

SANDVIK

DD212 NARROW VEIN DRILL

TECHNICAL SPECIFICATION

Sandvik DD212 is a compact and versatile single-boom electro-hydraulic jumbo for tunneling and mining development, the drill is purposely designed for narrow vein operations that will enable miners and drill contractors to:

- Open smaller tunnel sections for better control of dilution
- Improved quality of drilled face and tunnel profiles
- Increase drill performance and meters advanced
- Decrease total cost of ownership compare to existing offers

Sandvik SB20i robust instrumented boom offers a large optimum shaped coverage thanks to the one meter boom extension, it covers tunnels cross sections from 6m² to 25 m², With its two rotation actuators NV-narrow vein type and full automatic parallelism deliver fast and easy feed positioning, and accurate face drilling.

The modern, powerful and proven hydraulic rock drill RDX5 and the highly efficient THC562 drilling controls system allow high drilling performance with good drill steel economy and great mechanical availability.

The operating environment, and incorporated automatic functions allow the operator to concentrate on safe, precise & productive operations.

Sandvik DD212 compact jumbo layout is designed for good visibility and good stability, and all the service points are well-protected but easy to access. The heavy duty and articulated carrier, with powerful four-wheel-drive transmission, ensures stable and safe maneuvering in small mining drifts or construction tunnels.

KEY FEATURES

Coverage	25 m ² auto-parallel
Rock drill	1 x RDX5, 20 kW
Drilling feed	1 x TF512
Boom	1 x SB20i, electronic parallelism
Control system	THC562, hydraulic
Hole length	Up to 3 440 mm
Drift size class (H x W)	2 500 mm x 2 500 mm
Turning width (T-section)	2 985 mm (TF512)
Transport width	1 400 mm
Transport height	1 900 mm / 2 750 mm
Transport length	9 800 mm (TF512)
Total weight	10 850 kg depending on options



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HYDRAULIC ROCK DRILL

Type of rock drill	RDX5 (TS2-433)
Percussion power	20 kW
Percussion pressure	175 bar
Percussion rate	67 Hz
Rotation speed	Max. 250 rpm (with OMS80)
Rotation torque	400 Nm (with OMS80)
Hole size (drifting)	43 - 64 mm
Hole size (cut hole)	76 - 127 mm
Recommended rod	T38 - Hex 35 - R32 T38 - Hex 35 - Alpha 330 T38 - Hex 35 - R35
Shank adapter (male)	T38
Weight	210 kg
Filling device for accumulators	Specification TS2-430

DRILLING FEED

Type of Feed	TF500-12' (RDX5) Standard	CFX6/12 (RDX5) Option	CFX6/12 (RD314) Option	CFX-XS (RD314) Option
Feed force	25 kN	23 kN	23 kN	20 kN
Hole length	3 440 mm	1 520 / 3 350 mm	1 587 / 3 417 mm	1 070 / 2 132 mm
Rod length	3 700 mm	1 830 / 3 660 mm	1 830 / 3 660 mm	1830 / 2 435 mm
Total length	5 270 mm	3 285 / 5 115 mm	2 930 / 4 765 mm	1 965 / 3 035 mm
Net weight (without rock drill)	500 kg	566 kg	527 kg	416 kg

BOOM

Type of boom	SB20i (TS2-432) Versatile NV boom
Boom movements	Hydraulic controls
Parallel coverage	25 m ² auto-parallel
Parallelism	Automatic electronic
Boom telescopic extension	1 000 mm
Feed extension	1 350 mm (TF feed)
Boom weight, net	1 550 kg
Boom swing, left and right	± 30° (limited)
Roll-over angle	360°
Feed swing angle	240°

HYDRAULIC SYSTEM

Powerpack	HPP 545 (45 kW)
Filtration (pressure / return)	20 μ / 10 μ
Oil tank volume	165 liters
Oil tank filling pump	Electric
Cooler for hydraulic oil	Harsh water cooled OW25 oil-to-water (25 kW)

DRILLING CONTROL SYSTEM

Type of control system	THC562
Operating principle	Hydraulic control
Controls	Direct control Fully proportional Fast rock drill return movement
Drilling control	Feed / percussion control Anti-jamming system Torque control
Automatic cycle	Stop and return automatics (for feed without rod retainer)
Rotation speed selector	Two rotation speeds can be preset
Display default	QN panel
Boom inhibition switch	At each side of the machine
MySandvik insight	Remote monitoring system

ELECTRIC SYSTEM

Standard voltages	380 - 690V (±10%)
Total installed power	60 kW
Main switch gear	QM14
IP classification	Specification TS2-132
Starting method	Star delta 380 - 575 V DOL 600 - 690 V
Automatic cable reel	CRQ with six turn indicator light and three turn interlock system
Cable reel control	At the operator station
Sealed AGM batteries	2 x 12 V, 90 Ah
Low level hydraulic oil	Indicator and switch
Emergency stop	On the electric cabinet, at right side machine and on drilling panel
Front lights (combined working and driving)	4 x 50 W LED (4 200 lm, 6 000 K)
Rear tramming light	1 x 50 W LED (4 200 lm, 6 000 K)
Parking rear brake / park lights	1 x red LED

