

STOPPING INFILTRATION IN LATERALS



Infiltration at lateral connection

Infiltration at lateral connections and lateral lines has been a problem for pipeline owners for years. Even the full-length lining of mainlines does not stop these leaks. In fact, liners often increase the flow through lateral connections because they block entry through joints and breaks. As groundwater pressure increases, the flow will migrate to the lateral connections and the first few joints up the lateral lines.

Thanks to the Logiball Lateral Injection Packers, chemical grouting has proven to be the most cost effective method to address this problem !



Annulus in relined pipe

The Lateral Injection Packer is winched, in tandem with a pan & tilt camera, through the mainline and rotated to align the launching tube and the Lateral Grouting Plug with the service lateral. Once aligned, air pressure inverts the Lateral Grouting Plug into the service lateral line. The ends of the packer inflate against the mainline walls and the forward end of the Lateral Grouting Plug seals against the wall of the lateral.



Seal achieved from the outside gelled soil matrix

The expansion of the rest of the plug is restricted to allow the passage of the grout which flows out of the laterals at breaks, cracks and joints and gels with the surrounding soil. After the grout has cured, a vacuum retracts the deflated Lateral Grouting Plug and the packer can be advanced to the next connection, where the process is repeated. The Lateral Injection Packer is equipped with the appropriate Lateral Grouting Plug for each size of lateral and each desirable grouting length. Lateral Grouting Plugs of various sizes (4", 5", or 6") and various lengths (from 16" up to 30 feet) are available. A Lateral Grouting Plug can be changed on the site in a few minutes. The lateral plugs and the housing extensions fit the different sizes and types of packer.



Grout migration from mainline along the lateral bladder

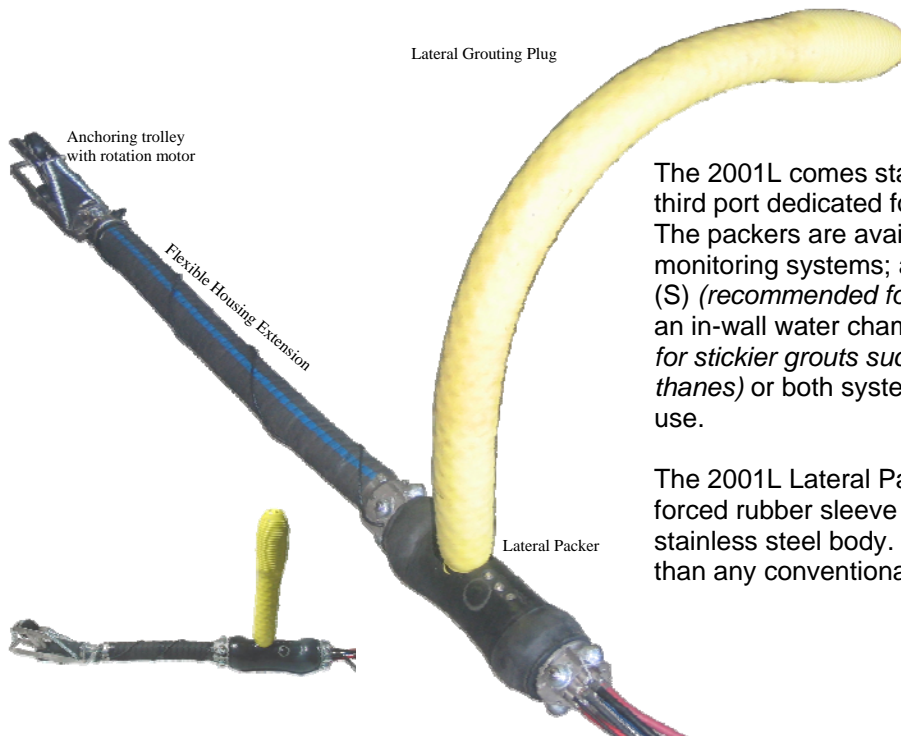


www.logiball.com

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LOGIBALL 2001L LATERAL PACKERS



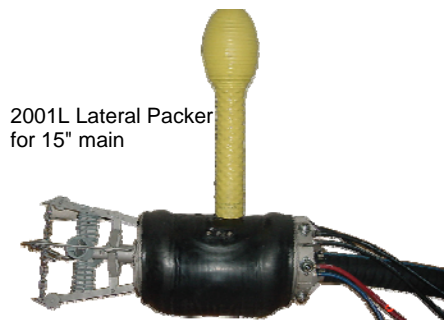
Lateral Grouting Plug

**Complies with
ASTM 2454-05 (2010)**

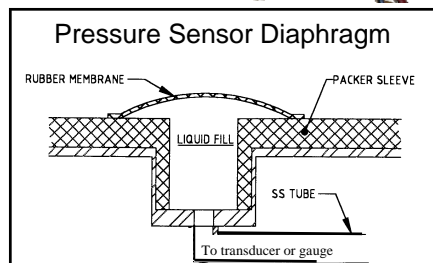
The 2001L comes standard with two grout ports and a third port dedicated for the test medium (air or water). The packers are available with different void pressure monitoring systems; a conventional localized sensor (S) (*recommended for acrylamide and acrylate grouts*), an in-wall water chamber sensor (W) (*recommended for stickier grouts such as urethanes and polyurethanes*) or both systems (S+W) for a more versatile use.

The 2001L Lateral Packers are made of a heavy reinforced rubber sleeve stitched and bonded to a rugged stainless steel body. It is stronger and more durable than any conventional packer.

THE 8" PACKER SHOWN HERE WILL GROUT THE CONNECTIONS AND THE FIRST 5 FEET OF THE LATERAL. LATERAL PLUGS CAN BE INTERCHANGED IN A MATTER OF MINUTES TO GROUT DISTANCES FROM 6" UP TO 30 FEET IF NECESSARY.

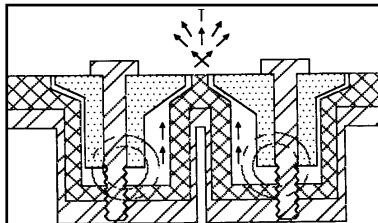
2001L Lateral Packer
for 15" main

The main sleeve creates a minimal grout chamber. The grout migrates freely along the restricted section of the lateral plug and seals defects, leaving only a tiny layer of grout in the lateral. The lateral packer works with a five hose system or four hose system with a diverter valve at the packer end. The model shown here is available for 6", 8", 10", 12", 15", 18", 21", 24", 27" and 30" mainlines. The lateral grouting plugs are interchangeable for all sizes and types of Logiball Lateral Packers. They come in different lengths in one foot increments from 2 feet up to 30 feet, for 4", 5" or 6" diameter laterals.



Pressure Sensor Diaphragm

RUBBER MEMBRANE
LIQUID FILL
PACKER SLEEVE
SS TUBE
To transducer or gauge



The large non-clogging rubber check valves are set to open at the proper pressure to avoid dripping. They are opposed and adjacent to dispense the two part grout in a fan-like pattern for good intermixing.

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