

PowerROC D45

Surface drill rig for quarrying and mining

Hole diameter: 90–130 mm (3.5–5")





User-friendly performance

The PowerROC D45 is a reliable, robust and straightforward surface drill rig. It is both easy to operate and maintain and is very reliable.

PowerROC D45 offers you safe and sustainable operation. It is perfectly suited for limestone, aggregate and cement quarries, as well as open pit mines - where high working efficiency is a must. The rig delivers easy operation with the help of direct control. It is assembled using a simplified design which utilizes as few components as possible which assists with troubleshooting and maintenance. The PowerROC D45 is an integrated

hydraulic drill rig with high reliability which includes a FOPS- and ROPS-certified cabin, automatic rod handling system and dust collection system. A 12.1 inch touchscreen-and-button display provides the operator with a user-friendly, intuitive interface which presents information concerning the running status of the whole rig. This new interface, makes maintenance easier and reduces service costs.

+ Main benefits

Easy operation and maintenance due to a pilot hydraulic control system and PLC control system.

High reliability due to straightforward design

Solid performance thanks to the use of proven Epiroc technology

Performance

The PowerROC D45 has a mechanized drilling operation which means risks associated with manual rod handling are avoided. Features such as a FOPS- and ROPS-certified cabin help to improve ergonomics and boost safety.



+ Performance

The PowerROC D45 utilizes proven Epiroc technology and Down The-Hole drilling to help give reliable performance and high drilling quality all year round. Piston pumps make the hydraulic system more dependable and efficient, which means that the rig can deliver high productivity and low fuel consumption shift-after-shift. This machine also features an impressive penetration rate, so it has all the potential needed to help boost your profits.



+ Operator friendly

The FOPS- and ROPS-certified cabin of PowerROC D45 provides operators with good visibility. Ergonomic joystick controls make the rig easy and intuitive to operate. The dust collection system keep dust levels down during drilling, providing the operator with a cleaner and more healthy work environment. The 12.1 inch display clearly displays engine and system data, diagnostic information, warning messages and parameter settings.



+ Easy accessibility

Components on the PowerROC D45 are designed to be easily maintained. All hoses and cables are marked at each end which makes troubleshooting easier. The simplified design of the electrical system also results in easier service and maintenance.

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

Main components

*only for Stage V version

- Trimming system including triple grouser pads with cleaning holes, hydraulic track oscillation and two speed traction motor
- Cummins diesel engine, Tier 3
- CAT C71, Stage V
- Atlas Copco screw type high pressure compressor
- FOPS- and ROPS-certified cabin with 12.1 inch display
- Single boom and steel feed beam
- PowerUP function
- Rod Handling System(RHS), 6+1 carousel type
- Break-out table and drill steel support
- Dust collection system

- Standard pre-separator
- Swingable pre-seperator*
- DTH hammer lubricator device (pneumatic)
- Thread greasing device
- Back-up alarm
- Combined warning sound and warning light*
- Anti-jamming function
- Electromagnetic handle*
- 2D angle indicator, electronic, integrated into display
- Hole depth indicator, integrated into display*
- Radio and heating set

Engine

Power rating at 1 800 rpm	Metric	US
Cummins QSL8.9-C325, Tier 3	234 kW	314 hp
CAT C71, Stage V	205 kW	275 hp

Feed

Hydraulic motor driven chain feed with hose guide and double drill tube support with break-out table and movable lower guide/dust hood	Metric	US
Feed rate, max	0.88 m/s	173 ft/min
Feed force, max	12 kN	2 698 lbf
Tractive pull, max	18 kN	4 067 lbf
Total length	7 560 mm	298'
Travel length	4 684 mm	184'
Travel length (Stage V version)	4 400 mm	173'
Feed extension (Stage V version)	1 400 mm	55'

