

# DD210 DEVELOPMENT DRILL

## TECHNICAL SPECIFICATION

Sandvik DD210 is a compact and flexible single-boom electro-hydraulic jumbo for tunneling and mining development in cross sections up to 24 m<sup>2</sup>. The robust universal boom has a large optimum shaped coverage, 360-degree rotation and full automatic parallelism for fast and easy feed positioning, and accurate face drilling.

The compact jumbo layout is designed for good visibility and good stability. The heavy duty and articulated carrier, with powerful four-wheel-drive transmission, ensures stable and safe manoeuvring in small mining drifts or construction tunnels.

The modern, powerful hydraulic rock drill and the smooth drilling controls system allow high drilling performance with good drill steel economy and high machine reliability.

The operating environment and incorporated automatic functions allow the operator to concentrate on safe, fast and accurate drilling.

All the service points are well-protected but easy to access.

### KEY FEATURES

Coverage	24 m <sup>2</sup>
Rock drill	RDX5, 20 kW
Drilling feed	TF500-12'
Boom	B14F
Hole length	Up to 3 480 mm
Drift size class (H x W)	2 500 mm x 2 500 mm
Turning width (T-section)	2 600 mm
Transport width	1 400 mm
Transport height	1 900 mm / 2 750 mm
Transport length	9 605 mm
Total weight	9 100 kg depending on options



## HYDRAULIC ROCK DRILL

Type of rock drill	RDX5 (TS2-433)
Percussion power	20 kW
Percussion pressure	Max. 220 bar
Percussion rate	67 Hz
Rotation speed	Max. 250 rpm (OMS80)
Rotation torque	Max. 400 Nm (OMS80)
Hole size (drilling)	43 - 64 mm
Hole size (reaming)	76 - 127 mm
Recommended rod	T38 - Hex 35 - R32 T38 - Hex 35 - Alpha 330 T38 - Hex 35 - R35
Shank adapter	T38 (male)
Weight	210 kg
Filling device for accumulators	Specification TS2-430

## DRILLING FEED

Type of Feed	TF500-10' Optional	TF500-12' Standard	CFX6/12 Optional	CFX-XS Optional
Feed force	25 kN	25 kN	31 kN	31 kN
Total length	4 690 mm	5 300 mm	3 285 / 5 115 mm	1 965 / 3 035 mm
Hole length	2 830 mm	3 440 mm	1 520 / 3 350 mm	1 070 / 2 132 mm
Rod length	3 090 mm	3 700 mm	1 830 / 3 660 mm	1830 / 2 435 mm
Net weight	470 kg	500 kg	860 kg	416 kg

## BOOM

Type of boom	B14F (TS2-239)
Parallel coverage	24 m <sup>2</sup>
Parallelism	Automatic hydraulic
Feed extension	2 000 mm
Boom weight, net	1 500 kg
Roll-over angle	360°

## HYDRAULIC SYSTEM

Powerpack	HPP 545 (1 x 45 kW)
Filtration (pressure / return)	10 µ / 10 µ
Oil tank volume	165 liters
Oil cooler (water actuated)	1 x OC25 (25 kW), harsh water
Cooler for hydraulic oil	Harsh water cooled OW25 oil-to-water (25 kW)

## DRILLING CONTROL SYSTEM

Type of control system	IBCQF
Operating principle	Hydraulic control
Controls	Direct control Fully proportional Fast rock drill return movement
Drilling control	Feed / percussion control Anti-jamming system
Automatic cycle	Stop and return automatics (for TF-feed without rod retainer)
MySandvik insight	Remote monitoring system

## ELECTRIC SYSTEM

Standard voltages	380 - 690 V (±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 and at right side machine
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
Sealed AGM batteries	2 x 12 V, 90 Ah

## 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 <sup>3</sup> /min (7 bar)
Rock drill oil consumption	180 - 250 g/h
Rock drill air consumption	250 - 350 l/min

