MD6290 Rotary Blasthole Drill



Rated Capacity

Bit/hole diameter	152-270 mm	6-10.625 in
Depth single-pass (8 m/26 ft 3 in mast)	Up to 8.6 m	Up to 28 ft 2 in
Depth multi-pass (8 m/26 ft 3 in mast)	Up to 45.1 m	Up to 148 ft 0 in
Depth single-pass (10 m/32 ft 9 ³ / ₄ in mast)	Up to 10.1 m	Up to 33 ft 2 in
Depth multi-pass (10 m/32 ft 9 ³ / ₄ in mast)	Up to 52.7 m	Up to 173 ft 0 in
Depth single-pass (11 m/36 ft 0 in mast)	Up to 11.0 m	Up to 36 ft 0 in
Depth multi-pass (11 m/36 ft 0 in mast)	Up to 32.3 m	Up to 106 ft 0 in

Operating Temperature

Minimum ambient rating (standard)	–28° C	–20° F
Cold weather option	−40° C	-40° F
Maximum ambient rating (standard)	52° C	125° F
Altitude	Up to 4572 m	Up to 15,000 ft

Pull-down/Hoisting Capacity

Rated pull-down capacity	Up to 267 kN	Up to 60,000 lbf
Rated hoist capacity	Up to 210 kN	Up to 47,100 lbf
Feed rate	0-42.9 m/min	0-141 ft/min
Retract rate	0-44.8 m/min	0-147 ft/min
Туре	Open-loop, hydraulic	
		rel, moving rod)
Number of cylinders	1	
Pull-down cylinder stroke (8 m/26 ft 3 in mast)	5.1 m	202 in
Head travel (8 m/26 ft 3 in mast)	10.26 m	404 in
Pull-down cylinder stroke (10 m/32 ft 9 ³ / ₄ in mast)	5.89 m	232 in
Head travel (10 m/32 ft 9 ³ / ₄ in mast)	11.79 m	464 in
Pull-down cylinder stroke (11 m/36 ft 0 in mast)	6.25 m	246 in
Head travel (11 m/36 ft 0 in mast)	12.50 m	492 in
Cylinder bore – diameter	178 mm	7 in
Cylinder rod – diameter	127 mm	5 in
Cable type – 25 mm (1 in)	DYFORM 8	
Cable sheaves (cylinder) – outside diameter	406 mm	16 in
Cable sheaves (top and bottom) – outside diameter	559 mm	22 in
Sheave guards	Standard at bo	ttom plate
Adjustable head guide shoes	Steel with repla	aceable Nylatron [™]



Rotary Drive System	
Rotation speed	0-220 rpm
Torque	0-12 880 N·m 0-9,500 lbf-ft
Horsepower capacity	139 kW 186 hp
Gearbox	Casting design
Main thrust bearing	Taper roller
Lubrication	Oil flooded
Gearing	Straight spur
Ratio	16:1
Drive motor	See Hydraulic System

Cooler Assembly

Radiator – CAC-Oil Cooler Assembly for Cat[®] C15 (Tier 3) 403 kN (540 hp), single, front-end mounted

or/aftercooling/l -stacked	hydraulic
2692 mm	106 in
1397 mm	55 in
1219 mm	48 in
1,525 rpm	
Welded	
Sealed top tank, pressure cap, overflow tube and sight glass	
64 mm	2.5 in
89 mm	3.5 in
64 mm	2.5 in
41 mm	1.625 in
114 mm	4.5 in
52° C	125° F
	-stacked 2692 mm 1397 mm 1219 mm 1,525 rpm Welded Sealed top ta overflow tub 64 mm 64 mm 41 mm 114 mm

Radiator – CAC-Oil Cooler Assembly for Cat C27 (Tier 2) 597 kW (800 hp), single, front-end mounted

Air-finned, four-core, radiato compressor, CAC-stacked	r/hydraulic side	-by-side
Cooler width (dual fan)	2896 mm	114 in
Cooler height (dual fan)	1651 mm	65 in
Fan – diameter (two fans, 16 blades)	1168 mm	46 in
Fan speed	1,700 rpm	
Fan guard	Welded	
Engine radiator		
Top tank	Sealed deaer pressure cap and sight gla	, overflow tube
Standard ambient rating	52° C	125° F

Cooler Assembly (cont'd)

