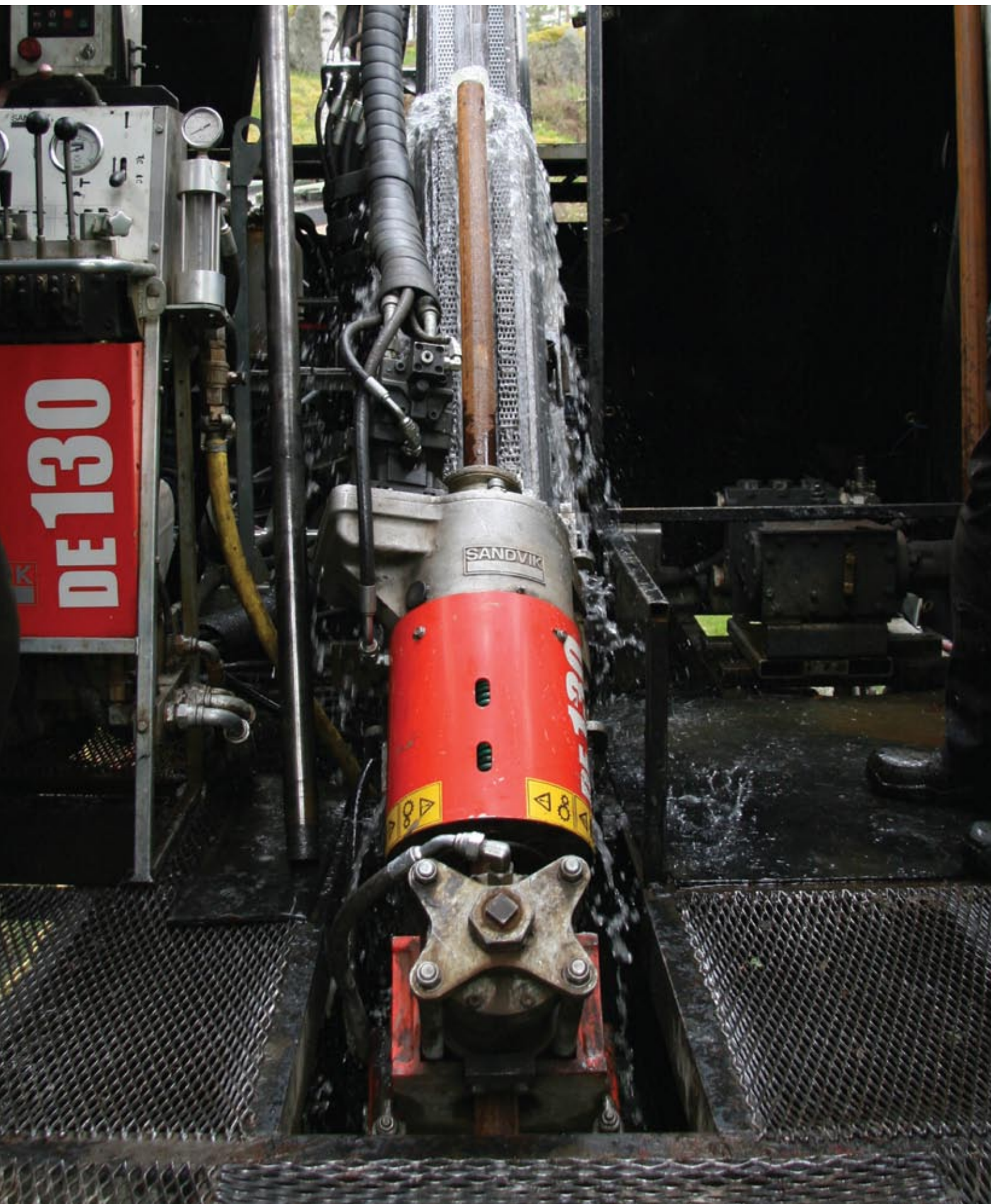


DE100 series compact core drills





Compact core drills with high flexibility

YEARS OF EXPERIENCE

Sandvik has brought together some of the industry's most outstanding expertise, products, techniques and equipment to provide a unique offering in the area of exploration drilling. Sandvik's DE100-series is the result of years of experience in the field. The DE100-series consists of four compact core drill rigs with modular design that can adapt to a range of different applications, both for underground and surface applications. Thanks to close cooperation with customers, we have a range of compact drills that meet all types of requirements regardless of the type of application.

