

# Ranger DX810i S5 SURFACE DRILLS

## Technical specification

Ranger DX810i 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 DX810i are road cutting, pipeline drilling and foundation drilling, as well as production drilling in medium size quarries. Therefore DX810i 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 - 127 mm (3" - 5")*
Rock tools:	38 mm, 45 mm, 51mm (1½", 1¾" and 2")
Rock Drill	25kW, 21kW
Engine output:	185kW
Flushing air:	8.5 m3/min, up to 10 bar
Production capacity:	1,8 Mt/year
Total weight :	19 600 kg

\*if larger than 115mm holes drilled please consult factory





#### HYDRAULIC ROCK DRILL

Rock drill	RD925M, RD925M-C, RD921S, RD921S-C
Rock tools	45, 51, mm
Operating pressure	100-200 bar
Percussion rate	69 Hz/71 Hz
Percussion output power	25kW/21kW
Maximum rotation torque	1 750 Nm
Shank lubrication	Air / oil mist
Flushing	Air
Weight	345 kg

#### FEED

Feed type	CylF 16 feed, CylF 18 (option)
Total length	7 500 mm, 8 410mm (option)
Rock drill travel	4 680 mm, 5 290mm
Max. length of starter rod	4 875 mm (16'), 5 486 mm (18') (option)
Hole depth with starter rod	4 480 mm, 5 090 mm (option)
Hole depth with second rod	8138 mm
Hose reel	Standard
Feed extension travel	1300 mm
Feed/pull out force	28 kN
Feed swing	-45°/+45° (-20°/+94°)
Feed tilt	140°
Minimum height for horizontal holes	410 mm

#### ROD CHANGER

Rod changer type	RC1712
Storage capacity	7+1 rods (51 mm), 6+1 (60mm, st. feed), 5+1 (60mm long feed)
Rod length	3660, 4267 (12',14')*(option)
Max. hole depth	30 m,(7x12'+1x16'), 34,3m* (7x14'+1x18') *(option), 25m (60mm)

#### BOOM

Boom type	DB5200, articulated
Boom reach	5,2 m
Drilling coverage	55m <sup>2</sup> 290°
Collaring height	+2.6 m/-4.5 m
Horizontal holes	To the right

#### CABIN

Cabin type	iCab
Certificates	F.O.P.S. and R.O.P.S.
Noise level in the cabin	below 75 dB(A)
Air conditioning	Intelligent air condition safety*
Pressurization	Standard
Seat	Multiposition
Vibration dampening	Standard
Windows	Safety laminated, tinted, with wipers
Power take-off	12 VDC

\* A/C system contains fluorinated greenhouse gases HFC-134a

#### POWERPACK

Engine type	Volvo TAD881VE (Stage V / Tier 4f)
DEF tank	AdBlue, 45 l
Number of cylinders	6
Engine output	185kW / 1 800 rpm
Transmission type	Gear box
Screw compressor type	Enduro 25
Air filters	2 pcs., with ejector and safety element
Fuel tank	400 l

#### HYDRAULIC SYSTEM

Number of gear pumps	2 pcs. for cooling
Number of piston pumps	3 pcs. for drilling, tramming, boom and rodhandling, dust collector
Filtration rate	10 micron abs., return 25 micron, pressure
Cooling capacity	up to +50°C ambient
Hydraulic oil tank	300 l
Shank lubrication device	SLU 22-1 CSL (option)

#### CONTROL SYSTEM

Control system type	Sandvik SICA, PLC controlled proportional electro- hydraulics
Tramming/boom/ drilling control	PLC controlled
User interface	Electro-proportional joysticks and touchscreen
Control system diagnostics	Graphical flow chart type
Drilling control system type	iTorque
Antijamming system	For rotation and flushing
Collaring control	Automatic
Preset drilling parameters	Adjustable for fine tuning for different rock conditions
Voltage	24 VDC

#### DUST COLLECTOR

Dust collector type	DC 900H
Capacity/vacuum	23 m3/min at 1 000 mm vacuum H2O
Filter elements/material	15 pcs/fiber
Total filter surface	12 m2
Primary cyclone	Standard
Movable suction head	Standard

#### CARRIER

Track type	FL 6
Grouser plate width	310 mm
Ground contact length	2 750 mm
Ground pressure	1.0 kg/cm2
Ground clearance	400 mm
Turnable superstructure	CCW180°+CW110°
Oscillation angles	+/- 10°
Tramming force	156 kN
Max. tramming speed	3.2 km/h



#### STANDARD COMPONENTS

1 pc	Rock drill RD925M, hydraulic with SLU system
1 pc	CylF 16 feed HR, With hose reel
1 pc	Rod handler RC1712 incl. 1 set of jaws
1 pc	BoomDB5200, articulated
1 pc	Carrier track mounted, Rotating upper structure CW180+CCW110 Degrees
1 pc	Guides for grouser, long
1 pc	Power pack diesel driven, hydraulic pumps and on-board compressor with twin pressure control
1 pc	Control system iTorque, incl Flushing control automatics, Shutdown of suction for waterholes
1 pc	TIMi for vertical holes and depth measuring
1 pc	Operator's cabin F.O.P.S. and R.O.P.S. with Intelligent air condition safety +
1 pc	Radio, 12V with USB MP3 Bluetooth, without CD
1 pc	Dust collection system DC 900 H, hydraulic, Primary separator
1 pc	Flushing control automatics
1 pc	Shut down of suction in water holes
10 pcs	Working lights, Halogen
1 pc	Gauge set for accumulator pressure checking
1 pc	Alarm signal
1 pc	Operator's manual (paper copy)
1 pc	Alarm beacon
1 pc	Service light
	Knowledge Box for My Sandvik

