

Pantera DP1600i S5 SURFACE DRILLS

Technical specification

Pantera DP1600i is intelligent, self-propelled, self-contained, crawler based surface drilling rig equipped with a cabin and a rod changer.

Pantera DP1600i with practical intelligence fits perfectly for production drilling in large quarries or open pit mines and construction work sites. It suits well also for wall control and development works. To customize the rig it can be equipped with a variety of options to meet special requirements.

KEY FEATURES

Hole diameter:	102 - 178 mm (4" - 7")
Rock tools:	LT90 and 60 mm rods or 87 mm tubes
Rock Drill	49 kW
Engine output:	280 kW (TIER 4F/EU Stage V)
Flushing air:	14 m ³ /min up to 10 bar (depends on used rock tools)
Production capacity:	3,5 Mt/year
Total weight :	22 700 kg





HYDRAULIC ROCK DRILL

Rock drill	RD1840C / RD1635CF (optional)
Rock tools	60, 76, 87, LT90
Operating pressure	140 - 280 (90-220) bar
Percussion rate	35 - 40 Hz
Percussion output power	49 / 35 kW
Maximum rotation torque	3 050 Nm
Shank lubrication	Air / oil mist
Flushing	Air
Weight	470 kg

FEED

Feed type	LF 1514 HR with hose reel
Total length	9 154 mm
Rock drill travel	4 980 mm
Max. length of starter rod	(18')
Hose reel	Standard
Feed extension travel	1 480 mm
Feed/pull out force	36 kN
Feed swing	-56/+52° (-20/+94°)
Feed tilt	13-135°

ROD CHANGER

Rod changer type	RC 1614
Storage capacity	7+1 (60 mm rods)\ 5+1 (LT90)
Rod length	4 270 mm
Max. hole depth	32,6 m (7+1) x 14', 24,2 m (5+1) x 14'

BOOM

Boom type	ZB 1550 H, telescopic
Boom extension	500 mm
Boom swing	-2/+30°
Collaring height	+1.24 /-4.1 m
Horizontal holes	To the right hand side

CABIN

Cabin type	Ergo cool
Certificates	F.O.P.S. and R.O.P.S.
Noise level in the cabin	80 dB (A)
Air conditioning	Standard *
Pressurization	Standard
Seat	Ergonomic, adjustable
Vibration dampening	Standard
Windows	Safety laminated, tinted selective glass with wiper

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

POWERPACK

Engine type	Caterpillar C 9.3B (Tier 4f / StageV)
DEF tank	AdBlue 42 l
Number of cylinders	6
Engine output	280 kW/1800 rpm
Transmission type	Gear box
Screw compressor type	Enduro 25
Air filters	2 pcs, dry type with ejector
Fuel tank	680 l

HYDRAULIC SYSTEM

Number of gear pumps	3 pcs. for dust collector and cooling
Number of piston pumps	2 pcs. for drilling, tramming, boom and rodhandling
Filtration rate	12 micron abs.
Cooling capacity	up to +50°C ambient
Hydraulic oil tank	390 l
Shank lubrication device	CSL

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 1550
Capacity/vacuum	35 m ³ /min at 1 200 mm vacuum H2O
Filter elements/material	20 pcs / fiber
Total filter surface	16 m ²
Primary cyclone	PE 80
Movable suction head	MS 250

CARRIER

Track type	FL 6
Grouser plate width	400 mm
Ground contact length	2510 mm
Ground pressure	1.1 kg/cm ²
Ground clearance	360 mm
Oscillation angles	+/- 11°
Tramming force	150 kN
Max. tramming speed	1.8/3.2 km/h



STANDARD COMPONENTS

Rock drill RD1840C, hydraulic
Cylinder feed LF 1514 HR
Safety cage
Hose reel, drum type
Rod changer RC 1514
Boom ZB 1550 H, telescopic
Carrier FL 6, oscillating
Guides for grousers
Powerpack, diesel driven, hydraulic pumps and onboard compressor
Hydraulic system, load sensing
Operator's cabin, Ergo Cool with AC
Dust collection system DC 1550 H, hydraulic
Working lights, 15 pcs (9 forward)
Reversing alarm
TIMi for vertical holes and depth measuring
Full cycle one hole automatic drilling
Movable drill steel support
Suction shut down for water holes
Flushing control automatics
EU-safety devices
Gauge set for accumulator pressure checking
1 pc Operator's manual (paper copy)
Knowledge Box for My Sandvik
Bluetooth connectivity for My Sandvik

THE JAWS FOR DRILL STEELS

DRILL STEEL TYPE	DRILL STEEL DIAMETER	RECOMMENDED HOLE DIAMETER
MF-rods	60 mm 2 3/8"	102 -140 mm 4 1/2" - 5 1/2"
MF-rods	LT90	140 - 178 mm 4" - 5 1/2"
Tubes	87 mm 3 1/2"	102 - 152 mm 4" - 6"

