floXlab

Your supplier of wide range of high pressure syringe pumps and advanced geotechnical testing equipment on the market

floxlab is an engineering firm specialized in the design and manufacture of an ample range of products encompassing advanced geotechnical testing equipment, high precision syringe pumps and compression frames.

Our product lineup encompasses the full spectrum of equipment needed for a Geomechanics laboratory. In many scientific fields, preparing the sample is often a crucial initial step. From rock slabs, we derive cylindrical samples which are then trimmed to the desired size. Standard practice also involves using a specialized machine to grind the sample ends, ensuring two flawlessly parallel surfaces. In certain cases, the sample needs to be dried before conducting the experiment.

floxlab has readily available saws, coring machines, surface inspection and drying equipment to complete preparation steps.

The next step in Geomechanical studies is routine analysis; that is, quick measurements at ambient conditions to derive mechanical properties such as elasticity and shear moduli, Poisson's ratio, uniaxial compressive strength, tensile strength, rock material classification, hardness, abrasion resistance, swelling porosity and permeability. All of our equipment abides by the ASTM and/or ISRM norms and recommended procedures.

Advanced studies can be performed by virtue of our complete rock deformation systems. The latter comprise dedicated triaxial cells, compression frames, hydraulic pumps and pore and confining pressure control sub-systems. Each apparatus serves a specific purpose, e.g. triaxial compression, direct shear, hydraulic fracturing, and uniaxial strain compression. Moreover in each category, several models with varying maximum force are proposed. In budgetary constraint situations, system components can also be provided separately. The former encompass compression frames, triaxial cells, deformation sensors, pumps and pressure controllers.

Whether a unique lab-scale unit or a complete turnkey system is required, our clients will benefit from our unrivaled depth of technological knowledge and experience as well as unparalleled customer service. With over 90% of our operations lying outside of France, floxlab systems have become a standard in all major laboratories, with a strong presence in the U.S.A, Europe, the Middle East, China, and Russia.

Our customers would agree that we are surely the world's foremost pump designer and manufacturer. Sectors benefiting from our devices' precision in pressure, volume and flow rate include: petroleum research, mining, geoscience etc.

At floxlab, our philosophy is continuous improvement through constant market demand monitoring, higher quality material prospection, and meticulous customer feedback collection and analyses.

We provide high pressure syringe pumps categorized in four standard product series. They are either single or dual cylinder and Benchtop or Benchfloor; the key differences being that dual cylinder pumps warrant continuous, pulseless flow by virtue of automated pneumatic valves, and BenchFloor pumps comprise greater cylinder volumes and flow rate capacities for a given maximum operating pressure. Cylinder capacities range from 10 ml to 1000 mL and pressures up to 40 KPsi can be reached. Moreover multiple operating modes are available, e.g. constant flow rate and constant pressure. The devices feature a touch screen interface for local control and can be connected via Ethernet to a computer for remote operations and complex system integration.

Our versatile pumps incorporate a variety of features to augment their suitability for specific applications; i.e. conversion of wetted parts from Stainless Steel to corrosion-proof Hastelloy, special high temperature non-reactive packing, temperature control (supra-ambient and sub-ambient) and in-situ agitation for fluid homogenization.

Your supplier of high pressure laboratory instruments

Common domains in which our pumps are utilized include:

- ☑ Petroleum reservoir fluid analysis
- ☑ Fluid displacement in porous media
- ☑ Rock mechanics

Model	Pressure (psi)	Volume (ml)	Max flow rate (ml/min)	Mini Flow rate (ml/min)
CF 3	3,000	2 x 40	80	0.0001
CF 6	6,000	2 x 32	55	0.0001
CF 12	12,000	2 x 15	30	0.0001
CF 15	15,000	2 x 12	25	0.0001
CF 20	20,000	2 x 10	15	0.0001
CF 30	30,000	2 x 5	5	0.0001

Model	Volume (ml)	Pressure (psi)	Max flow rate (ml/min)	Mini Flow rate (ml/min)
BFSP 500-15	500	15,000	40	0.0001
BFSP 500-25	500	25,000	50	0.0001
BFSP 1000-15	1000	15,000	80	0.0001

Model	Volume (ml)	Pressure (psi)	Max flow rate (ml/min)	Mini Flow rate (ml/min)
BFDP 500-15	500	15,000	40	0.0001
BFDP 500-25	500	25,000	50	0.0001
BFDP 1000-15	1000	15,000	80	0.0001

Model	Volume (ml)	Pressure (psi)	Max flow rate (ml/min)	Mini Flow rate (ml/min)
BTSP 20-40	20	40,000	7.5	0.0001
BTSP 50-30	50	30,000	20	0.0001
BTSP 150-30	150	30,000	20	0.0001
BTSP 100-10	100	10,000	45	0.0001
BTSP 125-20	125	20,000	30	0.0001
BTSP 175-15	175	15,000	30	0.0001
BTSP 250-10	250	10,000	60	0.0001
BTSP 250-20	250	20,000	35	0.0001
BTSP 300-15	300	15,000	40	0.0001
BTSP 500-5	500	5,000	130	0.0001
BTSP 500-10	500	10,000	70	0.0001
BTSP 1000	1000	1,875	250	0.0001
BTSP 1000-5	1000	5,000	130	0.0001

Model	Volume (ml)	Pressure (psi)	Max flow rate (ml/min)	Mini Flow rate (ml/min)
BTDP 50-30	50	30,000	7.5	0.0001
BTDP 100-10	100	10,000	20	0.0001
BTDP 125-20	125	20,000	45	0.0001
BTDP 150-30	150	30,000	20	0.0001
BTDP 175-15	175	15,000	30	0.0001
BTDP 250-10	250	10,000	30	0.0001
BTDP 250-20	250	20,000	35	0.0001
BTDP 300-15	300	15,000	40	0.0001
BTDP 500-5	500	5,000	60	0.0001
BTDP 500-10	500	10,000	70	0.0001
BTDP 1000	1000	1,875	130	0.0001
BTDP 1000-5	1000	5,000	130	0.0001

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