

APPLICATION

The Sandvik DL430-7 is the most flexible electro-hydraulic longhole drilling rig for production drilling in underground mines. The rig is capable of drilling 64 – 102 mm (2 ½” – 4”) holes up to 40 meters.

The rig has been designed for large vertical and horizontal coverage. The ZRU 1408R boom has wide parallel drilling coverage, long boom extension, 360° rotation and wide tilt angle ranges forward and backwards, thus offering wide drilling variety.

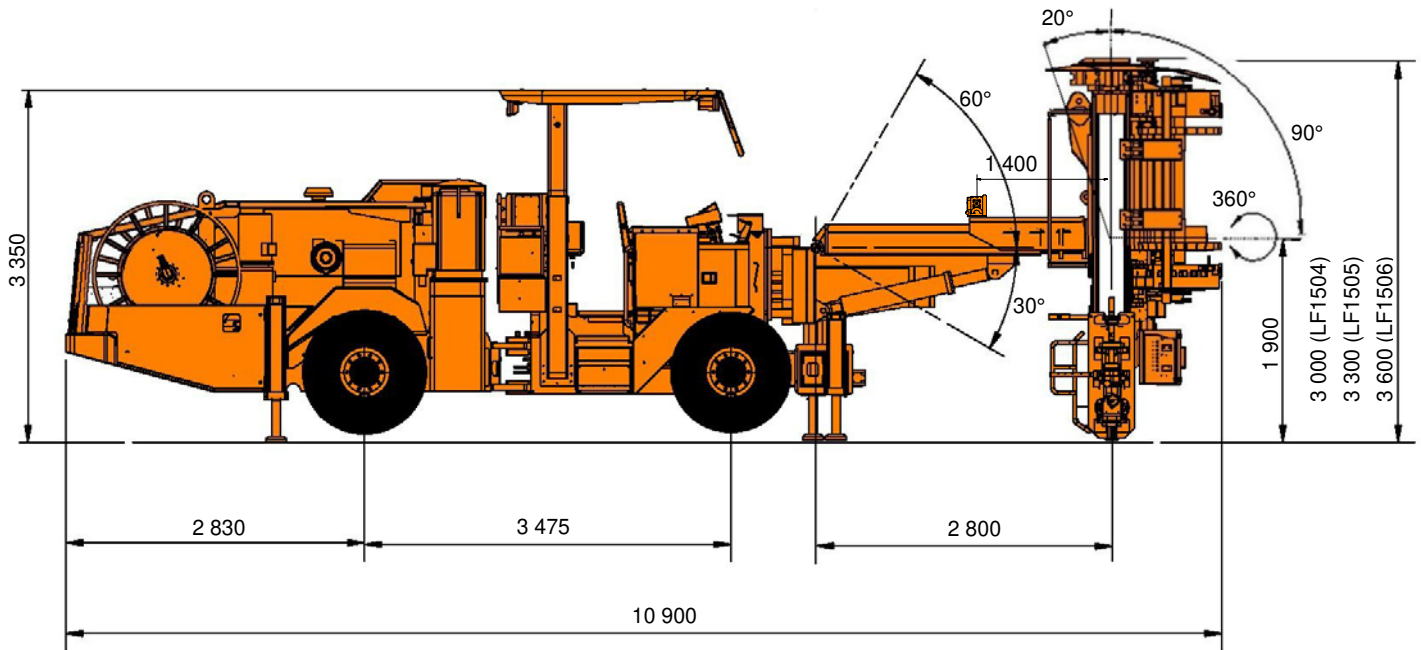
Instrumentation options allow maximum performance with superior drilling accuracy. Built in and proven CAN-based technology on board allow operator to set the unit for any rock conditions. The CAN technology also makes the upgrade of automation level easy. The control system has a sophisticated fault finding system, which enables minimum downtimes.

The unit is based on a proven jumbo carrier for high mobility. Both drilling and tramming are done from the operator's platform.

