



# DT1232i TUNNELING DRILL

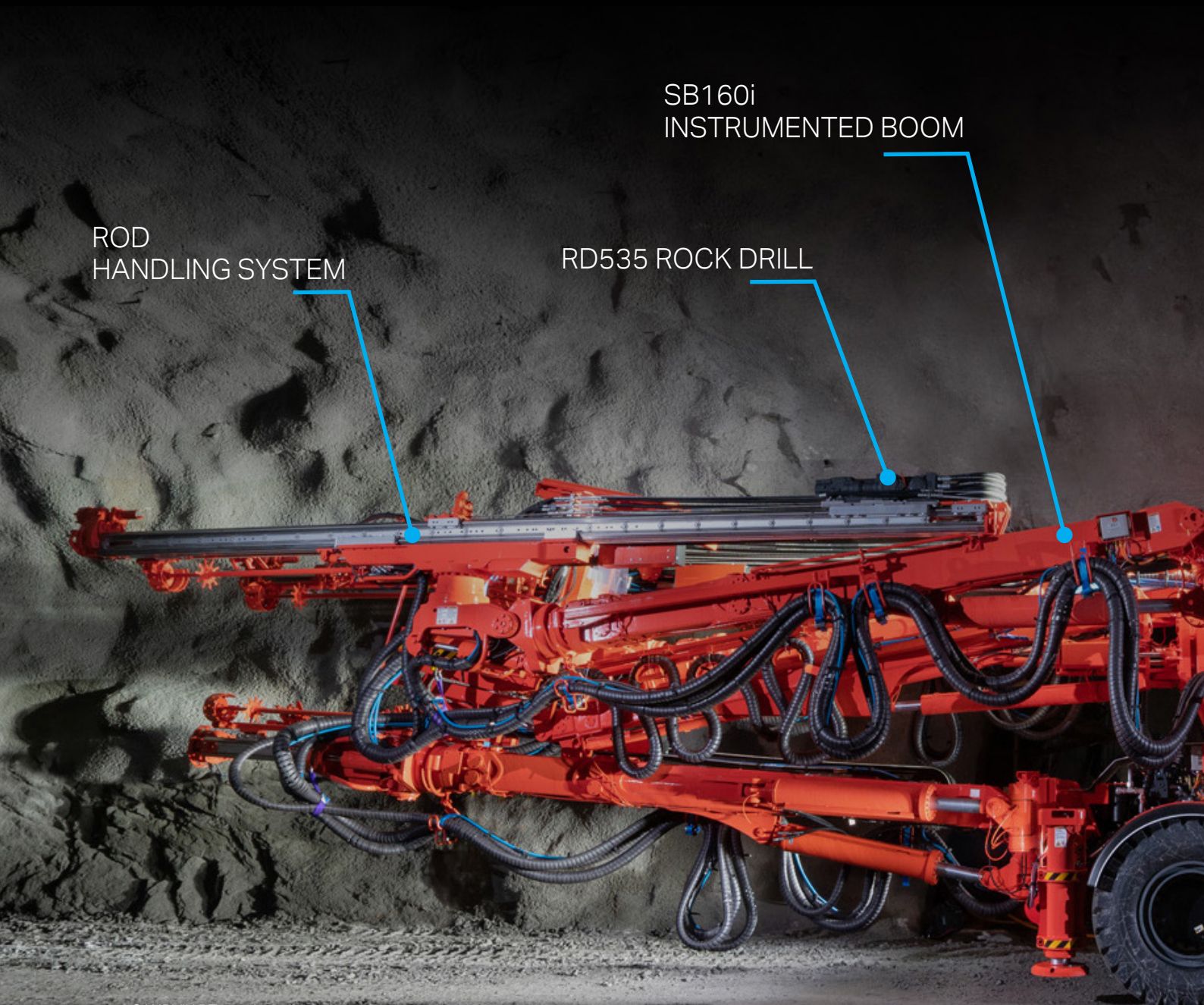




# HIGH SPEED DRILLING

Sandvik DT1232i is a fully automated i-series tunneling jumbo equipped with three electro-hydraulic booms for fast and accurate drilling in tunneling and cavern excavations. Thanks to its one meter boom extension, this jumbo offers superior coverage.

