

DL210 UNDERGROUND DRILLS

TECHNICAL SPECIFICATION

Sandvik DL210 is a compact and flexible electro-hydraulic long-hole jumbo for production drilling in underground mines.

Designed for vertical and inclined plane rings and fans, Sandvik DL210 is capable of drilling 51 - 64 mm millimeters diameter holes up to 20 meters.

The robust, stable and dedicated long-hole drilling boom has 1.5 meters parallel drilling coverage, and offers accurate positioning and sturdy anchoring of the feed to ensure high quality drilling.

The compact jumbo layout is designed with a good visibility and good stability.

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

A portable remote control ensures all the feed and rock drill operations.

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

KEY FEATURES

Hydraulic rock drill	HLX5 (20 kW)
Drilling module	LHF2005
Boom	BSL360
Drift size class (H x W)	2 700 x 2 700 mm
Control system	IBCL + ECRL
Turning in T-section	2 510 mm (LHF2005)
Tramming width	1 500 mm
Tramming height	2 750 mm
Tramming length	6 850 mm
Total weight	8 900 kg depending on options

ROCK TOOLS AND HOLE LENGTH

Rod and hole diameter			*Hole length (m)		
Thread	Rod Ø (mm)	Hole Ø (mm)	3'	4'	5'
R32	32	51	20	20	20
R38	39	64			
T38	39	64			

*) Manual rod handling



HYDRAULIC ROCK DRILL

Type of rock drill	HLX5 (TS2-232)
Percussion power	20 kW
Percussion pressure	Max. 220 bar
Percussion rate	67 Hz
Rotation speed	Max. 250 rpm (OMS125)
Rotation torque	Max. 625 Nm (OMS125)
Shank adapter	T38 (male)
Weight	210 kg
Length	955 mm
Profile height	87 mm
Inflating device for accumulator	Specification 2-9110

DRILLING MODULE

Type of drilling module	LHF2005 (TS2-175)
Drilling module force	Max. 20 kN
Rod retainer	For one feed
Stingers	600 mm (front) with LHF2004 / 5 350 mm (front) with LHF2003 1 200 mm (rear)
Visual angle indicators	2 pcs, feed tilt angle and side angle

DRILLING MODULE DIMENSIONS

Drilling module	Total length	Extension rod	Min. operating dimensions	Net weight
LHF2003	2 570 mm	915 mm	2 700 mm	695 kg
LHF2004	2 850 mm	1 220 mm	3 000 mm	710 kg
LHF2005	3 155 mm	1 525 mm	3 300 mm	725 kg

LONGHOLE BOOM

Type of boom	BSL360 (TS2-254)
Parallelism	Automatic hydraulic
Feed extension	1 200 mm
Boom weight, net	800 kg
Roll-over angle	360°

HYDRAULIC SYSTEM

Powerpack	HPP 545 (45 kW)
Filtration (pressure / return)	12 µ / 12 µ
Oil tank volume	165 liters
Oil tank filling pump	Electric
Oil cooler (water actuated)	1 x OC25 (25 kW), harsh water
Tool set for hydraulic adjustment	Specification 2-9100

DRILLING CONTROL SYSTEM

Type of control system	IBCL + ECRL portable remote control
Controls	Auto smooth collaring Precise anti-jamming Fast rock drill return and forward movement
Feed pressure control	Rock tools weight compensation
Remote controls	Umbilical (10 meters) drilling control panel

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 starter 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
Low oil level indicator	Low level oil 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)
Portable working light	1 x 150 W (24V)
Laser positioning light	At each side of the machine
Tramming and brake light	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	KVL10-1 (air / oil mist)
Air compressor	CTN10, (1 m ³ /min at 7 bar)
Rock drill oil consumption	180 - 250 g/h
Rock drill air consumption	250 - 350 l/min
Air cleaner for external air	IP5 with air mine connection
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 EN 791	Operator station: 102 dB(A) Emitted: 124 dB(A)

CARRIER

Type of carrier	TCQ (frame steered)
Carrier articulation	± 27°
Rear axle oscillation	± 6°
Ground clearance	225 mm
Diesel engine	Deutz D914L04 (55 kW, Tier 3)
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°
Fuel tank	75 liters
Carrier stabilization	Vertical inclined (front) Vertical (rear)
Brake release	Manual hand pump
Centralized greasing points	Specification 5-2110
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) 1 x CD of manuals (PDF files)
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OPTIONAL ITEMS**Drilling module**

*Feed length	LHF2003, LHF2004
Drilling module wear parts	Kit for alternative tools

Drilling control system

Instrumentation	TIS DP with USB data collector, (TS2-194)
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Cleaning system

LP system without reel	Up to 15 bar
HP system without reel	Up to 180 bar

Greasing systems

Manual system	Greasing gun and cartridge with hose reel
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Electric system

*Optional voltage	1 000 V (50 or 60 Hz) with DOL starter (machine height mini 2 470 mm)
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*Electric cables Specification TS2-121

Ground fault and overcurrent protection VYK

Amber flashing light LED (24 V)

Battery jump start

Air and water system

Air mist flushing External air / external water

Water hose with hooks 32 mm (1 ¼"), 80 meters

38 mm (1 ½"), 60 meters

Fire suppression system

Manual system	Ansul, 6 nozzles
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Carrier

