace Lead** supplied with the Ferret Leak Locator to the **terminal on the Ferret Winder**.

Step 2.
Connect a **33kHz signal generator** to the red Trace Lead.

Step 3.
Trace the line of the pipe as per the **manufacturer's instructions** for your tracing device.

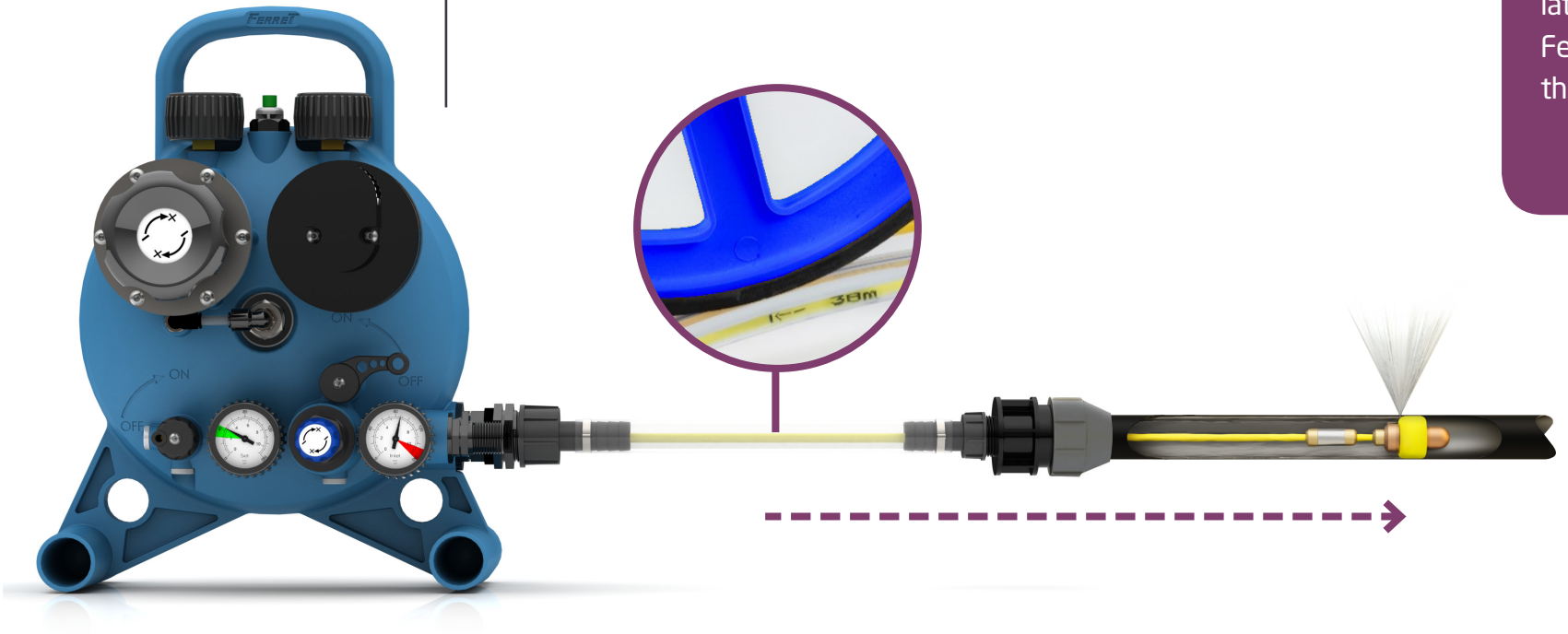


Locating the Ferret from above ground

5.3 Measuring the distance to the Ferret

Step 1.
Find a distance mark on the yellow Ferret Pipe inside the clear Outlet Hose.

