

SmartROC T45

Tophammer surface drill rig for quarrying and construction

Folding boom hole diameter: 89–127 mm (3,5'–5')
Standard boom hole diameter: 89–140 mm (3,5'–5,5')





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6th Sense

Smart. Safe. Seamless.

SmartROC T45 is a 6th Sense product.

6th Sense is the Epiroc way of optimizing your value chain through automation, system integration and information management.

Smart and precise efficiency

With the SmartROC T45 you're in control. The SmartROC T45 is based on a proven, intelligent control system which provides consistent performance shift-after-shift. A SmartROC does more of the work itself and reduces the demands placed on the operator. This rig boosts productivity, dramatically reduces full costs and provides you with valuable data to help keep you on top of your business. Furthermore, clever Smart options and features such as Hole Navigation System (HNS), AutoPos and ROC Manager help to keep you ahead of the pack.

⊕ Main benefits

Efficiency due to increased capacity and performance as well as reduced fuel consumption

Safety and availability thanks to the new and intuitive design

Excellence through precise drilling and consistent operation, resulting in improved blasting results

Technology that puts you in control

Safety depends on being in control. The SmartROC T45 dramatically reduces the risk of manual errors and human mistakes. With options such as Hole Navigation System (HNS) you have the right information directly at your fingertips. This greatly improves both efficiency and safety on the worksite.



+ Plan your work, then work your plan

The SmartROC T45 includes smart features which help to ensure that you always drill as planned. The automatic feed alignment ensures that the desired angle is maintained when drilling — this is crucial for achieving optimum blasting results. Furthermore, the automatic rod adding system makes it easy for the operator by adding rods as necessary as the rig drills down to the desired depth on its own. This ensures consistent results that you can rely on — shift-after-shift.



+ The potential to cut your fuel costs in half

There are two things the SmartROC T45 never compromises on – fuel efficiency and productivity. The key to its low fuel consumption is that it only uses the energy it needs for the work at hand. In addition to its standard automatic radiator fan, the engine RPM and compressor load are automatically adjusted depending on current conditions. For example, during tramming or when the rig is idle, the compressor puts no demand on the engine so the rig automatically reduces RPM. Additionally, the airflow and dust collector speed can be adjusted easily as required from the cabin.



+ Both efficient and environmentally aware

Our commitment to the environment is evident in everything we do. We want to maximize your productivity and save you money, whilst keeping the environmental impact as low as possible. That's why the SmartROC T45 is the most energy efficient rig in its class. Its hydraulic system uses significantly less oil compared to other rigs, with a hydraulic tank that is 1/3 the standard size for its class. This means you can use environmentally-friendly oil at approximately the same cost as regular oil, and you don't have to worry about spillages.

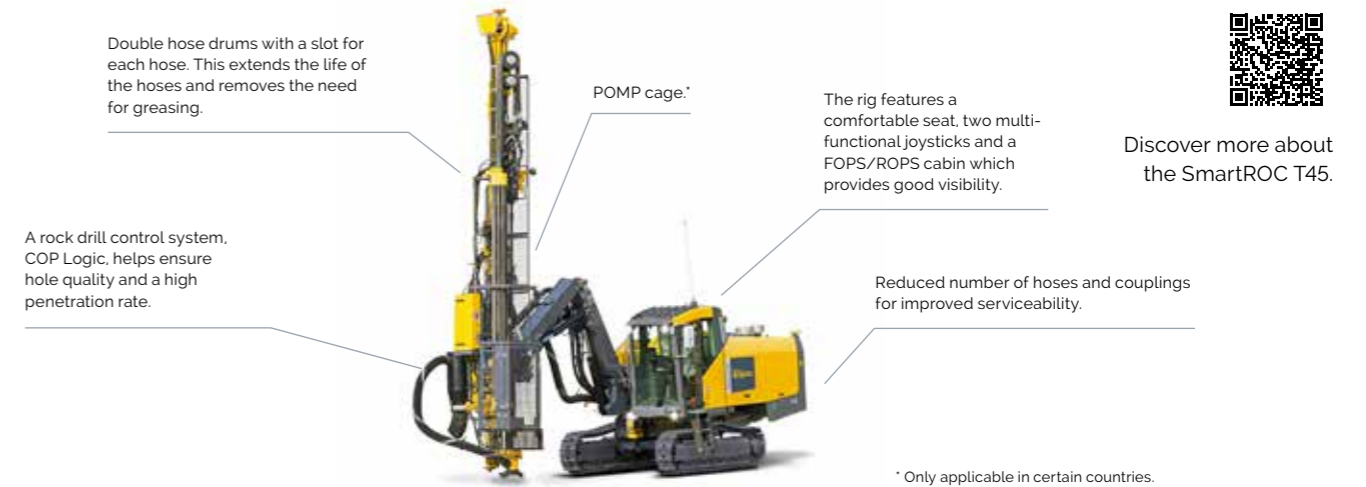
A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.



