



APPLICATION

Sandvik DS310 is a fully mechanized one-man operated electro-hydraulic compact bolting jumbo for rock reinforcement in underground mines with small and medium cross sections.

The operator environment, specified as the favourite by users for its high ergonomics level, allowed the operator to concentrate on safe, fast and efficient rock bolting.

Acknowledged as the benchmark throughout the world by users, the universal bolting head is a digest of simplicity for increased efficiency. Its modular design can handle all the common bolt types or combination length from 1.5 to 3.0 m (5' to 10').

The stiff and strong rectangular profile telescopic boom allows installation of several rows of bolts in effective roof heights up to 7.4 m without moving the machine.

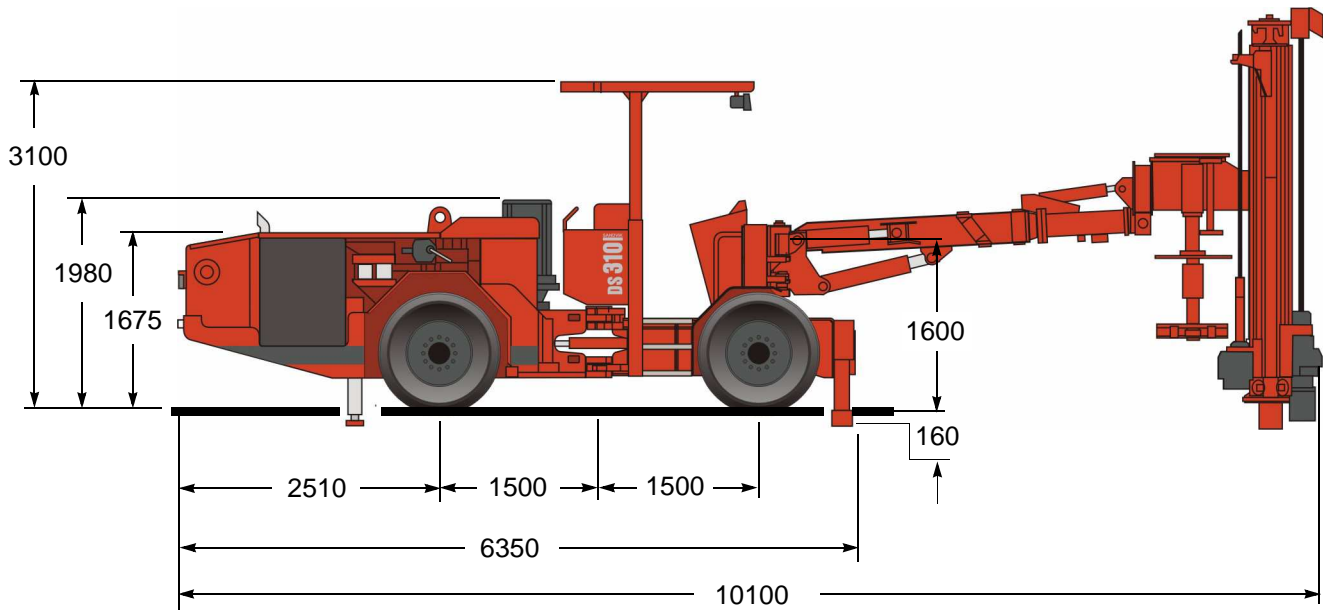
The operator always works under secured area, protected under a FOPS/ROPS safety canopy.

Automation of the bolting process ensure efficient, constant and durable bolting quality for best mine safety.

