

## EDM 47K-RC Drill

Track / Truck Mounted Dedicated RC Drill Rig



The EDM47K-RC is a versatile dedicated reverse circulation drill with 47,000lbs of pullback capacity. The drill is designed to be easily customized and can be truck or track mounted with multiple engine, cyclone, splitter, and breaker options available enabling the end user to tailor the rig according to their unique requirements.

Engineered to meet all T1 mine site safety standards, the EDM47K-RC rig ensures operational safety is a priority, featuring the EDM Hands-Free RC Rod Handler, an onboard tilting rod bin with a capacity of 168 meters of 4.5" diameter, 6-meter pipe, hands-free dual rod breakers, rotation guarding and automatic fire suppression system.

Built to be tough and reliable, the EDM47K-RC Drill Rig is a robust and proven solution, guaranteeing years of productive and safe drilling performance in the most challenging environments.

# Technical Specifications

## Diesel Engine Options

Cummins QSC 8.3, 290 HP @ 2100RPM Tier 3,  
Tier 4 Final/Stage 5 (if used with independent compressor)  
Caterpillar/Cummins engines from 580HP to 800HP.  
Tier 2, Tier 3, Tier 4/Stage 5 emissions engines available

## Compressor Options (Subject to engine choice)

Sullair 20/12 Two-stage rotary screw compressor with manually operated clutch to engage and disengage.  
Compressor volume/pressure regulated according to engine HP:  
1350 CFM / 500 psi

## Cooler Pack Assembly Options (Subject to engine choice)

Vee Pack Allied Heat Cooler assembly, 55°C ambient temp, provide engine, compressor, hydraulic oil, fuel, rotation head cooling.

Vertical Allied Heat Cooler, 55°C ambient temp

## Truck Options (subject to rig configuration)

Rig mounted on 6x4/6x6 and 8x4/8x6 trucks  
Rig can also be mounted on customer own truck if required.

## Crawler Options (subject to rig configuration)

Sejin 14T tracks with CAT D3 compatible running gear  
CAT C330 L Tracks  
Hitachi EX400 Tracks with Komatsu running gear.  
On board tramming cabin and/or Radio Remote Control tramming included

## Drill Mast

Heavy Duty two piece tubular section mast structure  
Capable of angles from vertical to 45°  
2.000 mm (6,6 ft) mast dump  
Standard hydraulic mast raise cylinders with counter balance valves.

## Rotation Top Drive Head

Hollow Floating spindle ID: 70 mm – 3 1/2" API IF pin thread  
Single speed top head drive with floating spindle  
5-150 rpm  
Maximum break out torque 12,500 ft-lb

## Head Traverse

Driven by single hydraulic cylinder  
Max speed up cylinder 830 mm/s (33 in/s)  
Max speed down cylinder 550 mm/s (21,5 in/s)  
7,6 m (25 ft) stroke with rotation head

## Capacity

Pulldown 78 kN (17.500 Lbf)  
Pullback 209 kN (47.000 Lbf)

## Drillers Control Console Options

Standard hydraulically deployable control console with drillers platform and overhead protection. Stows behind rig for transport.  
Sealed 2 person FOPs rated operators control Cabin, hydraulically deployable up to 5m away from the drill. Climatized with AC/heating  
EDM **Xcs** (e**X**ploration **co**ntr**o**l **s**ystem), a fully **EoH** system, controlled by PLC allowing the driller to view all drilling parameters and data with a touch screen interface. This data can also be remotely monitored and downloaded as required.

## Hydraulic System

Main Hydraulic Pump Parker 145 cc Piston Pump  
Secondary Hydraulic pump Parker 105 cc Piston Pump  
300 L Hydraulic Tank  
Main Hydraulic Valve Danfoss PVG2 56 Pilot operated  
Secondary Hydraulic Valve Danfoss PVG 32

## Water Pump

American (Bean) AW1122BCD  
140 l/min @ 7.000 kPa  
(37 gal/min @ 1.000 psi)

## Rod Breakout Wrench Options

Metzke Makorbreak LD Hydraulic Wrench with hydraulic vertical movement. 10,030Nm of breakout torque, 40-140mm and 219mm diameter capacity

Metzke Makorbreak MD Hydraulic Wrench with hydraulic vertical movement. 20,000Nm of breakout torque, 40-140mm and 219mm diameter capacity

## Hands-free Dual Breaker Options

Metzke **MB550** hands-free dual breakers for making/breaking rods, 90-140mm gripping range, 21,000Nm of torque.

Metzke **MB850** hands-free dual breakers for making/breaking rods, 90-204mm gripping range, 35,000Nm of torque.

## RC Slips Table

Hydraulic double acting RC Table with 4.5" slips  
Hydraulically operated RC table spanner  
Max table opening 304mm (12")

## Jib Boom -Optional

Actuated by hydraulic cylinder for raise/lower & hourglass worm for left/right  
Independent winch with lifting capacity of 200 kg (440 lb)

## EDM RC Rod Handler Options

EDM Hands-free RC Rod Handler mounted on rig. Handles 4.5" diameter RC rods 6m long, 200kg lifting capacity.

EDM **Heavy Duty** Hands-free RC Rod Handler mounted on rig. Handles 4.5" – 6" diameter RC rods, 6m long, 400kg lifting capacity.

RC Rod Handler is mounted on the right side of the mast and work in conjunction with on-board tilting rod bin and/or separate rod trucks/sloops. Hydraulically controlled from Rod Handler console or by Radio remote operation

## Rod Spin Guard

Cage off the rotating rods from operator/helper  
Hydraulically interlocked with rotation

## Theoretical rated RC depth on a vertical and clean hole with a 45% capacity allowance

4" dual wall RC pipe	500 m (1.640 ft)
4 1/2" dual wall RC pipe	365 m (1.196 ft)

## Sampling Systems

Cyclone and Splitter mounted on swing out arm with hydraulic vertical movement and stows behind the rig for transport.  
Sampler systems include; EDM Basic Cyclone and wet splitter, OX Engineering, Sanvick, Metzke and Progadex.

## Dimensions (Subject to configuration)

Platform Width:	3.000 mm (9 ft 10 in)
Rig Overall Length:	12.135 mm (39 ft 10 in)
Height:	4.600 mm (5 ft 1 in)
Approx. Weight:	42.000 kg (92.595 lb)

## Safety Features

Guards on all rotating equipment  
Anti slip grid mesh on all work platforms  
Hand rails on all work platforms  
Emergency stops in control cabin and on all corners of machine  
Rod spin guard with hydraulic interlock.  
Reduces rotation to 150 rpm when opened.  
Heat guards on all exhaust manifolds and piping  
Shut down system which protects the following  
Low engine oil pressure  
High engine temperature  
Low hydraulic tank oil level, low coolant level

## Warranty

6 Months or 1.500 hrs Diesel engine

**Rig performance is directly related to conditions encountered in the field.**

**Please contact an Exploration Drill Masters representative for detailed product information.**