

Operators Check List

Picote Pro Packer



Before use: ensure correct (maximum) operating pressure for the tool. Excessive pressure can cause the Bendy Packer to fail or explode. The correct operating pressure can also be found marked on the end cap.

Picote Pro Packers are only intended for use in circular pipe profiles.

3D PACKER

Model	Maximum Operating Pressure	End Cap Colour
DN50-75 (2-3")	4.2 Bar (60 PSI)	BLACK
DN70-100 (3-4")	3.5 Bar (50 PSI)	GREEN
DN100-150 (4-6")	2.5 Bar (36 PSI)	BLUE
DN150-250 (6-10")	2.5 Bar (36 PSI)	RED

BENDY PACKER

Model	Maximum Operating Pressure	End Cap Colour
DN50 (2")	3.0 Bar (43 PSI)	BLACK
DN70 (3")	4.2 Bar (60 PSI)	WHITE
DN75-100 (3-4")	3.5 Bar (50 PSI)	GREEN
DN100-150 (4-6")	2.5 Bar (36 PSI)	BLUE
DN150-200 (6-8")	2.0 Bar (29 PSI)	RED

PREPARING THE PACKER

1. The Packer has to be unpressurised.
2. The outer surface of the Packer has to be covered with a stretch film. This reduces the need for cleaning the Packer and ensures a longer life-time.
3. Before covering the Packer with the stretch film attach the pull ropes etc. Ensure that the threaded connectors, on either of the cap ends, are not covered. At approximately a 45° angle, wrap the packer from front to rear overlapping each pass by 150mm (6"). Tape each end to secure the protective wrapping.
4. Ensure that the whole length of the Packer is covered with the film.



LOCATING THE REPAIR ON THE PACKER

5. Due to the structure of the Packer, both ends of the Packer must be liner/patch free as the rubber does not fully inflate around the end caps.

This "Off-limits"-Zone is measured at each end of the Packer from end of the bladder where it meets metal cap (Refer to Photograph and Table Below).



PRO PACKER SIZE	MEASURE FOR OFF-LIMIT-ZONE
DN50 (2") - Bendy Packer DN75 (3") - Bendy Packer	7.5cm (3") 10cm (4")
DN75-100 (3"-4") DN100-125 (4"-5") DN125-150 (5"-6")	15cm (6")
DN150-200 (6"-8")	17.5cm (7")

6. Check the Off-limits zone from the table, measure the distance on the on the surface of the film using a suitable marker pen.



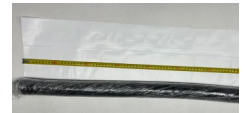
7. Cut the required amount of liner/patch staying within the section between the Off-limit Zones.



When inflating, the Packer could swell out and burst if no supporting hose is used.

SUPPORTING HOSE - FULL LENGTH OF PACKER

1. Measure out the “support hose” and cover the Packer from the end cap to the adapter hose located in the filler cap.



2. Fold support hose neatly around end cap. Secure the support hose in position by taping it to the both end caps. Do not cover the threaded connectors on the end caps.

3. Finally, use (doubled over if needed) rubber bands, approximately every 25cm (10”), to secure the support hose onto the bladder.



SUPPORTING HOSE - ENDS OF THE PACKER



1. When using support only on the ends the hose should be measured in way it will reach at **minimum 10cm (4”) under the patch**. Same rule applies when patches are shorter than the full length.

2. Secure the “support hose” by taping it to the metal end cap and use a doubled over rubber band at the far end of the “support hose”. Repeat at the other end of the Packer.



3. Copy the “Off-Limit” measure onto the surface of the “support hose” using a marker pen.

Always check your country regulations, requirements and application restrictions regarding the use of the “Point Repair” for this application. Follow the instructions provided by the manufacturer and supplier of the “Point Repair” system. The “Point Repair” used in this manual are presented for educational purposes only.

SECURING THE PATCH & INSTALLATION



1. Use the lines that you marked earlier for securing the patch ensuring it is centered and won't extend into the off-limit zones.

Fold patch neatly.

2. There are few ways to secure the patch on the Packer. In this example patch is secured with rubber bands.

Start securing it from the edge, starting on the End Cap side using (doubled over if needed) rubber bands.



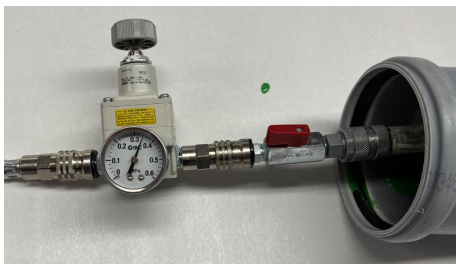
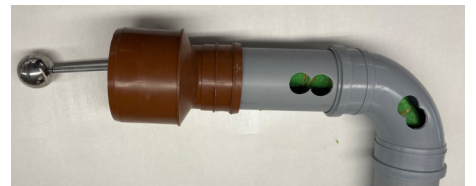
3. If needed: install navigation Guide ball or pull rope to the connector on the end cap.

4. Attach needed # of Push Rods.

5. Navigate the Packer until you meet the tape mark on your Push Rods.

Packer should be in the proper renovation location if you have accurately marked the correct distance on Push Rods.

Use inspection camera to help verify that the patch is properly positioned.



6. Inflate the Packer using the Pressure Regulator until it has reached desired operating pressure.

Prevent unauthorised access to the work site to ensure tools stay untouched during the curing process.

Keep the Packer pressurised until patch is cured completely.

Resins curing time depends of type of resin used and temperature.

Curing can take longer in a cold environment.

REMOVING THE PACKER (POST INSTALLATION)

1. Once the patch has fully cured, release the pressure from the Packer.
2. Once the Packer has fully deflated, pull it from the pipe using the Picote Push Rods and/or pulling rope.
3. Use a CCTV camera to confirm that Patch has fully cured and is wrinkle free.
4. If there is no need to install another Patch: remove supporting hoses, films, etc. from the Packer.
5. Clean the installation equipment and work environment.
6. Inspect the Packer for damage or wear.

MAINTENANCE

- Before performing any maintenance always check that air supply line is disconnected.
- Clean the surface of the Packer before and after the tool has been used. The primary method for cleaning the Pro Packer should be with a damp cloth and soap to clean the surfaces. Protecting the Pro Packer with stretch film reduces the need to use cleaning solvents.
- If the Pro Packer has been stored for a extended or unknown amount of time, or if you are now aware of its condition, the Packer should be visually inspected and tested.
- The test should be done by placing the deflated Packer inside a correctly sized pipe, carefully pressurizing the Packer inside and simultaneously monitoring for leaks.
- Do not use the Packer if leaks are found. Contact Picote or you Picote Reseller for repair or replacement.

SERVICE & REPAIR

- The Pro Packers must be repaired or serviced at Picote Service Centre by trained personnel.