

Spraymec 8100 VC



Spraymec 8100 VC is an electro-hydraulic self-propelled mobile concrete sprayer which optimizes concrete spraying in tunnel projects with variable tunnel cross-sections. It provides efficient spraying from one set up in tunnels of up to 10.3 m in height and 16 m in width. The maximum vertical spraying reach is 14 m. The compact design enables the mobile sprayer to perform spraying in tunnels with cross-sections from 15-140 m².

SALES & MARKETING INFORMATION

Spraymec 8100 VC

- > **Serial number:** EN132
- > **Manufactured:** 2013
- > **Location:** Elko, NV United States

- > **Available:** October, 2024
- > **Machine condition grade:** Grade 3

EQUIPPED WITH:

- > Deutz TCD 2011 L04 Tier3 - 75 kW
- > Tethered control with 2 joysticks
- > Flowrox peristaltic dosing pump

Greasing System

- > Greasing system for concrete pump (Lincoln)

Additional Info

- FOPS Yes
- ROPS Yes

Instruction Manuals

- Language EN
- Quantity Digital

Spare Part Manuals

- Language EN
- Quantity Digital

SALES & MARKETING INFORMATION

TECHNICAL SPECIFICATION

SPRAYBOOM SB 508

Automatic functions:

- Vertical and horizontal stabilization
- Nozzle rotation
- Telescopic stroke (upper boom)

Upper boom telescope equipped with self lubricating bronze slide pieces and slide rollers

The speed of the movements can be adjusted from the cabin display

All the movements are pressure compensated and have a proportional output

Boom coverage:

- Lateral 16 m
- Vertical max 14.0 m
- Vertical normal 10.3 m

CONCRETE PUMP

Spray pump NSP 40

Low-wear and low-maintenance double piston pump:

- Pumping capacity theoretical 3 – 30m³/h
- Pumping cylinder diameter 200 mm
- Cylinder stroke 920 mm
- Pumping pressure Max. 51 bar
- Hydraulic pressure Max. 250 bar

High pumping pressure enables the conveying of stiff concrete. The pump is able to pump up to max. aggregate size of 16 mm (including crushed) and all types of fibres (max. length 60 mm) in the mix.

Sophisticated control system (hydraulic and electric systems) provides low pulsation concrete flow.

Hydraulically driven agitator.

COMPRESSOR

Electrically operated screw compressor

FAD 12 m³ at 7 bar

Electric motor 75 kW

Air flow to nozzle adjustable in three steps (8 m², 10 m³ and max. flow)

REMOTE CONTROL SYSTEM

Operator's cable-connected control box with 2 joysticks.

Following features can be adjusted or switched on/ off from the control box:

- Accelerator dosing rate
- Accelerator pump on/off
- Concrete pumping speed
- Concrete pump on/off/reverse
- Air flow to nozzle on/off and air rate in three steps
- Nozzle quick wash on/ off
- Wall washing on/off
- Automatic horizontal levelling on/ off
- Automatic second telescope zoom in/out on/off
- Nozzle rotation on/off

ACCELERATOR SYSTEM

Hydraulically driven Mono pump

Max. pumping pressure 12 bar

Dosing rate 0.5... 16 L/min (30 - 960 L/h)

Accelerator flow fully synchronized with the concrete output

Suction line diameter 2" (50 mm)

Pressure line diameter 1" (25 mm)

Movable operator display

Possibility of using 2 x 1000 L intermediate bulk containers (IBC)

CONCRETE LINE

Concrete line diameter 76 mm

CONTROL SYSTEM

Integrated, seamless NorSmart control and diagnostic system.

NorSmart Controls:

- Spray boom
- Concrete pump
- Accelerator dosing system
- Carrier functions
- Safety requirements
- Fault diagnostics
- Data logging

DRIVER'S COMPARTMENT

Open 1-man canopy. FOPS/ROPS approved

Suspended driver's seat

Seat with retractable (75 mm wide) lap seat belt

The driver's compartment with driving controls and pedals, including multi-informational colour display

WATER REEL

Manually operated reel

- Hose length 30 m
- Hose size 3/4" (19 mm)

HIGH PRESSURE WATER WASHER

Hydraulically operated pressure washer with hose reel:

