MATEST



LARGE SHEARMEC 300 mm DIRECT SHEAR ELECTROMECHANICAL SHEAR MACHINE FOR LARGE-SIZED SAMPLES

STANDARDS: ASTM D3080, D6243 | BS 1377:7 | EN ISO 12957

Large Shearmec is an automatic electromechanical shear machine, able to accept samples with medium and large grain sizes, such as gravels, and can also perform tests on geosynthetic materials. The shear box, made of stainless steel, has dimensions of 300x300 mm, or 150x150 mm, and is supplied complete with containment plates.

The shear force and vertical pressure are applied by two 100 kN electromechanical actuators, each with a stroke of 150 mm and 75 mm respectively. Large Shearmec is controlled by SmartLab, Matest software platform dedicated to manage tests on construction materials.



MAIN FEATURES

- Load application system via electromechanical actuators
- Test fully configurable from display
- Self-locking upper plate joint
- Data storage on USB key
- Liquid collection containers on the work top
- Remotely controlled trough SmartLab

TECHNICAL SPECIFICATIONS

- Sample size: mould 300x300x150 mm. Optional accessory: mould 150x150 mm
- Horizontal and vertical load: 100 kN
- Speed: from 0,00001 to 12.00000 mm/min
- Consolidation steps: up to 50
- Data control and acquisition: Cyber-Plus Progress 8 channels + SmartLab Soil Software

SOII

SMARTLAB

SmartLab is a revolutionary software that interfaces Large Shearmec with laboratory management systems and regulates the shear test, as well as the other geotechnical tests, from data acquisition to advanced and customizable data processing and to the creation of test reports.

DETAILS MAKE THE DIFFERENCE



Upper tilting plate for sample insertion.



Mould 300x300x150 mm





Setup Ex	eeution	Decuments	(0)	Log					
(1) Contiguration	«	Shear cont	6					(🗸 сомятито
Pre-consol-dation	-	Shear to 200 kPa			Number of shear cycles 3			Stear speed 0.007 0.3 0.5 mm/min	nin 🧳
Consolidation Setting: Acquisitor settings		Sinear threshold 10 10 10 mm			sou concainer return tiag Yes			Sol container return speed	
 Shear Sottinge: Acquisition setti shear (2) 	o Acquiston las Linear: t∋a 3° x + 0								
Export & Report		Shear cycle 1							
		Time (s)	Horizontal deformation (mm)	Shear stress (kPa)	Vertical deformation (mm)	102 S	hear stress and Vert	ical deformation vs Horizontal def	ormation mm
		0.0000	0.0000	0.2100	0 0000 0				1
		3.0000	0.0020	2.3500	0.0000	20-	1		-0.001
		8.0000	0.0050	4.5500	0.0000	~			
		9.0000	0.0080	6 7600	-0.0010				-5.952
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									-0.005

Configurable test from the display.

Real-time test monitoring via SmartLab.