SmartROC T35

Surface drill rigs for quarrying and construction

Hole diameter: 64–115 mm (2.5"–4.5")

Epiroc

6th Sense

Smart. Safe. Seamless.

SmartROC T35 is a 6th Sense product.

Scan to read more about 6th Sense

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

A master of fuel efficiency

When it comes to fuel efficiency, the SmartROC T35 burns less diesel than any other rig in its class. It's a great performer — even under the toughest drilling conditions.

This rig is built with the operator in mind. It features an ergonomic user interface to make drilling safer, faster and more effective. The SmartROC T35 is easy to operate and highly productive. It delivers the lowest cost per cubic meter of any rig in this hole range. The Rig Control System controls the engine RPM and compressor load automatically to deliver exactly the amount of power demanded by current conditions.

The entire architecture of the SmartROC T35 is designed to be efficient. Vital components are strategically placed to make servicing easier. Additionally, the length of hydraulic hoses is kept to a minimum — this reduces the amount of hydraulic oil needed.

Main benefits

Class-leading fuel efficiency — even lower fuel consumption reduces costs and environmental impact

Boosted productivity thanks to a range of smart features and options

Enhanced automation helps to achieve new levels in consistency and output

Earn more per cubic meter

A SmartROC can be equipped with the optional hole navigation system (HNS) from Epiroc. This enables drill pattern navigation via satellite receivers. HNS helps ensure that holes are in the right place, at the correct inclination, and drilled to the required hole length as defined in the drill plan. The result is a decrease in drill and blast costs per cubic meter produced.

+ Further improved fuel efficiency

The entire system is designed to minimize energy loss. The operator can adjust precisely the flushing air volume and the dust collector fan speed according to need directly from the cabin. This ensures that both deliver only what is necessary for the best performance. Engine RPM and compressor load are self-adjusting according to demand. Three variable hydraulic pumps help lower engine speed during none-drilling time and tramming. Additionally, an automatic cooler-fan control is fitted as standard.

+ Operator in focus

For technology to be truly of value, it must be easy to use. This rig integrates advanced technology seamlessly, offering ease-of-use and safety. The air-conditioned cabin is FOPS and ROPS-approved to protect the operator and is a pleasant environment to work in. The operator has full control over an efficient drilling cycle via two multifunction joysticks and a touchscreen display.
The ergonomically designed controls together with supporting armrests help to reduce the strain on arms and wrists.

+ Constantly evolving — even more productive

Maintenance tasks on the SmartROC T35 are easy to perform thanks to logically positioned service points and large hatches. The rig control system assists with problem searching in order to keep downtime to a minimum. The feed system now features a large pulley wheel which reduces wear on the cable. Additionally, 7+1 or 9+1 rod handling systems are available. The 9+1 system makes the rig even more compact for easier loading and transport. The feed-sensors have been repositioned to keep them out of harm's way and ensure functionality.

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

- Track frames with single grouser pads and cleaning holes
- Hydraulic track oscillation and two speed traction
- Atlas Copco screw type compressor
- FOPS and ROPS-approved operator cabin
- LED work lights.
- Folding boom system.
- Aluminum profile feed beam.
- Hydraulic cylinder feed system
- Carousel type rod handling system, 1+7 or 9+1 rods
- Hydraulic rock drill
- Dust collector (DCT)
- Dust pre separator
- Double hose drum
- Adjustable flushing air system
- Air flow switch
- Automatic cooler fan control
- Adjustable dust collector fan speed
- Double hydraulic drill rod support with movable down support
- Service lamp inside canopy
- Rock drill oil collecting system
- Rubber skirt for Dust collector (DCT)
- COP Logic

Hole range (recommended)