This rig has automatic drilling functions and boom positioning including an optional fully automated drilling cycle, Sandvik DT1232i is equipped the high frequency RD535 rock drill and tools designed for high speed drilling.



ROD  
HANDLING SYSTEM

SB160i  
INSTRUMENTED BOOM

RD535 ROCK DRILL



# MAIN BENEFITS

## HIGH DRILLING PERFORMANCES

Equipped with RD535 rock drill, Sandvik DT1232i has more rock drill power to reduce the drilling time and increase advance meters per cycle, saving time and money.

In addition to face drilling, this versatile unit can also be utilized in other applications such as: long-hole drilling, cross-cutting and bolt hole drilling.

Up to **20%\*** higher penetration rate

**IMPROVED  
PRODUCTIVITY**

**IMPROVED  
ERGONOMICS &  
SAFETY**

Up to **40%\*** better filtration in exhaust particles

Up to **25%\*** bigger side coverage

**MAXIMIZED  
UTILIZATION**



1 METER BOOM EXTENSION  
SUPPORT

AUTOMATIC DRILLING FUNCTIONS

DIESEL ENGINE  
LOW EMISSIONS



## SB160i INSTRUMENTED BOOM

The 3m telescopic SB160i boom, optimized with a front wrist structure provides 1 meter additional side coverage as standard, and 4 meters side coverage with telescopic adjustment. It also uses a fully proportional boom control for accurate and fast manual boom handling (automated boom controls come with the optional Platinum package).



## ERGONOMIC CABIN

The ergonomic vibration-dampened cabin provides an open, spacious operator environment with excellent all-round visibility, low noise level and a filtration system to minimize dust inside. Doorways have been located in the rear to minimize any disturbance for the operator, whilst safety has been maximized with a FOPS-compliant cabin.



## SUPERIOR DRILLING ACCURACY

The Alpha360 bits and GT38 rods are optimized for RD535 high power rock drill. The optimized rod diameter together with coupling guide and the bit gives superior drilling accuracy in face drilling.



## SANDVIK 365 PARTS & SERVICES

### PROUDLY KEEPING YOU ON TRACK!

Sandvik 365 Parts & Services offer a variety of possibilities to enhance your Sandvik DT1232i drill's performance. As an OEM, we provide the best-suited choices to preserve your machine's high performance throughout its lifetime. These consist of highly skilled service specialists supporting you 365 days a year, all using Sandvik Genuine parts and components complemented by a range of robust tools. In addition, you get to enjoy the benefits of advanced digital services and a global infrastructure dedicated to keeping your Sandvik fleet on track.



## TECHNICAL SPECIFICATION

### HYDRAULIC ROCK DRILL

|                           |                                      |
|---------------------------|--------------------------------------|
| Type of rock drill        | RD535 (TS2-427)                      |
| Percussion power          | 31 kW                                |
| Percussion pressure       | Max. 225 bar                         |
| Percussion rate           | 107 Hz                               |
| Stabilizer                | Hydraulic (two stage)                |
| Rotation speed            | Max. 280 rpm (with OMS125)           |
| Rotation torque           | 625 Nm (with OMS125)                 |
| Hole size (face drilling) | 45 - 64 mm                           |
| Hole size (cut hole)      | 76 - 127 mm                          |
| Recommended rod           | T38-R42-Alpha360<br>T38-R39-Alpha360 |
| Shank adapter             | T38 (male)                           |
| Weight                    | 232 kg                               |
| Length                    | 1 010 mm                             |
| Profile height            | 90 mm                                |

### FEED

| Type of feed     | Feed force (Max.) | Total length | Hole length | Rod length | Net weight (kg) |
|------------------|-------------------|--------------|-------------|------------|-----------------|
| TF535i-12' (opt) | 30 kN             | 5 330        | 3 440       | 3 700      | 500             |
| TF535i-14' (opt) | 30 kN             | 5 940        | 4 050       | 4 305      | 530             |
| TF535i-16' (opt) | 30 kN             | 6 550        | 4 660       | 4 915      | 560             |
| TF535i-18' (std) | 30 kN             | 7 160        | 5 270       | 5 525      | 590             |
| TF535i-20' (opt) | 30 kN             | 7 770        | 5 880       | 6 135      | 620             |
| TF535i-21' (opt) | 30 kN             | 8 075        | 6 180       | 6 440      | 640             |

