Ranger DX600 T3
SURFACE DRILLS

Technical specification

Ranger DX600 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.

Typical applications for Ranger DX600 are road cutting, pipe-line drilling and foundation drilling, as well as production drilling in medium size quarries. Therefore Ranger DX600 is most often used by construction contractors, mines and quarries, and also included in the equipment fleet of rental houses as well.

KEY FEATURES	
Hole diameter:	64- 102 mm (2½"– 4")
Rock tools:	38, 45 or 51 mm (1½", 1¾" and 2")
Rock Drill	17,5kW
Engine output:	168 kW
Flushing air:	6,2 m3/min, up to 10 bar
Production capacity:	2200 m3/8h
Total weight :	15 200 kg

HYDRAULIC ROCK DRILL	
Rock drill	HL 650
Rock tools	38,45,51 mm
Operating pressure	100-170 bar
Percussion rate	55 Hz
Percussion output power	17.5 kW
Maximum rotation torque	1 325
Shank lubrication	Air / oil mist
Flushing	Air
Weight	245 kg

FEED	
Feed type	CF 145H
Total length	7 700 mm
Rock drill travel	5 020 mm without hose reel
Max. length of starter rod	5 485 mm (18') without hose reel
Hose reel	Optional
Feed extension travel	1350 mm
Feed/pull out force	20 kN
Feed swing	-56°/+52° (-20°/+94°)
Feed tilt	125°

ROD CHANGER	
Rod changer type	RH 714
Storage capacity	6+1 rods
Rod length	3050, 3660, 4265 mm (10', 12', 14')
Max. hole depth	29 m (7x14')*

BOOM	
Boom type	DB 800H, articulated
Boom reach	4,8 m
Drilling coverage	17.6 m^2 (26.4 m^2)
Collaring height	+2.5 m/-4.5 m
Horizontal holes	To the right

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	4 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 m2
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	0.81 kg/cm2
Ground clearance	440 mm
Turnable superstructure	120° / 180°
Oscillation angles	+/- 10°
Tramming force	121 Kn
Max. tramming speed	3.5 km/h

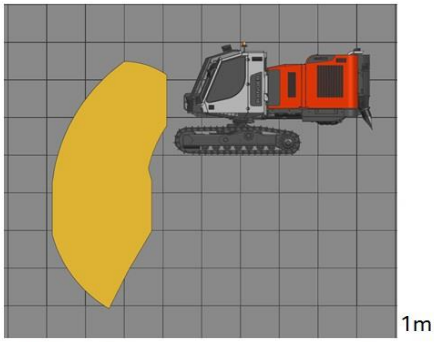
STANDARD COMPONENTS
1 pc Rock drill HL 650, hydraulic
1 pc Chain feed CF 145H with movable drill steel support
1 pc Rod handler RH 714 incl. 1 set of jaws
1 pc Boom DB 800, articulated
1 pc Carrier track mounted, turnable superstructure
Guides for grousers
1 pc Power pack diesel driven, hydraulic pumps and on-board compressor with twin pressure control
1 pc Hydraulic system load sensing and open center
1 pc Control system Rock Pilot+
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, Primary separator
9 pcs Working lights
1 pc Gauge set for accumulator pressure checking
1 pc Back up alarm
1 pc Operator's manual (paper copy)
Eu-safety devices

THE JAWS FOR DRILL STEELS

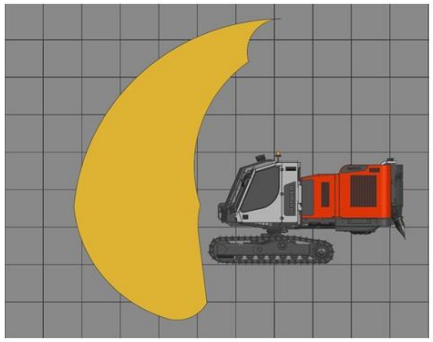
DRILL STEEL TYPE	DRILL STEEL DIAMETER	RECOMMENDED HOLE DIAMETER
Extension rods	38 mm 1 ½"	64 - 70 mm 2 ½" - 2 ¾"
MF-rods	38 mm 1 ½"	64 - 70 mm 2 ½" - 2 ¾"
Extension rods	45 mm 1 ¾"	76 - 89 mm 3" - 3 ½"
MF-rods	45 mm 1 ¾"	76 - 89 mm 3" - 3 ½"
MF-rods	51 mm 2"	89 - 102 mm 3 ½" - 4"
Extension rods	51 mm 2"	89 - 102 mm 3 ½" - 4"

