

Sandvik DD42I-60C

Underground Drill Rig



Sandvik DD421-60C is a two boom electro hydraulic jumbo for fast and accurate drilling in drifting and tunneling of 8-60 m² cross sections.

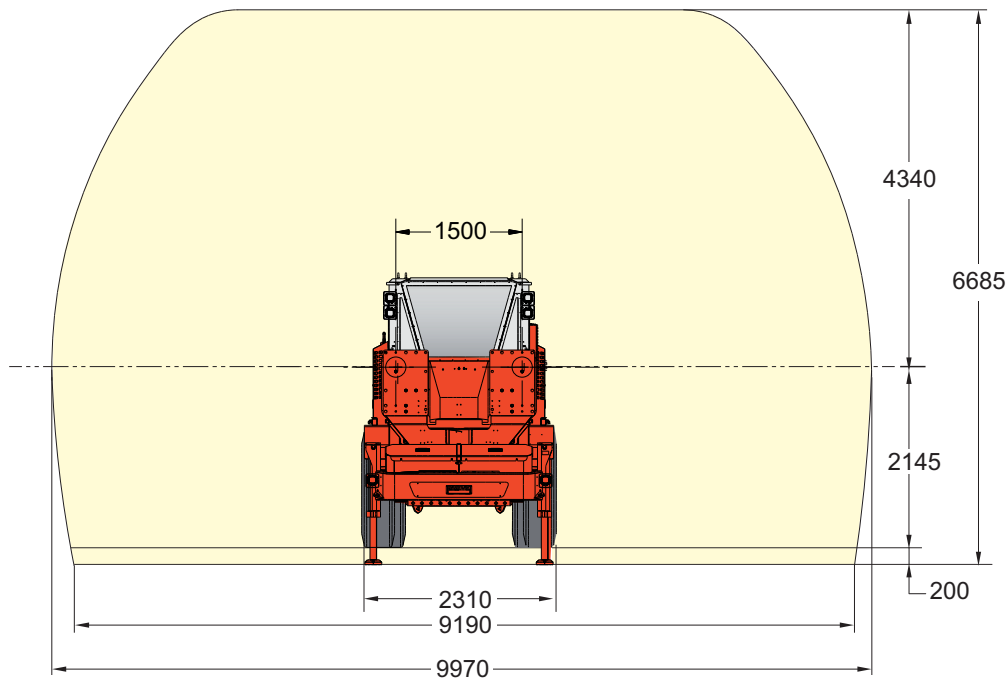
The improved hydraulic control system with new features enables accurate drilling performance with efficient control.

The new RD525 rock drill has proven to be an efficient drill with smooth penetration and powerful drilling performance.

Optimal coverage is achieved with the proven SB60 booms. The drilling performance can be improved with optional instrumentation.

Coverage	60m ²
Boom	SB60
Feed	TF500, 10-16 ft
Rock drill	RD525, 25kW
Hole diameter	43 - 64 mm
Hole length	Up to 4660 mm
Control system	THC561, Hydraulic
Cornering	3770 mm
Total weight	25 000 kg (depending on options)

Coverage area



All dimensions in mm

Hydraulic rock drill

Technical Specification 2-1952

Rock drill	RD525
*Optional rock drill	RD520, HLX5
Percussion power	25 kW
Percussion pressure	Max. 235 bar
Percussion rate	93 Hz
Stabilizer	Hydraulic
Rotation speed	Max. 400 rpm (with OMS80)
Rotation torque	400 Nm (with OMS80)
Hole size (drifting)	43 - 64 mm
Hole size (cut hole)	76 - 127 mm
Recommended rod	T38-H35-R32 T38-R39-R35
Shank adapter	T38
Weight	225 kg
Length	1 010 mm
Profile height	90 mm
Shank lubrication device	Air/oil mist, SLU
Shank lubrication compressor	CT16, 1,6m ³ /min (7 bar)
Air consumption	250-350 l/min
Oil consumption	180-250 g/h

Boom

Technical Specification 4-3105

Boom	SB60
Parallel coverage	54 m ²
Parallelism	Automatic hydraulic
Boom extension	1 200 mm
Boom weight, net	2 250 kg
Roll-over angle	358°
Bolt hole drilling	Yes