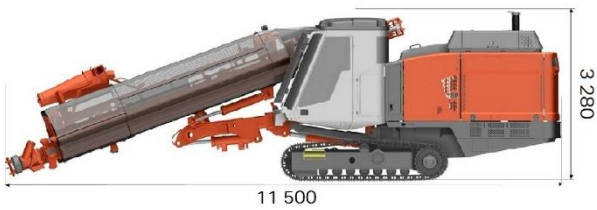
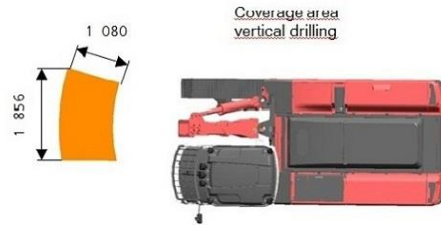
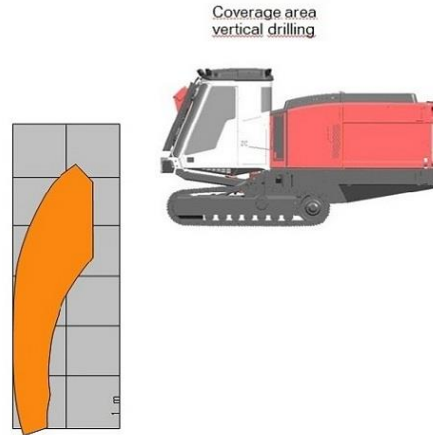
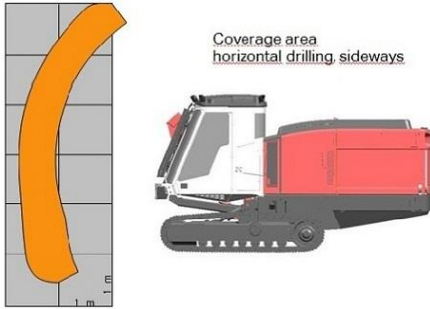
SELECTION OF OPTIONS

Alternative seat with 3-point seat belt and air cushioning*
H13 Cabin filter, HEPA
Cooler bag in cabin
Radio with CD-MP3 player
Reversing camera
Roller blinds for cabin windows
Vacuum cleaner for cabin
Driller's Notes - MWD Data Collection for TIM3D
Driller's Office planning software
My Sandvik Insight
My Sandvik Productivity and Drill Plan Transfer
Automatic feed alignment for TIMi
GPS aiming device for TIM and TIMi inclined holes
TIM3D drill navigation system (Trimble)
TIM3D drill navigation system (Leica)
TIM3D drill navigation system readiness (Trimble/Leica)
TIMi for inclined holes and hole depth measuring
TIMi laser level based depth measuring
LF 1522 feed with hose reel (max starter rod 20 ft)
Rollers for rod changer
Thread greasing
Thread greasing with 5 gallon bucket
Anti- freeze system for air lines
Central lubrication system Sandvik
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 and water tanks
Fire suppression, Eclipse Sustain, automatic 0°C to +60°C
Fire suppression, Eclipse Extreme, automatic 0°C to -40°C
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 (Tablet or mobile phone not included).
Single bar grouser plates*
Towing hook
Led lights 15 pcs.*
Ether starting aid for engine without ether bottle
Fuel powered heater for engine and cabin
Fuel powered heater for engine, cabin and water tank
Readyness for fuel powered heater
Dustmizer requires flap feeder (engine heater option needed below freezing point)
Dustmizer (engine heater option needed below freezing point)
Water injection system
*replaces standard component



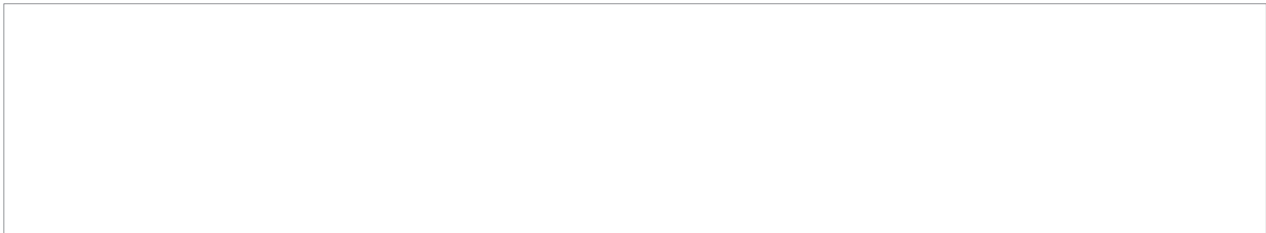
Coverage area and dimensions

COVERAGE AREA



DIMENSIONS

Weight	22 700 kg
Width	2.5 m
Height	3.28 m/3.34 m
Total length	11.5 / 11.1 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.