Technical specifications



Discover more about the SmartROC T45.

* Only applicable in certain countries.

Main components and selection of options

		● - Standard	○ - Option	
Automation & software	Rig inclination indicator, analog	●	Sleeve retainer	○
AutoPos	Rubber vibration dampers	●	Standard or folding boom system	●
Measure While Drilling (MWD)	Window wiper, right hand window	○	TDS guide tube guides, 64/76/87 mm	○
Rig Control System (RCS)	Wipers, front and roof windows	●	Thread lubrication system	○
Rig Remote Access (RRA)		○	Toe-hole drilling system	●
ROC Manager		○	Hole and inclination systems	
Cabin	Carrier		GPS compass aiming unit	○
10 or 24 mm laminated clear front glass	Atlas Copco screw type compressor	●	Laser plane receiver for hole depth	○
15" touch display	Caterpillar turbo charged diesel engine	●	Hole Navigation System (HNS)	
Adjustable foot rest.	Two speed undercarriage with track oscillation	●	Leica (fully installed option or pre-prepared)	○
Air conditioning	Dust collection system	●	Trimble (fully installed option or pre-prepared)	○
Air flow switch	Hydraulic support leg	○	Water system	
Audio system	Hydraulic winch	○	Water mist system incl. 400 L tank	○
Automatic cooler fan control	Radio Remote Control (RRC)	●	Insulation for water tank	○
Cabin light	Warning BEACON light with alarm	○	Extra 400 L tank	○
Clear or tinted surrounding glass	Feed/boom		Parts and Services	
Combined front mounted platform/tool box	Automatic rod adding	●	Conversion kit for threads T45/T51/T60	○
Fire extinguisher, 6 kg (13 lbs)	Carousel type rod handling system	●	COP Care	○
FOPS and ROPS approved	COP Logic	●	Electrical tool kit	○
Fully adjustable operator's seat	Double hose drum	●	First 50 hrs service kit for compressor	○
Outlet socket, 24 V	Dust pre separator	●	Gas charging equipment (for rock drill)	○
Prepared with speakers for audio system	Hydraulic double drill rod support	●	Lubrication kit	○
Rear view mirrors	Long feed	○	RCS service tool-box	○
Reverse camera	Protective guard (EN16228)	○	ROC Care	○
	Rock drill lubrication system	●		
	Service winch with jib boom	○		

Hole range (recommended)

	Threads	Metric	US
Standard boom	T51, T60	Ø 89-140 mm	Ø 3.5"-5.5"
Folding boom	T45, T51	Ø 89-127 mm	Ø 3.5"-5"
Rods and length			
Standard boom. Hydraulic rod handling system for max hole length, with 7 x 4.2 m (14') extensions rods and a 6.1 m (20') starter rod	T51, T60	35 m	115'
Standard boom LF. Hydraulic rod handling system for max hole length, with 5 x 6.10 m (20') extensions rods and a 7.3 m (24') starter rod	T51, T60	36 m	118'
Folding boom. Hydraulic rod handling system for max hole length, with 7 x 3.6 m (12') extensions rods and a 4.2 m (14') starter rod	T45, T51	29 m	95'

Hydraulic rock drill

Rock drill	Boom	Impact power		Hydraulic pressure, max		Impact rate, max	Torque, max		Weight approx	
COP SC25-HE	Folding boom	25 kW	33.5 hp	200 bar	2 900 psi	44 Hz/55 Hz	1 550 Nm	1 143 lbf/ft	195 kg	430 lb
1 970 Nm							1 453 lbf/ft	249 kg	549 lb	
COP 3060	Standard boom	30 kW	41 hp	240 bar	3 481 psi	50 Hz	2 450 Nm	1 807 lbf/ft	315 kg	694 lb
COP 3060EX							355 kg	783 lb		

