

INFLATABLE PACKERS

Model LP and MP

APPLICATIONS

- Pressure grouting in fractured or unconsolidated formations
- Water infusion for dust control in coal mines
- Methane gas control and collection in mines
- Water sampling testing in rock formations
- Permeability testing
- Hydraulic fracturing of formations
- Sealing elements in soil or rock boreholes
- Quality control testing of tubes

DESCRIPTION

The LP and MP series of inflatable packers are versatile and tough units. They consist of an inflatable gland, fitted with swaged steel collars, mounted on a stainless steel center tube. They can be inflated with a variety of fluids such as water, air, nitrogen, etc., to provide a tight seal in holes or casings. The gland flexibility and the range of pressures assure a tight fit against irregular rugged walls. The same size packer will fit a wide range of hole diameters. Single and double units are available.

The gland element consists of a rubber membrane reinforced with extensible steel fabric, and covered with an additional layer of abrasion resistant rubber. Threaded swaged collars terminate both ends of the gland. The collars are used to thread the gland onto packer heads



which are mounted on the center tube. One of the heads is fixed and contains the inflation port. The other head is free to move, allowing the highly reinforced gland to retract about the center tube as it inflates. A NPT pipe thread terminates the top end of the center tube. An assembly is available for use with wireline equipment.

SPECIFICATIONS

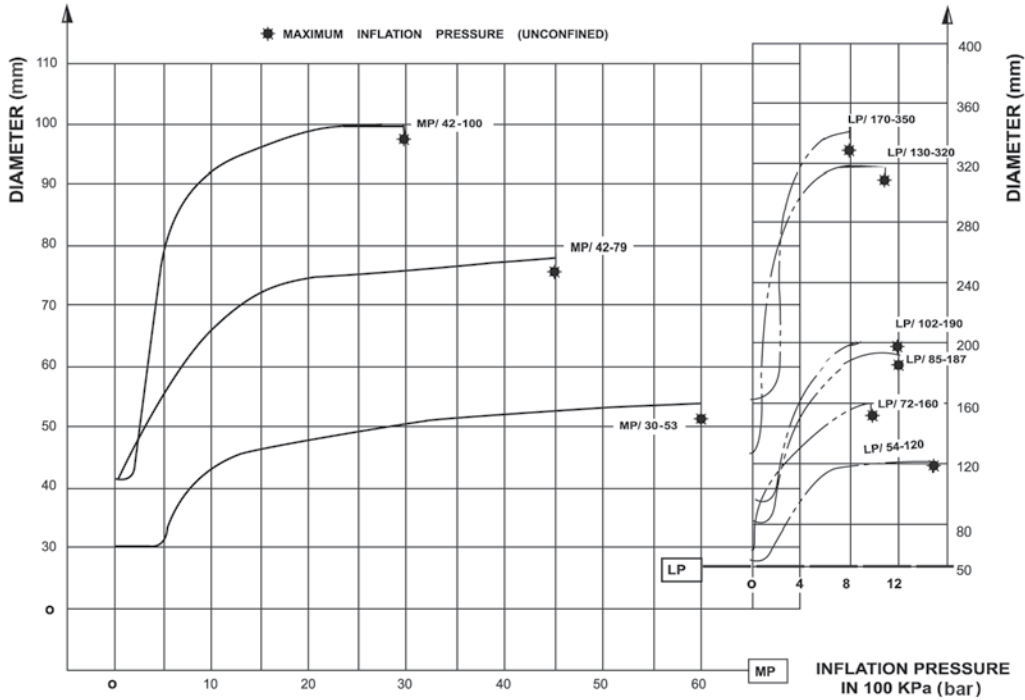
TYPES AND DIMENSIONS

MODEL	Max O.D. (deflated)	Center tube I.D.	Center tube connection	Standard lengths	
MP/30-53	30 mm	10 mm	3/8"	500 mm	1000 mm
MP/42-79	42 mm	17 mm	1/2"	500 mm	1000 mm
MP/42-100	42 mm	17 mm	1/2"	500 mm	1000 mm
LP/54-120	54 mm	26 mm	1"	500 mm	1000 mm
LP/72-160	72 mm	40 mm	1 1/4"	500 mm	1000 mm
LP/85-187	85 mm	40 mm	1 1/4"	500 mm	1000 mm
LP/102-190	102 mm	53 mm	2"	500 mm	1000 mm
LP/130-320	130 mm	81 mm	3"	—	1000 mm
LP/170-350	170 mm	81 mm	3"	—	1000 mm

Notes: Packer lengths other than standard are available upon special request. Some packers can be delivered with an oversized center tube. Flush joint multiple packer assemblies are available.

TYPE OF PACKERS

The series includes membranes that can be inflated under low (LP) or high (MP) pressure. The model numbers (e.g. 30-53) refer to the deflated and fully inflated diameters in millimeters.



Curves of packer inertia when inflated in unconfined condition

		DIAMETER																						
		35 (1 3/8)	40 (1 37/64)	45 (1 25/32)	50 (1 31/32)	60 (2 23/64)	70 (2 3/4)	80 (3 9/64)	100 (3 15/16)	120 (4 23/32)	140 (5 1/2)	160 (6 19/64)	180 (7 3/32)	200 (7 7/8)	220 (8 21/32)	240 (9 7/16)	260 (10 15/64)	280 (11 1/32)	300 (11 13/16)	320 (12 19/32)	340 (13 3/8)			
TYPE	MP/30-53	110	90	70	55																			
	MP/42-79			130	110	70	60																	
	MP/42-100			130	105	65	50	30																
	LP/54-120					130	90	65	30															
	LP/72-160							80	50	30	20													
	LP/85-187								100	70	40	30												
	LP/102-190									95	75	55	45											
	LP/130-320										75	55	45	35	25	20	15							
	LP/170-350											60	50	40	35	30	25	20	15	15				

Diameter in millimeters (inches)

Pressure (× 100 kPa)

Working pressure (confined), in 100 kPa (bar), versus borehole diameter, in millimeters