FLEXIBLE TO THE APPLICATION

Sandvik's DE100-series can be found on every continent in a variety of applications such as diamond core drilling, dam reinforcement, coal and salt mine drilling and grouting drilling in hydro power projects. The DE110 is the smallest and designed for short holes up to 286 m (938 ft) with WL46 size rods. The DE130 with a lift capacity up to 1280 m (4200 ft) and DE140 with a lift capacity up to 1918 m (6293 ft) with WL56 size rods are designed for drilling deeper holes. At the top of the range we have our strongest and newest addition, the DE150, for holes up to 2112 m (6929 ft) with WL76 size rods. They can be delivered specially adapted for helicopter transportation in easily detachable modules or if requested, the modules are available for mounting on your own work platform. The compact design of the drill rigs enables them to move in tight spaces with minimum disturbance.

With strategically located Sandvik regional offices around the world to support you with spare parts and service, drilling can be carried out with a minimum of downtime.



DE100 series

product range

DE110

The DE110 is the smallest member of the family of fully hydraulic core drills. It has been designed as a lightweight portable drill for 46 mm (1 13/16") or A size grade control, exploration and grout-hole drilling for hole depth up to 286 m (938 ft). The DE110 is also well suited for rock or concrete sampling with max hole size 116 mm (4 1/2") to depths up to 30 m (100 ft). The compact design makes it ideal for short hole drilling in tight spaces.

- Lift capacity*: 286 m (938 ft) with WL46
- Feed length: 800 mm (31 1/2")
- Total length: 1680 mm (66")
- Feed force: 16,8 kN (3770 lbf)
- Pull force: 10,7 kN (2405 lbf)
- Feed rate, rod running max: 1,1 m/s (43 in/s)



DE140

The DE140 is a compact and powerful drill rig that has been designed to meet requirements for deeper and larger holes without compromising the size. DE140 is a fully hydraulically operated core drilling rig. The compact design from previous models has been maintained, at the same time as the lifting and feeding force have been increased significantly. This makes the DE140 very strong in relation to its size and an ideal core drilling rig for deep hole drilling in environments with limited space, both on surface and under ground.

- Lift capacity*: 1918 m (6293 ft) with WL56
- Feed length**: 1700 mm (5'7")
- Total length**: 3018 mm (10')
- Feed force: 92,2 kN (20 730 lbf)
- Pull force: 92,2 kN (20 730 lbf)
- Feed rate, rod running max: 0,6 m/s (24 in/s)

** Underground



DE130

The classic DE130 has been chosen by drilling contractors worldwide for its proven reliability and economical operation. This unit is truly versatile and over the years a number of re-designs, modifications, improvements and adaptations to various applications have taken place. This process goes on continuously in cooperation between supplier and users. The DE130 has proven itself in a number of field applications. It is the most reliable and economic drill in its class for the general drilling contractor or mine, in both surface and underground applications.

- Lift capacity*: 1280 m (4200 ft) with WL56
- Feed length**: 1700 mm (5'7")
- Total length**: 3065 mm (10'1")
- Feed force: 46,1 kN (10 350 lbf)
- Pull force: 61,5 kN (13 820 lbf)
- Feed rate, rod running max: 1,1 m/s (43 in/s)

** Underground



DE150

The most recent addition to the DE100-series is the DE150, a powerful drill rig with a push and pull capacity of 15 tonnes. The strong and powerful DE150 is easy to operate and maintain, and has a unique combination of size and capability. It has the highest push and pull capacity in relation to its weight and size and features a class leading drill speed and torque.

- Lift capacity*: 2112 m (6929 ft) with WL76
- Feed length: 1700 mm (5'7")
- Total length: 3120 mm (10'2")
- Feed force: 147 kN (33 000 lbf)
- Pull force: 147 kN (33 000 lbf)
- Feed rate, rod running max: 0,6 m/s (24 in/s)



*Lift capacity is based on feedback from field operatives and can be reasonably expected with vertical, water filled holes, by a well-trained drilling crew using high quality drilling tools. Sandvik cannot guarantee that these results will be achieved in all drilling conditions.