### BOOM

|                        |                    |
|------------------------|--------------------|
| Type of boom           | SB160i (TS2-418)   |
| Parallel coverage      | 166 m <sup>2</sup> |
| Parallelism            | Electric           |
| Boom extension         | 3 000 mm           |
| Feed extension         | 1 850 mm           |
| Boom weight, net       | 3 500 kg           |
| Roll-over angle        | 358°               |
| Boom elevating support | 1 000 mm           |

### UTILITY BOOM (OPTIONAL)

|                                      |                     |
|--------------------------------------|---------------------|
| Type of utility boom                 | SUB5i A/B (TS2-311) |
| Boom extension                       | 2 x 3 000 mm        |
| Boom weight, net                     | 2 635 / 2 895 kg    |
| Basket swing                         | ± 45° in B - model  |
| Max. allowed load                    | 510 kg              |
| Max. allowed load with safety canopy | 400 kg              |

### HYDRAULIC SYSTEM

|                                     |                                |
|-------------------------------------|--------------------------------|
| Powerpack                           | HPP575 (3 x 75 kW)             |
| Percussion and feed pump            | 180 cc (variable)              |
| Rotation pump                       | 71 cc (variable)               |
| Utility boom                        | 26 cc (gear)                   |
| Filtration size (pressure / return) | 20 µ / 10 µ                    |
| Oil tank volume                     | 480 liters                     |
| Filling pump for hydraulic oil      | Electric                       |
| Cooler for hydraulic oil            | 1 x OW200P oil-to-water cooler |

### CONTROL SYSTEM

|                              |   |
|------------------------------|---|
| Type of control system       | SICA platform   |
| Higher level in automation   | Upgradable  |
| Diagnostic system            | Comprehensive   |
| Variety of drilling controls | Advanced torque control system, feed / percussion, manual control   |
| Boom control                 | Fully proportional  |
| Touch screen display         | 15" full color  |
| Control system software      | Support and maintenance package include during 12 months (TS15-019) |
| OptiMine / FDM / WLAN        | Data transfer readiness   |
| Cable kit                    | Spare parts programming   |
| Total station navigation set | Excl. total station   |

### ELECTRIC SYSTEM

|  |   |
|--|---|
| Standard voltage                               | Multivoltage<br>400 V only with RD525 rock drill<br>575 V - 1 000 V with RD535 or RD525 |
| Total input power                              | 270 / 325 kW (RD525 / RD535)  |
| Main switch                                    | MSE30   |
| IP classification                              | Specification TS2-132   |
| Starting method                                | DOL (direct on line)  |
| Automatic cable reel                           | TCR5 CD   |
| Cable reel control (in / out)                  | Operator station  |
| Electric current reducer unit                  | 3 pcs   |
| Front lights<br>(combined working and driving) | 12 x 50 W LED (12 x 4 200 lm)   |
| Rear lights<br>(combined working and driving)  | 4 x 50 W LED (4 x 4 200 lm)   |
| Rear brake / park lights                       | 2 x Red LED   |
| Stair and service lights                       | 1 x LED (24V)   |
| Amber flashing light                           | 1 x Beacon (24V)  |

### AIR AND WATER SYSTEM

|                           |   |
|---------------------------|---|
| Flushing type             | Flushing low control / monitoring       |
| Water booster pump type   | WBP4 HP                                 |
| Water pump capacity       | 400 l/min                               |
| Water pump inlet pressure | 2 - 7 bar (Min.)                        |
| Flushing water pressure   | 25 - 30 bar                             |
| Shank lubrication device  | Air / oil mist, SLU-3                   |
| Air compressor            | CT28 (2.8 m <sup>3</sup> /min at 7 bar) |
| Oil consumption           | 180 - 250 g/h                           |
| Air consumption           | 250 - 350 l/min                         |

