



APPLICATION

The Sandvik DT820-SC is a two boom electro-hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation of 12 – 110 m² cross sections.

The hydraulic controlled drilling system with added automatic functions and different optional instrumentation levels enable productive and high quality excavation.

The HFX5T high frequency rock drills deliver superior performance with high consumable life.

The TB 90 universal booms have a large optimum shaped coverage and full automatic parallelism. The booms can also be used for cross-cutting and bolt hole drilling. An optional basket boom for bolting and utility works is available.

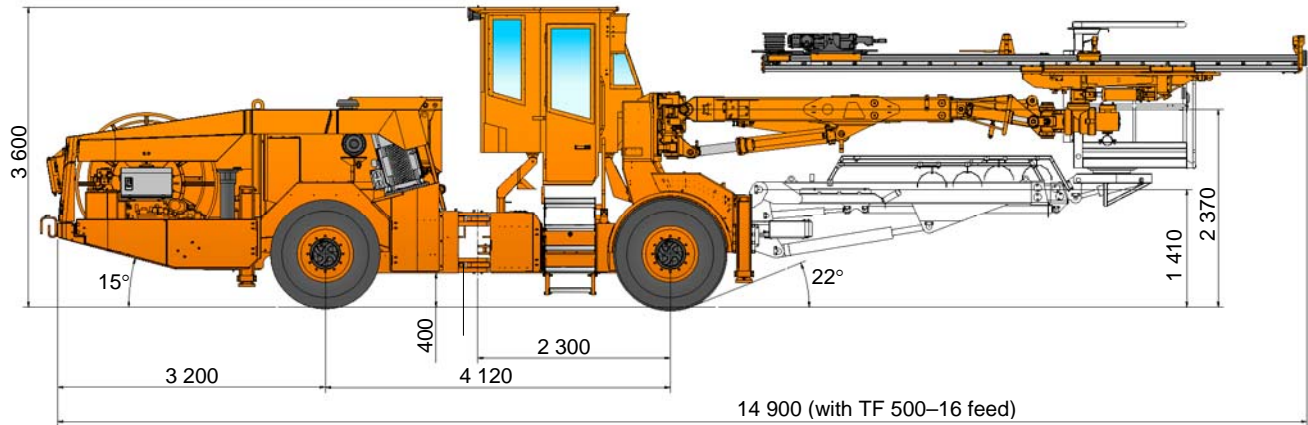
The powerful 4-wheel-drive center articulated carrier ensures rapid and safe tramming with good balance.

The noise and vibration insulated safety cabin provides an ergonomic workplace with excellent visibility for both tramming and drilling.

MAIN SPECIFICATIONS

Carrier	1 x TC 8
Safety cabin	1 x FOPS (ISO 3449)
Rock drill	2 x HFX5T
Feed	2 x TF 500-16
Boom	2 x TB 90
Control system	1 x TPC 561-2
Powerpack	2 x HP 575 (75,0 kW)
Air compressor	1 x CT 10
Shank lubricating device	1 x SLU 2
Water pump	1 x WBP 2 HP
Main switch	1 x MSE 20
Cable reel	1 x TCR 5E
Length	14 900 mm
Width	
Transportation	2 500 mm
Tramming / Drilling	3 000 mm
Height	3 600 mm
Weight	26 850 kg
Tramming speed	
Horizontal	16,0 km/h
14 % = 1:7 = 8°	5,4 km/h
Gradeability	28 % = 1:3,5 = 15°
Noise level (EN 791, free field condition)	
In cabin	LpA = 76 dB
Emitted	LwA = 125 dB

GENERAL DIMENSIONS



TC 8 CARRIER

Diesel engine	MB OM904LA 110 kW (149 hp)
Transmission	Clark 20 000 Hydrodynamic
Axles	Clark-Hurth
Brakes	
Service	Hydraulically operated wet disc brakes
Parking and emergency	SAHR type, fail-safe wet disc brakes
Tyres	14.00 – 24 PR 28
Steering	Frame steering, Orbitrol
Articulation	± 37°
Rear oscillation	± 8°
Ground clearance	400 mm
Fuel tank	150 l
Hydraulic jacks	
Front	2 x TJ 60
Rear	2 x TJ 75
Safety cabin	FOPS (ISO 3449) Pressurized