Modular design for higher productivity

The DE100 series is designed to meet even the hardest, most versatile demands for ultimate productivity in exploration applications, both in underground and in surface applications. The modular design allows high flexibility when it comes to the specific application. All models are built on the same principle and therefore also share many of the major components with each other, in particular the DE130, DE140 and DE150. Exploration drilling can be really tough, especially in remote areas with sub-zero temperatures and therefore it is important to be able to have equipment that can be trusted and easy to maintain. That's why we only use components that have been thoroughly tested and have a design that is characterized by ease of use and maintenance friendliness to minimize downtime.



1. Rotation unit

Speed is infinitely variable from zero to max rpm. Chuck is closed by spring action and opened hydraulically. Exchangeable rod guides and jaws for standard drill rods and casing. A high torque assembly is available for the N-head for cases where extra high torques are required. The rpm can be varied from 0 to 280 rpm giving a maximum torque of 1900 Nm (1400 lb ft).

2. Rod holder

The rod holder closes automatically by a gas accumulator and opens hydraulically. Rod holder and chuck work with inverted action which means that the rod holder opens when the chuck closes and vice versa. Four different rod holders are part of the Sandvik modular system. All rod holders open hydraulically.

3. Wireline mast

Wireline mast with rod support and sheave wheel for wireline rope. Available in standard or heavy-duty versions and in various lengths, both for underground and surface applications.

4. Feed boom

Standard version is made of very stiff and torsion-resistant steel or aluminium profile and is available in different stroke lengths. The feed boom features a hydraulic feed cylinder that gives the drill a very high push and pull capacity in relation to its size. The feed boom is mounted on the frame with hydraulic tilt cylinder and mechanical supports.

5. Mounting frame

Mounting frame for underground version is specially designed for easy set-up when fan drilling and has a full range adjustment from vertical down to vertical up.

6. Wireline hoist

There are several wireline hoist options with capacity up to 2000 m (6562 ft). All hoists work hydraulically and are operated from the control panel.

7. Control panel

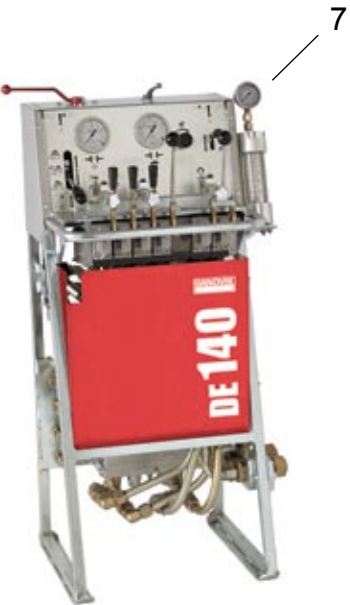
Central control of all drilling operations, including flush pump, wireline hoist and boom tilt. Control panel gauges for hydraulic system pressure, feeding force, water pressure and water flow.

Power unit

Depending on the application Sandvik offers diesel or electric power units with different capacities.

Flush pump

Sandvik flush pumps are mainly intended for core drilling use but can also be used for other applications. The pumps are prepared for either hydraulic drive or independent electric drive or diesel drive.



FAST ROD HANDLING FOR HIGH PRODUCTIVITY

- All models share automatic synchronized rod handling
 - Optimizes fast rod tripping
 - Improves drilling efficiency
- Rod holder and chuck work with inverted action
 - Closes by spring action and opens hydraulically
 - Guarantees that the grip is not dropped and valuable time is not lost
- Exchangeable rod guides and jaws for standard drill rods, casing and core barrels

DRILLING IN ANY DIRECTIONS

- Mounting frame with tilt cylinder
 - Allows drilling from vertical down to vertical up
 - Controlled from control panel
 - Supports and stabilizes the feed boom
 - Underground version designed for easy set-up when fan drilling
- Positioning is simplified by a mechanical feed boom positioner
 - Allowing a telescoping of 1-2 m (3-6') depending on the feed boom length

POWERFUL WITHOUT COMPROMISING SIZE AND WEIGHT

- Feed boom made of very stiff and torsion-resistant aluminium or steel profile
 - Reliability and durability
- Strong and powerful rotation units for different requirements
 - Max opening: N-head 77 mm (3") and H-head 103 mm (4 1/16")
 - Hydraulic motor: 60 cc, 80 cc or 160 cc
 - Heavy duty bearings for maximum reliability
 - High torque assembly available for N-head for cases where extra high torque is required
- Load sensing hydraulic system for directly proportional oil flow
 - Allows high efficiency
- Wide range of power units to meet different requirements for both underground and surface applications