### TRAMMING AND OPERATOR STATION

|   |  |
|---|--|
| Safety cabin                                  | FOPS (ISO 3449)                                  |
| Cabin height<br>in tramping / inside height   | 3 790 / 2 000 mm                                 |
| Cabin elevation                               | 1 000 mm   |
| Sound pressure level<br>according to EN 16228 | Operator station: 75 dB(A)<br>Emitted: 126 dB(A) |
| Seat  | Fully adjustable seat                            |
| Floor   | Water-washable                                   |
| Air conditioning / heating                    | During tramping and drilling                     |
| Cabin audio system                            | CD / MP3 player with radio                       |
| Electricity outlets                           | 1 x 12 V and 2 x 240 V (16A)                     |
| Boot washer                                   | At cabin each entrance                           |

## TECHNICAL SPECIFICATION

### CARRIER

|   |  |
|---|--|
| Type of carrier                                 | C1000  |
| Rear oscillation                                | ± 8°   |
| Ground clearance                                | 400 mm   |
| Diesel engine                                   | QSB6.7, 164 kW, Tier 3, Stage III  |
| Transmission                                    | Hydrodynamic, Spicer T14   |
| Axles   | Dana Spicer 43R (front) / 213 (rear)   |
| Tires   | 14.00-24 28RL (4 x front, 2 x rear)  |
| Service brakes                                  | Hydraulically operated wet disc brakes   |
| Parking / emergency brakes                      | SAHR type, fail safe wet disc brakes   |
| Fuel tank                                       | 150 liters   |
| Tramming speed                                  | 15 km/h (Horizontal)<br>3.5 km/h (14% = 1:7 = 8°)  |
| Longitudinal / sideways tilt                    | Max. 11° / 5°  |
| Carrier stabilization with 400 mm ground plates | TJ60 (front), TJ75 (rear)  |
| Hand throttle                                   | Standard   |
| Hand held fire extinguisher                     | 1 x 7.7 or 9 kg (type ABC)   |
| Tramming alarm                                  | Standard   |
| Wheel chocks and holders                        | 2 Sets   |
| Measurement adapter kit                         | Cables and connectors for spare parts maintenance measurements   |
| Knowledge Box™                                  | Connectivity solution (TS2-535)  |
| Colour scheme                                   | Sandvik standard   |
| Documentation                                   | 1 x Operator's manual<br>1 x Maintenance manual<br>1 x Technical manual (in English only)<br>1 x Parts manual (in English only)<br>2 x Toolman USB key |

### OPTIONAL ITEMS

|                                |   |
|--------------------------------|---|
| <b>Rock drill</b>              |   |
| *Type of rock drill            | RD525, 75 kW HPP  |
| Power extractor                | For RD535 or RD525  |
| <b>Feed</b>                    |   |
| *Feed length                   | 12', 14', 16', 20', 21'   |
| *Telescopic feed               | TFX12/18  |
| Rod retainer                   | SCR with TF feed (incl. safety wire)                                    |
| Rod handling system            | SRH (incl. SCR + PE for 8' or 10' extension rods, 8 + 1 extension rods) |
| AT pipe umbrella system        | AT-114 or AT-139 (TS2-536)  |
| <b>Utility boom</b>            |   |
| Safety canopy                  | Fixed, FOPS approved  |
| Spot lights                    | Sliding, FOPS approved  |
| Remote control for spot lights | 2 x 17 W LED  |
| Rod racks                      | 2 pcs   |
| RX expansion bolt kit          | For 4 pcs of 10 or 12 ft rods   |
|                                | D30 mm or D41 mm  |
| <b>Hydraulic system</b>        |   |
| Filling pump for hydraulic oil | Manual  |
| Cooler for hydraulic oil       | OA40 oil-to-air (3 x 40 kW)   |
| Biodegradable oils             | Sandvik hydraulic oils  |
| Vacuum pump                    | For hydraulic oil   |
| By pass hydraulic oil filter   |   |
| <b>Control system</b>          |   |
| Access detector or protector   | Specification TS2-211   |
| User interface                 | 2nd operator (standing)   |
| 3D scanning system             | Requires iSURE IV (TS2-388)   |
| GeoSURE                        | Requires iSURE IV (TS2-280)   |
| iBOLT                          | Systematic bolting  |
| Data transfer                  | WLAN including remote GUI view  |
| <b>Cleaning system</b>         |   |
| Low pressure system with reel  | Up to 15 bar (TS2-343)  |
| High pressure system with reel | Up to 180 bar (TS2-343)   |

