

# Ranger DQ500 T3 SURFACE DRILLS

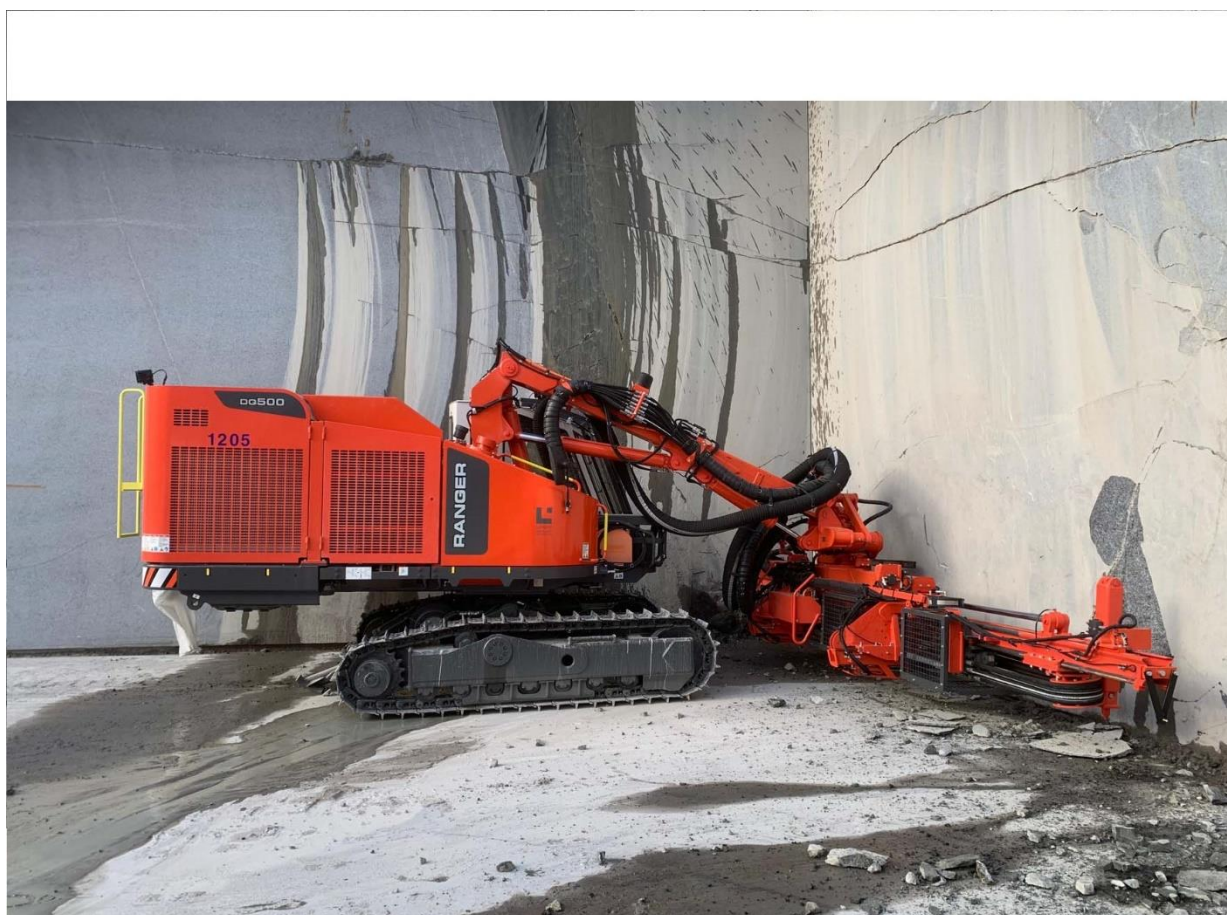
## Technical specification

Ranger DQ500 is a hydraulic, self-propelled, self-contained, crawler based surface drilling rig equipped with a cabin (F.O.P.S. and R.O.P.S.) and rod handling system.

Ranger Ranger DQ500 is meant for pilot hole drilling in dimensional stone quarries.

### KEY FEATURES

Hole diameter:	45- 89 mm (1¾"– 3½")
Rock tools:	32, 38 or 45 mm (1¼", 1½", and 1¾" ) rods
Rock Drill	15,5kW
Engine output:	168 kW
Flushing air:	6,2 m3/min, up to 10 bar
Production capacity:	2000 m3/8h
Total weight :	15 400 kg





#### HYDRAULIC ROCK DRILL

Rock drill	HL 510
Rock tools	32,38,45 mm
Operating pressure	80-170 bar
Percussion rate	60 Hz
Percussion output power	15.5 kW
Maximum rotation torque	530 Nm / 150 bar
Shank lubrication	Air / oil mist
Flushing	Air
Weight	130 kg