Radiator – Coolant-Oil Cooler Assembly for Cummins QSK-19 (Tier 1) 559 kW (750 hp), single, front-end mounted

Air-finned, three-core, radiat compressor-stacked	or/hydraulic sid	e-by-side
Cooler width (single fan)	2581 mm	101.625 in
Cooler height (single fan)	1549 mm	61 in
Fan – diameter (10 blades)	1219 mm	48 in
Fan speed	1,525 rpm	
Fan guard	Welded	
Engine radiator		
Top tank	Sealed deaer pressure cap and sight gla	, overflow tube
Standard ambient rating	52° C	125° F

Radiator – CAC-Oil Cooler Assembly for Cummins QSK-19 (Tier 2) 567 kW (760 hp), single, front-end mounted

Air-finned, four-core, radiator/h	ydraulic side-by	-side
compressor, CAC-stacked		
Cooler width (dual fan)	2896 mm	114 in
Cooler height (dual fan)	1651 mm	65 in
Fan – diameter (two fans, 16 blades)	1168 mm	46 in
Fan speed	1,700 rpm	
Fan guard	Welded	
Engine radiator		
Top tank	Sealed deaeriat pressure cap, ov and sight glass	
Standard ambient rating	52° C	125° F

Compressor (Standard)

Туре	Oil-flooded, single-stage screw	
Discharge air flow (sea level)	30 m³/min	1,050 ft³/min
Maximum operating pressure	8.6 bar	125 psi
Air cleaner type	Dry-type with safety element	
Oil cooling	Air-to-oil cooler, thermostatically controlled	
Oil separation	Vertical barrier element, pre-separation in 136 L (36 gal) (T-tank)	
Oil filtration	12 micron replaceable element	
Drive	Direct coupled to engine flywheel	
Controls	Automatic with safety shut-down	
Air shut-off	Hydraulic cylinder – operated from operator's seat	

Compressor (Optional)		
Туре	Oil-flooded, single-stage screw	
Discharge air flow (sea level)	35 m³/min	1,250 ft³/min
Maximum operating pressure	8.6 bar	125 psi
Air cleaner type	Dry type with safety element	
Туре	Oil-flooded, sir	ıgle-stage screw
Discharge air flow (sea level)	48 m³/min	1,700 ft³/min
Maximum operating pressure	6.9 bar	100 psi
Air cleaner type	Dry-type with	safety element
Type (high-pressure)	Oil-flooded, tw	o-stage screw
Discharge air flow (sea level)	33 m³/min	1,150 ft³/min
	38 m³/min	1,350 ft³/min
	43 m³/min	1,500 ft³/min
Maximum operating pressure	10.3/24.1 bar	150/350 psi
Air cleaner type	Dry-type with safety element	

Engine (Standard) – C15

Manufacturer	Caterpillar	
Model	C15 (Tier 3)	
Rated horsepower	403 kW	540 hp
Full load	2,100 rpm	
Starting system	24V DC	
Engine shut-down system	Energized to	o run
Air cleaner type	Dry-type with safety element	
Batteries	Two (2) 8-D	
Muffler (inlet and outlet)	127 mm	5.0 in
Muffler guard	10 gauge for	· personal protection
Jacket water cooling/CAC	Radiator	
Fuel tank	1382 L	365 gal
Optional fuel tank	1071 L	283 gal
Turbo and manifold covers	Blankets an	d/or exhaust wrap

Engine (Optional) – C27

Caterpillar	
C27 (Tier 2)	
597 kW	800 hp
2,100 rpm	
24V DC	
Energized to run	
Dry-type with safety element	
Four (4) 8-D	
127 mm	5.0 in
10 gauge for pe	rsonal protection
Radiator	
1382 L	365 gal
1071 L	283 gal
	C27 (Tier 2) 597 kW 2,100 rpm 24V DC Energized to ru Dry-type with Four (4) 8-D 127 mm 10 gauge for pe Radiator 1382 L