Feed

Technical Specification 3-1400

Feed	TF500-12
Feed force	Max. 25 kN
Feed extension	1 350 mm
*TF feed lengths	10', 12', 14', 16'
*Telescopic feed	TFX6/12, 8/14, 10/16

Feed TF500	Total length (mm)	Hole length (mm)	Rod length (mm)	Net weight (kg)
10'	4 660	2 830	3 090	470
12'	5 270	3 440	3 700	500
14'	5 880	4 050	4 305	530
16'	6 490	4 660	4 915	560

*Drilling options

#Rod retainer TRR1	Including safety wire Adds 35mm length of the TF-feed.
#Two rod system TRS	For TF Feed. Included TRR1 & Safety wire (not for bolting)

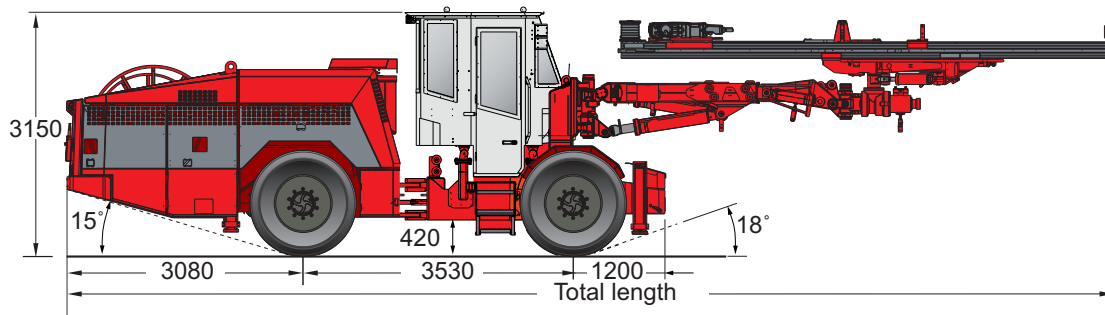
Instrumentation options

#Angle, position and depth measurement with data logging	TCAD + TLOG with iSURE I-II design & reporting
#MWD analysis	iSURE III Analysis (only with TCAD option)

* Alternative options features/components

Additional options features/components

Machine dimensions



Total length	L
TF500-10'	12 500
TF500-12'	13 050
TF500-14'	13 250
TF500-16'	13 700
TFX 6/12	12 800
TFX 8/14	12 900
TFX 10/16	13 500

All dimensions in mm

Hydraulic system

Powerpack	HPP 575 (75kW)
*Powerpack	HPP555 (55kW) with RD520 or HLX5 rock drill
Percussion pump	110cc (variable piston)
Rotation pump	60 cc (gear)
Filtration size	20 micron (pressure) 10 micron (return)
Oil tank volume	270 l
Tank filling	Electric pump
*Tank filling	Manual pump
Oil cooler	Water cooled. Cooling capacity 2x30kW
*Oil cooler	Air cooled. Cooling capacity 2x30kW N/A with water hose reel
*Biodegradable oils	Shell Naturelle HFE46/HFE68
#Vacuum pump for hydraulic oil	Option

Control system

Technical Specification 5-1020

Type	THC561, Hydraulic
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Feed/percussion control
Automatic cycle	Stop and return automatics
*Constant speed drilling	Replaces feed / percussion control

Cleaning system

#Pressure cleaning system with reel	5-15 bar
#High pressure cleaning system with reel	Max. 180 bar

Greasing systems and options

Centralized greasing points	Carrier
#Greasing unit with pump, reel and nozzle	Manual
#Automatic greasing system	Carrier and booms

Electric system and options

Total input power	180 kW
Main switch	MSE20
Standard voltages	380-690 VAC
*Optional voltage	1000 VAC, 50 Hz
Starting method	Star delta starter 380 VAC-690 VAC Soft starter 480 VAC, 575 VAC (USC) Direct on Line (DOL) 1000 VAC
Voltage fluctuation	± 10%
Automatic cable reel	TCR4E + spooling (input 135kW) TCR4EHD + spooling (in. 180kW)
Cable reel control (in & out)	Operator station #Rear of unit
Cable plug holder	Hook type holder and cable pull sock
#Electric cable rubber or PUR	Depending on voltage (see spec 5-4100)
#Ground fault and overcurrent protection	VYK
*Sealed AGM batteries	12V, 50Ah
#Battery jump start	