AIR AND WATER SYSTEM

Flushing of holes	By Water
Water booster pump	WBP1 (4 kW)
Water pump capacity	33 l/min at 15 bar (input pressure = 4 bar)
Water pump inlet pressure	2 bar (Min.)
Flushing water pressure	10 - 15 bar
Shank lubrication device	SLU1 (air / oil mist)
Air compressor	CTN9, 1 m ³ /min (7 bar)
Rock drill oil consumption	180 - 250 g/h
Rock drill air consumption	250 - 350 l/min
1 x 60 liters air receiver	For end of hole air flushing

OPERATOR'S SAFETY CANOPY

Canopy certification	FOPS (ISO 3449)
Unit height in tramming	2 750 mm
Operation	Standing drilling, seated tramming
Operator's seat	Ergonomic, adjustable for tramming including seat belt
Sound pressure level according to EN 16228	Operator station: 102 dB(A) Emitted: 124 dB(A)

CARRIER

Type of carrier	TCQ (articulated frame)
Carrier articulation	± 27°
Rear axle oscillation	± 6°
Ground clearance	225 mm
Diesel engine	Deutz D914L04 (55 kW, Tier 4i, Stage 3A, MSHA)
Exhaust catalyzer	Standard
Transmission	Hydrostatic
Wheel motor	4 x radial piston
Tires, rim	300 x 15, 8.00 - 15
Service brakes	Hydrostatic transmission
Parking and emergency brakes	SAHR type, fail safe wet disc brakes ABA brakes
Tramming speed	6.0 km/h (Horizontal) 4 km/h (14%=1.7=8°)
Gradeability / sideways tilt	Max. 15° / 5° (according to ISO 18758)
Fuel tank	75 liters
Carrier stabilization	Telescopic (front) Vertical (rear)
Brake release	Manual hand pump
Centralized greasing points	Specification TS2-463
Hand held fire extinguisher	1 x 6 kg (type ABC)
Tramming alarm	Standard
Colour scheme	Sandvik
Documentation	2 x Operator's manual 2 x Maintenance manual 2 x Technical manual (in English only) 2 x Parts manual (in English only) 2 x USB key of manuals (PDF files) 1 x Online Parts manuals (MySandvik)

INSTRUMENTATION (OPTION)



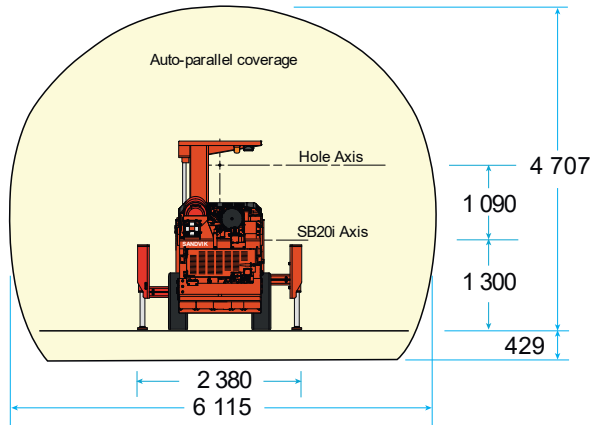
Instrumentation with display

Hole parallelism
Hole angles:
- Horizontal face drilling
- Horizontal cross cutting
- Vertical and inclined holes
Boom angles

OPTIONAL FEATURES AND PACKAGES

Rock drill	
Type of rock drill	RD314 with CFX-feeds
Boom	
*Boom suspension system	Smooth tramming, Improved ergonomy
Feed	
*Type of feed	TF510 feed, CFX6/12 telescopic feed CFX-XS extra compact feed
Rod retainer	For CFX-feed only
Rear stinger	600 mm (vertical holes), CFX-feed only
Hydraulic system	
Oil tank filling pump	Electric
Cooler for hydraulic oil	OA25 oil-to-air (25 kW)
Drilling control system	
MySandvik productivity	Remote monitoring system (TS2-390)
Access detector	Mandatory in Europe (TS2-211)
Cleaning system	
HP system without reel	Up to 180 bar (TS2-343)
Greasing system	
Manual system	Greasing gun and cartridge with hose reel (TS2-463)
Electric system	
*Optional voltage	1 000 V (50 or 60 Hz) with DOL starter (machine height mini 2 470 mm)
*Electric cable	Specification TS2-121
Ground fault and overcurrent protection	VYK
Battery jump start	Optional
Amber flashing light	LED (24 V)
Air and water system	
Air mist flushing kit	External air / external water External air / internal water (150 liters)
Air cleaner for external air	IP5 with air mine connection
Water hose with hooks	32 mm (1 ¼"), 80 meters
Operator's safety canopy	
Safety grill	Front grill or all around the canopy
Fire suppression system	
Manual system	Ansul, 6 nozzles (TS2-460)
Auto. fire suppression system	Sandvik Eclipse™ (TS2-461)
Carrier	
*Diesel engine	Deutz BF4L914, EMR, 72 kW, Tier 2 (for high altitude) Deutz TCD2.2, EMR, 55 kW, Tier 4, Stage V
*Foam filled tires	4 pcs
Wheel chocks and holders	2 Sets
Extra Item	
Berg plug / berg socket	250A
Speedometer	Tramming speed display
Spare rock drill	RDX5 or RD314
Spare wheel assembly	Standard or foam filled tire
Special tools for rock drill	Field tool set (TS2-434) Complete tool set (TS2-435)
Tools and pressure test box	Specification TS2-429
Documentation	Extra paper or PDF manuals
Warranty extension	One year (excl. Kazakhstan)
Package:Country specific	CIS, AUS, EUR, US/CAN
*Package: Harsh water	Basic or Advanced (TS2-049)
*Package: Arctic	For extreme conditions (below 0 °C)
*Package: Longhole drilling	LHF drilling module (TS2-474)