Engine (Optional) – C27	1		
Manufacturer	Caterpillar	Caterpillar	
Model	C27 (Tier 2)	C27 (Tier 2)	
Rated horsepower	652 kW	875 hp	
Full load	2,100 rpm		
Starting system	24V DC		
Engine shut-down system	Energized to run		
Air cleaner type	Dry-type with safety element		
Batteries	Four (4) 8-D	Four (4) 8-D	
Muffler (inlet and outlet)	127 mm	5.0 in	
Muffler guard	10 gauge for personal protection		
Jacket water cooling/CAC	Radiator		
Fuel tank	1382 L	365 gal	
Optional fuel tank	1071 L	283 gal	
Manifold covers	Blankets an	Blankets and/or exhaust wrap	

Engine (Optional) – QSK-19 (Non-Cert)

Manufacturer	Cummins		
Model	QSK-19 (Non-Cert)		
Rated horsepower	559 kW	750 hp	
Full load	2,100 rpm		
Starting system	24V DC		
Engine shut-down system	Energized to run		
Air cleaner type	Dry-type with safety element		
Batteries	Four (4) 8-D		
Muffler (inlet and outlet)	127 mm	5.0 in	
Muffler guard	10 gauge for personal protection		
Jacket water cooling	Radiator	Radiator	
Fuel tank	1382 L	365 gal	
Optional fuel tank	1071 L	283 gal	
Manifold covers	Blankets an	Blankets and/or exhaust wrap	

Engine (Optional) – QSK-19 (Tier 2)

Manufacturer	Cummins	
Model	QSK-19 (Tier 2)	
Rated horsepower	566 kW 760 hp	
Full load	2,100 rpm	
Starting system	24V DC	
Engine shut-down system	Energized to run	
Air cleaner type	Dry-type with safety element	
Batteries	Four (4) 8-D	
Muffler (inlet and outlet)	127 mm 5 in	
Muffler guard	10 gauge for personal protection	
Jacket water cooling/CAC	Radiator	
Fuel tank	1382 L 365 gal	
Optional fuel tank	1071 L 283 gal	
Manifold covers	Blankets and/or exhaust wrap	

Mast

Construction	ASTM 500 gr tubing, welde	rade B rectangular ed
Main chord size		
Front	203 mm × 102 mm × 6 mm	8 in × 4 in × 0.25 in
Rear	102 mm × 102 mm × 13 mm	4 in × 4 in × 0.5 in
Pivot and raising area	-	tubing A frame; high-stress areas
Hydraulic lines	Pressure-rated steel hydraulic tubing	
Hose rack	Sheet steel tre for moving h	C
Table hole diameter (diameter	279 mm	11.0 in

deck hole for guide bushing)

Mast – Elevating Cylinders

Number of cylinders	2	
Cylinder bore diameter	178 mm	7.0 in
Cylinder rod diameter	89 mm	3.5 in
Cylinder stroke	965 mm	38 in
Lift capacity each cylinder	471 kN	105,800 lbf
Cylinder connection pins diameter	45 mm	1.75 in

Operator's Cab Location To the right from the mast if facing rear deck from the rear end Туре Shock-mounted; two-man, integrated FOPS certified Length at floor 1981 mm 78 in Width at floor 59.75 in 1518 mm 32.40 ft² Floor area $3 \ m^2$ Height inside 1943 mm 76.50 in Construction 12 gauge steel welded to formed 12 gauge channel and angle supports Windows (tinted safety glass 0.25 in $6\,\mathrm{mm}$ in rubber mounting) Number of windows 10 Number of doors 2 with windows (included in above) Left door to work deck Swing-type, HD hinge Swing-type, HD hinge Right door Operator's seat One swivel-type with armrests, headrest and retractable seatbelt Helper's seat Fixed folding jump seat Insulation, wall and ceiling 25 mm 1 in (thermal) Insulation, floor [closed-cell 10 mm 0.375 in foam with 3 mm (0.125 in)pyramid vinyl surface] Door latches Heavy-duty latches with lockable handles Sound levels 80 dB(A) or less Climate Control Wall mounted, AC/heating/ pressurizing unit