Step 2.
Place a measuring wheel on the Outlet Hose so it lines up with the distance mark and then measure out the indicated distance along the traced line of the pipe

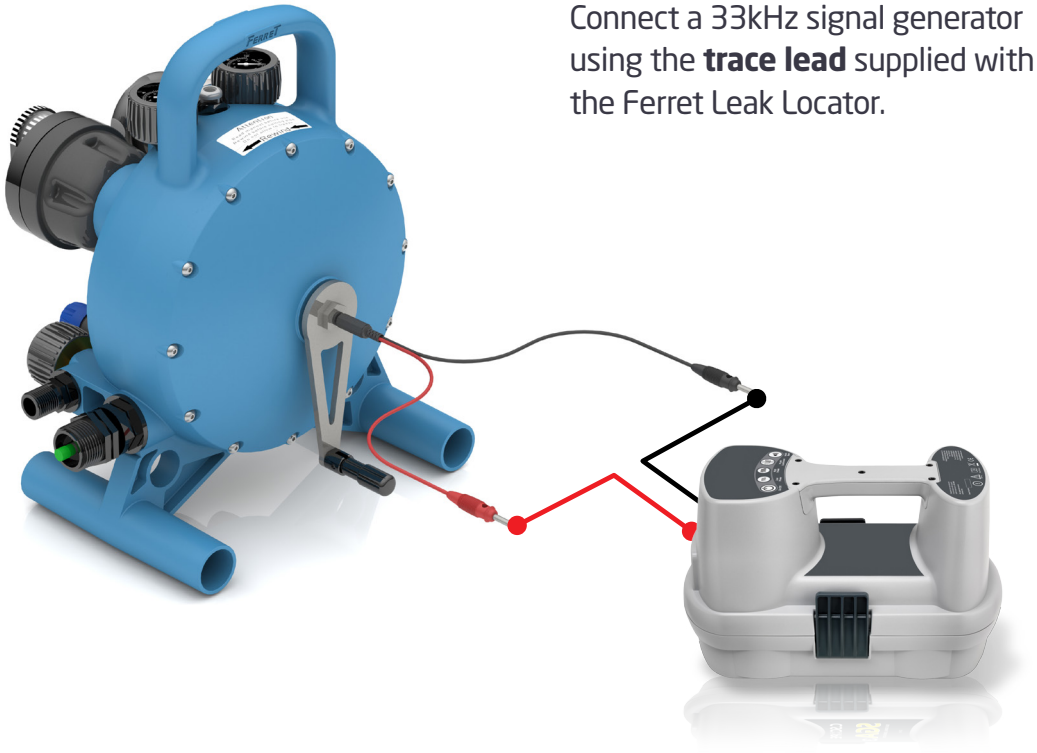


IMPORTANT:

Always rewind the Ferret before you start digging. You might forget later and then cut the Ferret Pipe when making the repair!

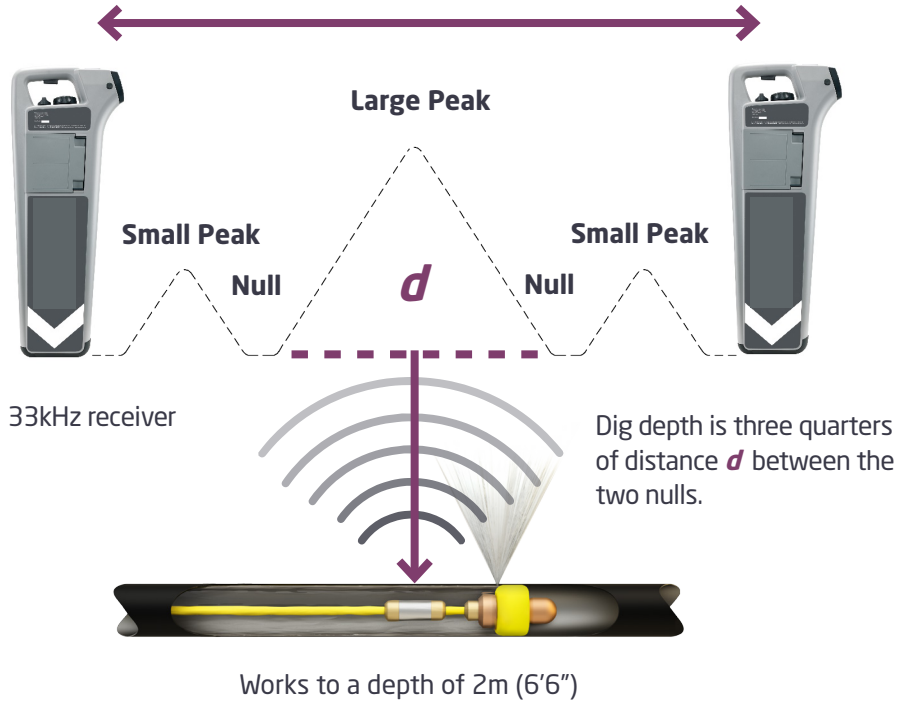
Locating the Ferret from above ground

5.4 Using the Sonde



Connect a 33kHz signal generator using the **trace lead** supplied with the Ferret Leak Locator.