Dust collector

DCT 150	Metric	US
Filter area	15 m ²	161 sq.ft
Number of filter elements	15 pcs	15 pcs
Suction capacity at 500 mm wg	350 L/s	742 cfm
Suction hose diameter	127 mm	0.42'
Cleaning air pressure, max	7.0 bar	102 psi
Cleaning air consumption	2-4 L/pulse	0.06-0.12 cu.ft/pulse

Volumes

Hydraulic oil tank	360 l	95.1 US gal
Hydraulic system, total	450 l	118.9 US gal
Compressor oil	63 l	16.6 US gal
Diesel engine oil	35 l	9.2 US gal
Diesel engine oil (Stage V version)	15 l	4 US gal
Diesel engine, cooling water	60 l	15.8 US gal
Diesel engine, cooling water	52 l	13.7 US gal
Diesel engine, fuel tank	500 l	132 US gal
Traction gear	3 l	0.79 US gal
Lubrication tank (ECL)	20 l	5.28 US gal
Urea tank (Stage V version)	32 l	7 US gal

Rotary head

Rotary head	Connection thread	Max rpm	Max torque, drilling	Max torque, breaking	Suitable for DTH hammer
DRU 5 (Tier 3 version)	API 2 3/8" REG, box	100 rpm	1 600 Nm (1 176 lbf-ft)	3 100 Nm (2 279 lbf-ft)	3.5' and 4' DTH hammer
DHR6 H 45 (Stage V version)	API 2 3/8" REG, box	90 rpm	2 500 Nm (1 838 lbf-ft)	--	COP 44 Gold

Down-the-hole hammer (to be ordered separately)

Down-the-hole hammer	Top sub thread	Hole range	Weight	Length excl thread
DHD 3.5C	API 2 3/8" REG pin	90-100 mm (3.5-4')	29 kg (64 lb)	984 mm (38.7')
DHD 4	API 2 3/8" REG pin	105-130 mm (4.3-5')	39 kg (86 lb)	984 mm (38.7')
COP 44 Gold	API 2 3/8" REG pin	110-130 mm (4.5-5')	40.5 kg (89 lb)	1 038 mm (40.8')

Compressor

Atlas Copco C146, screw type air compressor	Metric	US
Maximum working pressure	17 bar	248 psi
FAD, at normal working pressure at 1 800 rpm	231 L/s	489 cfm
FAD, at normal working pressure at 1 900 rpm	240 L/s	509 cfm
FAD, at normal working pressure at 2 000 rpm (only for Tier 3 version)	250 L/s	530 cfm

Hole range & depth (recommended)

		Metric (US)
Recommended DTH hammers and hole range	3.5' and 4' DTH hammer	90-130 mm (3.5-5')
Hydraulic rod handling system for max hole depth, with 4m (13.12') rods	Ø 76 mm Rod (Tier 3) Ø 89 mm Rod (Stage V)	29 m (92')
Single pass drilling, max hole depth		4.3 m (14')

Hydraulic system

Hydraulic oil cooler	Metric	US
Ambient temperature	-25-50°C	-77-122°F
Piston pump (1)	102.6 L/min	217.4 cfm
Piston pump (2)	102.6 L/min	217.4 cfm
Gear pump (3)	38 L/min	80.5 cfm
Gear pump (4)	23.4 L/min	49.6 cfm
Gear pump (5)	23.4 L/min	49.6 cfm
Filtration rate	10 µm absolute	