SELECTION OF OPTIONS
Alternative seat ISRI 6000
Radio with CD-MP3 player
Reversing camera
Vacuum cleaner for cabin
Driller's Notes - MWD Data Collection for TIM3D
Driller's Office planning software (one-year license)
Knowledge Box for TIM3D or readiness (4G/LTE and WiFi for My Sandvik)
Knowledge Box for TIM5300-6700 (4G/LTE for My Sandvik, no WiFi)
+ My Sandvik Insight, 1-yr license, BG01722724
+ My Sandvik Wireless Drill Plan Transfer 1-yr license, BG01765055 (Productivity)
GPS aiming device for TIM and TIMi inclined holes
Spirit level angle indicator
TIM 5200 for vertical holes
TIM 5300 for vertical holes and depth measuring
TIM 6300 for inclined holes and depth measuring
TIM 6300 with open interface
TIM 6500 for inclined holes, depth measuring and laser level
TIM 6700 (TIM6500 with open interface)
TIMi for inclined holes with touchscreen and TIM3D readiness
TIM3D drill navigation system (Trimble)
TIM3D drill navigation system (Leica)
Horizontal drilling kit
EN 16228 Safety cage for feed, long, horizontal drilling allowed
EN16228 Safety cage, short
Long feed 6069 mm 20', no rod changer
Hose reel (not with 14' rods)
Thread greasing
Thread greasing with 5 gallon bucket
Power extractor
Readyness for Power Extractor
Ramp up option RD520 drifter, not with silencer option
Anti- freeze system for air lines
Biogradeable hydraulic oil, not with CSL
Central lubrication system Sandvik
Central lubrication system Lincoln
Electric fuel filling pump
Fast fill connection for fuel Wiggins
Hydraulic rear ground support
Hydraulic winch with radio remote and cable tightness automatics
Hydraulic winch with full radio drilling, tramming boom and rod handling
Remote Screen Interface for TIMi and TIM3D
Led lights, 6 pcs
Radio remote control for rear ground support, tramming and oscillation
Full radio remote control for drilling, tramming, boom and rod handling
Three bar grouser plates
Towing hook
Turnable superstructure 180 deg.
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)
Flushing control automatics
Sampling device
Shut down of suction for water holes
Water injection system
Grinder, Dynaset
CME mini junior Grinder

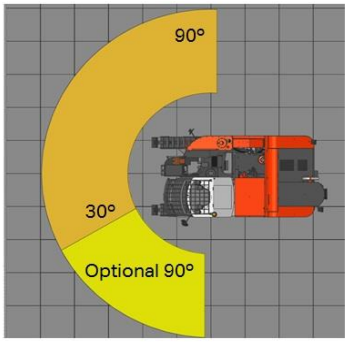
Coverage area and dimensions



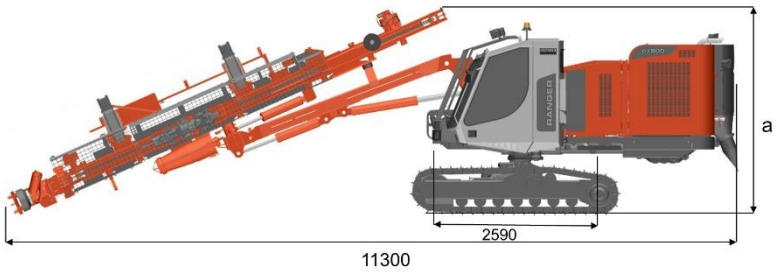
Vertical drilling

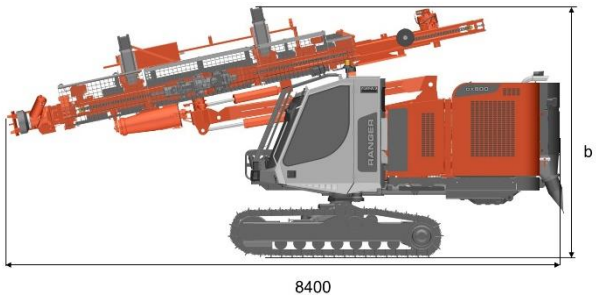


Horizontal drilling



Drilling coverage





DIMENSIONS	
Weight	15 200 kg
Width	2.45 m
Height	a/b, 3.2 m/3.6 m
With safety cage	3.3 m/3.8 m
With noise silencer	3.3 m/4.0 m
Total length	11.3 m/8.4 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.