### OPTIONAL ITEMS

|                                     |   |
|-------------------------------------|---|
| <b>Greasing systems</b>             |   |
| Manual system                       | Greasing unit with pump, reel and nozzle (TS2-463)  |
| Automatic system                    | For carrier, boom, rod handler and utility boom (Lincoln)   |
| <b>Electric system</b>              |   |
| *Electric cables                    | Specification TS2-121   |
| Spooling device for cable reel      | For voltages 690 - 1 000 V  |
| Ground fault and overcurrent unit   | VYK   |
| Electricity outlet in front carrier | 2 x 110 V (15 A) or 2 x 230 V (16A)   |
| Dewatering pump outlet              | 8 kW, 400 V, 50 Hz (incl. transformer)  |
|                                     | 8 kW, voltage 380 - 690 V (50 Hz)   |
| Indicator light                     | For jacks up and down   |
| Remote control for reel(s)          | At rear machine   |
| Working lights on boom support      | 2 x 170 W LED (2 x 13 500 lm)   |
| <b>Air and water system</b>         |   |
| Air mist flushing kit               | External air / water supply (incl. IP5)   |
| External air supply                 | IP5 air cleaner with connection   |
| End of hole flushing                | 2 x 80 liters receiver with IP5   |
| Water hose reel                     | THR5E + water hose, 45 mm (1 3/4"), 60 m  |
|                                     | 45 mm (1 3/4"), 60 m  |
| Water hose with hooks               |   |
| Water loss measurement system       |   |
| <b>Operator's safety cabin</b>      |   |
| Reduced tramming speed              | 3rd gear lockout  |
| <b>Fire suppression system</b>      |   |
| Manual or automatic system          | Ansul (TS2-460)   |
| Automatic system                    | Sandvik Eclipse™ (TS2-461)  |
| <b>Carrier</b>                      |   |
| *Diesel engine                      | B6.7, 168 kW, Tier 4F, Stage V  |
| Exhaust catalyzer                   | For Tier 3 engines  |
| Rod rack on carrier side            | 12 to 21 ft rods  |
| Power supply for MiniSSE            |   |
| Tramming cameras                    | Rear and side   |
| Wheel chocks and holders            | 2 pieces  |
| <b>Extra items</b>                  |   |
| Spare rock drill                    | RD535 or RD525  |
| Spare wheel assembly                | 14.00-24 28RL   |
| Special tools for rock drill        | Field tool set, complete tool set   |
| Tunnel laser set                    |   |
| Documentation                       | Extra manuals   |
| iSURE®                              | iSURE II Plus annual license (Advanced drill and blast design including round reports)                                  |
|                                     | iSURE III Premium annual license (MWD including pull out analyses)  |
|                                     | iSURE IV Pro annual license (Tunnel development KPI's)  |
| Package: Country specific options   | EUR package   |
| Package: Automation package         | Platinum level  |
| Package: Anti-freezing              | Block heater for engine, heater for hydraulic oil, water circuit flushing with air, antifreeze adding in water circuit. |

*\*) Replaces standard feature*

### AUTOMATION PACKAGE : GOLD (STANDARD)

|  |
|--|
| Boom electric parallelism  |
| Drill plan visualisation on-board  |
| Display of drill bit location vs. given drill plan   |
| iSURE I Basic (Drill plan design)**  |
| Drill rig suitable with various navigation methods   |
| Advanced MWD data collection (iSure option)  |
| DrillConnect mobile application : Connectivity through Knowledge box™ for easy data transfer to and from the rig |

