

# SCX DE142

DESIGNED BY SANDVIK



## Compact Underground & Surface Core Drill TECHNICAL SPECIFICATION

The SCX DE142 is a compact and powerful drill rig designed with a high-power output to provide maximum rotation torque. A direct feed frame is provided with no chains to maintain a higher level of safety for operators.

Our DE142 retains the same high rotation torque as the previous DE140 MAX TORQUE model and features a feed and pull force of 9.4 t (20,730 lbf).

- ▶ Depth capacity of 830 m (2,730 ft) H size
- ▶ Feed force of 9.4 tonnes (20,730 lbf)
- ▶ Pull force of 9.4 tonnes (20,730 lbf)

SCX recommends using only SCX quality manufactured parts. SCX does not guarantee the consistency or quality of other manufacturers.



Version 1

*Image for illustration purpose only, please refer to the order specification for exact rig*



# SCX DE142

## Compact Underground & Surface Core Drill

### KEY FEATURES

- CE marked to meet European standards (Conformité Européenne)
- Rotating rod guard with interlock
- All hydraulic operation
- Automated clamping for optimized rod tripping
- 360 ° turn table attached to the rig base
- Dedicated control panel for all drilling operations
- Direct feed to rotation unit (No chains)
- Load sensing hydraulic system for optimized power efficiency
- Designed for easy set-up when fan drilling underground
- Direct feed push and pull of 9.4 tonnes
- Rod holder closes automatically by gas accumulator, and opens hydraulically
- Mechanical feed boom lineal adjustment allowing the feed boom to contact ground
- Torque control for rotation

### OPTIONS

- Rod holder / clamp 150 mm
- Extendable wireline mast

# STANDARD FEATURES



## ROTATING ROD GUARD

Rotating rod guard supplied	Yes
Feed boom fully enclosed	Yes
Interlock to stop rotation on open	Yes

## ROTATION UNIT H SIZE 1100 RPM

	Metric	Imperial
Hollow Spindle - ID	103 mm	4 in
Torque @ 50 RPM	1,014 Nm	748 lbf ft
Torque @ 1,100 RPM	510 Nm	376 lbf ft
Rotation speed	0 to 1,100 RPM	
Number of jaws	12	
Rod sizes	B, N, H	

N and H rod guides and jaws are supplied for the Rotation Unit and Rod Clamp.

## ROD HOLDER / CLAMP

	Metric	Imperial
Number of jaws	2	
Rod sizes	B, N, H	
Maximum opening (no jaws or guides)	136 mm	5.35 in

## CONTROL PANEL

Central control of all drilling operations, including flush pump, wireline hoist and boom tilt. Gauges for:

- Hydraulic system pressure
- Feeding force
- Water pressure
- Water flow

## FEED BOOM

	Metric	Imperial
Feed force	92.2 kN / 9.4 t	20,730 lbf
Pull force	92.2 kN / 9.4 t	20,730 lbf
Feed length (stroke)	1,710 mm	5 ft 7 in
Total length	3,018 mm	10 ft
Feed rate, rod running max	0.6 m/s	24 in/s

The Feed boom is made using a torsion resistant steel profile. Adjustable drilling range up to 180° using a hydraulic tilt cylinder. Lineal feed boom adjustment using hydraulics.

## WATER PUMP

	Metric	Imperial
Type	Hydraulic drive Bean1122	
Maximum flow	00 l/min	26 US gpm
Maximum pressure	69 Bar	1000 psi

## POWER UNIT - ELECTRIC 90 kW (120 HP)

	Metric	Imperial
Power	90 kW	120 hp
Maximum working pressure	250 bar	3,625 psi
Maximum oil flow	270 l/min	71 US gpm
Tank volume (oil)	200 l	53 US gal
Cooler	Water	

