

Low Pressure Pneumatic Packers

Model 800

These simple inexpensive packers inflate with a hand pump and are available in two sizes, designed for pneumatic inflation at pressures from 20-50 psi (140-345 kPa) above hydrostatic pressure. Primarily for use in 2" and 4" (50 mm and 100 mm) monitoring wells, they can also be used in smooth boreholes and wells with 1.9 - 5" (48.26 - 127 mm) inside diameters.

The Packers utilize a gland of black carbon reinforced rubber (BCR) on a Sch 80 PVC body. They are easily lowered on flexible low density polyethylene (LDPE) tubing or a rigid PVC drop pipe. If a rigid drop tube is not required for your application, it is recommended to attach a safety line to the eyebolt provided. The Solinst Model 103 Tag Line provides a convenient, graduated support cable that can be used for this purpose as well as for measuring placement depth. The inflation line of 1/8" (3 mm) low density polyethylene (LDPE) is easily attached using the nylon compression fittings on each packer.



Single or Straddle Packers

Solinst packers are ideal for use with Integra Bladder Pumps or Double Valve Pumps, which can be easily attached above the packers. The water inlet can be below a single packer, or through perforated pipe fitted between straddle packers. When used with Solinst Levelloggers, they can be suspended below or between packers from the eyebolt on the bottom of the packer, for hydraulic conductivity testing.

Packer Specifications		
Packer Size OD	1.8" (46 mm)	3.7" (94 mm)
Access ID	1/2" (12.7 mm)	1" (25.4 mm)
Gland Length	23" (584 mm)	30" (762 mm)
Overall Length	29" (737 mm)	36" (914.4 mm)
- with centralizers	Same	44" (1,117.6 mm)
Borehole Size	1.9 - 2.4" (48 - 61 mm)	3.8 - 4.4" (96 - 112 mm)
- with centralizers	2.5 - 3.5" (63 - 89 mm)	4.5 - 5.0" (114 - 127 mm)
Pipe Fittings	1/2" NPT Female	1" NPT Male
- with centralizers	Same	1" NPT Female

Packer	1.8" O.D. (46 mm)	3.7" O.D. (94 mm)
Well Size	1.9 - 2.4" (48 - 61 mm)	3.8 - 4.4" (96 - 112 mm)
Inflation Pressure	20 - 30 psi 140 - 205 kPa	20 psi 140 kPa
With Centralizers		
Well Size	2.5 - 3.5" (63 - 89 mm)	4.5 - 5.0" (114 - 127 mm)
Inflation Pressure	35 - 40 psi 240 - 275 kPa	25 - 35 psi 170 - 240 kPa

Notes:

- Inflation pressures must be added to hydrostatic pressure at the packer location.
- Maximum submergence = 150 ft (46 m)
- Maximum pressure for any packer = 50 psi or 345 kPa above hydrostatic pressure.
eg: Required pressure for: Packer placed 100 ft (30 m) below water
• 1.8" packer in 2" well: 20 psi min + (100 ft x 0.43 psi) = 20 + 43 = 63 psi.
(46 mm packer: 140 kPa min + (30 x 9.8 kPa) = 140 + 294 = 434 kPa)
- 1 ft water = 0.43 psi, 1 m water = 9.8 kPa

Accessories & Optional Equipment

- Perforated Straddle Pipe
- Inflation Valve Assembly
- Inflation Tubing 1/8" OD LDPE
- Tag Line (Model 103 - marked support cable)
- Water Level Meter (Models 101 & 102)
- Pumps (Models 404, 407, 408 & 410)
- Levelloggers (Model 3001)
- Inflation Pump

Applications

Isolating discrete zones for:

- Water sampling
- Hydraulic conductivity testing
- Datalogging with a Levellogger
- Minimizing purge volumes
- Reducing well development time
- Slug and pump tests
- Injection of tracers, amendments or other materials
- Air sparging (low pressure)

® Solinst is a registered trademark of Solinst Canada Ltd.