SpeedROC 1F

Surface drill rig for marble, granite, sandstone and limestone in the dimension stone industry.

Atlas Copco

Big capacity in a small unit

SpeedROC 1F, a small, hydraulic mobile drilling unit, is our high quality, high capacity drilling unit for the dimension stone industry.

Tailor-made for marble, granite and sandstone quarries, SpeedROC 1F provides you with straight holes. It gives you a low total cost of ownership (TCO) with its high drilling productivity, drilling speed up to 2 m/min (6.5 ft/min), low fuel consumption of 6 l/h (1.6 US gal/h) and an efficient operation, that you can complement with the horizontal drilling option.

Main benefits

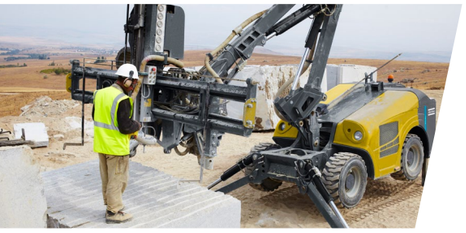
Tailor-made for the dimension stone industry

Parallel and straight holes means high quality output

High drilling capacity means better productivity

Boost your productivity

Thanks to its productivty boosting features like anti-jamming system, guide rails and 3-way steering the rock buggy will increase your quality output and lower your total cost of ownership.



+ Precise dimensions cut costs

In the drilling process, SpeedROC 1F's precise output dimensions help ensure a high quality product, while exact measurements also contribute to low loading and transportation costs.

+ Rails keep you in line

Combining the unit's stability with an anti-jamming system and guide rails, ensures holes are parallel to each other and aligned in a straight line. This makes for high drilling quality and capacity.

+ Better working conditions

The rig is equipped with a Radio Remote Control which allows a safe operation. Furthermore, the effective dust collector system grants an high suction capacity with a reduction of the noise level emission. The hydro-static transmission and 3-way steering system is a unique feature of the machine which improves the tramming capacity and aids climbing gradients in tough working conditions

Atlas Copco service

Even the best equipment requires regular service to ensure optimal performance. Atlas Copco provides service solutions to safeguard an optimized relation-ship between productivity, availability and opera-tional cost. Atlas Copco Mining and Rock Excavation Technique has over 3 100 technicians worldwide. By combining the usage of Atlas Copco genuine parts with service provided by a certified Atlas Copco technician, you'll have a winning combination no matter of where in the world you operate.

Main components

- One hydraulic rock drill, COP DS5
- Aluminium feed with rail bar
- Two independent hydraulic stabilizer legs
- Rail bar
- Folding boom
- Self propelled four-wheel drive unit
- CANBUS control system
- Cummins engine
- Screw compressor
- Dust collector system

DSI applications

Marble-, granite-, sandstone-, and limestone quarries

DSI operations

Primary cut drilling
Bench dressing
Block dressing

Rock drill

COP DS5	Metric	Imperial
Hole diameter	33 – 52 mm	1.29"– 2"
Weight	45 kg	99 lb
Max impact power	5 kW	6.7 hp
Impact rate	68 Hz	68 Hz
Hydraulic pressure	155 bar	2 248 psi
Shank type	HEX 22x108	

Compressor

FAD, at normal working pressure	22 l/s	46 cfm
Maximum preassure	6 bar	87 psi
Mod E3		

Drilling unit

Starter rod	2.40 m	7' 10 1/2"
Rail bar with travel length	3.7 m	12' 1 11/16"
Rail bar with travel length	3.05 m	10'
2 independent hydraulic stabilizer legs		
Rail bar front rotation +/-20°		
Rail bar lateral rotation +/-20°		
Rail bar horizontal rotation +/-90°		
Feed in aluminium with hardened steel inserts for slide advancing with hydraulic approaching device to the ground		
Chain feed slide with hydraulic engine		
Sliding block in self lubricating composite		
Fast system steel retainer		

Folding boom

Length boom	4.8 m	15' 9"
Swing boom rotation +/- 35°		

Carrier

Axles: equipped with three steering systems
Front axle rigid to the frame
Balancing rear axle
4 drive steering wheels
4 hydraulic stabilizer legs
Hydrostatic transmission at closet circuit with pump and variable-powered pistons hydraulic motor
Differential automatic blocksystem