MAIN SPECIFICATIONS

Carrier	1 x TC 7 WL
Safety canopy	1 x FOPS (ISO 3449)
Rock drill	1 x HL710S
Drilling module	1 x LF 1500 / Pito 14
Rod handling system	1 x RC 1000 (optional)
Boom	1 x ZRU 1408R
Control system	1 x TPC LH
Powerpack	1 x HP 755 (55,0 kW)
Shank lubricating device	1 x SLU 1
Air compressor	1 x CT 10 (7,5 kW)
Water pump	1 x WBP 3 (7,5 kW)
Main switch	1 x MSE-10
Cable reel	1 x TCR 3E
Length	11 170 mm
Width	2 240 mm
Height	2 750 mm
Weight	20 100 kg
Tramming speed	
Horizontal	15,0 km/h
14 % = 1:7 = 8°	6,5 km/h
Gradeability	28 % = 1:3,5 = 15°
Noise level (EN 791, free field condition)	
Operator's platform	LpA = 102 dB
Emitted	LwA = 126 dB

GENERAL DIMENSIONS



TC 7 WL CARRIER

Diesel engine	MB OM904LA 110 kW (149 hp)
Transmission	Clark 20 000 Hydrodynamic
Axles	Clark-Hurth Wide front axle
Brakes	
Service	Hydraulically operated wet disc brakes
Parking and emergency	SAHR type, fail-safe wet disc brakes
Tyres	12.00 – 20 PR 20
Steering	Frame steering, Orbitrol
Articulation	± 40°
Rear oscillation	± 10°
Ground clearance	320 mm
Fuel tank	150 l
Hydraulic jacks	
Front	1 x TJ 40
Rear	2 x TJ 60
Safety canopy	FOPS (ISO 3449)

HL710S ROCK DRILL

Weight	245 kg
Length	1 134 mm
Height	350 mm
Profile height	252 mm
Power class	19,5 kW
Max working pressure	
Percussion	190 bar
Rotation	175 bar
Max torque	
200 cm ³ motor	860 Nm
Hole size	64 – 102 mm
Flushing water pressure	5 – 15 bar