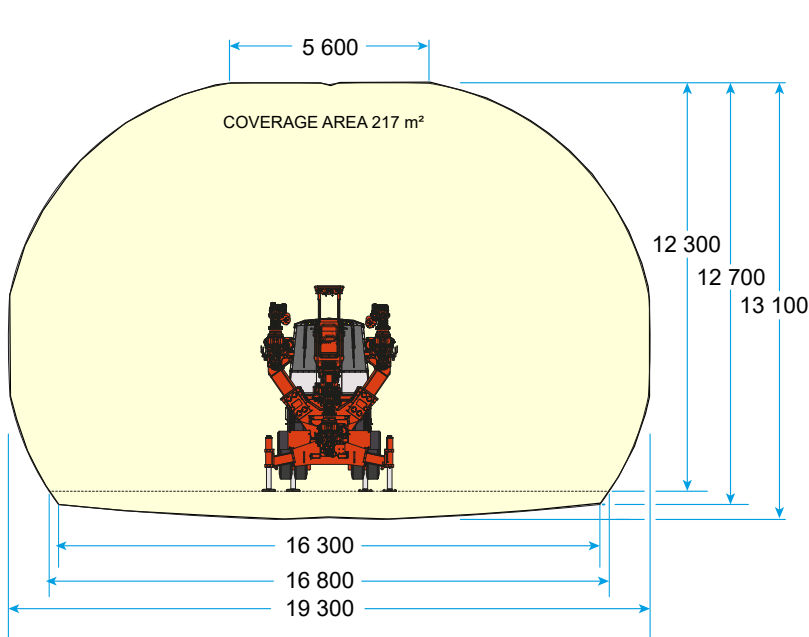
*\*\*) Licence for one year included*

### AUTOMATION PACKAGE : PLATINUM (OPTION)

|                                 |
|---------------------------------|
| Automation Gold package content |
| Semi-automatic face drilling    |
| Full automatic face drilling    |

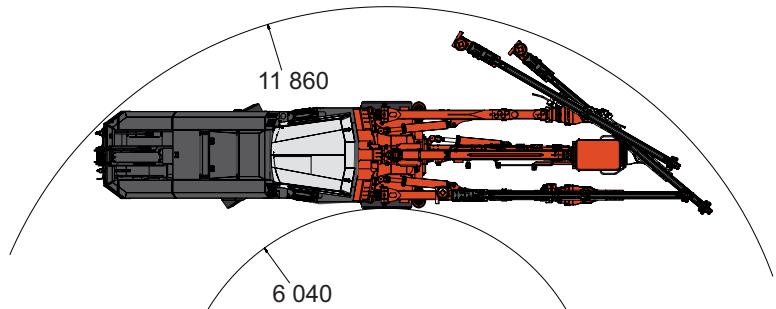
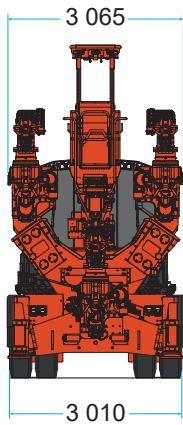
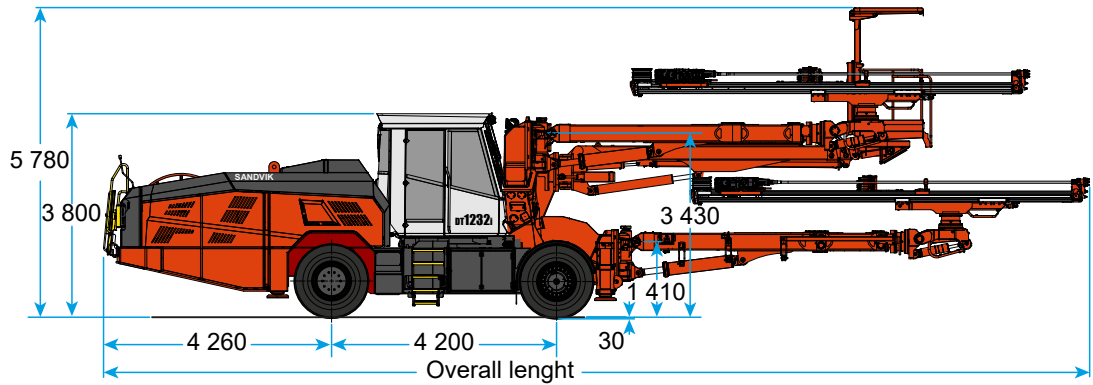
MAIN DIMENSIONS