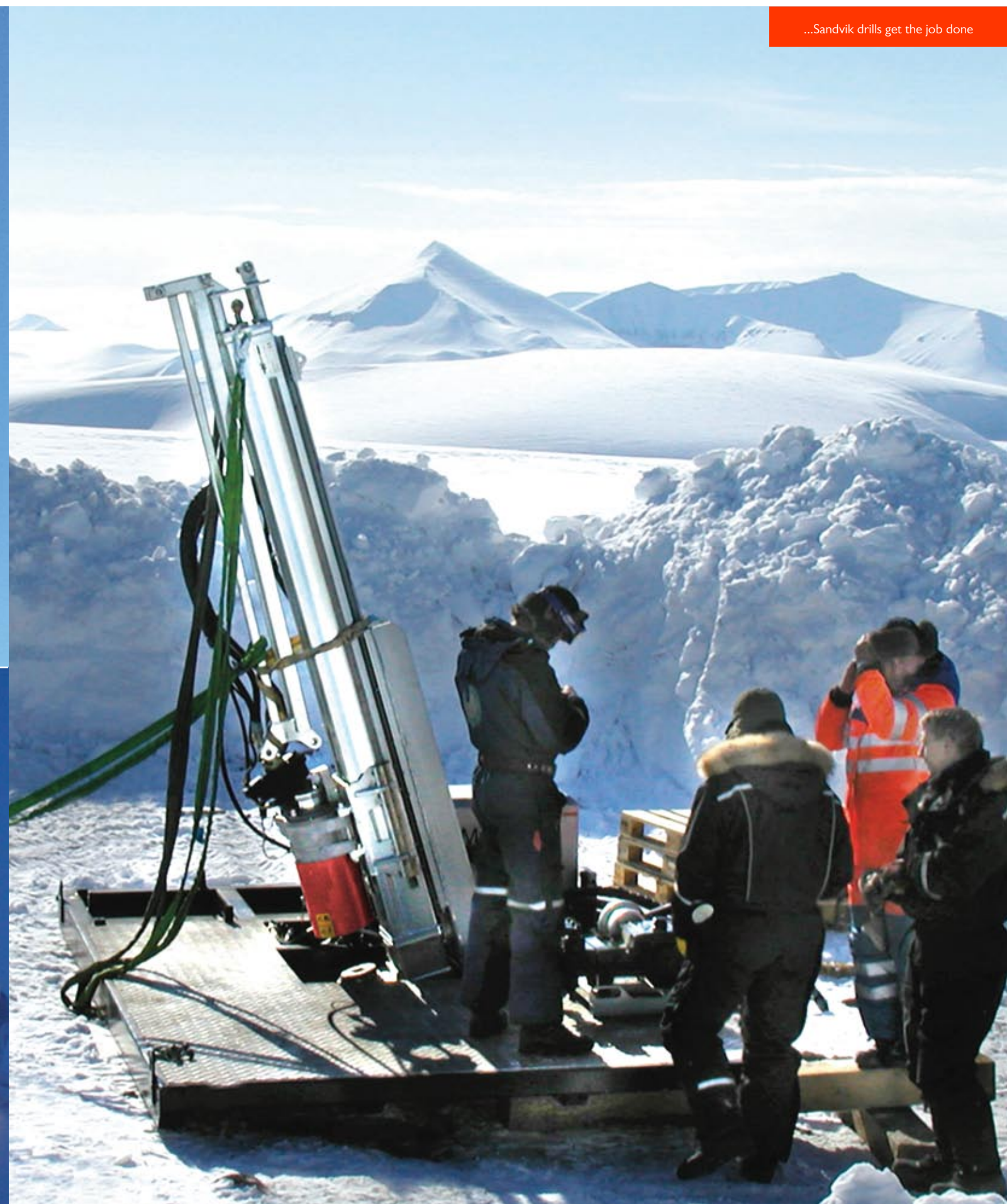
EASY TO MAINTAIN AND USE

- Central control of all drilling operations from the control panel
 - Operator has complete control of the drill rig
 - Control panel easy to use and understand
- Open and simple design with few major components
 - Easy to access components for maintenance work and replacement work

Whatever the challenge...



...Sandvik drills get the job done



...wherever you are...