MAIN SPECIFICATIONS

Carrier	1 x TC 5
Safety canopy	1 x FOPS / ROPS
Rock drill	1 x HYDRASTAR 200
Bolting head	1 x TU-C
Boom	1 x B 26 XL B
Control system	1 x THC 560 B
Powerpack	1 x HP 560 (55 kW)
Shank lubrication device	1 x KVL 10-1
Air compressor	1 x CT 10
Water pump	1 x WBP 1
Main switch	1 x MSE 05
Cable reel	1 x TCR 1
Length	10 800 mm
Width	1 750 mm
Height	2 100 / 3 100mm
Weight (without options)	13 000 kg
Tramming speed horizontal	12 km/h
13%=1;7=8°	5 km/h
Gradeability, max	35 %
Noise level	< 98 dB(A)

GENERAL DIMENSIONS



All dimensions in mm

HYDRASTAR 200 ROCK DRILL *(See TS 2-100 S)*

Standard female shank	R 25 - R 32
Weight	115 kg
Impact frequency	40 - 65 Hz
Percussion pressure	140 - 200 bar
Impact power	6 - 10 kW

RHR 50 SERIES WRENCH *(See TS 2-405 S)*

Weight	40 kg
Oil pressure	210 bar
Maxi torque	32 mdaN

TU-C BOLTING HEAD *(See TS 8-500 S)*

Bolt length	1.5 to 3.0 m
Drill steel	H 22 till H 28
Bolt carousel capacity	9, 12 or 15 bolts <i>(depending on bolt used)</i>

B 26 XL B BOOM *(See TS 8-405 S)*

Type	Universal
Weight (with hoses)	1 530 kg
Feed roll-over	360°
Boom extension	1 700 mm

BOLTING ALTERNATIVES

Resin cartridges	- R - injection system
Cement cartridges	- CC - injection system
Split Set	- S - installation system with HH 200 impactor
Swellex	- SW - installation system with water pressure intensifier

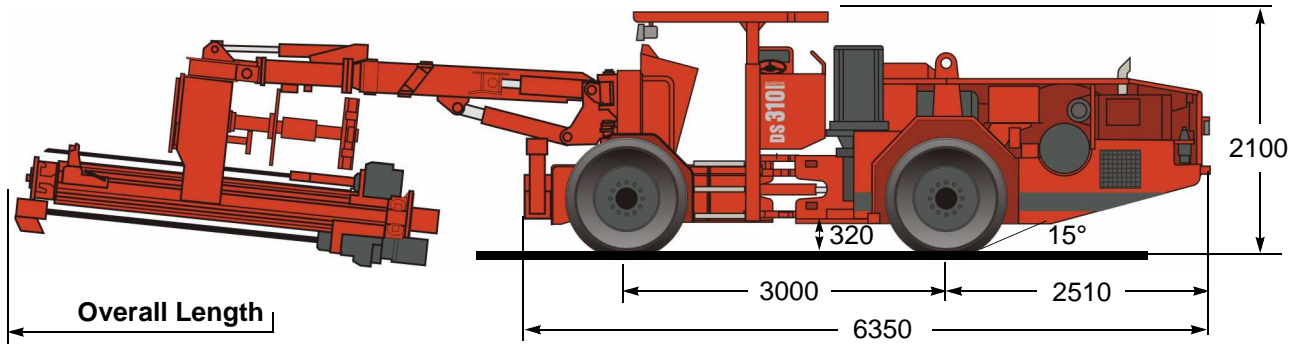
THC 560 B CONTROL SYSTEM

Power control	Adjustable full power
	Adjustable collaring power
Antijamming control	Adjustable antijamming pressure
Rotation control	Adjustable rotation speed
	Reversible rotation
Flushing control	Water flushing pressure
	Air-mist flushing, option

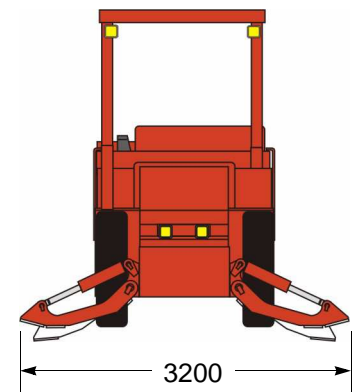
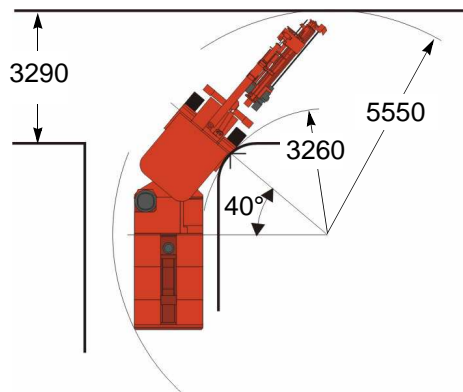
HP 560 POWER PACK