## 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)

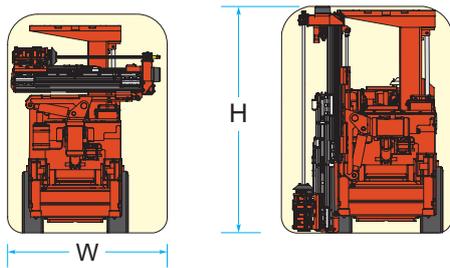
**CARRIER**

Carrier type	TCQ (frame steered)
Carrier articulation	± 27°
Rear axle oscillation	± 6°
Ground clearance	225 mm
Diesel engine	Deutz D914L04, 55 kW (Tier 4i, Stage IIIA, 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	6.5 km/h (Horizontal) 4 km/h (14%=1.7=8°)
Gradeability / sideways tilt	Max. 15° / 5° (standard feed) Max. 15° / 3° (CFX-feed) (according to EN 16228-2)
Fuel tank	75 liters
Carrier stabilization	Telescopic (front)
Brake release	Manual hand pump
Centralized greasing points	Specification TS2-463
Tramming alarm	Standard
Colour scheme	Sandvik
Documentation	2 x Operator's 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)

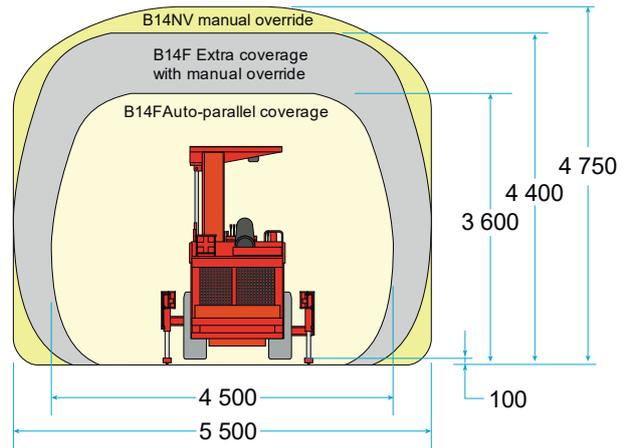
**OPTIONAL FEATURES AND PACKAGES**

<b>Rock drill</b>	
*Type of Rock drill	RD314 (only with CFX-XS feed)
* Shank adapter	R32 / R38
<b>Feed</b>	
*Feed length	TF500-10'
*Feed type	CFX6/12 telescopic feed CFX-XS Extra compact feed
Rod retainer	Delivered with back pressure
<b>Boom</b>	
*Type of boom	B14SNV (mandatory with CFX feed and CFX-XS feed)
<b>Hydraulic system</b>	
Filling pump for hydraulic oil	Electric
<b>Drilling control system</b>	
Rotation speed selector	Two rotation speeds can be preset
MySandvik productivity	Remote monitoring system
Access detector	Mandatory in Europe (TS2-211)
<b>Cleaning system</b>	
HP system without reel	Up to 180 bar (TS2-343)
<b>Greasing system</b>	
Manual system	Greasing gun and cartridge with hose reel
<b>Electric system</b>	
*Optional voltage	1 000 V (50 or 60 Hz) with DOL starter (machine height mini 2 150 mm)
*Electric cable	Specification TS2-121
Ground fault and overcurrent protection	VYK
Amber flashing light	LED (24 V)
<b>Air and water system</b>	
Air mist flushing kit	External air / external water
Air cleaner for external air	IP5 with air mine connection
End of hole air flushing	1 x 60 liters air receiver
Water hose with hooks	32 mm (1 ¼"), 80 meters
<b>Fire suppression system</b>	
Hand held fire extinguisher	1 x 6 kg Type ABC
Manual system	Ansul, 6 nozzles (TS2-460)
Auto. fire suppression system	Sandvik Eclipse™ (TS2-461)
<b>Carrier</b>	
*Diesel engine	Deutz D914L04, 52 kW, Tier 3, Stage IIIA, CANMET Deutz BF4L914, EMR, 72 kW, Tier 2 (for high altitude)
Carrier stabilization	Vertical rear jacks
Brake release	Manual hand pump
*Foam filled tires	4 pcs
Wheel chocks and holders	2 Sets
<b>Extra Item</b>	
Berg plug / berg socket	Identification hoses
Kit for disassembly	RDX5 or RD314
Spare rock drill	Specification TS2-429
Tools and pressure test box	Standard or foam filled tire
Spare wheel assembly	Field tool set (TS2-434)
Special tools for rock drill	Complete tool set (TS2-435)
Documentation	Extra paper, LinkOne or PDF manuals
Package: Country specific options	USC, CIS
*Package: Arctic	Specification TS2-284
*Package: Harsh water	Advanced (Specification TS2-049)