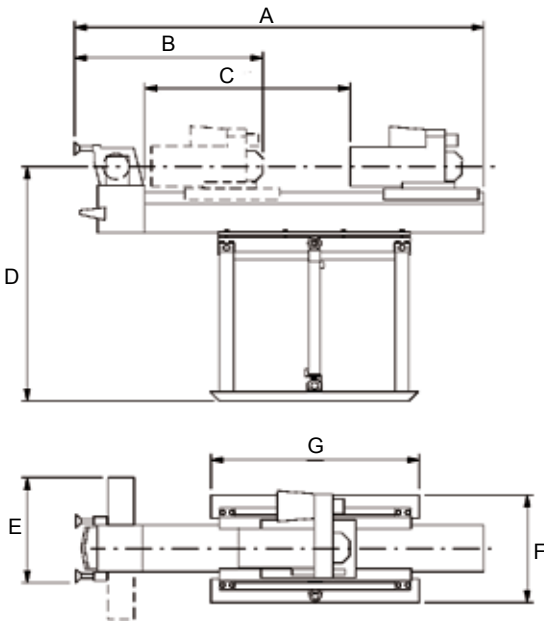


WEIGHTS AND DIMENSIONS

DEI10

Weights		
	kg	lb
Drill unit, incl. feed boom, rod holder and mounting frame	271	597
Control panel	40	88
Electric power unit, excl. oil	220	485
Diesel power unit, excl. oil	350	771
Hydraulic hoses	15	33

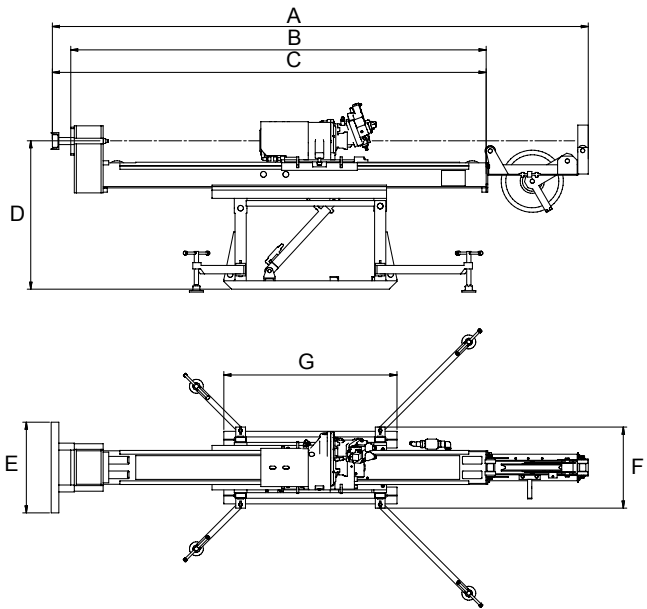
Dimensions		
Drill unit	mm	inch (approx)
A	1680	66
B	790	31
C	925	36
D	960	38
E	445	18
F	460	18
G	890	35



DEI30

Weights		
	kg	lb
Drill unit, incl. feed boom, rod holder, N-head rotation unit and wall bracket	510	1125
Drill unit, incl. feed boom, rod holder, H-head rotation unit and wall bracket	630	1390
Control panel	110	242
Electric power unit, excl. oil 55 kW (75 hp)	640	1410
Diesel power unit, excl. oil 92 kW (125 hp)	920	2080
Hydraulic hoses	80	176
Wireline mast	40	88
Wireline hoist, excl. wire rope, 800 m (2600 ft)	87	192
Wireline hoist, excl. wire rope, 1200 m (3900 ft)	107	236