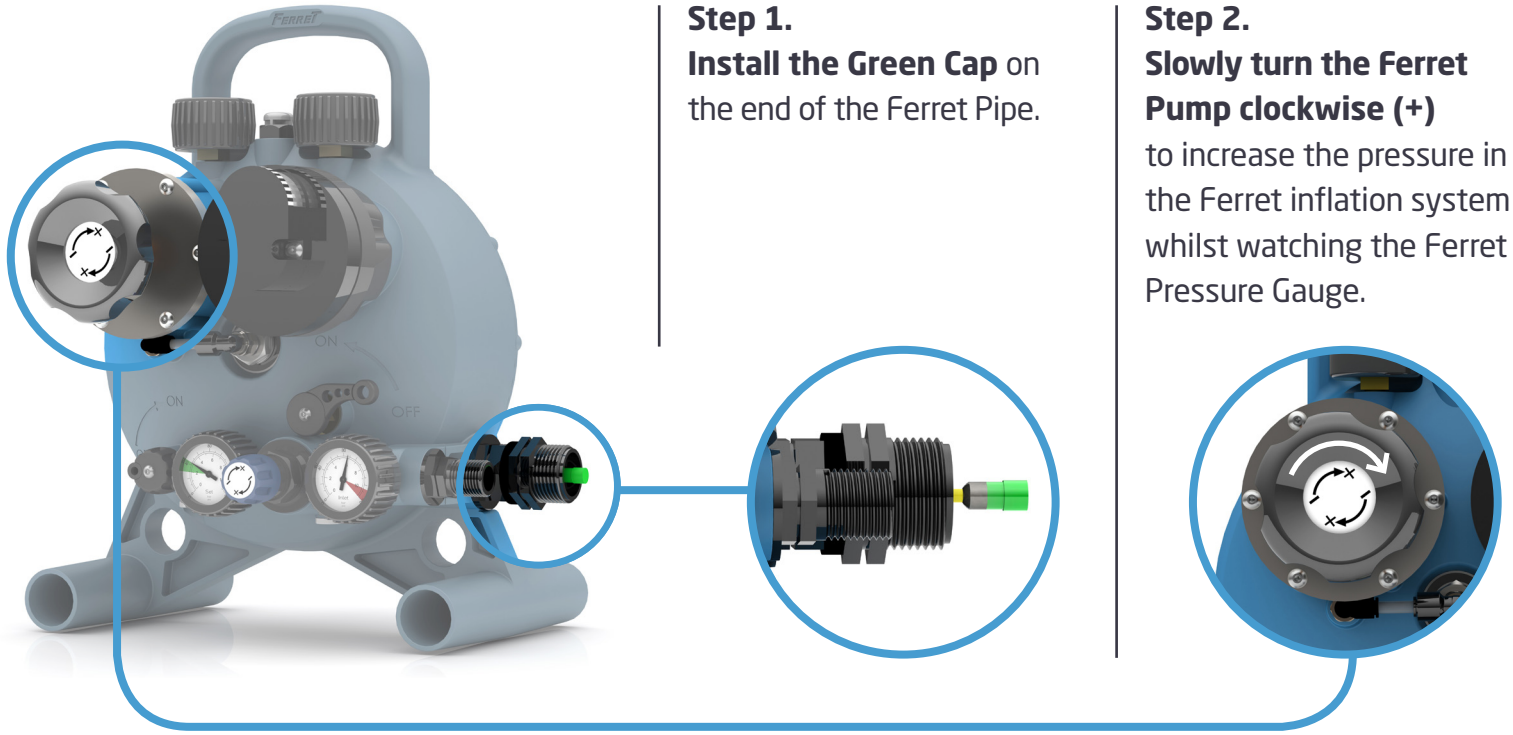
Move receiver along line of pipe, not across



Works to a depth of 2m (6'6")

Basic Maintenance

6.1 Test for checking if there is air in the Ferret inflation system



Step 1.
Install the Green Cap on the end of the Ferret Pipe.