	Threads	Metric	US
		Ø 64–115 mm	2.5"–4.5"
Rods and hole length			
9+1 RHS carousel, length = 3 660 mm, starter rod length max 4 220 mm	T45/T51	36 m	118.1 ft
9+1 RHS carousel, length = 3 660 mm, starter rod length max 5 490 mm	T45	37 m	121.4 ft
7+1 RHS carousel, length = 4 220, starter rod length max 5 490 mm	T45	30.1 m	98.8 ft
6+1 RHS carousel, length = 4 220, starter rod length max 5 490 mm	T51	30.1 m	98.8 ft
Noise reduction kit option, 7+1 RHS, carousel, length = 3 660 mm, starter rod length max 4 220 mm (T51 6+1)	T45/T51	28.5 m	93.5 ft

Hydraulic rock drill

Rock drill	Hole diameter		Impact power	Hydraulic pressure, max		Impact rate, max	Torque, max		Weight approx	
COP SC19	Ø 64–115 mm	Ø 2.5"–4.5"	19 kW/25.5 hp	230 bar	3 336 psi	42/50 Hz	1 970 Nm	1 453 lbf/ft	188 kg	384 lb
COP SC19X									250 kg	551 lb
COP SC25-HF	Ø 64–89 mm	Ø 2.5"–3.5"	25 kW/33.5 hp	240 bar	3 481 psi	55/71 Hz	1 550 Nm	1 143 lbf/ft	189 kg	417 lb
COP SC25X-HF									250 kg	551 lb

Engine

Caterpillar turbo charged diesel engine	
CAT C7.1 Tier 4 Final/Stage 5 (EU/US cert.)	168 kW/225 hp (at 2 200 rpm)
CAT C7.1 Tier 3/stage IIIA	

Feed

Hydraulic cylinder feed with hose guide and double drill rod support with movable lower guide/dust hood	Metric	US
Extension	1 400 mm	55.1"
Rate, max	0.92 m/s	184 ft/min
Force, max	20 kN	4 400 lbf
Tractive pull, max	20 kN	4 400 lbf
Total length	8 230 mm	27 ft
Total length, shorter feed	7 350 mm	24 ft
Travel length	4 982 mm	15.4 ft
Travel length, shorter feed	4 090 mm	13.4 ft

Carrier

	Metric	US
Tramming speed	3.1 km/h	1.5 mph
Track oscillation	±12°	±12°
Ground clearance	455 mm	17.9"

Compressor

Atlas Copco OIS K-36-C111 GD, screw compressor		
Working pressure, max	10.5 bar	152 psi
FAD, at normal working pressure	127 l/s	270 cfm

Volumes

	Metric	US
Hydraulic oil tank	100 l	26.4 gal
Hydraulic system, total	160 l	42.3 gal
Compressor oil	22 l	5.8 gal
Diesel engine oil	16 l	4.2 gal
Diesel engine, cooling water	43 l	11.4 gal
Diesel engine fuel tank	370 l	97.7 gal
Traction gear	3 l	0.8 gal
Lubrication tank (ECL)	10 l	2.6 gal
DEF fluid tank (Tier 4 Final only)	24 l	6.3 gal

Hydraulic system

Pumps at 1800 rpm	Metric	US
Axial piston pump (1)	171 l/min	45.1 gal/min
Axial piston pump (2)	75 l/min	19.8 gal/min
Axial piston pump (3)	50 l/min	13.2 gal/min
Gear pump (4)	30 l/min	7.9 gal/min
Gear pump (5)	40 l/min	10.6 gal/min
Hydraulic oil cooler max ambient temp.	50°C	122°F
Return & drainage filters (filtration rate)	10 µm absolute	
Anti-jamming, Feed speed control, Proportional control – feed RPCF. Proportional control impact DPCI		

Electrical system

Voltage	24 V
Batteries	2 x 12 V, 185 Ah
Alternator (Tier 3)	28 V, 80 Ah
Alternator (Tier 4 Final)	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	

Dust collector DCT 110

	Metric	US
Filter area	11 m²	118 sq.ft
Number of filter elements	11 pcs	11 pcs
Suction capacity at 500 mm wg	560 l/s	1 200 cfm
Suction hose diam	127 mm	5"
Cleaning air pressure, max	7.5 bar	109 psi
Cleaning air consumption	2–4 l/pulse	0.06–0.12 cu.ft/pulse