Electrical system

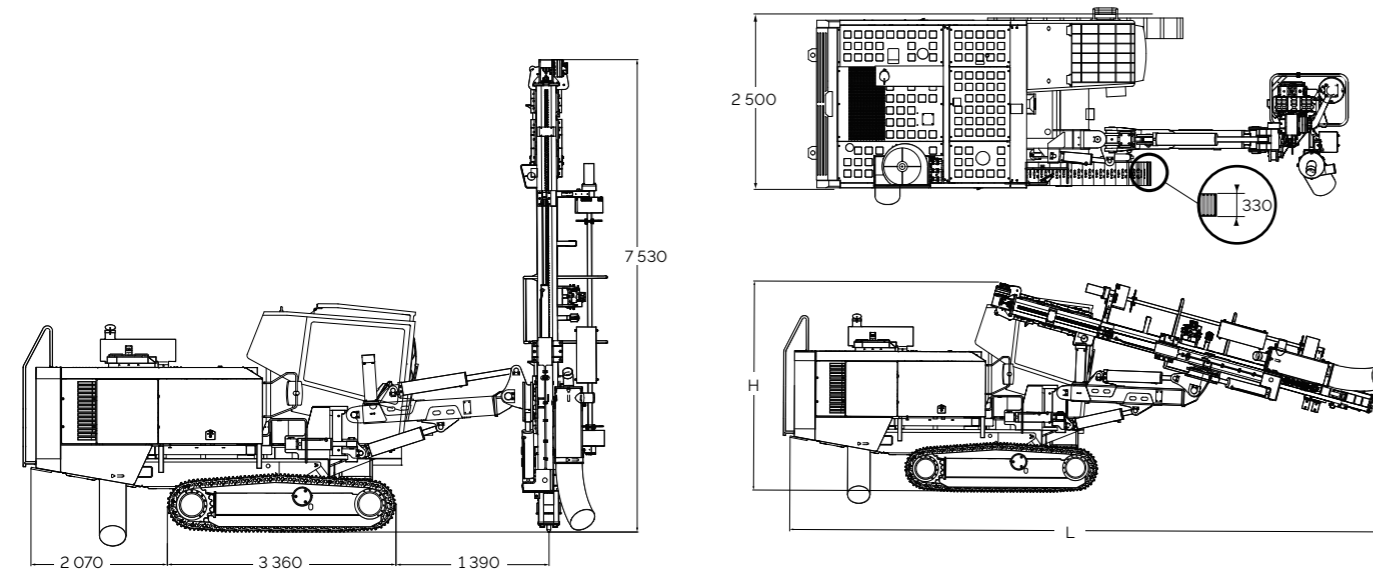
Voltage	24 V
Batteries	2 x 12 V, 180 Ah
Alternator	28 V, 95 A (24 V, 180 A Stage V)
Work lights, front	3 x 70 W (4 x 70 W Stage V)
Work lights, rear	1 x 70 W (2 x 70 W Stage V)
Work lights, feed	2 x 70 W
Reverse alarm buzzer	

