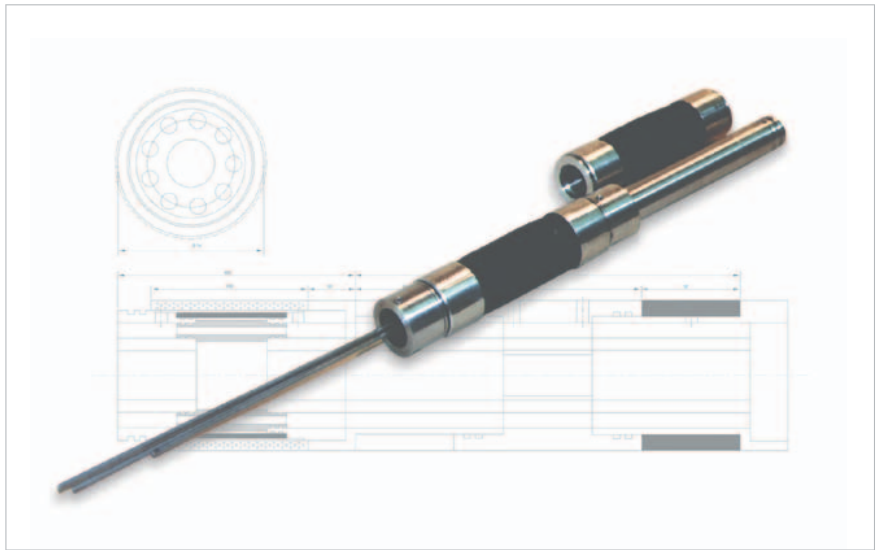


Custom Packer Systems

Our field testing experience enables us to design and manufacture reliable, cost-effective systems, optimized for each particular application.

- **Multi-Packer Systems**
- **Double-Packer Systems with down-hole pressure measurement and down-hole valve.**
- **Heavy-duty Hydro-Fracture Systems**
- **Mechanical / Resin-injection Packers**



Solexperts has been designing and manufacturing specialized packer systems for a wide variety of hydrogeologic applications since 1985. Our clients benefit from the fact that we are in the field, testing with our systems on a day-to-day basis.

Each Solexperts Packer System is designed to meet our clients' exact needs. We have demonstrated proficiency in designing and building systems with a wide array of diameters, packer lengths, pressure ranges and construction materials. We work closely with our clients to optimize design and ensure that we deliver the best system for the application.

At Solexperts, «custom-built» in providing fast turnaround for complex projects. Our expertise means that the job will be done right and on time.

We also provide complete field measurement solutions, including data acquisition systems, flow measurement and control, field testing services, analysis and reporting.

Selected examples of Solexperts Custom Packer Systems

System	Specifications		Client
Modular Mini-Packer System			
Purpose: Characterization of the excavation disturbed zone (EDZ) in a salt shaft, for testing with gas or brine.	diameter:	52 mm	WBI / BfS
General: Up to 6 packers of varying length can be connected in a single string. Minimum interval length is 10 cm.	packer length:	0.1 to 2 m	
	pressure rating:	100 bar (56 mm)	
	Stainless Steel / natural rubber		
Multi-Packer System			
Purpose: Characterization of fracture flow using hydraulic and tracer testing.	diameter:	72 mm	ANDRA / SKB
General: Up to 10 packers can be connected in a single string. A total of 40 control lines for packer inflation, pressure measurement, flow and tracer circulation - all protected within the central tubing.	packer length:	1 m	
	pressure rating:	60 bar (76 mm)	
	Stainless Steel / natural rubber / teflon		
Quad-Packer and Double-Packer System			
Purpose: Permeability-testing in salt with brine.	diameter:	50 mm	GRS, Braunschweig
General: Nitrile Rubber construction for inflation with oil.	packer length:	0.4 – 1.0 m	
	pressure rating:	100 bar (56 mm)	
	Stainless Steel / nitrile rubber		
Multi-Packer Systems for the FEBEX Project			
Purpose: Long-term Monitoring along the tunnel during the Full-scale Engineered Barrier Experiment.	Durchmesser:	60 mm	ENRESA
General: Over 40 packers in one- to four-packer configurations. Integrated down-hole temperature measurement.	Packerlänge:	1.0 m	
	Druckbereich bis:	60 bar	
	(66 mm)		
Small Diameter Hydro-Frac System			
Purpose: Hydro-Frac Testing at the Lower Kihansi Dam Project, Tanzania.	diameter:	54 mm	Norplan / World Bank
General: Designed for «through-the-bit» testing in wireline core holes (76 mm).	packer length:	1.0 m	
	pressure rating:	150 bar (76 mm)	
Solexperts has Developed Numerous Packer Systems for Research Experiments Conducted at the Grimsel and Mt. Terri Test Sites in Switzerland. Examples ...			
<ul style="list-style-type: none">Hydro-mechanical packer combined with resin injection to provide an extremely stiff system for porewater pressure measurement in low-permeability clay.Packer system for characterizing cement-water interactions (hyper-alkaline plume), constructed of non-corrosive materials (titanium, teflon).Modular Packer System with integrated «break-points» for over-coring.Modular Mini-Packer System for permeability testing in the EDZ.Specialized double-packer system for injecting radioactive tracer down-hole.Double-Packer system with integrated optical flourimeter.Double Packer system with integrated pressure cells for measuring the swelling pressure of bentonite seals in boreholes.			NAGRA, ANDRA, Mt. Terri Consortium

Solexperts AG

Mettlenbachstrasse 25
 P.O. Box 81
 8617 Mönchaltorf
 Switzerland

Tel +41 (0) 44 806 29 29
 Fax +41 (0) 44 806 29 30
 info@solexperts.com
 www.solexperts.com