Sound and vibration*

Cabin: A-weighted Sound Pressure Level, LpA			77 dB
Cabin: Weighted whole body vibration level, a_w			< 0.5 m/s²
A-weighted Sound Power Level, LwA			122 dB
A-weighted sound pressure level, LpA, calculated (distance from rig)			
10 m	94 dB	160 m	70 dB
20 m	88 dB	320 m	64 dB
40 m	82 dB	640 m	58 dB
80 m	76 dB	1280 m	52 dB

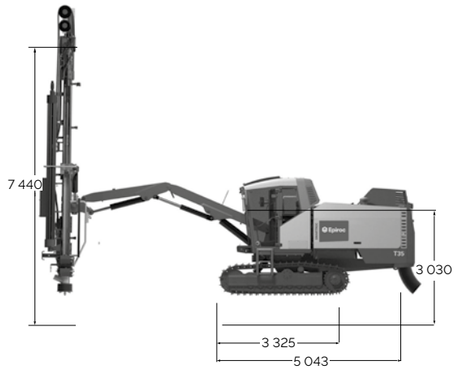
* *The declared noise emission values should be combined with a measurement uncertainty of KpA=6 dB. The sum of declared measured value and the uncertainty value represent an upper limit of the range, in which measured values are likely to be included. The values were determined in accordance with the standards ISO 3744:2010 (for sound power level estimation), ISO 11203:1995 (for sound pressure calculation at different distances from the rig), ISO 11201:2010 (for operator cabin sound pressure level) and ISO 2631-1 (for whole body vibration).*

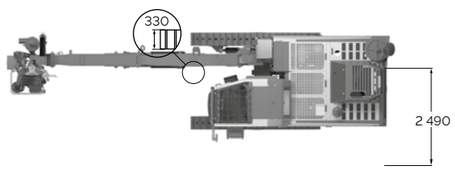
Technical specifications

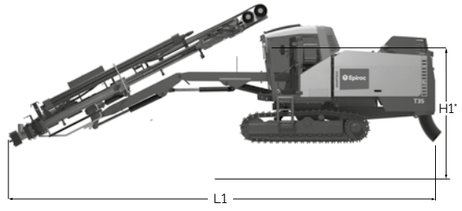
Discover more about the SmartROC T35.

Cabin

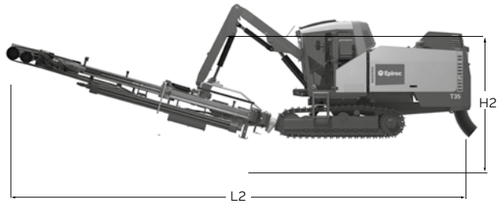
- Air conditioning
- ROPS and FOPS-approved with rubber vibration dampers
- 2 x wipers with washer (front window and roof window)
- Clear laminated glass (10 mm front and roof windows)
- Clear laminated glass (8 mm side window)
- Clear toughened glass (8 mm rear window)
- Fully adjustable operator's seat.
- 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
- Cab heating
- Combined front mounted platform/tool box
- Electric combined engine inclination & hole length instrument in main computer display
- Electrically heated seat







Feed dumped 1



Feed dumped 2

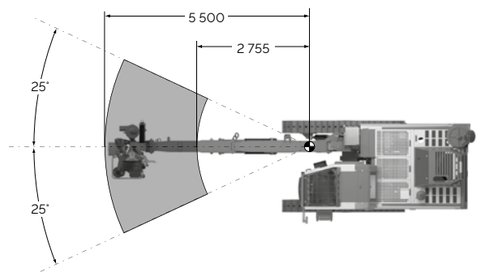
Transport dimensions

Feed dumped 1	Metric	US
Height (H1) (*to top of antenna mount)	3 300 mm	129.9"
Length (L1)	11 600 mm	456.7"
Feed dumped 2		
Height (H2)	3 400 mm	133.9"
Length (L2)	11 000 mm	433.1"

