



OUR VISION

**Solves Your Greatest
Engineering Challenges**

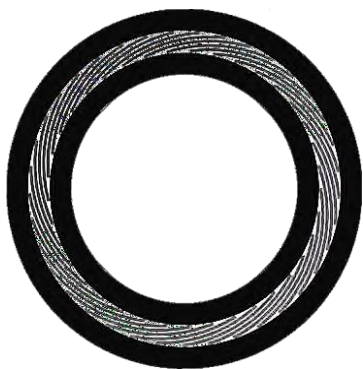
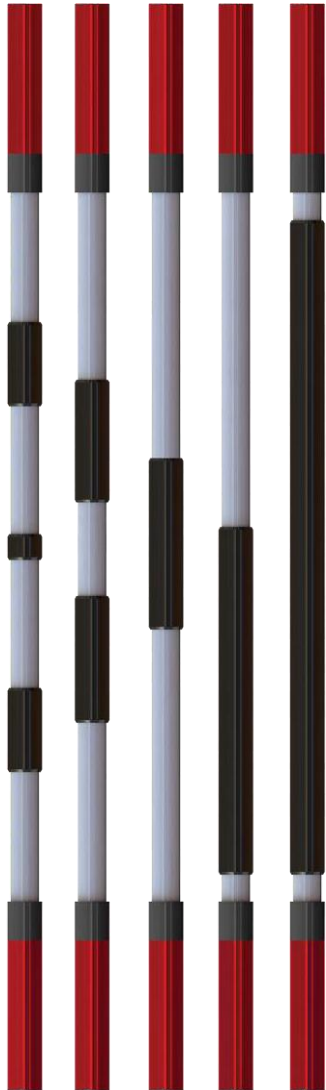
What we do

PETROCO provides technological solutions in rubber and special elastomer parts and assemblies, adapted to the requirements of each customer or application. Iranian engineers and scientists graduated from Sharif University of technology, develop the future of oilfield technology in iran.



PETROCO
rubber-metal professionals

Slat Type Inflatable Elements



A slat-type inflatable element includes a plurality of longitudinal metal ribs on the exterior thereof which are partially overlapping to allow expansion of the packer element while providing a barrier against extrusion. The slat type construction is recommended for single set operations where the tool is released from the running string and must be capable of staying in position without sliding. Our retrievable packers incorporate an inflatable packing element that is sized to pass through the production tubing, pack off the casing below, and then return back to its original size when deflated. Thru-tubing retrievable packers let you reliably conduct your intervention operations, all while leaving the completion in the wellbore.

Applications

- Acidizing
- Fracturing
- Cementing
- Testing applications
- Chemical stimulation, inhibition, and water shutoff treatments
- Pressure testing operations
- Temporary and permanent zonal abandonments

Features, Advantages and Benefits

- High-expansion ratio up to 3:1
- Increasing production rate up to 5:1
- Saving rig time up to 1:5
- Saving money up to 1:10
- Provides the ability to perform jobs without pulling the production tubing and killing the well
- Element can be custom manufactured according to casing size, temperature, corrosion and other well conditions with slat-type reinforcements with fully covered or partially exposed
- High differential pressure capabilities in high temperatures
- Can be used in vertical, deviated, and horizontal applications
- Provides excellent open-hole or cased-hole zonal isolation

Slat Type Inflatable Elements

Inflatable Element Pressure Rating

INFLATABLE ELEMENT (SLAT TYPE) RATING PRESSURE														
Standard Services														
Element OD [inch]	ID of Casing [inch]													
	2.44	2.99	3.54	3.95	4.15	4.89	5.92	6.09	6.76	7.51	8.68	9.76	10.77	12.41
	Max Differential Pressure [psi]													
1.690	5000	4200	3000	2300	1800	1500								
2.125	6000	6000	5500	4400	3600	2600	1600	1500						
2.500		6500	6200	6000	5500	4200	2600	2100	1600					
2.750		7000	6800	6400	6000	5500	3700	3100	2300	1600				
3.000			8000	7500	7000	6500	5000	4500	3400	2500	1500			
3.375				8500	8000	7500	6500	6000	4500	3500	2300	1600		
4.250						8500	7500	6500	5500	4500	3000	2100		
5.375							8500	8000	7500	7000	6000	4000	3200	2200
6.500										8000	6500	4500	3700	2700



Thru-Tubing Inflatable Retrievable Packer



The Thru-Tubing Inflatable Retrievable Packer provides a means of performing remedial and stimulation operations without pulling the production tubing. An inflatable packing element on the packer is sized to pass through the production tubing, pack off the casing/liner below and then the equalized and deflated packer can be retrieved through the production tubing. The thru-tubing packer has a large expansion inflatable packing element so that it can run through small diameters, such as production tubing, and set in the casing/liner below the tubing.