Other

Window wipers and washers

Operator's Controls

Location

Console at front and side cab wall, placed 45° to the deck

Standard	Engine	Controls
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Standard Engine Controls
Coolant temperature/high temperature shut-off
Oil pressure (low pressure shut-off)
Auto shut-down bypass
Start button
Stop button
Tachometer
Throttle control
Engine hourmeter
Fuel level
Voltmeter
Standard Compressor Controls
Compressor temperature
Air pressure gauge
Air shut-off control (electric) (high air temperature)
Standard Drilling Controls
Leveling jack controls (hydraulic)
HOBO/Break-out wrench control (electric)
Mast elevation control (hydraulic)
Pull-down control (electric over hydraulic)
Pull-down pressure control (pilot hydraulic)
Rotation control (electric over hydraulic)
Propel controls (electric over hydraulic)
Carousel in/out control (electric)
Carousel indexing control (electric)
Carousel indexing (electric)
Mast lock (electric)
Dust/water injection (electric)
Dust curtain (electric)
Deck wrench control (electric)
Level indicator (bubble)
On/off light switch (electric)
Drill hourmeter (gauge)
Winarlyyachan aantrala (alaatria)

Wiper/washer controls (electric)

Filter Indicators

Filter indicators for engine and compressor intake, filter indicators are standard

Hydraulic fluid system, indicator lights for interlocks, rotary head rpm gauge and heating systems control are optional

Туре	Excavator type	
Pad width	750 mm	29.5 in
Pad type	Triple grouser	
Rollers	Sealed, oil-floo	oded
Number of rollers on each side	10	
Upper track chain support	Two (2) carrier	r rollers
Rock guards/chain guides	Standard full-length guards	
Overall length (variable with adjustment)	5080 mm	200 in
Width over tracks	3912 mm	154 in
Final drive	Independent hydrostatic, 2-speed motors	
Maximum drive horsepower per track	152 kW	204 hp
Brakes	Spring set, hyd	lraulic release
Brake release	Automatic	
Tram speed maximum	3.14 km/h	1.95 mph
Gradeability mast down	32%	
Rear axle (solid)	203 mm	8 in
Front	Three-point oscillating type	
Track adjustment means	Hydraulic with grease gun	
Track drive disconnect	Standard (manual)	
Mainframe		
Main rails (ASTM 500 grade B	$203 \text{ mm} \times$	8 in ×
rectangular tubing heavily	$406 \text{ mm} \times$	16 in ×
cross-braced and reinforced	13 mm	0.5 in
at high-stress areas)	F1 ,	1
Construction	Electric welded	
Jacks, mast pivot and deck	Welded integrally to mainframe	
Toolbox	Lockable door, below cab side walkway	
Machine deck	Access both si	des
Handrails		
Diameter	48 mm	1.9 in

1219 mm

Welded, two (2) front

48 in

Height

Tow hooks

Leveling Jacks		
Number	4	
Location	2 front; 2 rear	
Cylinder bore	140 mm	5.5 in
Cylinder rod diameter	76 mm	3 in
Cylinder stroke	1219 mm	48 in
Cylinder stroke (optional front)	1524 mm	60 in
Lift capacity (each)	290 kN	65,300 lbf
Pad connection	Ball and socket	;
Pad diameter	610 mm	24 in
Counterbalance valves	Internal at each	n cylinder
Inner extension boot		
Outside diameter	219 mm	8.625 in
Wall	8 mm	0.322 in

Drill Table and Work Deck

Table height off ground	1321 mm	52 in
Deck floor material	Non-skid sh	eet metal
Drill deck length	2661 mm	104.75 in
Drill deck width	2578 mm	101.5 in
Drill deck area	6.86 m ²	73.8 ft ²
Hand rails		
Diameter	48 mm	1.9 in
Height	1219 m	48 in

Dust Curtain (Optional Hydraulic Lifters, Front and Rear)

Material (rubber nylon reinforced)	6 mm	0.25 in
Enclosed area	4.2 m ²	45.14 ft ²
Split for excess	Front and re (12 in) overla	ear with 305 mm ap
Dust deflector	Natural rubber seal	
Thickness	13 mm	0.5 in
Diameter	356 mm	14 in
Location	Directly below table bushing	

Hydraulic System

l-loop)	
Axial piston,	variable volume
262 L/min	69.3 gal/min
380 bar	5,510 psi
Axial piston,	variable volume
262 L/min	69.3 gal/min
380 bar	5,510 psi
en-loop)	
Axial piston,	variable volume
283 L/min	75 gal/min
230 bar	3,335 psi
Gear	
216 L/min	57 gal/min
246 L/min	65 gal/min
207 bar	3,000 psi
107/125 cc	
Bent axis fixe	ed volume
414 bar	6,000 psi
Axial piston variable volume	
345 bar	5,000 psi
1	
2	
Piston	
414 bar	6,000 psi
3 pad	
Rubber coupler/drive shaft	
to front of engine	
ors and bypass)	
12 micron, 2	per loop (optional)
	per loop (optional) er loop
	Axial piston, 262 L/min 380 bar Axial piston, 262 L/min 380 bar Den-loop) Axial piston, 283 L/min 230 bar Gear 216 L/min 246 L/min 207 bar 107/125 cc Bent axis fixe 414 bar 1 2 Piston 414 bar 3 pad Rubber coup