The dimensions are indicative only - All dimensions in mm

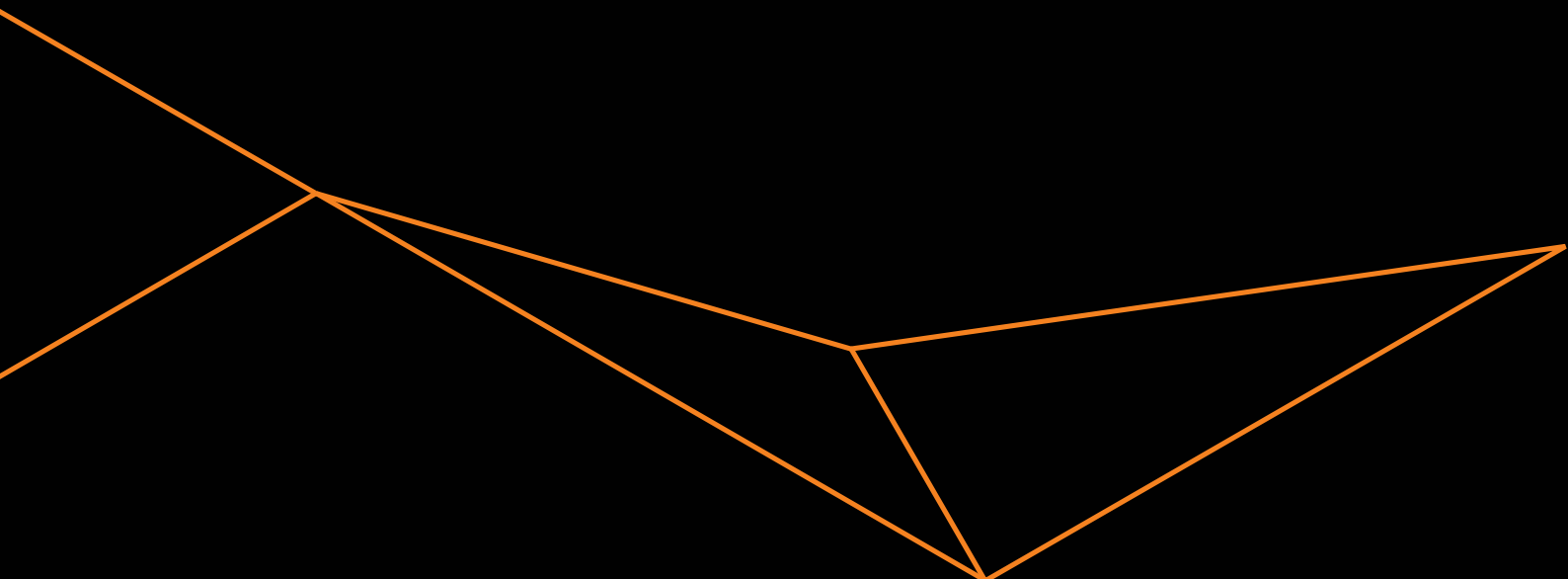


| Width (W)                   |   |
|-----------------------------|---|
| Front frame with 4 x wheels | 3 010 mm                                |
| Height (H)                  |   |
| Cabin with lifting system   | Min. 3 800 mm<br>Max. 4 800 mm          |
| Weight                      |   |
| Total weight                | 51 500 - 57 500 kg depending on options |

|                | TF535i-14' | TF535i-16' | TF535i-18' | TF535i-20' | TF535i-21' |
|----------------|------------|------------|------------|------------|------------|
| Feed length    | 5 940 mm   | 6 550 mm   | 7 160 mm   | 7 770 mm   | 8 075 mm   |
| Overall length | 18 560 mm  | 19 160 mm  | 19 600 mm  | 20 360 mm  | 20 560 mm  |



All dimensions in mm



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