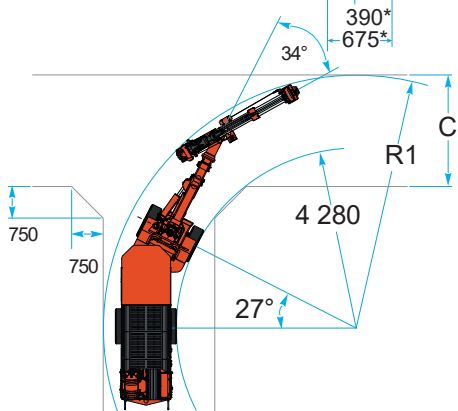
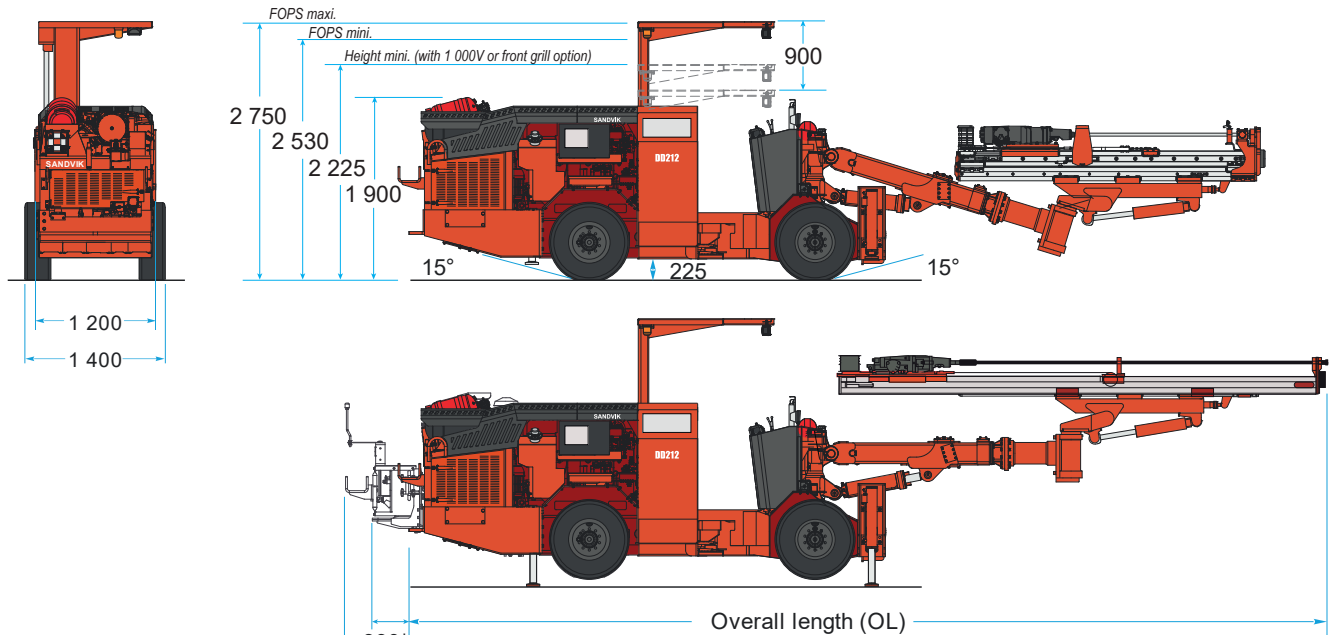
*) Replaces standard feature



Coverage dimensions with SB20i with CFX6/12+ RDX5

	CFX6/12 (RDX5)	CFX6/12 (RD314)	CFX-XS (RD314)
*W (mini)	3 400 mm	3 000 mm	2 100 mm
*H (mini)	3 400 mm	3 000 mm	2 530 mm (FOPS mini)

* 100 mm clearance minimum



*) Dimensions with optional diesel engine Stage V

	SB20i + CFX6/12	SB20i + CFX-XS	SB20i + TF512
Overall length (OL)	9 085 mm	8 135 mm	9 800 mm
Turning radius (R1)	6 030 mm	5 960 mm	6 360 mm
Cornering (C)	2 650 mm	2 585 mm	2 985 mm

Values realised with 5° of the sideways tilt (according to ISO 18758)

All dimensions in mm

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