

Atlas Copco Surface drill rigs

ROC® F9C

Technical specification



Powerful tophammer rig with SmartRig intelligence

- The total solution from planning and drilling to full documentation
- Combined high strength, productivity and hole quality thanks to outstanding drill system efficiency
- Trouble free high productivity operation

ROC F9C is intended for construction sites, quarries for construction and aggregate quarries. The main components are:

- RCS, computerized Rig Control System
- Crawler type two speed undercarriage with track oscillation system
- Caterpillar turbo charged diesel engine CAT C9
- Stepless fuel saving RPM regulation system
- Atlas Copco screw type compressor
- Hydraulic cooling system for 50° C ambient temperature
- Combined warning sound and warning light
- Single section boom or folding boom system
- Hydraulic chain feed system with hose guide
- Hydraulic rock drill COP 2560
- Rock drill lubrication system
- Reduced impact pressure mechanism
- Anti-jamming system
- Automatic feed force control
- Manometer panel for setting of pump circuits
- Toe-hole drilling system
- Carousel type tube handling system
- Hydraulic double drill steel support with movable dust collector hood
- Dust collection system

Hole range			
Recommended hole range			
ROC F9C	T45, T51	89-127 mm	3 ½" - 5"
Hydraulic rod adding system for max hole depth, with 4,3 m (14') extension rods			
ROC F9C Single-section boom	T45, T51	33 m	108'
Hydraulic rod handling system for max hole depth, with 3,6 m (12') extension rods			
ROC F9C Folding boom	T45, T51	28 m	92'

Specifications

Engine

Caterpillar turbo charged, diesel engine, CAT C9, Tier III/stage 3
 • Power rating at 2000 rpm 224 kW 300 HP

Feed

Hydraulic chain feed with hose guide and double drill steel support with movable lower guide/dust hood

- Feed extension 1 150 mm 3'9"
- Feed rate, max 0.92 m/s 180 ft/min
- Feed force, max 20 kN 4 500 lbf
- Tractive pull, max 30 kN 6 750 lbf

ROC F9C Single-section Boom

- Total length 8 360 mm 27'5"
- Travel length 5 110 mm 16'9"

ROC F9C Folding Boom

- Total length 7 700 mm 25'3"
- Travel length 4 610 mm 15'2"

Dust collector DCT 150 F

- Filter area 15 m² 164 sq.ft
- Number of filter elements 15 pcs
- Suction capacity at 500 mm wg 350 l/s 741 cfm
- Suction hose diam 127 mm 5"
- Cleaning air pressure, max 8 bar 116 psi
- Cleaning air consumption 2-4 l/pulse 4-8 cfm

Safety cabin

- ROPS and FOPS approved with rubber vibration dampers
- 2 x wipers with washer
- Clear laminated glass (front and roof windows)
- Clear toughened glass (side and rear windows)
- Fully adjustable operator's seat
- Adjustable foot rest
- Cabin light
- Rig inclination indicator
- Rear view mirror
- Fire extinguisher, 6 kg (13 lbs) dry chemical type ABE class III type
- Outlet socket, 24 V
- Prepared with speakers for CD-radio
- Combined front mounted platform/tool box
- Electric combined engine, hole inclination with aiming unit, and hole depth instrument

Air conditioner

- Refrigerant R134a
- Cooling capacity 5,5 kW
- Fan suction capacity 125 l/s 265 cfm

Compressor

Atlas Copco M-01, screw type compressor

- Working pressure, max 12 bar 175 psi
- FAD, at normal working pressure 213 l/s 450 cfm

Hydraulic system

Hydraulic oil cooler

- Max ambient temperature 50°C 122°F

Pumps

- Axial piston pump (1) 190 l/min 50 US gal/min
- Gear pump (2) 72 l/min 19 US gal/min
- Gear pump (3) 38 l/min 10 US gal/min
- Gear pump (4) 34 l/min 8.9 US gal/min
- Gear pump (5) 33 l/min 8.6 US gal/min
- Gear pump (6) 33 l/min 8.6 US gal/min

Return and drainage filters (2 x 3 filters)

- Filtration rate 16 µm absolute

Electrical system

- Voltage 24 V
- Batteries 2 x 12 V, 185 Ah
- Alternator 28 V, 95 Ah
- Work lights, front 4 x 70 W
- Work lights, rear 2 x 70 W
- Work lights, feed 2 x 70 W
- Warning lamp and reverse buzzer

Volumes

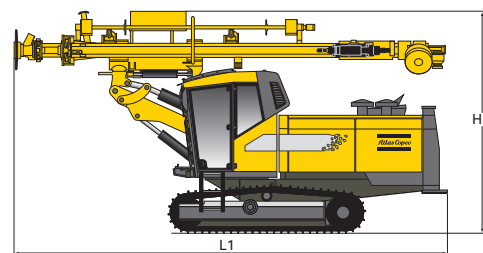
- Hydraulic oil tank 300 l 80 US gal
- Hydraulic system, total 380 l 100 US gal
- Compressor oil 40 l 10.6 US gal
- Diesel engine oil 32 l 8.5 US gal
- Diesel engine, cooling water 60 l 16 US gal
- Diesel engine, fuel tank 400 l 106 US gal
- Traction gear 3 l 0.8 US gal
- Lubrication tank (ECL) 5 l 1.3 US gal