Engine

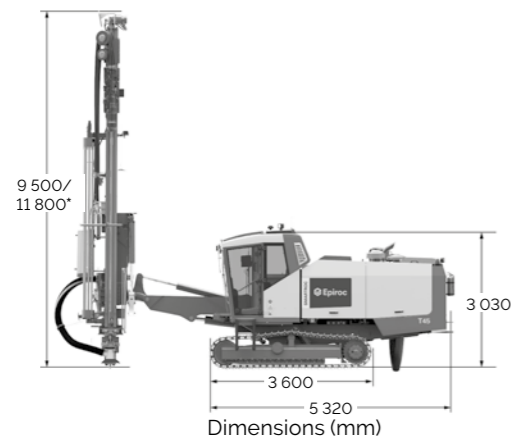
Caterpillar turbo charged diesel engine	
CAT C9.3B Tier 4 Final/Stage 5 (EU/US cert.)	250 kW/340 hp at 1 900 rpm
CAT C9.3B Tier 3/EU stage IIIA	250 kW/340 hp at 1 900 rpm

Compressor

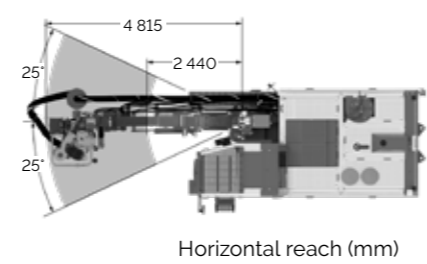
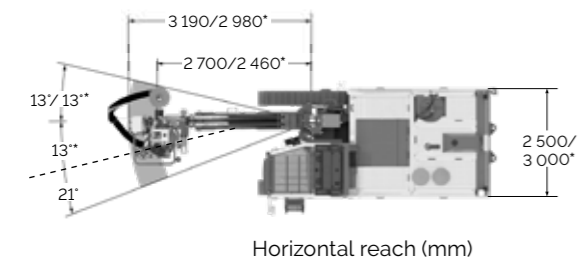
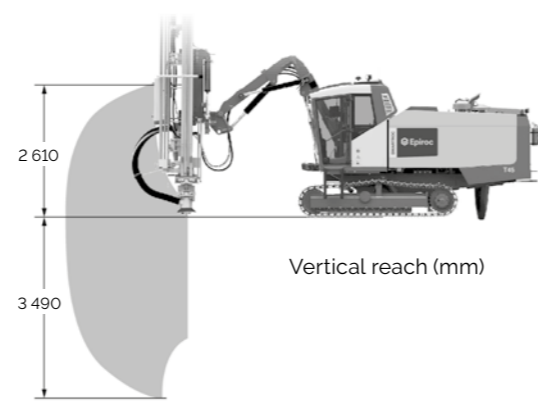
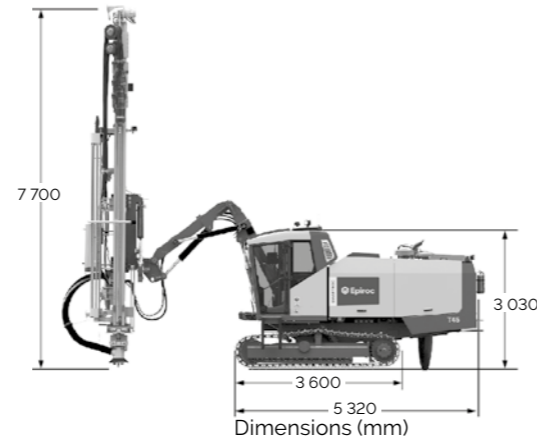
Atlas Copco C146-07, screw type compressor		Metric	US
Working pressure, max		12 bar	174 psi
FAD, at normal working pressure		223 l/s	473 cfm

Technical specifications

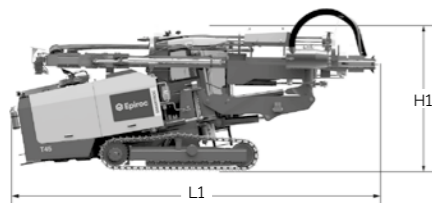
Standard boom



Folding boom

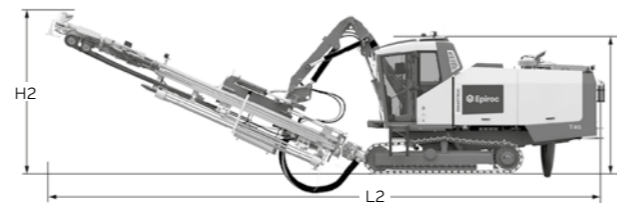


The long feed option also includes the Wide Body Kit option to add extra stability due to the increased length of the feed.