Applications

- High-pressure production or testing
- Fracture stimulation jobs with anchored or floating tubing strings
- Lower-zone isolation, using the packer as a bridge plug
- Upper-completion workover without the need to unseat the packer
- Chemical stimulation, inhibition, water shut off treatments
- Selective well monitoring and testing
- Hole hunting / leak testing

Features, Advantages and Benefits

- Well can be reworked without pulling the tubing string or introducing kill fluid.
- Packer can be run on coiled tubing as well as threaded tubing.
- Can be used in vertical, high-angle, and horizontal application.
- Provides excellent open-hole or cased-hole zonal isolation.
- Pressure can be equalized across the packer before it is released.

Note: PETROC O API – 19 OH full scale test unit is available for functionality tests

Thru-Tubing Inflatable Packer							
Body OD [inch]	Element OD [inch]	Specification					
		Inside Diameter [inch]	Length with Running Tool [inch]	Length without Running Tool [inch]	Fishing Neck Size and Type	Guide Ring OD [inch]	Min. Restriction to Pass Through [inch]
1.690	1.690	0.460	165	140	-	1.753	1.859
	2.125					2.188	2.338
2.125	2.500	0.625	165	140	1.37 OD External	2.563	2.750
	2.750					2.813	3.025
3.000	3.000	0.815	167	142	2.5 OD External	3.063	3.300
	3.375					3.438	3.713

Thru-Tubing Inflatable Retrievable / Permanent Bridge Plug

The Thru-Tubing Bridge Plug (TTBP) provides the ability to temporarily plug the casing below the production tubing. Applications include: temporary shutoff of lower zone, selective acid or chemical treatments, fracturing of upper perforation intervals, isolation of sensitive zones during recompletions, or zonal isolations. The bridge plug can be run on coiled or threaded tubing, or on electric wireline. The plug is equalized, released and retrieved with either tubing, braided wireline, or slick line with a single trip in the hole.

Applications

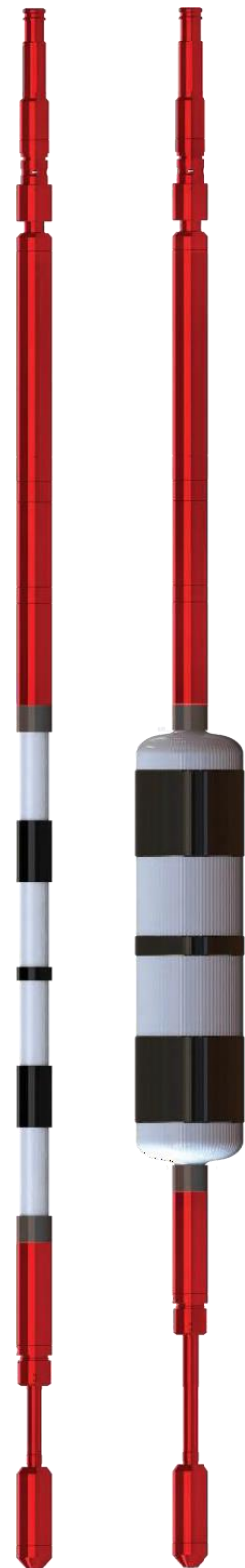
- High-pressure production or testing
- Fracture stimulation
- Highly deviated wells and doglegs
- Temporary abandonment
- Temporary zonal isolation
- Primary/secondary wellhead barrier