Electrical motor	1 x 55 kW (75 hp) 3-phase motor
Pump types	
- Percussion, bolting head & boom	Axial piston
	1 x 130 l/min variable displacement
- Rotation	1 x 60 l/min gear pump
Filtration	- Pressure 1 x 20 micron
	- Return 1 x 10 micron
Hydraulic tank volume	180 liters

TRAMMING DIMENSIONS



TU-C 25	10 800
TU-C 26	11 000
TU-C 27	11 200
TU-C 28	11 400
TU-C 210	11 600



All dimensions in mm

TC 5 CARRIER

Diesel engine	Deutz BF4L 2011, 55 kW (74hp)
- Exhaust	Catalyser
Transmission	Hydrostatic, automotive
Transfer case	Drop gear Clark-Hurth
Axles, Front & Rear	Case New Holland D45
- Oscillation	Rear axle, 2 x 10°
- Tyres	12.00 x 20
Steering	Frame steering, 2 x 40°
Brakes	
- Service	Hydrostatic transmission+positive braking
- Emergency & parking	Hydraulic oil immersed multiple disc brakes on both axles
Stabilizers	2 outriggers, front 2 hydraulic jacks, rear
Safety canopy	Hydraulic, FOPS-ROPS
- Lowering capability	1 000 mm
Fuel tank	80 liters
Hydraulic tank	55 liters

AIR CIRCUIT

Compressor	C.T. 10, screw type
- Capacity	1000 l/min at 7 bar
Electric motor	7.5 kW (10 hp)
Shank lubrication device	1 x KVL 10-1
- Air consumption	250-350 l/min
- Oil consumption	180-250 g/h

WATER CIRCUIT

Water pump type	1 x WBP 1
- Capacity	30 l/min at 11 bar
- Electric motor	4 kW (5.5 hp)
Oil cooler	OW 30, water-actuated counterflow
- Cooling capacity	30 kW

ELECTRICAL SYSTEM

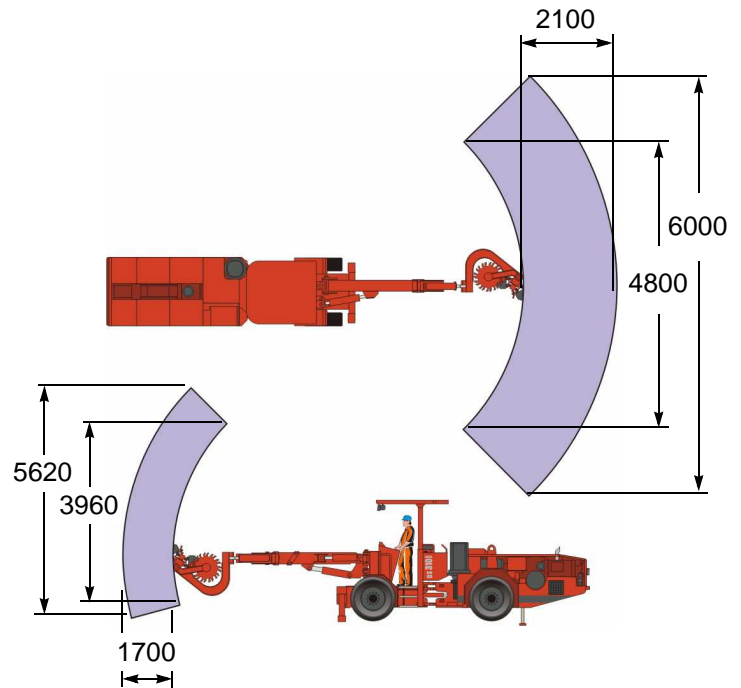
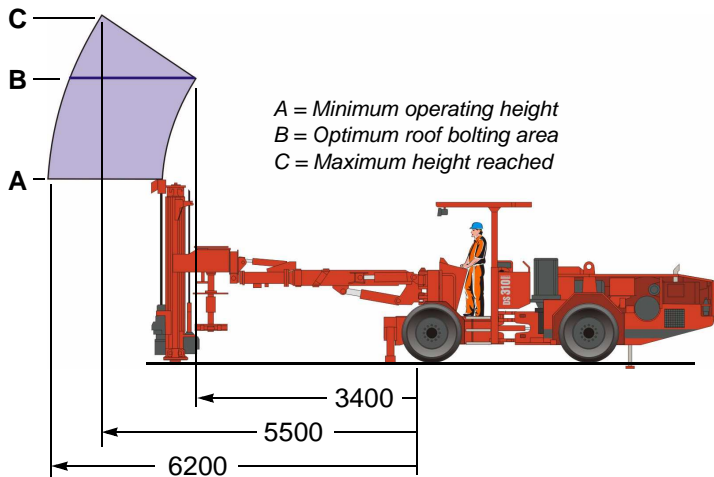
Total installed power	70 kW
Main switch	1 x MSE 05
Standard voltages	380...690 V / 50 or 60 Hz
Voltage fluctuation	Max ±10 %
Starting method	Direct start
Cable reel	1 x TCR 1
- Capacity	See spec 5-4100
Lighting (24 V)	
- Working lights	2 x 35 W HID, front 2 x 70 W, rear
- Driving lights	2 x 70 W, front 2 x 70 W, rear