LF 1500 DRILLING MODULE

LF 150x / Pito 14	x = 4' / 5' / 6'
Cuttings collector	CC 1014

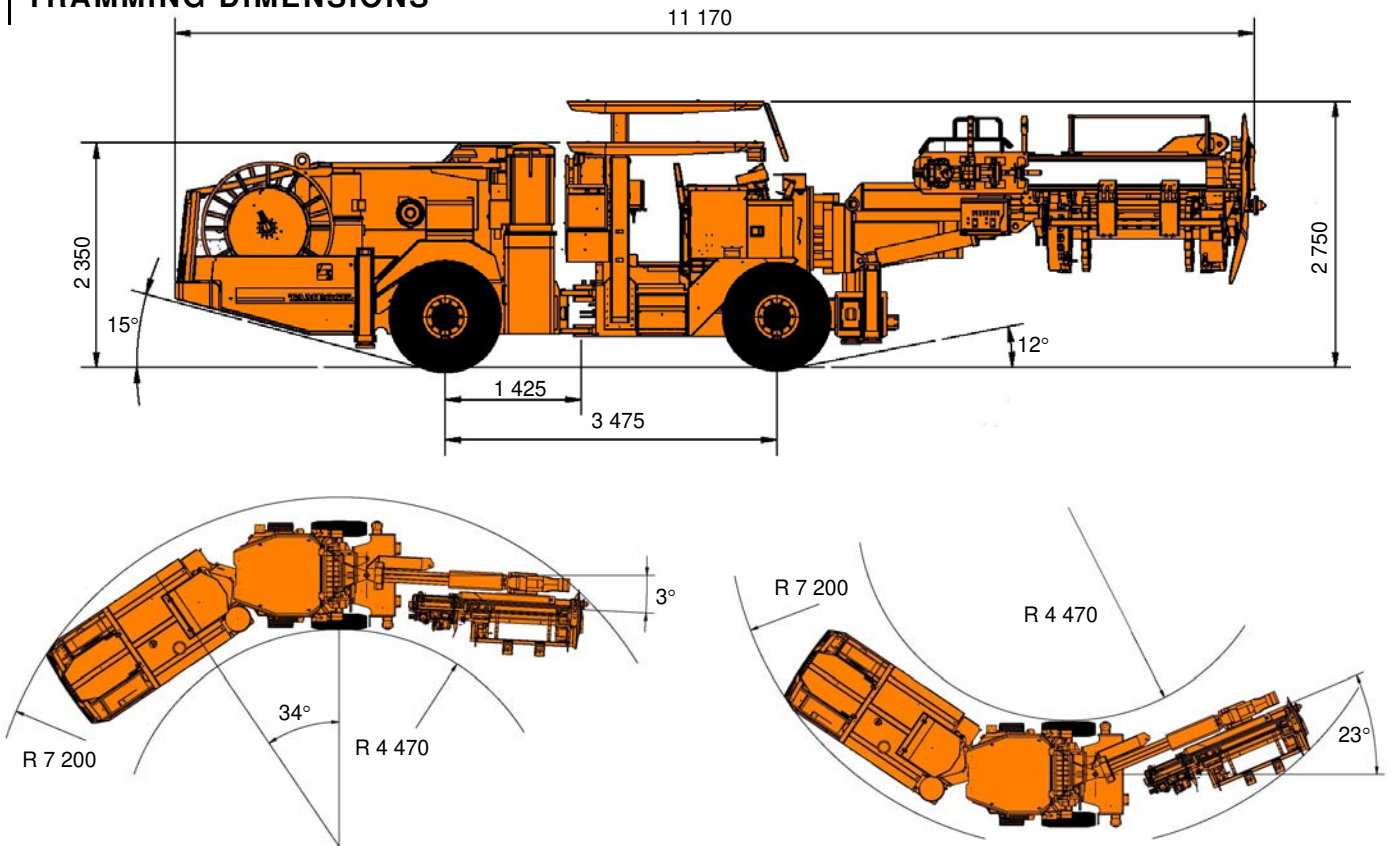
RC 1000 TUBE HANDLING SYSTEM

RC 100x, option	x = 4' / 5' / 6'
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ZRU 1408R BOOM

Parallel coverage	5 000 mm
Boom zoom	1 200 mm
Feed extension	
LF 1504	800 mm
LF 1505	1 000 mm
LF 1506	1 100 mm
Boom weight, net	1 500 kg
Rotation angle	360°
Stinger extension	1 500 mm

TRAMMING DIMENSIONS



TPC LH CONTROL SYSTEM

Power control	Adjustable full power Adjustable collaring power
Anti-jamming control	Adjustable anti-jamming pressure
Rotation control	Adjustable rotation speed
Flushing control	Water flushing flow and pressure control Air-mist flushing (option)

HP 755 POWERPACK

Electric motor	1 x 55 kW 3-phase motor
Pump types	
Percussion and feed	1 x 140 l/min variable displacement axial piston pump
Rotation	1 x 65 l/min variable displacement axial piston pump
Boom movements and tube handling	1 x 40 l/min variable displacement axial piston pump
Filtration	
Pressure	1 x 20 micron
Return	1 x 12 micron
Oil tank volume	Max. 230 l, min. 140 l
Tank filling	1 x electric filling pump
Oil cooling	1 x OW 30 water cooler

AIR CIRCUIT

Compressor type	1 x CT 10 (7,5 kW)
Capacity	1.0 m ³ /min (7 bar)
Shank lubricating device	1 x SLU 1
Air consumption	250 – 350 l/min
Oil consumption	250 – 400 g/h

WATER CIRCUIT

Water pump type	1 x WBP 3 (7,5 kW)
Capacity	200 l/min (12 bar) With 2 bar inlet pressure
Inlet pressure	2 – 7 bar (while drilling)
Inlet pressure control valve	1 x WP 70

ELECTRICAL SYSTEM

Total input power	80 kW
Main switch	1 x MSE-10
Standard voltages	380 – 690 VAC 50 or 60 Hz
Voltage fluctuation	Max ±10 %
Lighting	
Working lights (24 VDC)	Front 4 x 35 W (H.I.D.) Rear 2 x 70 W
Driving lights (24 VDC)	Front 2 x 35 W (H.I.D.) Rear 4 x 70 W
Positioning lights	2 x Laser type
Automatic cable reel	1 x TCR 3E