Features, Advantages and Benefits

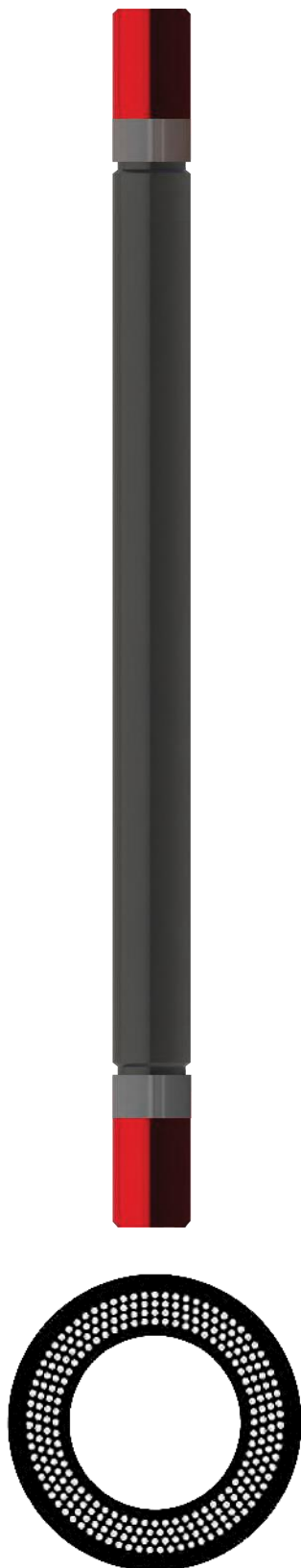
- Along with the setting cylinder below the element, the one-piece mandrel eliminates the O-ring connection between the top sub and mandrel, minimizing leak paths and providing greater reliability
- The packer can be set in a single trip without rotation or reciprocation of the tubing string, saving valuable rig time

Note: PETROC O API – 11D1 full scale test unit is available for functionality tests

Thru-Tubing Inflatable Bridge Plug						
Body OD [inch]	Element OD [inch]	Specification				
		Length with Running Tool [inch]	Length without Running Tool [inch]	Fishing Neck Size and Type	Guide Ring OD [inch]	Min. Restriction to Pass Through [inch]
1.690	1.690	164	139	-	1.753	1.859
2.125	2.125	164	139	1.37 OD External	2.188	2.338
	2.500				2.563	2.750
	2.750				2.813	3.025
3.000	3.000	166	141	2.5 OD External	3.063	3.300
	3.375				3.438	3.713



Cable reinforcing elements



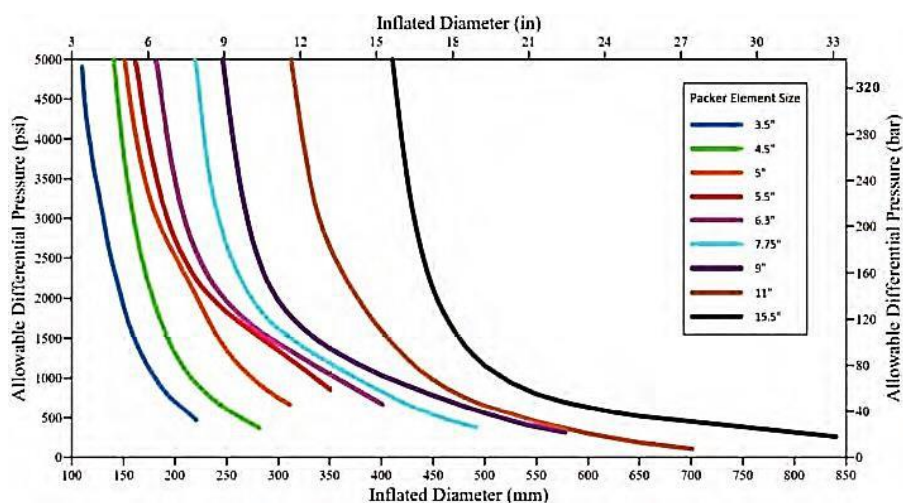
Cable reinforcing elements are used, such as at least one sheet of flexible wires embedded in the wall of the inflatable element, the sheet having a circularly cylindrical surface on the same axis as the inflatable. They are used in washing wells and other applications where constant working of the cup is expected. Our cable elements are also made with special gas- and oil-resistant compounds, making them ideal for oilfield applications. The cable element is recommended for applications requiring multiple inflation cycles, retrievable operations, and when setting the element in perforations, slots, or open hole.

Applications

- Suitable for setting in open hole
- Formation acidizing and treatment
- Cement squeeze
- Permanent plug or retainer

Features, Advantages and Benefits

- Can be re-dressed and re-run with same packer element
- Multiple set capability
- No welding during construction
- Full-length steel wire reinforced element



Note: PETROC O API – 11D1 full scale test unit is available for functionality tests

Swell Packer Isolation System (Bonded)

The Swell Packer isolation system is an innovative technology that offers simple, safe, and reliable downhole isolation. **Bonded** swell packer is a robust swell packer designed for zonal isolation applications such as multistage fracturing, reservoir separation, cement assurance, etc. It provides long-term reliability and can be run as an integral part of smart well completions. **Bonded** swell packer swells in all well fluids (customized) and all thermal and chemical conditions.