#### FEED

Feed type	Chain feed CF145H
Total length	6 525 mm
Rock drill travel	4 200 mm
Max. length of starter rod	4 305 mm
Hose reel	Standard
Feed extension travel	1350 mm
Feed/pull out force	20 kN
Feed swing	-56°/+52° (-20°/+94°)
Feed tilt	125°
Minimum height for horizontal holes	180 mm (7")

#### ROD CHANGER

Rod changer type	RH 714
Storage capacity	6+1 rods
Rod length	3050, 3660 (10', 12')
Max. hole depth	25 m

#### BOOM

Boom type	DB 800 SW with roll-over
Boom reach	4,8 m
Drilling coverage	26.4 m <sup>2</sup>
Collaring height	+2.1 m/-5.0 m
Horizontal holes	To any direction

#### CABIN

Cabin type	Ergo
Certificates	F.O.P.S. and R.O.P.S.
Noise level in the cabin	below 80 dB(A)
Air conditioning	Standard *
Pressurization	Standard
Seat	Multiposition
Vibration dampening	Standard
Windows	Safety laminated, tinted with wipers
Power take-off	12 VDC

\* Air condition system contains fluorinated greenhouse gases HFC-134a

#### POWERPACK

Engine type	Caterpillar C 7.1 (TIER 3)
Max. tilt angles	+/- 45°
Number of cylinders	6
Engine output	168 kW / 1 800 rpm
Transmission type	Gear box
Screw compressor type	Enduro 12
Air filters	2 pcs, with ejector and safety element
Fuel tank	380 l

#### HYDRAULIC SYSTEM

Number of gear pumps	3 pcs. for dust collector and cooling
Number of piston pumps	2pcs. for drilling, tramming, boom and rodhandling
Filtration rate	12 micron abs., return 25 micron, pressure
Cooling capacity	up to +50°C ambient
Hydraulic oil tank	200 l
Shank lubrication device	SLU 14-1

#### CONTROL SYSTEM

Control system type	Hydraulic pilot control and relay logic
Tramming/boom/ drilling control	Pilot/direct/ pilot controlled
User interface	Proportional hydraulic joysticks and pressure gauges
Drilling control system type	Rock Pilot+
Antijamming system	For rotation standard and flushing optional
Collaring control	Stepless
Voltage	24 VDC

#### DUST COLLECTOR

Dust collector type	DC 810H
Capacity/vacuum	23 m3/min at 1 000 mm vacuum H2O
Filter elements/material	13 pcs/fiber
Total filter surface	10.4 m <sup>2</sup>
Primary cyclone	Standard
Movable suction head	Standard

#### CARRIER

Track type	FL 6
Grouser plate width	310 mm
Ground contact length	2 590 mm
Ground pressure	0.79 kg/cm <sup>2</sup>
Ground clearance	440 mm
Turnable superstructure	120° / 180°
Oscillation angles	+/- 10°
Tramming force	110 Kn
Max. tramming speed	3.5 km/h



#### STANDARD COMPONENTS

1 pc	Rock drill HL 510, hydraulic, w.OMSU200
1 pc	Chain feed CF 145H x 12 with two ground supports and movable drill steel support
1 pc	Rod handler RH 714 incl. 1 set of jaws
1 pc	Hose reel
1 pc	Boom DB 800 SW, articulated with roll-over
1 pc	Carrier track mounted, turnable superstructure
1 pc	Turnable superstructure 180 deg.
1 pc	Power pack diesel driven, hydraulic pumps and on-board compressor
1 pc	Hydraulic system load sensing and open center
1 pc	Control system Rockpilot + Full radio control for drilling, boom, and rodhandling movements
1 pc	Operator's cabin F.O.P.S. and R.O.P.S. with AC
1 pc	Dust collection system DC 810 H, hydraulic
9 pcs	Working lights
1 pc	Gaugeset for accumulator checking
1 pc	Backup alarm
1 pc	Operator's manual (paper copy)
	EU-safety devices without safety cage

#### THE JAWS FOR DRILL STEELS

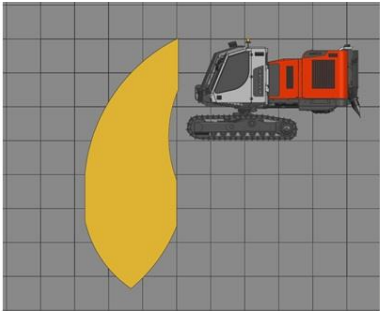
DRILL STEEL TYPE	DRILL STEEL DIAMETER	RECOMMENDED HOLE DIAMETER
Extension rods	32 mm	45 - 57 mm
	1 1/4"	1 3/4" - 2 1/4"
MF-rods	32 mm	45 - 57 mm
	1 1/4"	1 3/4" - 2 1/4"
Extension rods	38 mm	64 - 70 mm
	1 1/2"	2 1/2" - 2 3/4"
MF-rods	38 mm	64 - 70 mm
	1 1/2"	2 1/2" - 2 3/4"
Extension rods	45 mm	76 - 89 mm
	1 3/4"	3" - 3 1/2"
MF-rods	45 mm	76 - 89 mm
	1 3/4"	3" - 3 1/2"