HFX5T ROCK DRILL

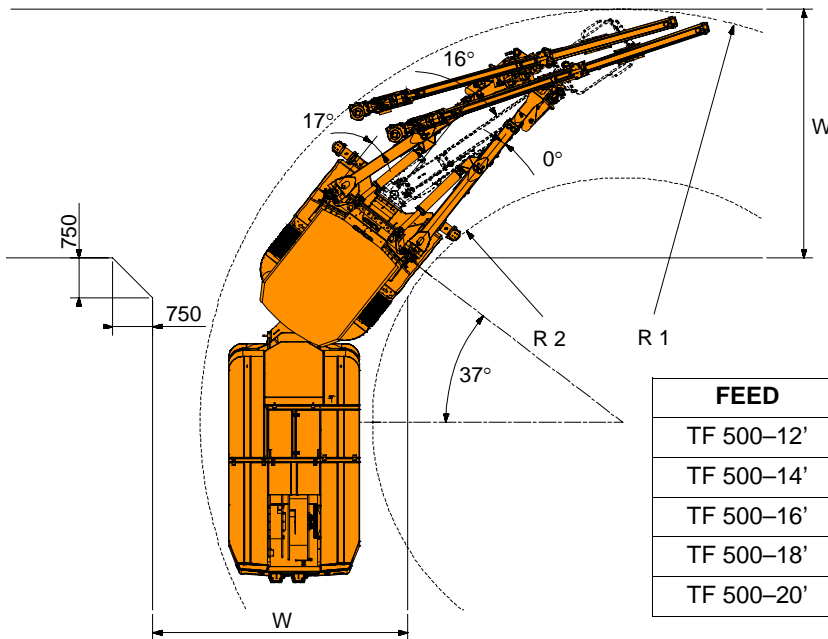
Weight	218 kg
Length	1 020 mm
Profile height	87 mm
Power class	24,5 kW
Max working pressure	
Percussion	245 bar
Rotation	175 bar
Max torque	
125 cm ³ motor	625 Nm
Stabilizer	Hydraulic, 2-stage
Hole size	45 – 64 mm
Recommended steel	T38-H35-R32 T38-H35-alpha 330 T38-R39-R35
Shank adapter	7304-7585-01 (T38)
Flushing water pressure	10 – 20 bar

TF 500 FEED

Feed type	Cylinder – wire rope
Feed force	25 kN

FEED TF 500–	Total length (mm)	Hole length (mm)	Rod length (mm)	Machine length (mm)
12'	5 270	3 440	3 700	14 680
14'	5 880	4 050	4 305	14 900
16'	6 490	4 660	4 915	14 900
18'	7 100	5 270	5 525	15 350
20'	7 710	5 880	6 135	16 400

TURNING RADIUS



FEED	R1	R2	W
TF 500-12'	7 940	4 655	4 730
TF 500-14'	7 940	4 655	4 730
TF 500-16'	8 050	4 655	4 840
TF 500-18'	8 190	4 655	4 980
TF 500-20'	8 300	4 655	5 090

TB 90 BOOM

Parallel coverage	90 m ²
Boom extension	1 800 mm
Feed extension	
With TF-feed	1 650 mm
Boom weight, net	2 650 kg
Rotation angle	358°

TPC 561-2 CONTROL SYSTEM

Power control	Adjustable full power Adjustable collaring power
Rotation control	Adjustable rotation speed
Automatic functions	One hole drilling automatics Collaring with – Rock detect feature – Two ramps to full power Feed controlled percussion Adaptive drilling Anti-jamming Flushing Stop and return
Reaming	Separately adjustable settings
Boom controls	Fully proportional

HP 575 POWERPACK

Electric motor	1 x 75 kW 3-phase motor
Pump types	
Percussion, feed and boom	1 x 150 l/min variable displacement axial piston pump
Rotation	1 x 80 l/min variable displacement axial piston pump

Filtration	
Pressure	1 x 20 micron
Return	1 x 10 micron
Oil tank volume	Max. 235 l, min. 135 l
Tank filling	1 x manual pump
Oil cooling	1 x OW 30 water cooler

AIR CIRCUIT

Compressor type	1 x CT 10
Capacity	1,0 m ³ /min, 7 bar
Shank lubricating device	1 x SLU 2
Air consumption	250 – 350 l/min / rock drill
Oil consumption	180 – 250 g/h / rock drill