#### THE JAWS FOR DRILL STEELS

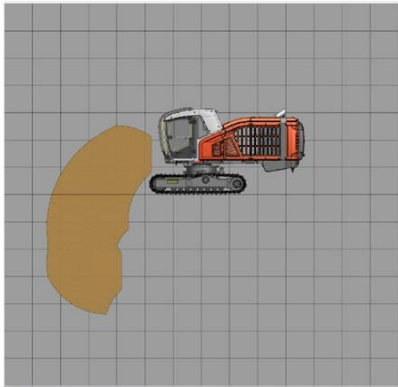
DRILL STEEL TYPE	DRILL STEEL DIAMETER	RECOMMENDED HOLE DIAMETER
MF-rods	38 mm	64 - 70 mm
	1 1/2"	2 1/2" - 2 3/4"
MF-rods	45 mm	76 - 89 mm
	1 3/4"	3" - 3 1/2"
MF-rods	51 mm, CT55	89 - 127 mm
	2"	3 1/2" - 5"

#### SELECTION OF OPTIONS

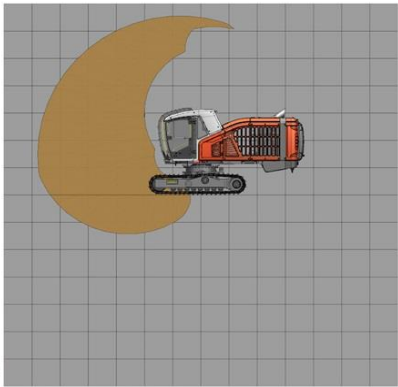
Additional tool/bit box below cabin
Alternative seat with 3-point seat belt and air cushioning*
H13 Cabin filter, HEPA
Cooler bag in cabin
Radio CD/MP3 Bluetooth, Handsfree, DAB
Reversing camera
Roller blinds for cabin windows
Vacuum cleaner for cabin
Explosion proof cabin window
Heated mirrors
Driller's Notes - MWD Data Collection for TIM3D
Driller's Office planning software (one-year license)
My Sandvik Insight
My Sandvik Productivity and Drill Plan
Automatic feed alignment for TIMi
GPS aiming device for TIM and TIMi inclined holes
TIM3D drill navigation system (Trimble)
TIM3D drill navigation system (Leica)
TIMi for inclined holes and hole depth measuring
TIMi for inclined holes with TIM3D readiness
TIMi for inclined holes, Open Drill Interface, TIM3D readiness
TIMi laser level based depth measuring
TIMi with open interface (Option laser level included)
RockPulse sensor system
Horizontal drilling kit with extra brake, TIMi included (not with long feed)
Long safety cage (not with long feed)*
Thread greasing
Full cycle one hole automatic drilling
Power extractor
Readiness for Power Extractor
CSL-system for R9xx series rock drill*
RD921S rock drill*
Biodegradable hydraulic oil, not with CSL
Central lubrication system Lincoln
Electric fuel filling pump
Electric hydraulic oil filling pump
Electric water filling pump
Fast fill connection for engine coolant, hydraulic and engine oils
Fast fill connection for fuel, Wiggins
Fire suppression, Eclipse Sustain, automatic 0°C to +60°C
Fire suppression, Eclipse Extreme, automatic 0°C to -40°C
Rear bumper
Long feed for 14' rods, CylF 18 HR, not with horizontal drilling
Hydraulic rear ground support
Hydraulic winch with full radio drilling, tramming boom and rod handling
Remote screen interface (Tablet or mobile phone not included)
Full radio remote control for drilling, tramming, boom and rod handling control
Three bar grouser plates*
Towing hook
Extra brake for turnable upper structure (included in horizontal drilling)
Led lights, 9 pcs*
Led lights 17 pcs. also carrier rear and side option lights*
Cold-weather package, standard or arctic
Readiness for fuel powered heater
Dustmizer requires flap feeder (engine heater option needed below freezing point)
Flap feeder for dust collector
Sampling device
Water injection system
CME Grinder readiness
Grinder, Dynaset
CME mini junior Grinder
*replaces standard component



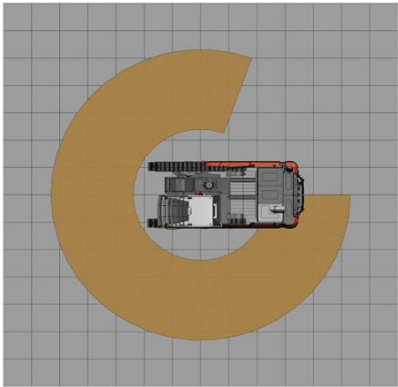
Coverage area and dimensions



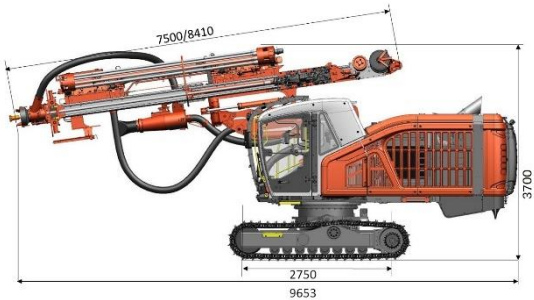
Vertical drilling



Horizontal drilling



Drilling coverage



DIMENSIONS

Weight	19 600 kg
Width	2.45 m
Height	a/b,3.3 m/4.4 m
With safety cage	a/b,3.3 m/4.4 m
With noise silencer	3.7 m/5 m
Total length	12,35m, 13,26m with CylF 18 (option)

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.