Datasheet

Pillow Packers

Pipe Doctor Repair

Pipe Doctor
NO-DIG PIPE REPAIR SYSTEM

A fold-flat, oblong inflatable packer for repairs to larger diameter infrastructure. Pillow packers are easy to manoeuvre, for an easier installation of the patch.

The pillow packer is a fold-flat, oblong packer for the repair of pipes from 750mm diameter to 2000mm and above. It is lighter in weight than equivalent-sized circular packers and is easier to manoeuvre and install. It can be used to repair ovoid pipes or to connect two pipes of different diameter.

The Pillow Packer is used with resin and matting supplied in bulk form, not with Pipe Doctor kits.

Available in four sizes: 300-600mm, 600-1000mm, 1000-1400mm and 1400-1800mm.

Benefits:

- Can be manufactured to bespoke sizes.
- Flexible to manoeuvre.
- Approx 30% lighter weight than standard packers of the equivalent size.
- Folds flat for easy transportation and storage.
- Inflates to fit the shape of the damaged infrastructure; repair ovoid as well as circular pipes.
- No-dig method of repair, reducing cost, time on site and disruption.
- Repair is structural, dependent on layers installed.

Pillow Packer - Product Range:

Product Code	Description
FPP-PILLOW-1234X79	300-600mm Pillow Packer
FPP-PILLOW-3036X48	600-1000mm Pillow Packer
FPP-PILLOW-4248X48	1000-1400mm Pillow Packer
FPP-PILLOW-4872X48	1400-1800mm Pillow Packer
FPP-REG-FF-ASM-30	Air Regulator (0-2 bar)

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Installation Instructions

Equipment checklist:

- Pipe Doctor Pillow Packer
- Trailor mounted compressor
- Pull cable
- Sewer camera
- Ground sheet
- Matting
- Resin
- Insulation tape
- Gloves

IMPORTANT

- Installer must examine and determine whether the damaged pipe is repairable. Consult factory if necessary.
- The resin used in this system is ambient cure and is greatly affected by temperature. Store in a cool place. Working and curing time will be affected by temperature. Mixing temperature recommended at 20°C. The warmer the resin, the less working and curing time. The colder the resin, the more working and curing time.
- Ensure that the packer is protected in accordance with the installation instructions before wrapping the resin-impregnated patch around the packer.
- If the damaged pipe is not cleaned of sharp edges the packer could be punctured.

Read ALL instructions and inspect equipment BEFORE beginning.

Min. of 4 installers required for this type of repair.

1. Inspection and Preparation: Using a sewer camera, visually inspect the damaged area. Clean the pipe to remove any roots or other debris. Inspect a second time to verify that pipe is clear of debris and determine that Pipe Doctor is suitable for your specific application.

2. Measuring: Position the camera head at the centre of the damaged area. Attach a piece of tape to the camera cable at the entry point into the sewer line. This will serve as the distance to the centre of the patch on the packer.

3. Prepare the Pillow Packer: Unwrap the ground sheet. Wrap the packer in the ground sheet so that the sheet overlaps and tape into position.

4. Preparing the airline/pull cable: Connect the air hose to the packer. Attach the pull cable to the harnesses at the packer ends. Securely tape the quick disconnects fitting to prevent accidental disconnection. Position the camera head at the centre of the packer and transfer the measurements from the camera cable to the air hose/pull cable with vinyl tape.

5. Mixing Resin: Refer to the advised resin working time. Put on two pairs of gloves. Layout the work surface, unfold the fiberglass mat and position it bright shiny side down (woven surface down). Mix the resin until it is a consistent colour (about 1 minute).

IMPORTANT: Mix ALL resin required at the same time. Once mixed, move immediately to Step 6. Work quickly to apply resin, prepare patch/packer assembly and install in pipe.

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6. Wetting Out: Pour 75% onto the fiberglass mat. Use squeegees and spatulas to spread the resin evenly and liberally to coat the surface of the mat. Flip entire mat over. Pour out remaining resin and spread out evenly. Fold the left side of the wetted mat over to the black centre line located on the woven side of the mat as shown in (Fig. 1). Fold the right side of patch overlapping the edge of the first fold by 2.5cm (Fig. 2) .

Fig. 1

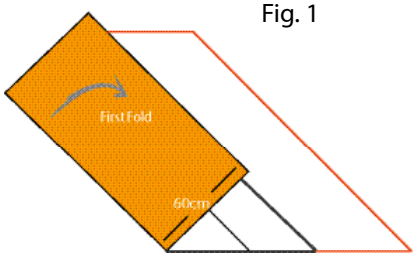
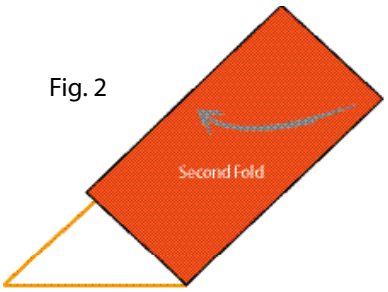


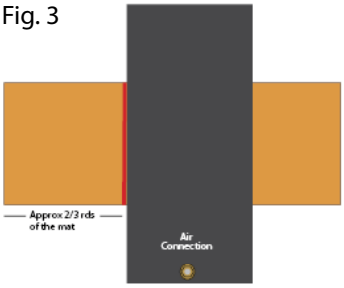
Fig. 2



7. Folding the Packer: Position the packer on the folded mat with approximately two thirds of the mat showing to the left side of the packer (Fig. 3.). Fold the right side of the wetted mat over the packer (Fig. 4). Fold the left side of the wetted mat over the packer overlapping the first fold and fold any excess under the packer's right edge (Fig. 5). Fold back the left side of the loaded packer (Fig. 6). Fold back the right side of the packer (Fig. 7). Fold or roll the work surface to the edges of the packer.

