



Levent₁₀₀₁

CORE DRILLING RIG

Levent 1001 Core Drilling Rig

Levent 1001 the smallest and most compact, all hydraulic mechanized core drill in the Levent range. Levent 1001 is ideal for coring and grout hole drilling in narrow tunnels or galleries as well as in cramped spaces underground. The Levent 1001 drill is equally efficient for surface drilling operations.

As an option the drill unit can be mounted on carriers for special purposes like a; a narrow crawler for underground use, or a wide crawler for surface use.

The drill unit can be powered by an electric motor or diesel engine. When the drill rig is equipped with the electrical power unit, as an optional diesel engine for tramming is available.

The compact design and light weight, makes the Levent 1001 easy and fast to set-up for drilling. This in turn offers quicker moves between drill sites, without disturbing normal production routines in the mine or grouting sequences in dam galleries.

To achieve the best results with regard to:

- high penetration
- optimal core recovery
- and low drilling costs

It is of primary importance that drill rods, core barrels and coring bits are of the right type and quality, matched to the rock drill and to the prevailing rock conditions.

Bearing in mind core drill's speed of rotation, its rating and chuck diameter, the LEVENT 1001 is best suited to drill holes 36-46 mm in diameter (A). The spindle inner diameter is 50 mm (1.97 in) in the A-size rotation unit.



Technical Specifications

Drilling Depth Capacity

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. Son-Mak cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Vertical Down		Vertical Up	
	Metric	U.S. System	Metric	U.S. System
AO Wireline	180 m	590 ft	150 m	492 ft
AWJ Conventional	120 m	393 ft	100 m	328 ft

Rotation Unit

Rod sizes:	A
Power:	Hydraulic Motor
Max. Torque:	250 Nm (184 ft lbf)
Max. Rotation Speed:	2200 rpm
Type:	Hydraulic Closed, Spring Open
Spindle Inner Diameter:	50 mm (1.97 in)
Chuck axial holding force:	28 kN (6295 lb)

System Power Unit

Electrical Power Unit PU15E	Metric	U.S. System
Power:	15 kW	20 hp
RPM:	1450	1450
Primary Pump:	50 l/min - 210 bar	13.2 gal/min - 3050 psi
Secondary Pump:	5 l/min - 210 bar	1.32 gal/min - 3050 psi
Hydraulic Oil Cooling:	Water	

Feed Frame	850	
	Metric	U.S. System
Feed Stroke:	850 mm	33.5 in
Thrust Force:	20 kN	4500 lbf
Pull Force:	15 kN	3372 lbf
Max. Feed Speed:	0.8 m/s	2.6 fps

Rod Holder	Metric	U.S. System
Max. Opening:	52 kN	2.05 lbf
Holding Force:	25 kN	5620 lbf
Type:	Hydraulically open, disc spring close	

Flush Pump

TP45E with 4kW Electric Motor	Metric	U.S. System
Flow:	45 l/min	12 gal./min
Pressure:	45 bar	650 psi



SON-MAK

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