Hydraulic system

Variable displacement main pump with load-sensing control system
Gears secondary pump for starting the dust collector system and radiator oil cooling device
Automatic device of oil pre-heating system
Oil cooling system
Anti-jamming device
Proportional control hydraulic valves
10 micron absolute oil filtration

Control system

Radio Remote Control
3 electronic power stations
Drilling low start device concerning both the thrust pressure and the percussion pressure

Engine

Cummins QSB 3.3 Tier4i
Direct injection
4 cylinders
Power 110 hp – 82 kW
Cummins B 3.3 Tier 3
Direct injection
4 cylinders
Power 85 hp – 63 kW

Dust collector

Filtering surface	6 m^2	65 sq.ft
Suction capacity	97 l/s	206 cfm
Number of filters: 2		
Automatic cleaning system of the filters		

Tramming

Tramming speed	5 km/h	3.1 mph

Volumes

Hydraulic oil tank	60 l	15.9 US gal
Hydraulic oil total	100 l	26.4 US gal
Compressor oil	8 l	2.11 US gal
Diesel engine oil	8.5 l	2.25 US gal
Diesel tank	140 l	37 US gal

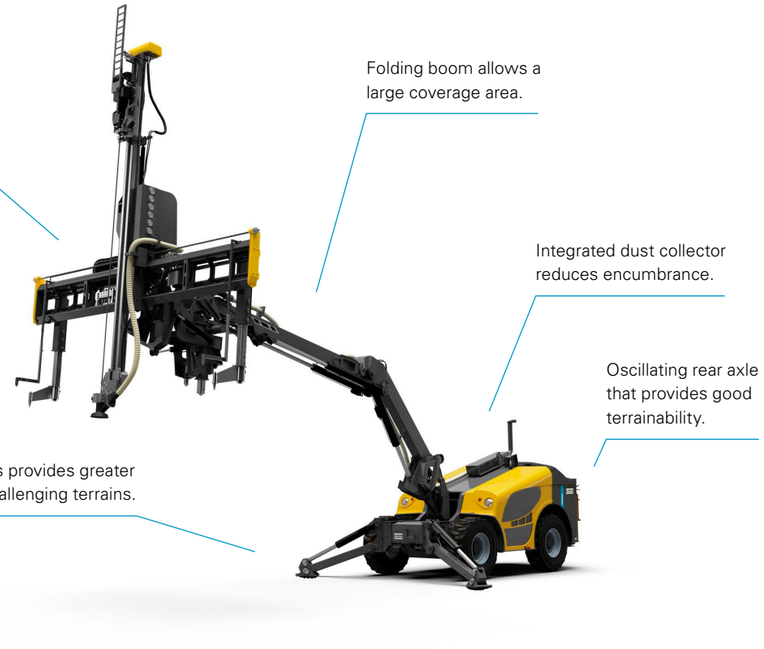
Environment

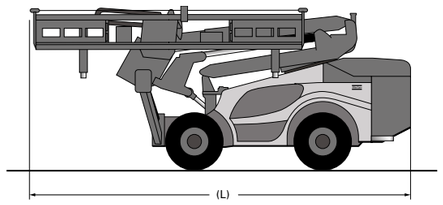
Temperature limits	-20°C + 45°C	-4°F + 113°F
Maximum altitude	2 300 m	7 550 ft