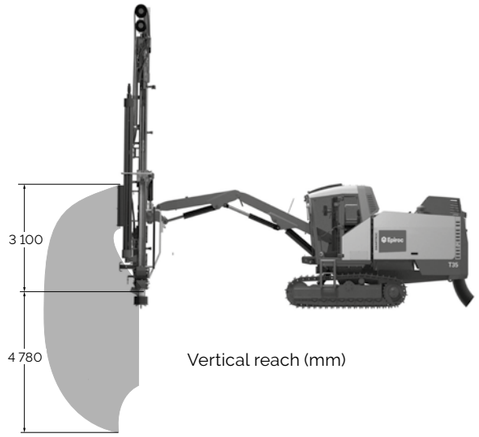
Weight

Standard unit excluding all options and drill rod	Metric	US
Tier 3 engine	15 100 kg	33 290 lb
Tier 4 Final/Stage 5 engine	15 300 kg	33 730 lb

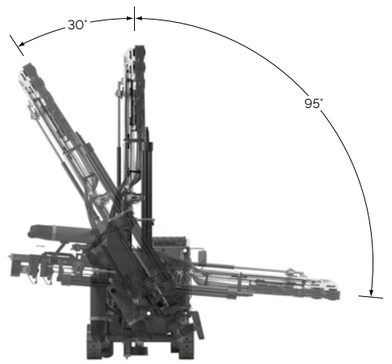
Technical specifications



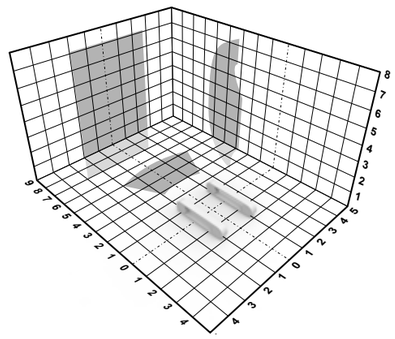
Horizontal reach (mm)



Vertical reach (mm)



Feed with toe-hole kit



3D coverage area

Selection of options

Cabin
- Window panes: Laminated 24 mm clear front, 10 mm roof and 8 mm tinted side – toughened 8 mm rear
- Tinted 10 mm roof window
- Window wiper on right hand window
- Sun shade kit (rear side, rear windows and roof)
- Reverse camera integrated into RCS display
- Bluetooth radio
- Camera for support leg
- Cabin boarding light

Carrier
- Hydraulic support leg
- Hydraulic winch including wire with towing eye and wire guides
- Diesel-driven engine heater
- Electric fuel filling system
- Tow hook
- Track chains with triple grouser pads
- LED side lights (points backwards towards the tracks)
- Rubber disc for DCT
- PAR Oil M & S
- Central lubrication system
- Air Anti Freezing System
- Tool box left rear side
- Extra air outlet on front of the carrier
- Service lights mounted inside canopy
- Built-in pressure washer

Feed
- Protective guard, according to EN16228
- Noise Reduction Kit
- Bigger dowel with big plate to avoid sinking in soft ground
- TDS guide tube guides for drill rod support:
  – TDS 64 for 64 mm guide tube
  – TDS 76 for 76 mm guide tube
  – TDS 87 for 87 mm guide tube
- Support bracket RHS carousel
- Thread greasing devise ECG (with oil)
- Thread greasing device, brush type (with grease)
- 9+1 Rod Handling System
- Shorter feed to aid transport

Hole and inclination systems
- Laser plane receiver for hole length
- GPS compass aiming unit
- Automatic feed alignment

Water system
Complete water mist system 150 l tank

Parts and services
- COP Care
- ROC Care

Hole Navigation System (HNS)
- Trimble or Leica receivers radio modem 450 or 900 MHZ GSM modem sensors and ROC Manager software

Automation & software
- Measure While Drilling (MWD)
- ROC Manager
- Interface for 3 part HNS system

Optional equipment not mounted
- Gas charging equipment for rock drill
- First 50 hours service kit for compressor
- Lubrication system
- Conversion kit T38, T45, T51
- Measure While Drilling (MWD)
- RCS service tool-box
- Electrical tool kit

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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