FULL DIESEL VERSION AVAILABLE

Water-cooled engine	Deutz BF4M 2012 C
- Max. rating at 2200 rpm	93 kW (125 hp)
Fuel tank capacity	240 liters
Compressor & water pump driven by hydraulic motors	
Total machine weight	12 500 kg

BOLTING AREAS

Bolting Head	Bolt Length	A	B	C
TU-C 25	1525	2925	5470	6670
TU-C 26	1830	3230	5600	6800
TU-C 27	2135	3535	5770	6970
TU-C 28	2440	3840	5990	7270
TU-C 210	3050	4450	6320	7420



OPTIONAL EQUIPMENT

BOLTING SYSTEM

Bolt type systems and combinations :

- CC (cement), R (resin), S (Split Set), SW (Swellex).

*) B 26 B boom (see spec. 8-230).

«In the hole» resin injection system (see spec. 8-610 S).

Screen handler, for mechanization of screen installation.

*) Rod retainer (Pito clamp) on top of bolting head (allows to drill deeper holes. Not compatible with resin head).

Air mist flushing kit for auxiliary water/air connection

High pressure water cleaning pump (w/o reel).

High pressure cleaning system with reel and hand set.

Air cleaner IP5 plus auxiliary connection for mine air network.

ELECTRICAL SYSTEM

Electric cable rubber ou PUR.

Ground fault and overcurrent unit VYK 200.

2 x 35 W High Intensity Discharge (HID) extra working lights.

*) Star-Delta electric starting method (380...690 V only).

*) 1 000 V electric power supply.

15 HP pump extra starter.

UL/CSA electrics.

CARRIER

Exhaust scrubber.

Fume diluter.

Complete spare wheel.

Hand pump for manual brake release.

*) Drilling on both electric and Diesel.

Water tank Stainless Steel 300 l, (500 l for full diesel version).

OTHER OPTIONAL EQUIPMENT

Fire extinguisher 6 kg, ABC Type.

Manual fire suppression system ANSUL, 6 nozzles.

Pressure cleaning system (10 bar) with reel.

Automatic water hose reel (60 m capacity).

Water hose 1 1/2", 40m.

*) Electric filling pump for oil.

Greasing system (Lincoln) with pump, reel and nozzle.

Automatic greasing system (Lincoln).

*) Flame Proof and Biodegradable oils, Condat HFDU68.

Fast filling and evacuation system (Wiggins) for fuel only.

Fast filling and evacuation system (Wiggins) complete.

Manuals other than French/English language.

*) EU, UL, CSA, AUS norms package.

*) replaces standard component.