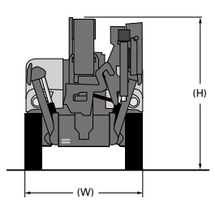
Electrical system

Voltage: 24 V
Batteries: 2 x 12V 100 Ah
Alternator: 55 A

SpeedROC 1F

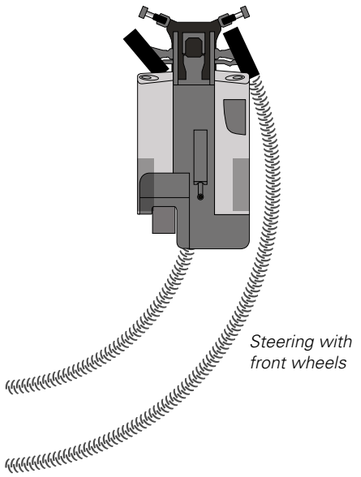




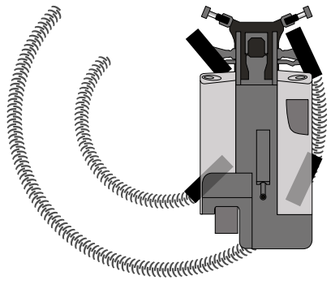


Transport dimensions and weight		
	Metric	Imperial
Length (L)	5.90 m	19′ 4″
Width (W)	2.20 m	7′ 3″
Height (H)	2.38 m	7′ 10″
Weight	5 900 kg	13 000 lb

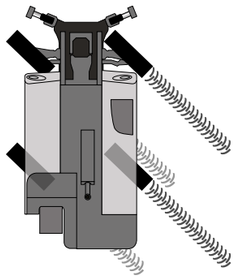
Standard unit excluding all options and drill steel



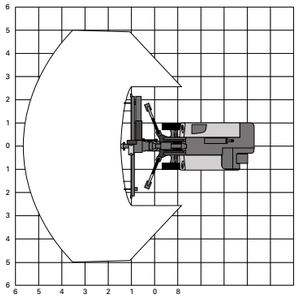
Steering with front wheels



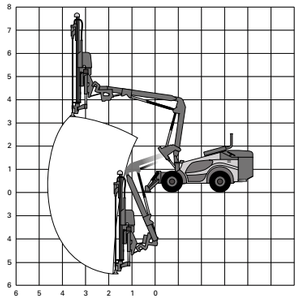
Steering with front and rear wheels



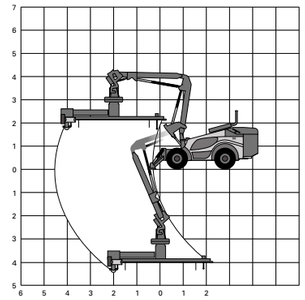
Sideways/diagonal movement



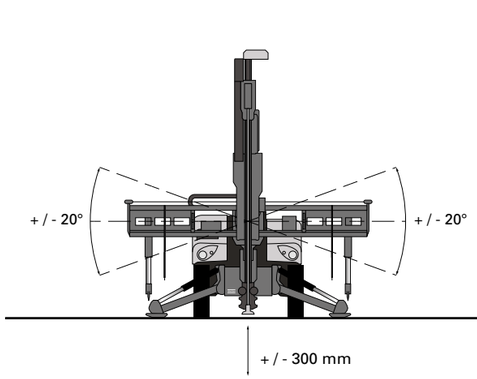
Horizontal reach - vertical drilling (mm)



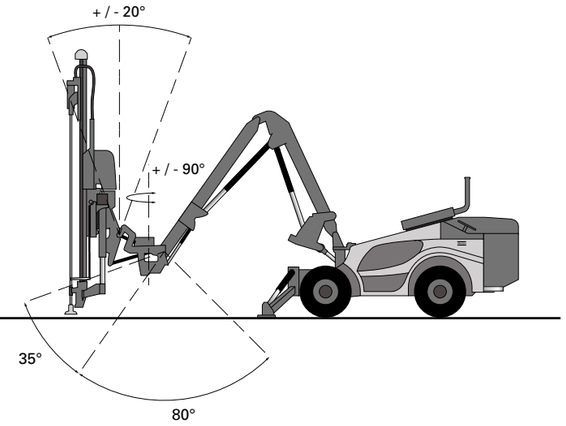
Vertical reach – vertical drilling (mm)



Vertical reach – horizontal drilling (m) with supported rail bar



Rail inclination



Feed swing angle

Optional equipment

- Drill rod extractor
- Kit for horizontal cutting available only on 2.4 feed length
- Automatic drilling device measuring hole depth and distance between holes

Committed to sustainable productivity

We stand by our responsibilities towards our customers,
towards the environment and the people around us.
We make performance stand the test of time.
This is what we call – Sustainable Productivity.

www.atlascopco.com

Atlas Copco