Transport dimensions

Standard boom	Metric	US
Height (H1)	3 300 mm/3 600* mm	130.0*/142.0**
Length (L1)	10 700 mm/11 800* mm	421.5*/464.5**

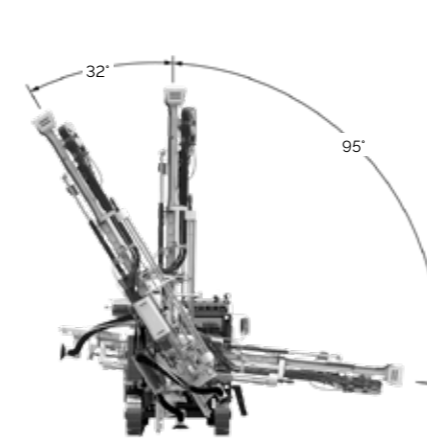


Transport dimensions

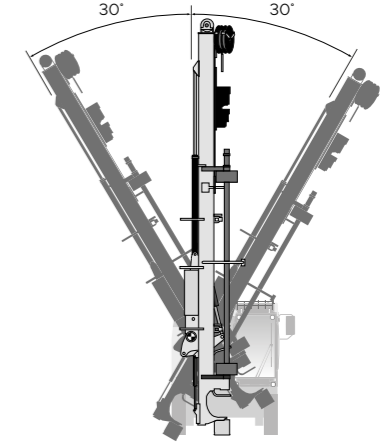
Folding boom	Metric	US
Height (H2)	3 300 mm	130.0*
Length (L2)	13 300 mm	524.0*

* Long feed

Technical specifications



Standard and folding boom



Standard boom with Long feed

Feed with standard boom

Hydraulic chain driven aluminum feed with hose guide and double drill rod support with movable lower guide/dust hood	Metric	US
Feed extension	1 900 mm/1150 mm*	74.8/45.3**
Feed rate, max	0.9 m/s	177 ft/min
Feed force, max	40 kN	8 992 lbf
Tractive pull, max	50 kN	11 240 lbf
Total length	9 500 mm/11 800 mm*	374/464.5**
Travel length	5 520 mm/7 630 mm*	217.3/300**

* Long feed.

Volumes

	Metric	US
Hydraulic oil tank	100 l	36.4 gal
Hydraulic system, total	240 l	63.4 gal
Compressor oil	52 l	13.7 gal
Diesel engine oil	32 l	8.4 gal
Diesel engine, cooling water	75 l	19.8 gal
Diesel engine fuel tank	400 l	105.7 gal
Traction gear	3 l	0.8 gal
Lubrication tank (ECL)	23 l	6.1 gal

Hydraulic system

Pumps at 1900 rpm	Metric	US
Axial piston pump (1)	160 l/min	42.3 gal/min
Axial piston pump (2)	120 l/min	31.7 gal/min
Axial piston pump (3)	40 l/min	10.6 gal/min
Gear pump (4)	40 l/min	10.6 gal/min
Gear pump (5)	40 l/min	10.6 gal/min
Hydraulic oil cooler Max ambient temperature	50°C	122°F
Return & drainage filters (filtration rate)	10 µm absolute	

Dust collector DCT 200

	Metric	US
Filter area	20 m ²	215 sq.ft
Number of filter elements	20 pcs	20 pcs
Suction capacity at 500 mm wg	540 l/s	1144 cfm
Suction hose diam	127 mm	5"
Cleaning air pressure, max	75 bar	109 psi
Cleaning air consumption	2-4 l/pulse	0.06-0.12 cu.ft/pulse

Feed with folding boom

Hydraulic chain driven rod feed with hose guide and double drill rod support with moveable lower guide/dust hood	Metric	US
Feed extension	1150 mm	45.3*
Feed rate, max	0.9 m/s	177 ft/min
Feed force, max	20 kN	4 496 lbf
Tractive pull, max	30 kN	6 744 lbf
Total length	7 700 mm	303*
Travel length	4 610 mm	181.5*

Weight

Standard unit excluding all options and drill rod	Metric	US
Standard boom	20 100 kg	44 300 lb
Standard boom Long Feed	20 600 kg	45 400 lb
Folding boom	17 700 kg	39 000 lb

Carrier

	Metric	US
Tramming speed	3.4 km/h	2.1 mph
Track oscillation	±10°	±10°
Ground clearance	405 mm	15.9"

Electrical system

Voltage	24 V
Batteries	2 x 12 V, 185 Ah
Alternator	28 V, 105 Ah
Work lights LED type, front	4 x 3 500 Lumen
Work lights LED type, rear	2 x 3 500 Lumen
Work lights LED type, feed	2 x 5 300 Lumen
Warning lamp and reverse buzzer	

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Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.
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