Applications

- Open and cased-hole isolation
- Stimulation placement
- Open and cased-hole straddles
- Intelligent completion systems
- Cement assurance
- Mechanical set packers backup
- Liner-hanger backup
- Sand control
- Water shot-off

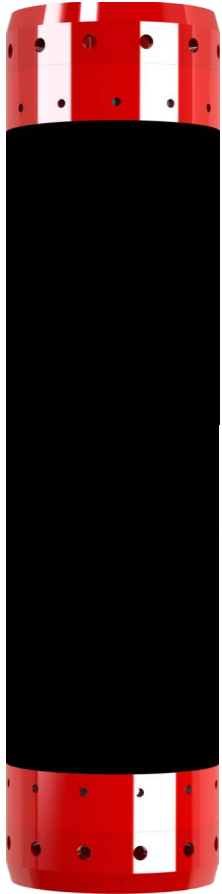
Features, Advantages and Benefits

- Elastomer is directly bonded to Pipe
- High differential pressure capability up to 1500 psi/ft
- Custom packer lengths and diameters
- Durable and reliable self-healing and self-sealing properties
- Elastomer color coding for easy recognition
- No moving parts
- Swells with wet and dry gas

Note: PETROC O API – 19 OH full scale test unit is available for functionality tests



Swell Packer Isolation System (Slip-On)



Slip-On is a pre-assembled high-performance swell packer especially designed for high differential pressure applications where a bonded solution is not viable for logistic reasons. It easily slips on pipe and provides on-site installation in a very shorttime. Its reduced overall length allows for increased installation flexibility throughout the well trajectory and optimal zonal isolation. The **Slip-On** innovative sealing concept allows for stacking multiple units in series for increased differential pressure holding capability up to 10,000 psi. **Slip-On** Swells in all well fluids containing aqueous and hydrocarbon fluids, especially swells in wet and dry gas.

Applications

- Open and cased-hole isolation
- Stimulation placement
- Open and cased-hole straddles
- Intelligent completion systems
- Cement assurance
- Mechanical set packers backup
- Liner-hanger backup
- Sand control
- Water shot-off

Features, Advantages and Benefits

- Stackable solution for increased differential pressure rating
- Simplified, safe and reliable on-Field installation
- High differential pressure capability up to 1500 psi/ft
- Elastomer color coding for easy recognition
- Custom packer lengths and diameters
- Self-healing and self-sealing properties
- Easy to replace
- Logistic eases (transportation, storage, operation)
- Time and cost saving solution
- Easy to run in deviations and abnormal trajectories

Note: PETROC O API – 19 OH full scale test unit is available for functionality tests

Rubber Packer Elements

PETROCO provides high performance engineering elastomers for high pressure and high temperature packing solution containing HNBR, Viton and Aflas formulations with an extended successful job cases.

Features, Advantages and Benefits

- Partially supporting weight for the down-hole tubing or liner
- Improving well flow and production rate
- Separating different producing zones
- Enhancing safety by limiting well control to tubing at the surface
- Holding fluid for well servicing in the casing annulus
- Preventing the downhole movement of the tubing string
- Guarding the annular casing from corrosion caused by the fluids and high pressures

Elastomer Technology

- Aflas formulations for HPHT gas wells
- Viton A, B and F formulations for low aniline point oils
- Viton G and ETP formulations for extreme conditions¹
- HNBR and NBR formulations for conventional conditions
- High temperature resistance up to 260 °C (500 °F)
- Life time gauranty due to NORSOK-M710 verification tests
- Preserve up to 10000 psi differential pressure
- High extrusion resistance
- Very low swelling against oil, aromatics and gas
- Very low compression set
- Aggressive chemical resistance (H₂S, HCl)
- Low permeability against gaseous diffusion
- Service life up to 10 years without noticeable property change

¹ Viton G and ETP are high performance and advanced technology vitons for very harsh chemical conditions and high temperatures (up to 230 °C (446 °F))



Who We Are?

We are an Oilfield Company that designs, manufactures and provides Remedial and Completion services to the Oil and Gas industry.



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