Flushing system and *options

Flushing	Water flushing flow and pressure control. Air-mist flushing, option
*Flushing flow supervision	
Water pump	WBP 2HP
Water pump capacity	185 l/min
Inlet pressure	2-7 bar
Water hose reel + hose	THR2,5E + 38mm (1 1/2"), 65 m
#Water flushing with air cleaning of hole	External water and CT16 (11kW)
#Additional air capacity for hole cleaning with air	1 x 60l Air receiver
#Air mist flushing	External water/air connection (incl. IP5 + flushing flow supervision)
#External air connection	IP5 air cleaner

Fire suppression system and options

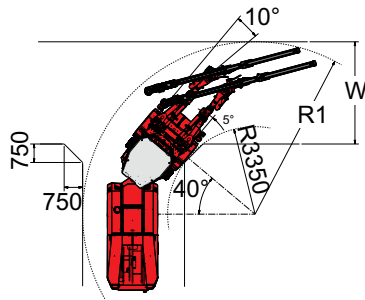
Tech. Spec. 5-9800

#Hand held fire extinguisher	1 pcs
#Manual fire suppression system	6 nozzles
#Automatic fire suppression system	6 nozzles
#FS1000	above 0°C

* Alternative options features/components

Additional options features/components

Tramming dimensions



Feed	RI	W
TF500-10'	6650	3770
TF500-12'	6800	3920
TF500-14'	6950	4070
TF500-16'	7100	4250

All dimensions in mm

Tramming

Tramming speed	Horizontal: 16 km/h 14% = 1:7 = 8° 6,0 km/h
Gradeability / Inclination	Max. 15° / 5°
#Reduced tramming speed	3rd gear lockout

Operator station

Standard cabin	FOPS/ROPS (ISO 3449)
*Stainless steel cabin	FOPS (ISO 3449)
Operation	Standing drilling, seated tramming
Seat	Ergonomic, adjustable For tramming including seat belt
Sound pressure level according to EN791	Operator station: 72 dB(A)
Reversing alarm	Standard
Windows	Safety laminated, with wiper Stainless steel window frames
Electricity outlets	1x12VDC, 1x24VDC, 1x220VAC
#Reversing camera	On machine rear and side
#Air conditioning	Filtering capacity EU6/7
#Cabin heating	During drilling and tramming
#CD player/radio/MP3	
#Front screen protection bar	
#Boot washer	

Lights and *options

Front lights (combined working and driving)	6 x 35W HID (24V)
Rear working lights	2 x 35W HID (24V)
Rear driving lights	2 x 35W HID (24V)
Rear brake/park lights	2 x Red LED
Stair and service lights	LED
#Extra working lights	2 x 35W HID (24V)
#Amber strobe light	Flashing (24V)

Packages

#Regional	LAM, AUS, USC, EUR
*Harsh water packages	Basic or advanced See spec sheet 5-9100
#Antifreezing	Block heater for engine Hydraulic oil tank heater Water circuit flushing

Carrier

Carrier	NC7W
Carrier type	Wheel mounted, frame steering
Frame steering	± 40°
Rear oscillation	± 8°
Ground clearance	420 mm
Diesel engine	MB OM904LA, 110kW, Tier 3
Exhaust catalyzer	Standard
Transmission	Hydrodynamic, Spicer T20000
Axles	Spicer
Tyres	14.00-24 PR28
*Tyres	Foam filled tyres
Service Brakes	SAHR type, fail safe wet disc brakes
Brakes park and emergency	SAHR type, fail safe wet disc brakes
Fuel tank	140 liters
Hydraulic jacks	TJ50 (front), TJ60 (rear)
Hand throttle	Standard
#Fast filling systems	Complete
#Wheel chocks and holders	2 pieces
#Rod rack on carrier side	For 10-16ft rods and two shank adapters

Extra items

#Spare rock drill	
#Spare wheel assembly	Standard or foam filled
#Special tools for rock drill	
#Documentation	Extra manuals

* Alternative options features/components

Additional options features/components