*Foam filled tires 4 pcs

Wheel chocks and holders 2 Sets

Extra Item

Berg plug / Berg socket

Kit for disassembly Identification hoses

Spare rock drill HLX5

Spare wheel assembly 300 x 15 or foam filled tire

Special tools for rock drill

Documentation Extra paper, PDF manuals

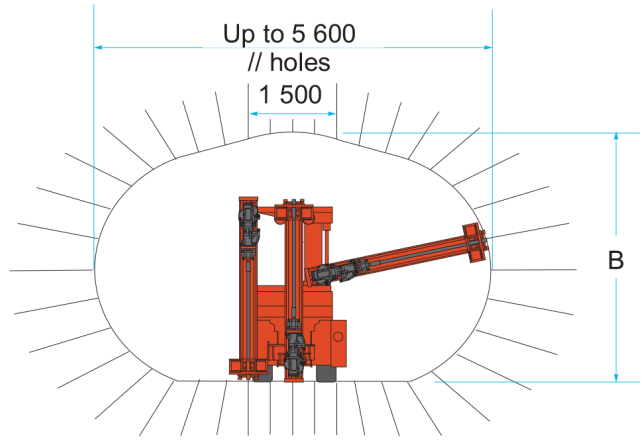
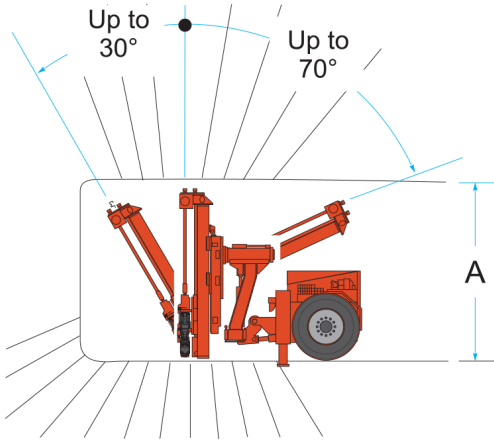
Warranty extension One year additional (excl. kazakhstan)

Package: Regional USC, CIS

*Package: Arctic In extremely low temperature
(Specification TS2-284)

*Package: Harsh water Advanced (Specification TS2-049)

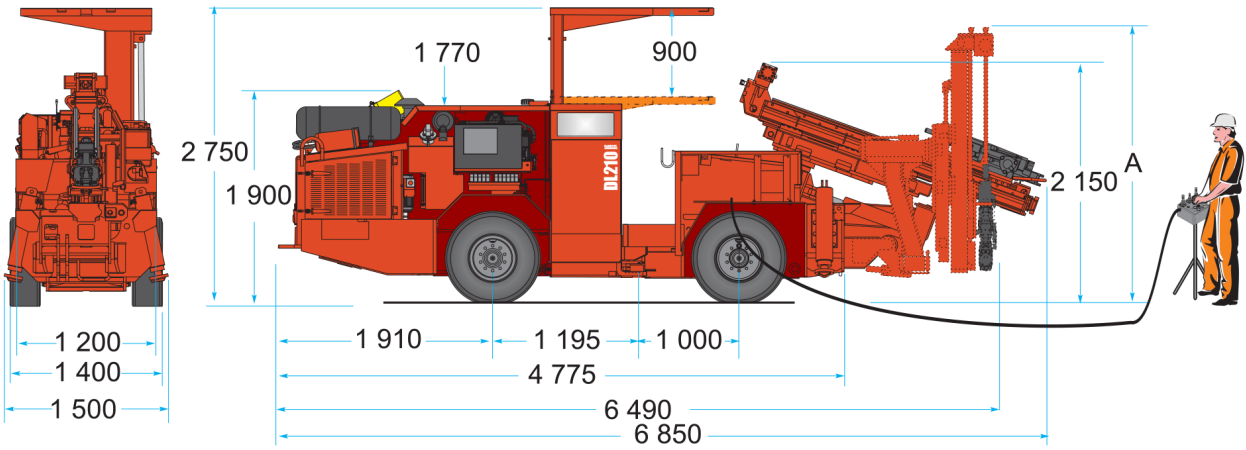
*) replaces standard feature



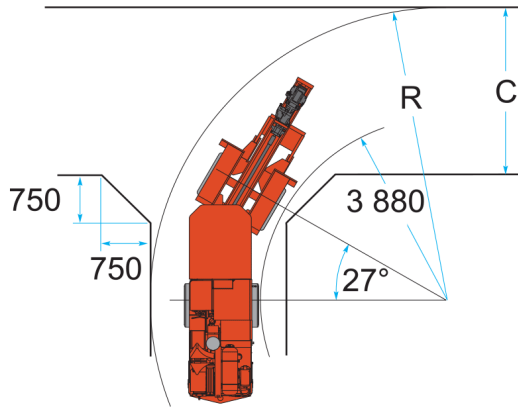
SECTIONS HEIGHT

Feed	Rod	Mini A	Maxi B
LHF2003	915 mm	2 700 mm	3 700 mm
LHF2004	1 220 mm	3 000 mm	4 000 mm
LHF2005	1 525 mm	3 300 mm	4 300 mm

All dimensions in mm



All dimensions in mm



	Radius (R)	T-cross (C)
DL210 (LHF2003)	mm 5 460	2 380
DL210 (LHF2004)	mm 5 515	2 450
DL210 (LHF2005)	mm 5 578	2 510

All dimensions in mm