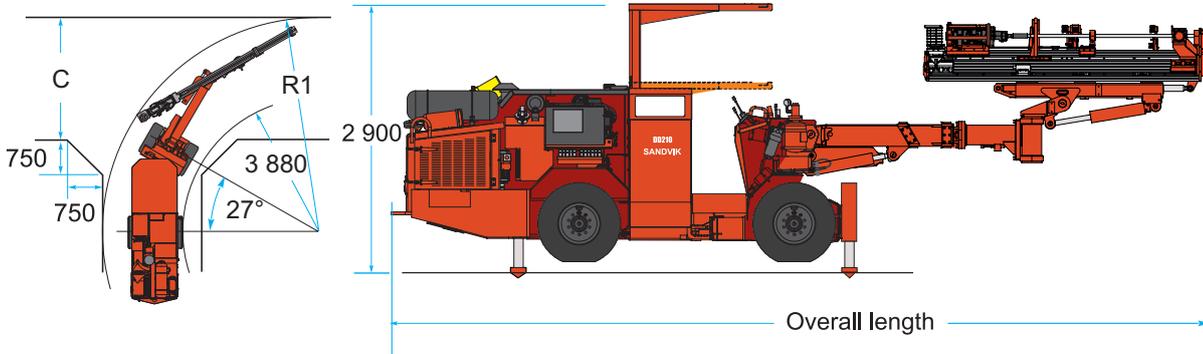
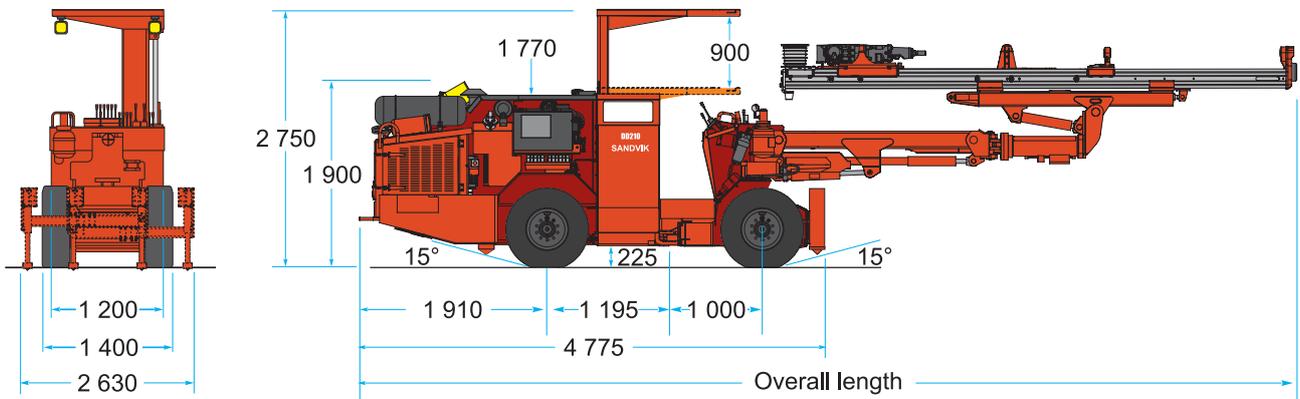
\*) Replaces standard feature



	CFX6/12	CFX-XS
W (mini)	3 300 mm	2 100 mm
H (mini)	3 300 mm	2 530 mm (FOPS mini)



Note: Auto-parallel coverage with B14F boom only



	R1	C
TF510	5 785 mm	2 700 mm
TF512	5 935 mm	2 875 mm
CFX6/12	5 720 mm	2 650 mm
CFX-XS	5 500 mm	2 430 mm

	B14F + TF510	B14F + TF512	B14NV + CFX6/12	B14NV + CFX-XS
Overall length	9 045 mm	9 605 mm	8 370 mm	7 650 mm

All dimensions in mm

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#### 4. SANDVIK DD210 - DEVELOPMENT DRILL