

Atlas Copco Hydraulic rock drills

COP 1838ME/HE

Technical specification



A series of high-speed, hydraulic rock drills for face drilling and long-hole drilling in the hole range 38–89 (102) mm. High penetration rates and excellent drill steel life.

Features and benefits

- Efficient, hydraulic dual-damping system absorbs and dissipates the shockwaves from the rock, as well as establishing the best possible contact between the drill bit and the rock. This feature makes it possible to transmit maximum power to crush the rock without risking non-tightening of threads in the drill string.
- Impact piston design matches the size of the drill steel. This feature gives minimum drill steel stress.
- Powerful, stepless variable and reversible rotation motor gives high torque for efficient drilling, and minimizes the risk for jamming.
- Separate lubrication of fronthead and driver together with pressurized and lubricated mating surfaces and sidebolts for the best protection against wear and corrosion.
- The low profile of COP 1838ME/HE permits drilling close to walls with only 2 degrees look-out angle.
- Two nitrogen-charged accumulators plus one accumulator for the return oil, levels out pressure peaks in the hydraulic systems. This reduces vibrations and wear on hydraulic components.

Technical data COP 1838ME/HE

DIMENSIONS AND WEIGHT

	COP 1838ME	COP 1838HE
Weight, kg	170	174
Length without shank adapter, mm	1 008	1 098
Width including connectors, mm	251	316
Height, mm	223	223
Height over drill center, mm	88	88

ROTATION MOTORS

	COP 1838ME	COP 1838HE
Type	05 OMS100/ 07 OMS160	09 OMS250
Rotation range, rpm	0–340/215	0–140
Torque, max, Nm	640/1 000	980
Working pressure, max, bar	210	175
Oil consumption, l/min	75	75

IMPACT RATINGS

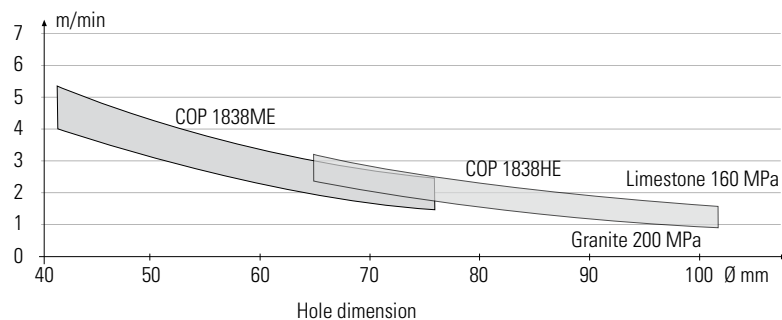
	COP 1838ME	COP 1838HE
Impact power, max, kW	18	19
Input power to rock drill, max, kW	31	32
Hydraulic pressure, max, bar	230	230
Flow rate, l/min	75–92	71–90
Impact frequency, Hz	60	42–50
Impact energy, Nm	330	360

FLUSHING FLOW AND PRESSURE

	COP 1838ME	COP 1838HE
Flushing water pressure, max, bar	25	25
Lubricating air consumption at 2 bar, l/s	5	5
Flushing water consumption, l/min*	40–120	105–165

*Flushing water consumption depends strongly on hole diameter, bit type, drill rod size and rock hardness. The figures above are typical values for spherical button bits in granite, 200 MPa.

Penetration rate



Laboratory test results

OVERHAUL KITS

	COP 1838ME		COP 1838HE
	Guide diameter, 38	Guide diameter, 52	
Seal kit	3115 9150 96		3115 9153 92
400 impact hours kit	3115 9238 90		3115 9153 93
Overhaul kit	3115 2118 90	3115 2119 90	3115 9153 94

SHANK ADAPTERS

	COP 1838ME Guide diameter 38		COP 1838ME/HE Guide diameter 52
	Drifting	Long-hole drilling	Long-hole drilling
R32	403-09101,10	403-09103,10	403-09103-18,10
TC35	N/A	N/A	469-09103-18,10
R38	404-09101,10	404-09103,10	N/A
T38	435-09101,10	435-09103,10	435-09103-18,10
SR38	427-09101,10	427-09103,10	N/A
T45	N/A	N/A	436-09103,10
T51	N/A	N/A	437-09103,10