Step 2.
Slowly turn the Ferret Pump clockwise (+) to increase the pressure in the Ferret inflation system whilst watching the Ferret Pressure Gauge.

IMPORTANT:

If there is no air in the Ferret inflation system you should be able to achieve a pressure reading of **4 bar (60 psi)** with no more than one full turn of the Ferret Pump.

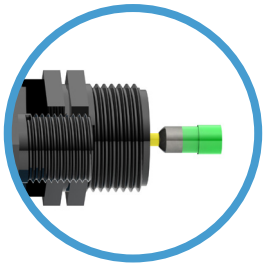
If there is air in the system remove it by following the instructions on the next page.

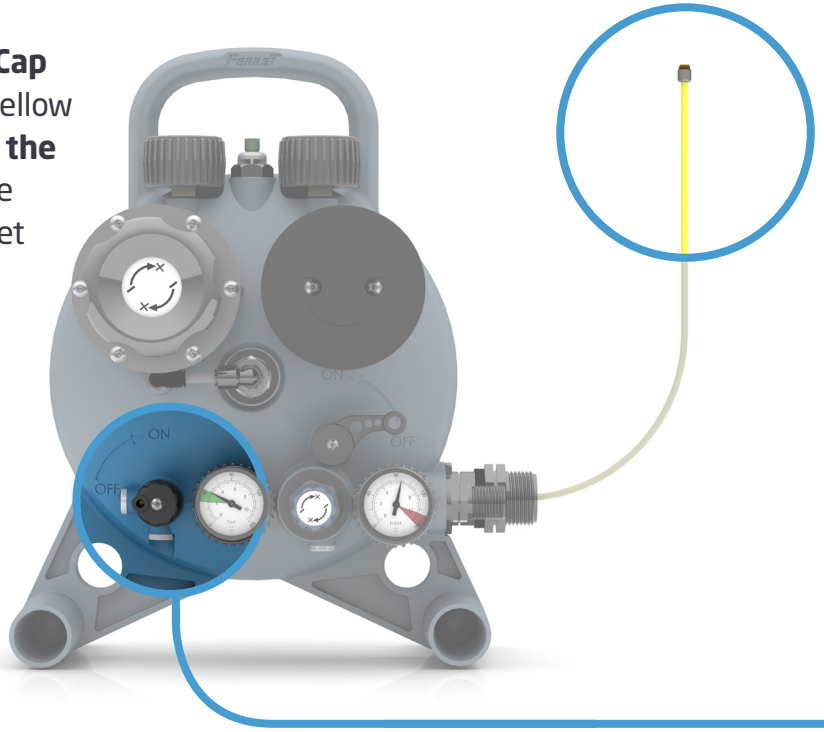
Basic Maintenance

6.2 Flushing air from the Ferret inflation system

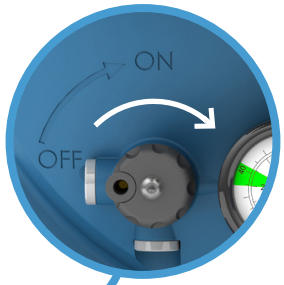
Step 1.
Connect a water supply to the inlet and then open the **Flow Valve** to flush any air out of the **Inlet Hose**. Then close the Flow Valve.

Step 2.
Remove the Green Cap from the end of the yellow Ferret Pipe and **raise the Ferret Pipe up** so the end is above the Ferret Leak Locator.





Step 3.
Open the Fill Valve (NORMALLY CLOSED) to let **water** into the **Ferret inflation system**. You should see water coming out of the end of the Ferret Pipe. Leave to run for a minimum of one hour.



When you have finished flushing air from the system **close the Fill Valve**.
Wait for the Ferret Pressure Gauge to fall to zero and then **re-fit the Green Cap**.
Now do the test on the previous page to check that all the air has been removed.

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