Technical specifications

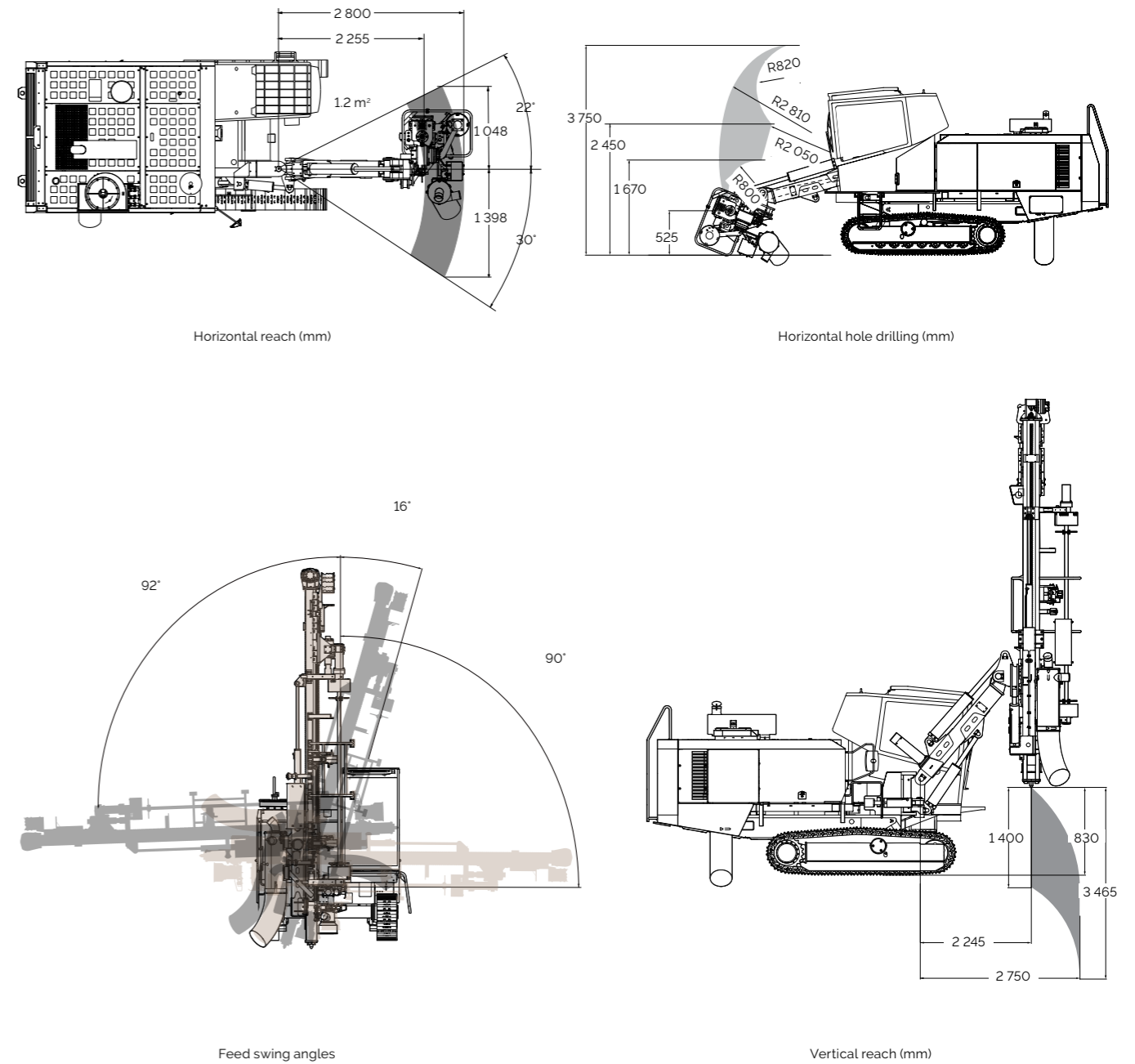


Transport dimensions

	Tier 3 version		Stage V version	
	Metric	US	Metric	US
Height(H)	3 445 mm	135.6'	3 500 mm	138'
Length(L)	9 250 mm	364.2'	10 300 mm	405'
Width	2 500 mm	98'	2 500 mm	98'
Weight	14 300 kg	31 526.1 lb	14 800 kg	32 628 lb



Technical specifications



Selection of options

Carrier

- Heavy duty air intake filters for engine and compressor
- Cold weather kit below -25°C, diesel engine pre-heater and compressor regulation heating kit
- Combined warning sound and warning light (option for Tier 3 version)
- Hydraulic oil heater
- Rear camera
- Single grouser track
- LED lights
- Service lamp
- Electrical fuel fill pump (option for Stage V version)
- Electrical hydraulic oil fill pump (option for Stage V version)
- Certiq with MCG

Hole and inclination systems

- Aiming unit in cabin (option for Stage V version)

Feed

- Rod Handling System (RHS) dimension kit, 89 mm (option for Tier 3 version)
- Rod Handling System (RHS) dimension kit, 76 mm (option for Stage V version)
- Upper centralizer of drill rod

Lube oil, lube system and water mist system

- Central Lubrication System (CLS)
- Arctic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Standard hydraulic oil, VG 46
- Water mist system, with water pump and 300 l water tank (dual 150 l tank)
- Water mist arctic

United in performance. Inspired by innovation.

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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