Oil Cooling System (Hydraulic Tank)		
Reservoir with sight and temperature gauge	644 L	170 gal
Reservoir pressure	Atmospheric, filtered breather	
Lubrication		
Centralized manual (option	onal auto-lubrica	ation)
Accessories Teols of	nd Hondling E	auinmont

Accessories, Tools and Handling Equipment

Note: 4-pod carousel for 8 m (26 ft 3 in) and 10 m (32 ft 9³/₄ in) mast, 2-pod carousel for 11 m (36 ft 0 in) mast

Drill Pipe (optional)

DI III E Ihe (ohrious	ai)		
Diameter	1	14 mm-	4.5 in-
(customer spec	cification) 1	78 mm	7.0 in
Wall thickness	s 1	9 mm	0.75 in
Length	9	0.14 m	30 ft
Optional lengt	th 1	0.67 m	35 ft
Diameter	Wall Thickness	Thread	Pipe Length
114 mm (4.5 in)	19 mm (0.75 in)	3 Beco	9.14 m (30 ft)
114 mm (4.5 in)	19 mm (0.75 in)	3 Beco	10.67 m (35 ft)
127 mm (5 in)	19 mm (0.75 in)	3.5 Beco	9.14 m (30 ft)
127 mm (5 in)	19 mm (0.75 in)	3.5 Beco	10.67 m (35 ft)
140 mm (5.5 in)	19 mm (0.75 in)	4 Beco	9.14 m (30 ft)
140 mm (5.5 in)	19 mm (0.75 in)	4 Beco	10.67 m (35 ft)
152 mm (6 in)	19 mm (0.75 in)	4.5 Beco	9.14 m (30 ft)
152 mm (6 in)	19 mm (0.75 in)	4.5 Beco	10.67 m (35 ft)
165 mm (6.5 in)	19 mm (0.75 in)	4.5 Beco	9.14 m (30 ft)
165 mm (6.5 in)	19 mm (0.75 in)	4.5 Beco	10.67 m (35 ft)
178 mm (7 in)	19 mm (0.75 in)	4.5 Beco	9.14 m (30 ft)
178 mm (7 in)	19 mm (0.75 in)	4.5 Beco	10.67 m (35 ft)

Top Adapter Sub

Diameter	Depends on	Depends on pipe diameter	
Length	711 mm	28 in	
Top thread (API Reg.)	140 mm	5.5 in	
Bottom thread	Depends on pipe diameter		

Bit Sub

Diameter	Depends on pipe diameter	
Length for 8 m (26 ft 3 in) and 10 m (32 ft 9 ³ / ₄ in) mast	762 mm 30 in	
Length for 11 m (36 ft 0 in) mast	1524 mm 60 in	
Top thread	Depends on pipe diameter	
Bottom thread	Depends on bit diameter	
Table bushing (standard)	One (1) piece insert	
Table bushing (optional)	Roller bushing or two-piece	