Hydraulic rock drill										
Rock drill	Drill rig	Impact power		Hydraulic pressure, max		Impact rate	Torque, max		Weight approx	
COP 2560	ROC F9C	25 kW	33.5 HP	230 bar	3 335 psi	44 Hz	1 810 Nm	1 335 lbf/ft	187 kg	412 lb
COP 2560EX									249 kg	549 lb

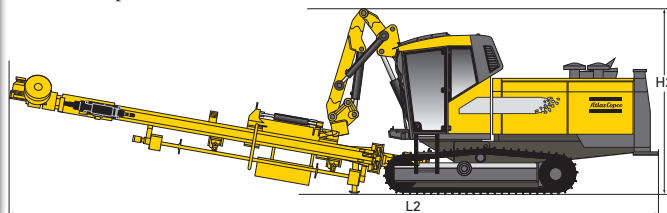
Transport dimensions

Hight and length			
Feed dumped 1			
ROC F9C Single-section boom	Height (H1)	3 800 mm	12' 6"
ROC F9C Single-section boom	Length (L1)	12 300 mm	40' 4"
ROC F9C Folding boom	Height (H1)	3 500 mm	11' 6"
ROC F9C Folding boom	Length (L1)	11 300 mm	37'
Feed dumped 2			
ROC F9C Single-section boom	Height (H2)	3 200 mm	10' 6"
ROC F9C Single-section boom	Length (L2)	12 300 mm	40' 4"
ROC F9C Folding boom	Height (H2)	3 200 mm	10' 6"
ROC F9C Folding boom	Length (L2)	13 000 mm	42'8"

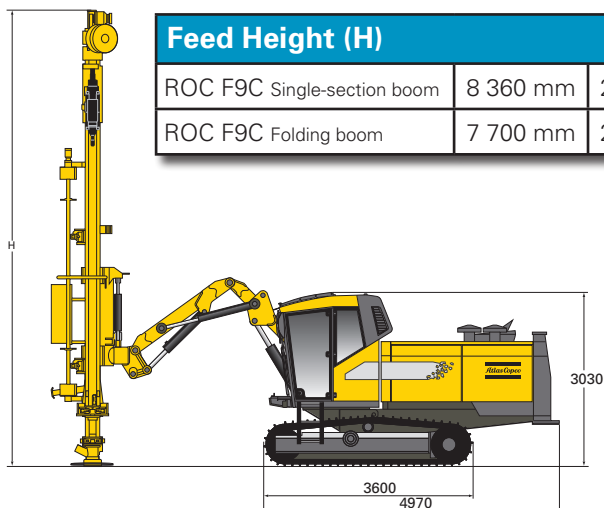
Feed dumped 1



Feed dumped 2

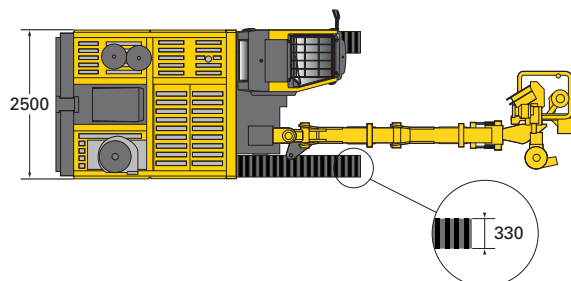


Dimensions and weight



Feed Height (H)	
ROC F9C Single-section boom	8 360 mm 27' 5"
ROC F9C Folding boom	7 700 mm 25' 3"

Weight	
<i>Standard unit excluding all options and drill steel</i>	
ROC F9C Single-section boom	16 400 kg 36 150 lb
ROC F9C Folding boom	16 600 kg 36 600 lb



Selection of optional equipment

Carrier

- Track chains with triple grouser pads
- Hydraulic support leg
- Hydraulic winch including wire with towing eye and wire guide, remote controlled
- Heavy duty air intake filters for engine/compressor
- Electric refuelling pump
- Diesel engine pre heater
- Insulated compressor regulation system
- Xenon work lights, 2 pcs on top of cab pointing forward and 2 pcs on top of canopy pointing to the rear
- ProCom satellite based drill rig monitoring system (only in combination with a written service agreement)

Safety cabin

- Clear laminated glass (front window and roof)
- Tinted toughened glass (side window and rear)
- Sun shade kit (rear side windows and rear window)
- Wiper for right hand side window
- Cab heating
- Electric heated operator's seat
- Radio/CD

Feed

- TAC guide tube guides for drill steel support
- TAC 76 for 76 mm guide tube
- TAC 89 for 89 mm guide tube
- Feed foot extension