COVERAGE AREA

MINIMUM DRIFT SIZE

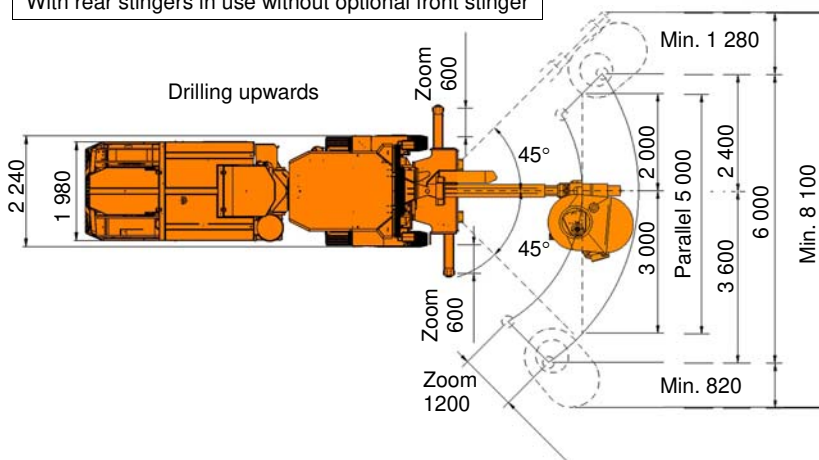
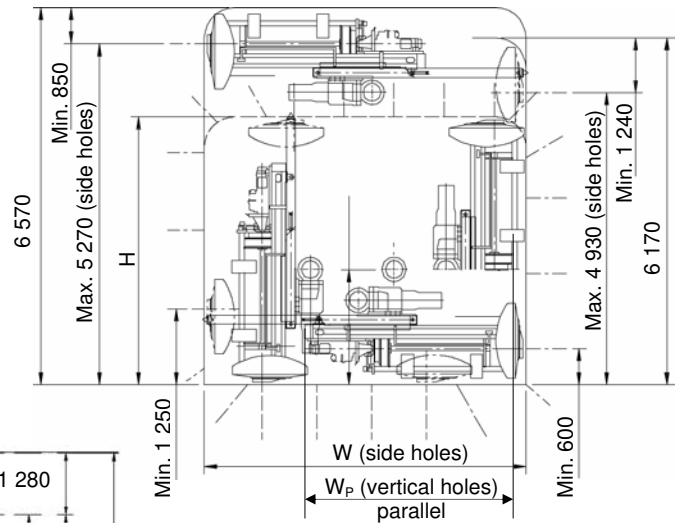
Drilling module	H	W	W _P
LF 1504	3 200	3 200	1 150
LF 1505	3 500	3 500	1 450
LF 1506	3 800	3 800	1 750

Included 100 mm clearance on each side

MAXIMUM DRIFT SIZE

Drilling module	H	W	W _P
LF 1504	4 670	4 670	2 390
LF 1505	4 970	4 970	2 690
LF 1506	5 280	5 280	3 000

With rear stingers in use without optional front stinger



OPTIONAL EQUIPMENT

DRILLING SYSTEM

- Readiness for double tools system; rods and tubes
- Drilling instrumentation TMS ZRU, D, DD, DDS
- One hole data drilling system (front stinger required)
- Front stinger (needed for downholes)
- Air mist flushing with outer compressed air feed
- Double control system (two panels)
- Remote control interface
- Power extractor for HL710S
- *) HL800S rock drill with stabilizer

ELECTRICAL SYSTEM

- Electric cable rubber or PUR
- Ground fault and over current unit VYK
- *) 1 000 V electric system
- Star-Delta starting (380 – 690 VAC only)
- 230 VAC power outlet max 4 500 VA
- 3-phase outlet network voltage

CARRIER

- Exhaust scrubber
- Exhaust catalyzer
- Complete spare wheel

OTHER OPTIONAL EQUIPMENT

- Fire extinguisher (bottle only)
- Manual fire suppression system, 6 nozzles
- Automatic fire suppression system, 6 nozzles
- Pressure cleaning system (15 bar) with reel
- High pressure cleaning system with reel and handset
- Automatic water hose reel THR 2.5E
- Water hose 1½" (60 m)
- Greasing system (Lincoln) with pump, reel and nozzle
- Centralized greasing
- Automatic greasing system (Lincoln)
- Biodegradable oils
- Fast filling and evacuation system (Wiggins) for fuel
- Fast filling and evacuation system (Wiggins) for fuel, transmission, engine and hydraulic oil
- Electric heater in oil tank, 1 kW (recommended with data in cold environment)
- * EU, UL, CSA, AUS norms package

*) = Replaces standard component

Sandvik Mining and Construction reserves the right to change this specification without further notice.