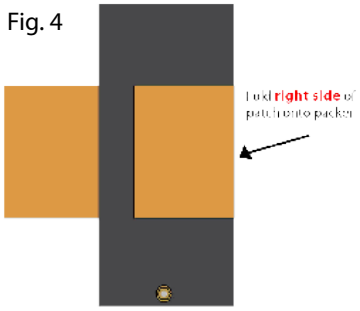
8. Loading the Packer: Secure the packer using insulation tape (one on each end of the folded packer about 450mm from either end.) Secure the wetted patch to the packer using tape around the centre of the patch and on each end of the patch (Fig. 8). Pull/carry the packer and patch to the position of the point of repair as marked on the air hose/ pull cables.

Fig. 3



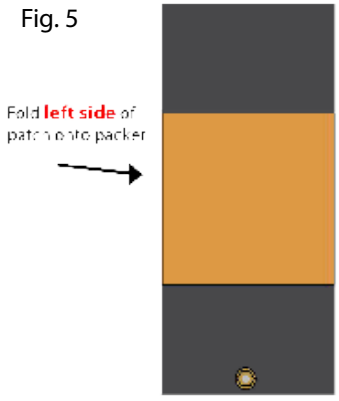
9. Inflating the Packer: Begin inflation process. The insulation tape will release as inflation progresses. Observe the system while inflating using an inline sewer camera. Once packer inflates sufficiently (makes contact with inner walls of pipe) so the patch is no longer visible, continue inflating the packer to 0.5 bar and maintain.
NOTE: If the pipe is badly damaged then care must be taken when inflating the packer to avoid further damage to the pipe and possible packer failure. Full pressure may not be needed. Consult with Source One Environmental for any questions.

Fig. 4



10. Removing the Packer: Leave the packer in place under maintained pressure allowing the patch to cure for about 3 hours. Deflate the packer, then remove it using the attached pull cable(s). Inspect the point of the repair with the sewer camera.

Fig. 5



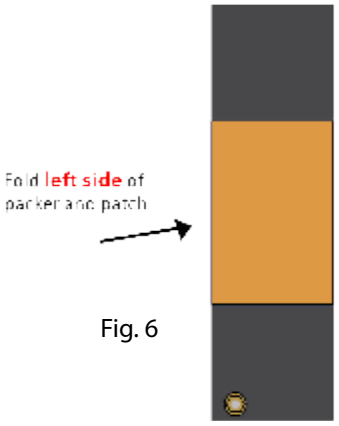


Fig. 6

Fig. 7

Fig. 8

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Product Code	Nominal Size	Min. Pipe Dia.Ø (mm)	Max. Pipe Dia.Ø (mm)	Product Width (mm)	Product Length (mm)	Type of Quick Inflation	Repair Length at Max. Dia.(mm)	Product Weight (kg)
FPP-PILLOW-1234X79	300-600	300	600	400	2000	1/4" quick coup.+ 1" Storz	1000	12,5
FPP-PILLOW-3036X48	600-1000	600	1000	900	3100	1/4" quick coup.+ 1" Storz	1000	40
FPP-PILLOW-4248X48	1000-1400	1000	1400	1450	3600	1/4" quick coup.+ 1" Storz	1000	65
FPP-PILLOW-4872X48	1400-1800	1400	1800	1550	4700	1/4" quick coup.+ 1" Storz	1000	95
FPP-REG-FF-ASM-30		Air Regulator (0-2 bar)						

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S1E Limited
Specialist Suppliers of Trenchless Technology

No-dig Pipeline Repair

S1E Limited is a specialist supplier of trenchless technologies to the drainage repair industry. The company focuses on sourcing quality products for professional use. They are all tried and tested in the field to produce impressive results. S1E distributes high-quality products from market-leading manufacturers for the drainage repair industry. Products include camera inspection systems, cutting and cleaning tools, CIPP lining equipment and consumables, mechanical point repair devices, rat blockers andother site consumables.

S1E Limited is committed to being a quality supplier, with a focus on customer service. S1E is proud to be an active member of the UK Society for Trenchless Technology.

First established in 2007 as Fernco Environmental, the company's mission was to seek out repair products for the infrastructure repair and water management markets. Since 2016, it has re-focused its ranges to the specialist field of trenchless repair, with a growing portfolio in this specialist area.

The company is owned by Cooper Companies Inc, a US-based leader in the production of pipe couplings. The Group also owns companies in Canada, Mexico, Brazil, Germany and France, as well as the UK-based sister company to S1E, Fernco (previously, Flexseal).

It is accredited to ISO 9001: 2015 for its Quality Management System. It is also accredited to ISO 14001: 2015 for its Environmental Management System.

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UNITED KINGDOM SOCIETY FOR TRENCHLESS TECHNOLOGY UKSTT

nqa. ISO 9001 QUALITY MANAGEMENT

nqa. ISO 14001 ENVIRONMENTAL MANAGEMENT

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