- Oil level indicator
- Filter indicator

Other Information

- Thermometer
- Hand pump for oil fill
- Pressure and return filter



## DEPTH CAPACITY\*

	Vertical Down		Vertical Up	
	Metric	Imperial	Metric	Imperial
TK56	1,918 m	6,293 ft	959 m	3,146 ft
B	1,592 m	5,223 ft	796 m	2,612 ft
TK66	1,843 m	6,047 ft	922 m	3,023 ft
N	1,323 m	4,341 ft	662 m	2,170 ft
TK76	1,220 m	4,003 ft	610 m	2,001 ft
H	830 m	2730 ft	415 m	1,362 ft

\*Calculations are based on pullout force in a clean, vertical, fluid-filled hole. In some cases the depth capacity may exceed the capacity of the down hole tooling. SCX does not guarantee that these results will be achieved in all drilling conditions.

## WIRESLINE HOIST

	Metric	Imperial
Drum capacity	1,200 m x 5 mm	3,937 ft x 0.2 in
Pulling force, empty drum	12,4 kN	2,700 lbf
Speed full drum	2.7 m/s	9 ft/s
Wireline rope spooler	Yes	

## WIRESLINE MAST

	Metric	Imperial
Length	1 m	3.28 ft

Wireline mast includes a rod support and wireline sheave wheel assembly.

Refer to OPTIONS for different mast lengths.

## ROTATING ROD GUARD

- Mounting frame, 180° tilt
- Rear supports, including mounting brackets
- Wall mounting bracket
- Fork lift "pockets"
- Safety bracket for water hose
- 360° turn table

## WEIGHT

	Metric	Imperial
Drill unit (Including feed boom, rod holder, rotation unit (N), and wall bracket)	695 kg	1,530 lb
Drill unit (Including feed boom, rod holder, rotation unit (H), and wall bracket)	847 kg	1,865 lb
Mounting frame (Including tilt cylinder and support legs)	225 kg	496 lb
Control panel	122 kg	296 lb
Power unit - electric standard	2,250 kg	4,960 lb
Hydraulic hoses	80 kg	176 lb
Wireline hoist - 1,200 m (Excluding rope)	107 kg	236 lb

**Note: Weights and dimensions are approximate only.**

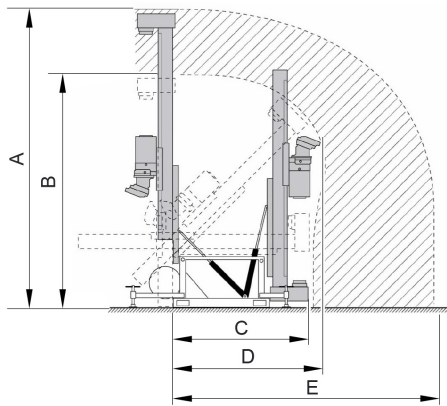
# DIMENSIONS



## OPERATING FOOTPRINT

	Metric	Imperial
A	4,250 mm	167 in
B	3,500 mm	138 in
C	1,900 mm	75 in
D	2,100 mm	83 in
E	3,750 mm	148 in

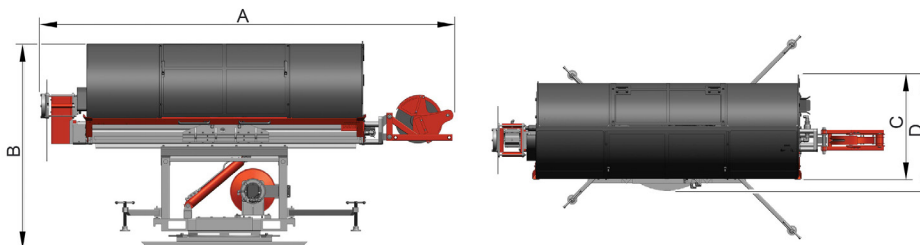
Note: Drawing shows working range for SCX DE142 without the wireline mast mounted. With the mast and sheave wheel mounted the measurements should be adjusted.



Note: Weights and dimensions are approximate only.