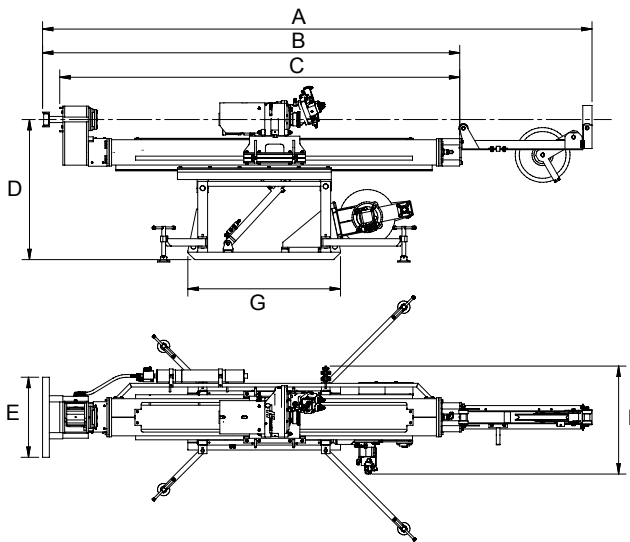
Underground					Surface	
Drill unit	mm	inch	mm	inch	mm	inch
Feed length	1700	67	900	36	2200	87
A	4065	160	3265	129	5565	219
B	2980	118	2180	86	3480	137
C	3065	121	2265	90	3565	140
D	1020	41	1020	41	1050	41
E	650	26	650	26	650	26
F	510	20				
G	1255	49				



DEI40

Weights		
	kg	lb
Drill unit, incl. feed boom, rod holder, N-head rotation unit and wall bracket	685	1480
Drill unit, incl. feed boom, rod holder, H-head rotation unit and wall bracket	847	1865
Control panel, standard	110	242
Control panel, MaxTorque	122	268
Electric power unit, excl. oil, 55 kW (75 hp)	640	1410
Electric power unit, excl. oil, 90 kW (120 hp)	1050	2350
Diesel power unit, excl. oil, 92 kW (125 hp)	920	2 026
Diesel power unit, excl. oil, 147 kW (200 hp)	1390	3058
Hydraulic hoses	80	176
Wireline mast	40	88
Wireline hoist, excl. wire rope, 1200 m (3900 ft)	107	236

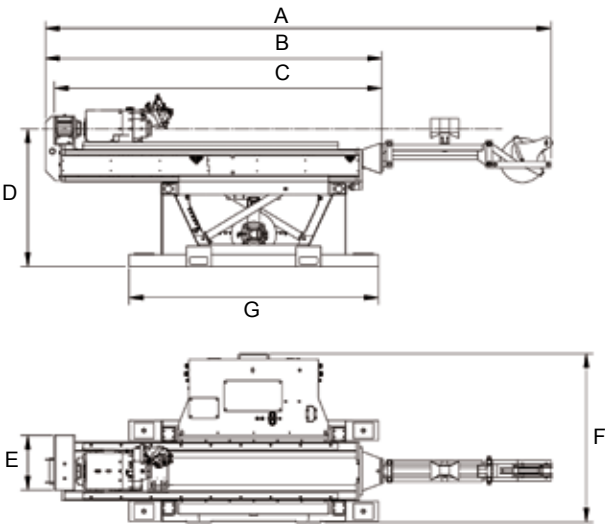
Dimensions					
Drill unit	mm	inch	Mounting frame	mm	inch
Feed length	1710	67			
A	4465	176	F	880	35
B	3390	133	G	1240	49
C	3250	128			
D	1140	45			
E	650	26			



DEI50

Weights		
	kg	lb
Drill unit, incl. feed boom, H-head roation unit, rod holder, mounting frame with tilt cylinder and support legs, hydraulic hoses and wireline hoist incl. 3000 mm (118") wireline mast	3200	6720
Control panel, MaxTorque	120	265
Electric power unit, excl. oil 110 kW, (150 hp)	1200	2555
Diesel power unit, excl. oil 168 kW (225 hp)	2400	5290
Hydraulic hoses	80	176
Wireline hoist 1200 m (3900 ft), excl. wire rope	107	236
Wireline hoist, excl. wire rope 2000 m (6562 ft)	465	1025

Dimensions					
Drill unit	mm	inch	Mounting frame	mm	inch
Feed length	1710	67			
A	5070	200	F	1695	67
B	3375	133	G	2500	98
C	3285	129			
D	1385	55			
E	550	22			



All dimensions and weights are approximate.
Please see technical specification for more details and options.

Sandvik is a high-technology engineering group with world-leading positions in selected areas – tools for metal working, advanced materials technology, and mining and construction. We are represented in 130 countries.

Sandvik Mining and Construction represents one third of the overall Sandvik Group and serves a broad range of customers in construction, mineral exploration, mining and bulk materials handling. Our construction expertise covers quarrying, tunneling, demolition and recycling, and other civil engineering applications. Our mining products and services support customers on the surface and under ground, in all mineral, coal and metal mining applications from exploration to ore transportation.