#### SELECTION OF OPTIONS

Alternative seat ISRI 6000
Radio with CD-MP3 player
Reversing camera
Vacuum cleaner for cabin
TIM 5600 for vertical and horizontal holes and depth measuring
EN 16228 Safety cage for feed
Kit for alternative steels, each
Thread greasing
Thread greasing with 5 gallon bucket
Anti- freeze system for air lines
Biodegradable hydraulic oil, not with CSL
Central lubrication system Sandvik
Central lubrication system Lincoln
Electric fuel filling pump
Guides for grousers, long
Hydraulic rear ground support
Led lights, 6 pcs
Three bar grouser plates
Towing hook
Winch with radioremove control and cable tightness automatics
Xenon lights, 6 pcs
Fuel powered heater for engine and cabin
Fuel powered heater for engine, cabin and water tank
Readyness for fuel powered heater
Dustmizer, water injection option included (engine heater option needed below freezing point)
Dustmizer (engine heater option needed below freezing point)
Flushing control automatics
Shut down of suction for water holes
Water injection system
Grinder Sandvik RG420H
Grinder, Dynaset
CME mini junior Grinder

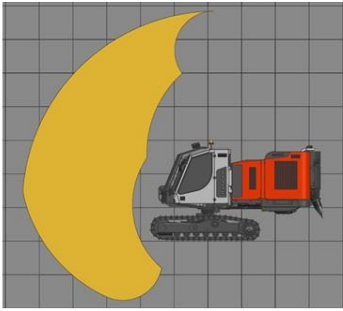


Coverage area and dimensions

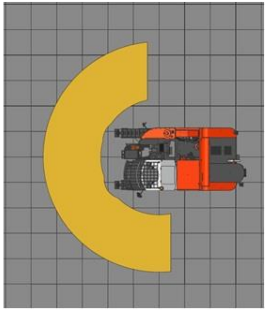


Vertical drilling

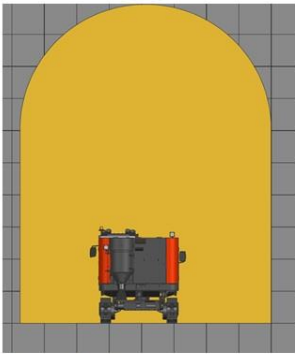
1m



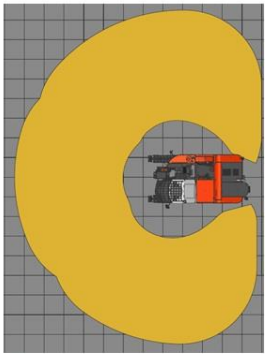
Horizontal drilling



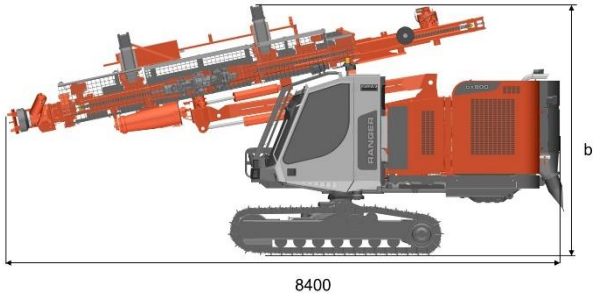
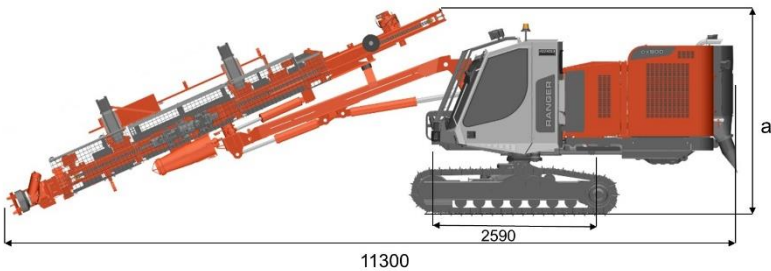
Vertical coverage



Tunnel bolting reach



Horizontal coverage



DIMENSIONS	
Weight	15 400 kg
Width	2.5 m
Height	a/b, 3.2 m/3.6 m
With safety cage	3.2 m/3.8 m
Total length	8.4 m / 11.3 m

Sandvik Mining and Rock Solutions reserves the right to make changes to the information on this data sheet without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.