## DRILL UNIT - WITHOUT WL MAST

	Metric	Imperial
A	4,078 mm	-
B	2,006 mm	-
C	1,079 mm	-
D	1,195 mm	-



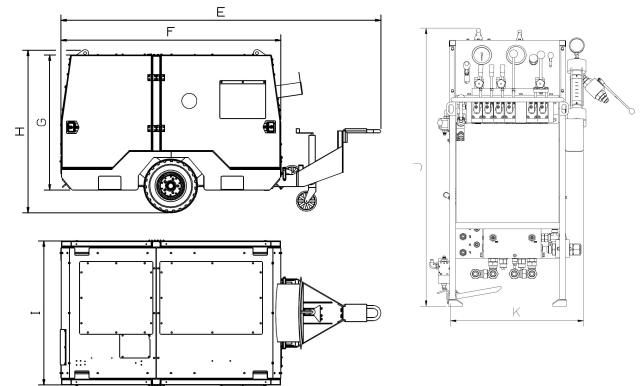
## POWER UNIT

90 KW - ELECTRIC	Metric	Imperial
E	3,150 mm	124 in
F	2,160 mm	85 in
G	1,330 mm	52 in
H	1,600 mm	63 in
I	1,420 mm	56 in

## CONTROL PANEL

	Metric	Imperial
J	1,220 mm	48 in
K	580 mm	23 in
Depth	560 mm	22 in

Note: Weights and dimensions are approximate only.



# OPTIONS



## ROD HOLDER / CLAMP - 150 MM

	Metric	Imperial
Number of jaws		2
Rod sizes	36 - 150 mm	1.42 - 5.91 in
Jaw travel	87 mm	3.43 in
Maximum opening (no jaws or guides)	150 mm	5.91 in

Clamp and open hydraulically. Exchangeable rod guide and jaws for standard drill rods casings and core barrels.

## WIRELINER MAST

	Metric	Imperial
Length	0.5 m	1.64 ft
Length	1 m	3.28 ft
Length	2 m	6.56 ft

Wireline mast includes a rod support and wireline sheave wheel assembly.

The Wireline Mast is extendable using different section lengths.

## DIESEL POWER UNIT

	Model
Diesel Power Unit Tier 3	SCX DA601
Diesel Power Unit Stage 5 / Tier 4	SCX DA602



## SCX TOOLS AND CONSUMABLES

SCX has a complete range of down hole tools and consumables to support exploration rigs for start up and continued operation, SCX can offer competitive tooling packages with the sale of drill rigs.

### TOOLS AVAILABLE

- Underground core barrel systems
- Surface core barrel systems
- Core barrel and inner tube consumables. Full range available
- Overshot core retrieval systems
- Drill bits, reamers, PCD bits, casing shoes etc. Full range available
- Diamond rods and casing all sizes available
- Drill muds and additives
- Wedging tools
- Casing cutters
- Water swivels and hoisting plugs
- Full range of adaptor subs available

## SCX AFTERMARKET

SCX has excellent aftermarket service and support with a global footprint.

### AFTERMARKET AVAILABLE

- All spare parts are available through SCX global warehouses
- Spare parts packages can be supplied with new rigs
- SCX can tailor service contracts to suit customer requirements

## SCX GEOLOGICAL CONSUMABLES

SCX has a comprehensive range of over seven hundred geological products available for global distribution.

### SCX GEOLOGICAL CONSUMABLES

- Metal core trays
- Plastic core trays
- Core tray racking systems
- Automatic core saws and blades
- Manual core saws and blades
- Core handling systems
- Pipe wipers
- Orientation down hole tools
- Si-foam A and B
- Marking consumables
- Flagging tape
- Survey stakes
- Magnification tools
- Geo picks and hammers
- Compass and clinometers
- Chip sample boxes
- Calico bags
- Plastic bags
- Press seal bags
- Wetstrength bags
- Certified test sieves
- Over 700 products total