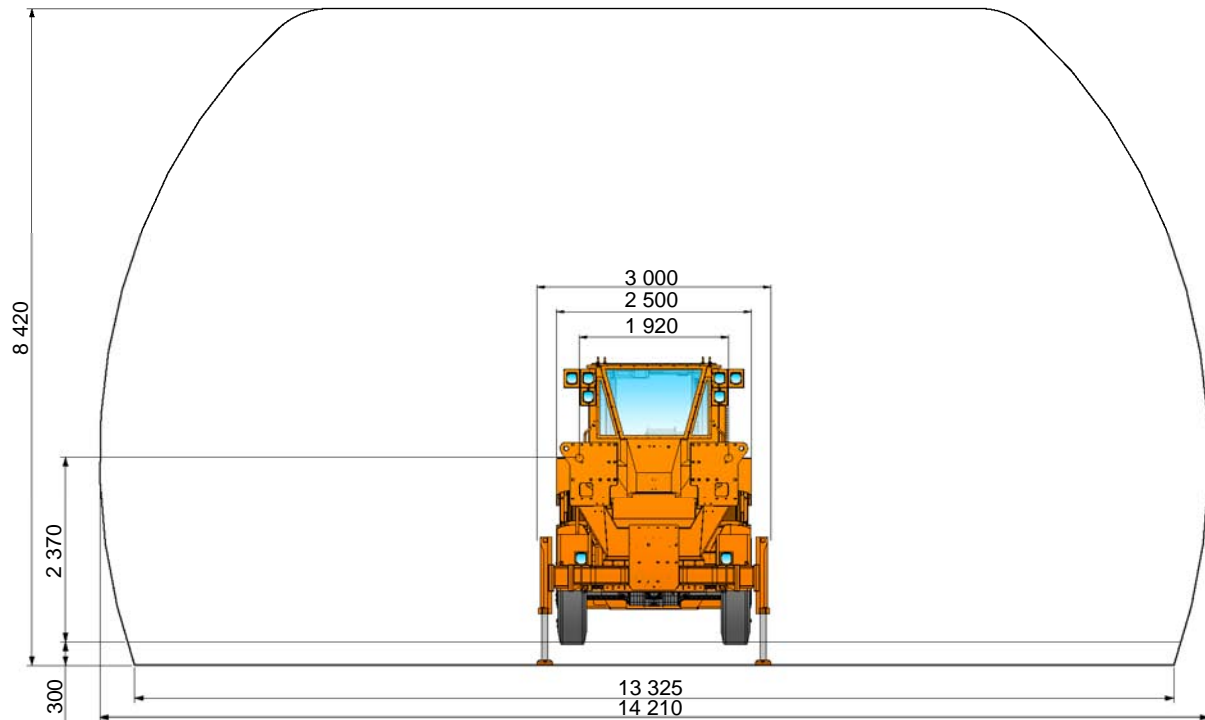
WATER CIRCUIT

Water pump type	1 x WBP 2 HP
Capacity	200 l/min (15 bar) With 5 bar inlet pressure
Inlet pressure	2 – 7 bar (while drilling)
Inlet pressure control valve	1 x WP 70

ELECTRICAL SYSTEM

Total input power	170 kW
Main switch	1 x MSE 20
Standard voltages	380 – 690 VAC
Voltage fluctuation	Max. ± 10 %
Star Delta Starting (380 – 690 VAC only)	
Lighting	
Combined working and driving lights (24 VDC)	8 x 35 W (HID) front
Working lights (24 VDC)	2 x 35 W (HID) rear
Driving lights (24 VDC)	4 x 35 W (HID) rear
Automatic cable reel	1 x TCR 5E

COVERAGE AREA



OPTIONAL EQUIPMENT

DRILLING SYSTEM

- *) 2 x 55 kW powerpacks and 2 x HLX5T rock drills
- *) Feed length 12', 14', 18' or 20'
- *) Telescopic feed TFX-series
- *) TPC 562 separate control panels for two operators
- Rod retainer TRR1 for one feed
- TRS two-rod system for one boom (includes TRR1)
- Drill angle measuring instrument TMS D2
- Drill angle and depth measuring instrument TMS DDSS2
- Drill position and angle measuring instrument TCAD-DS
- Data logging unit TLOG for TCAD
- *) Double flushing with CT 16 compressor (11 kW)
- Air mist flushing kit for auxiliary water/air connection
- Flushing flow control

ELECTRICAL SYSTEM

- Electric cable rubber or PUR
- Ground fault and overcurrent unit VYK
- *) 1 000 VAC electric system
- Extra working lights 2 x 35 W (24 VDC) HID
- Spotlight 70 W (24 VDC) for basket boom

CARRIER

- Cabin air conditioning (drilling and tramming)
- Cabin heating (drilling and tramming)
- 12 VAC electric outlet and CD-player / radio readiness
- CD-player / radio in cabin
- Exhaust scrubber

- Exhaust catalyzer
- Complete spare wheel
- *) Stainless steel cabin (FOPS only)
- *) Low mounted cabin (machine height 3 190 mm)

OTHER OPTIONAL EQUIPMENT

- Fire extinguisher (bottle only)
- Manual fire suppression system ANSUL, 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 1 ½" (65 m)
- *) Electric filling pump for hydraulic oil
- Greasing reel with pump and nozzle
- Automatic greasing system (Lincoln)
- Biodegradable oils
- Air cleaner IP 5 with connections
- Fast filling and evacuation system Wiggins for fuel
- Fast filling and evacuation system Wiggins for fuel, transmission, engine and hydraulic oil
- Basket boom TBB 3i (Note: Changes in weight, turning radius and ramp tramming speed)
- FOPS safety canopy for basket boom TBB 3i
- *) EU, UL, CSA, AUS norms package

*) = Replaces standard component

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