SmartRig upgrading functions

- Laser receiver upgrading kit
- Automatic feed alignment
- Hole Navigation System (HNS)
- GPS compass aiming device

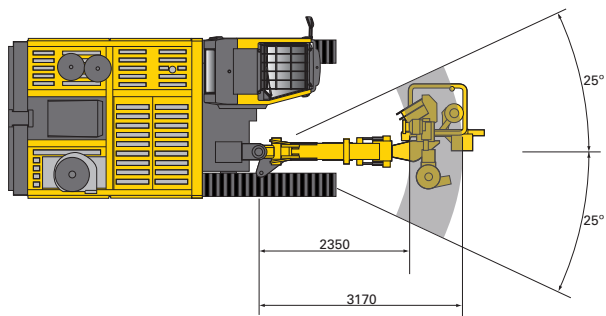
Lube oil, lube system and water mist system

- Central lubrication system, type Lincoln
- Thread greasing device, ECG (with oil)
- Thread greasing device, brushes (with grease)
- Artic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46
- Water mist system with a 225 l pressurized water tank

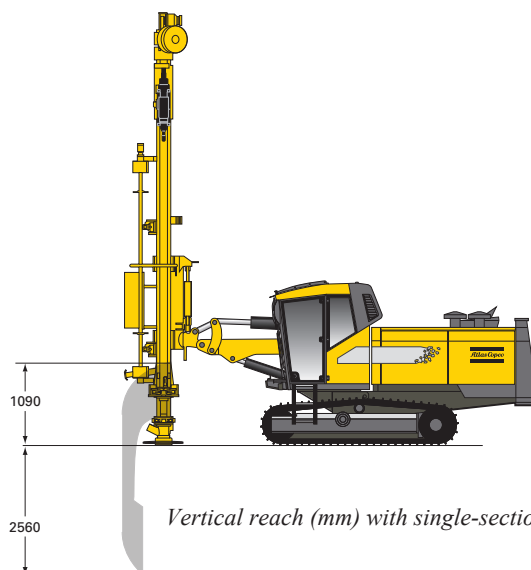
Delivered equipment, not mounted

- Gas charging equipment for rock drill
- First 50 hours service kit for compressor
- Conversion kit for T45 drill steel
- Conversion kit for T51 drill steel

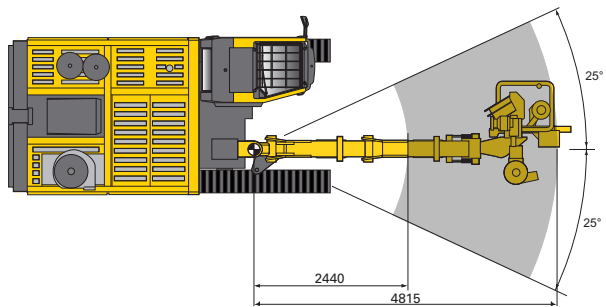
Coverage areas



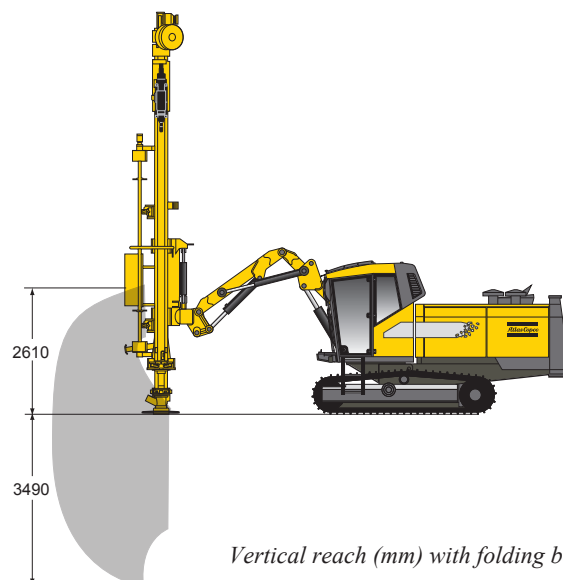
Horizontal reach (mm) with single-section boom



Vertical reach (mm) with single-section boom

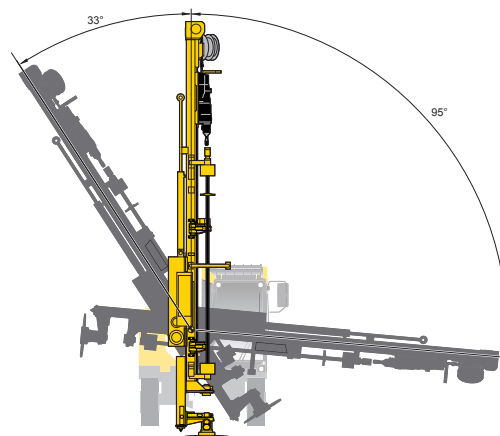


Horizontal reach (mm) with folding boom



Vertical reach (mm) with folding boom

Feed swing angles



*With single-section boom and folding boom
- toe-hole drilling kit (standard)*