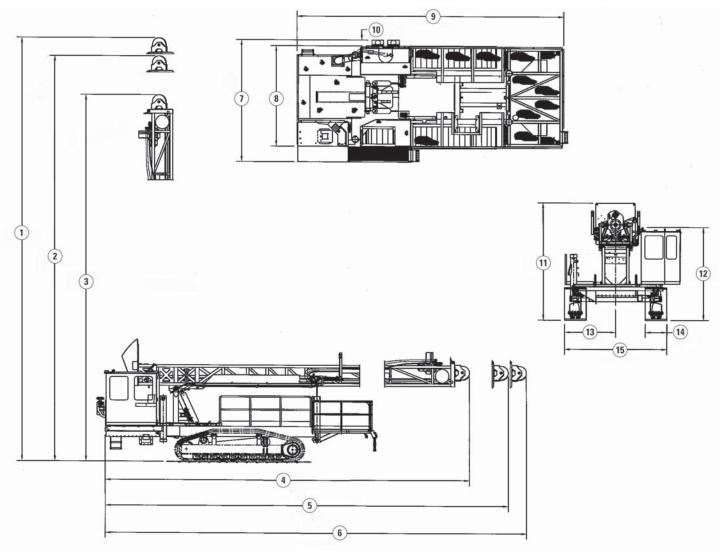
eck Wrench		
Location	Drill deck	
Wrench plate (T1-Steel)	76 mm	3 in
Wrench positioning	Hydraulic cy	linder
Impact means	Stationary ja	W
OBO Break-out Wrench		
Location	Outside mast, under pipe rack	
Support	Pivot	
Wrench type	Patented HOBO (Hydraulically Operated Break-Out)	
Power	Hydraulic Cylinders	
ipe Rack (outside the mast)		
Туре	Carousel, with stationary breaker plates	
Size of drill pipe/capacity		
8 m (26 ft 3 in) and 10 m	114 mm	4.5 in
(32 ft 9 ³ / ₄ in) mast, 4 pipes	to 178 mm	to 7 in
11 m (36 ft 0 in) mast,	114 mm	4.5 in
2 pipes	to 178 mm	to 7 in
Length of drill pipe	9.14 m	30 ft
Optional length of drill pipe	10.67 m	35 ft
Pipe rack swing	Hydraulic cylinders (2)	
Pipe rack index	Hydraulic mo	otor
	through chai	n drive
Location	Outside mast	

Winch System (mounted on the mast)

Rating	1587 kg	3,500 lb
Cable size	13 mm	0.5 in
Swivel hook	Self-closing ga	ite

Dimensions

All dimensions are approximate.



1	16.59 m	653.28 in
2	15.88 m	625.28 in
3	14.36 m	565.28 in
4	14.28 m	562.37 in
5	15.81 m	622.37 in
6	16.52 m	650.37 in
7	4.78 m	168.04 in
8	3.93 m	154.78 in

9	10.46 m	411.90 in
10	0.23 m	9.25 in
11	4.59 m	180.72 in
12	3.64 m	143.34 in
13	2.01 m	78.98 in
14	0.75 m	29.5 in
15	4.01 m	157.96 in

Basic Shipping Weights and Dimensions

Quantity	Description of GoodsModel MD6290 Rotary Blasthole drill comes with one (1) each Owner/Operator manual		Dimensions
Truck one (1)			
	and warranty packet stowed within cab		
	Length	10.82 m	35 ft 5 in
	Width	4.06 m	13 ft 3 in
	Height	3.96 m	13 ft 0 in
	Weight	41 050 kg	90,500 lb
Truck two (2)	Mast assembly for Model MD6290 Rotary Blasthole drill (mast for 10.67 m/35 ft pipe)		
	Length	14.81 m	48 ft 7 in
	Width	1.91 m	6 ft 3 in
	Height	1.91 m	6 ft 3 in
	Weight	14 514.96 kg	32,000 lb
Truck one (1)	Cab half for Model MD6290 Rotary Blasthole drill comes with one (1) each ship out filter		
	kit, two (2) each tubes superflex, two (2) each brackets, one (1) each bag of nuts and bolts,		
	two (2) each mast bushings, one (1) each horseshoe bushing, one (1) each bit basket and		
	one (1) each lifting bale		
	Length	2.286 m	7 ft 5 in
	Width	0.81 m	2 ft 8 in
	Height	2.51 m	8 ft 3 in
	Weight	635 kg	1,400 lb
Truck two (2)	Walkway for Model MD6290 Rotary Blasthole drill comes with toolbox stowed within		
	Length	2.74 m	9 ft 0 in
	Width	0.86 m	2 ft 9 in
	Height	1.30 m	4 ft 3 in
	Weight	589.7 kg	1,300 lb
		2	

Note: Final dimensions, GVW and corresponding load-out vary based on options selected and final configuration.

Performance ratings are based on 100% efficiency and on engineering specifications and calculations in accordance with accepted industry standards. These capacities will vary with drilling conditions. All specifications are subject to change without notice.

Notes

Notes

MD6290 Rotary Blasthole Drill

Materials and specifications are subject to change without notice.

Featured machines in photos may include additional equipment.

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