

ST Range of Testing Tools

The ST range of multi-cycle inflatable packer systems features a four-stage operating mechanism that enables packer inflation, annular circulation, interval testing, and complete shut-in isolation. The ST range can be configured as a single packer or a dual packer straddle assembly both with a standard pressure rating of 5,000 psi (10,000 psi version available). Its multi-cycle functionality allows for multiple formation evaluation tests or stimulation cycles to be performed on different zones within a single trip. Its design features a volume compensated balanced piston that prevents inner-component movement from inducing pressure fluctuations within isolated test zones and allows the ability to accurately record initial shut-in pressure while preventing unintentional formation fractures. This innovation makes the ST range the optimal inflatable packer solution for formation evaluation and well stimulation in open hole or cased hole applications.

Applications

- Coalbed methane DST, IFO and DFIT testing
- Formation evaluation in Oil & Gas, geotechnical, or water wells
- Casing patch leak-off testing
- Well stimulation (acid treatment)

Features

- Simple and reliable operation only requires axial movement and hydraulic pressure (control lines, rotation, or downhole pumps are not required)
- Innovative design eliminates squeeze pressure during packer inflation
- Improved shut-in pressure accuracy due to zero-displacement valve design
- Low-pressure-loss tool chassis
- Ability to circulate while in the shut-in stage enables air/nitrogen induced hydrostatic head reduction for DST or swabbing applications
- Filter screen protected flow path prevents solid/debris clogging
- Backup pull release emergency deflation mechanism available
- Ideal for cased and open hole applications
- Available upgrades for real time downhole measurement systems
- Adaptor sub extensions available for longer straddle intervals
- Three different chassis sizes available for adaptability with an extensive range of packer types and sizes

Compatible Packer Systems

Packer size		Compatible ST Tool	Hole Size		Max. Pressure
mm	in		mm	inch	
Ø57	Ø2 ¼	ST60	76	3.0	5000 psi
			96	3.8	2500 psi
Ø67	Ø2 ⅝	ST60	96	3.8	5000 psi
			140	5.5	1700 psi
Ø86	Ø3 ¾	ST86	115	4.5	5000 psi
			152	6	2000 psi
Ø114	Ø4 ½	ST86 & ST114	140	5.5	5000 psi
			200	7.9	2000 psi
Ø127	Ø5	ST86 & ST114	170	6.7	5000 psi
			250	9.8	1600 psi
Ø140	Ø5 ½	ST86 & ST114	180	7	5000 psi
			260	10.2	2800 psi
Ø178	Ø7	ST114	210	8.3	5000 psi
			300	11.8	2100 psi



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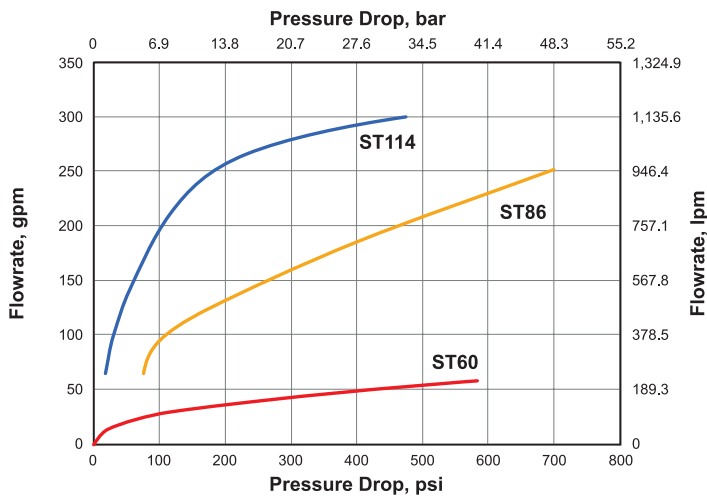
Specifications

Tool Type	ST60	ST86	ST114
Minimum Tool Diameter	60 mm	86 mm	114 mm
Run on API Drill Pipe/Tubing	2 3/8 inch	2 7/8 inch	4 1/2 inch
Max. Pressure Rating	5000 psi (34.5 MPa)	5000 psi (34.5 MPa)	5000 psi (34.5 MPa)
Max. Temperature Rating *	80° C (176° F)	80° C (176° F)	80° C (176° F)
Max. Pull (Emergency Deflate)	4.4 T (9,700 lb)	13.2 T (29,100 lb)	26.4 T (58,202 lb)
Max. Axial Load (1.6 safety factor)	13.5 T (29,762 lb)	48 T (105,821 lb)	87 T (191,802 lb)

* Maximum temperature rating on a standard tool ST65 (HP) and ST114 (HP) 10,000 psi versions are also available.

Tools requiring higher temperatures can be supplied, as well as change over kits to existing tools to a maximum temperature of 150° C / 302° F.

Pressure Vs Flow



ST114

Straddle
Packer
System

Single
Packer
System