- Max. water pressure 180 bar
- Max. water flow 30 L/min
- Hose length 30 m

ENGINE

Liquid cooled turbo-charged Deutz TCD 2011 L4, 74.9 kW/2600 rpm, TIER 3 approved

EXHAUST SYSTEM

Catalytic exhaust gas purifier and muffler

SALES & MARKETING INFORMATION

TECHNICAL SPECIFICATION

TRANSMISSION

Hydrostatic 4-wheel transmission
 Pump 78 cm³
 Motor 110 cm³
 Separate oil tank 90 L stainless steel
 Return oil filtration 10 µm
 Oil level and return filter contamination indication

AXLES

Planetary type
 Dana 602/212, 212 hy
 Boom end axle fixed
 Rear end axle oscillation +/- 10° with automatic oscillation lock

TYRES

10.00 – 20 EM 23

PERFORMANCE

Max. tractive force 62 kN
 Max. speed (horizontal tunnel) 15 km/h
 Performance curve 100018270

BRAKES

Service brake: hydraulically powered two-circuit oil-immersed multi-disc brakes in both axles
 Safety/Parking brake: spring-activated, hydraulically released, fail-safe-type brake. Brake test possibility in cabin

STEERING

Four-wheel steering as standard
 Orbitrol type
 Including crabwalk

FUEL TANK

Capacity 85 L. Stainless steel

HYDRAULIC SYSTEM

Electro-hydraulic power pack 55 kW/ 50 Hz / 3000 rpm
 Variable displacement piston pump systems with following inputs:

- 115 L/min for concrete pump (piston type)
- 110 L/min for boom (piston type)
- 30 L/min for s-tube change (piston type)
- 24 L/min for agitator and dosing system (gear type)

Hydraulic oil tank capacity 220 L. Stainless steel
 Oil cooler for concrete and boom circuit
 Return oil filtration 10 µm
 Oil level and return filter contamination indication

24 VDC ELECTRICAL SYSTEM

Exposed components are min. IP 65 standard
 Battery 2 x 115 Ah
 Alternator 55 A
 Wire harness (self-extinguishing) with tinned wires and watertight conduits
 LED driving lights:

- Engine end, 2 pcs
- Rear end, 2 pcs

Rotating beacon; amber
 LED parking and brake lights

HIGH VOLTAGE ELECTRICS

400 V, 50 Hz. Cable type 3 x 95 mm² + 3 x 16 mm²
 Cable length 100 m
 See options for other available systems
 Soft start system for compressor

CABLE REEL

Power supply for the electrical functions
 Max. cable diameter/length 3 x 95 mm² + ground / 100 m
 Hydraulically driven
 Cable in/out reeling function from the canopy and near the reel

WORKING LIGHTS

24 VDC LED lights

- 8 pcs in the SB 508 Boom
- 2 pcs on canopy roof

GREASING SYSTEM

Centralized grease fittings for:

- Carrier
- Concrete pump
- Sprayboom

OTHER

12 kg hand-held fire extinguisher
 Standard symbol labels
 Basic tool set

- Cleaning plug
- Washing ball
- Hitting tool for nozzle
- Claw coupling
- Hose clamp
- Rubber hose 3/4" 4 m
- Carabiner
- Wrench for spraymec nozzles
- Sledgehammer 800 g
- Nozzle tip d45 mm plastic
- Nozzle tip d45 boron steel
- Cone for concrete piston assembly
- Special bolt for concrete piston assembly

SALES & MARKETING INFORMATION

Optional Equipment

CONCRETE PUMP

Casting pumping:

Upgrade of max. theoretical concrete pumping capacity up to 40m³/h

Comes with electro hydraulic power pack 55 kW / 50 Hz / 1500 rpm with following outputs:

- 155 L/min for concrete pump (piston type)
- 85 L/min for boom (piston type)
- 30 L/min for s-tube change (piston type)
- 24 L/min for agitator and dosing system (gear type)

Concrete line diameter 125 mm

REMOTE CONTROL SYSTEM

Radio control with 2 joysticks with cable support

Radio control with 4 joysticks with cable support

Radio controls are equipped with the same features as the cable remote

HIGH VOLTAGE ELECTRICAL SYSTEM

690 V, 50 Hz. Cable type 3 x 50 mm² + 3 x 10 mm²

Cable length 150 m

1000 V, 50 Hz. Cable type 3 x 35 mm² + 3 x 6 mm²

Cable length 150 m

With 690 V and 1000 V electrical systems, it is possible to use cables longer than 150 m. In these cases, cable length and size must be checked case by case

440 V, 60 Hz. Cable type 3 x 95 mm² + 3 x 16 mm²

Cable length 100 m

Soft start system for compressor

Electro-hydraulic power pack 55 kW / 60 Hz / 1800 rpm with following outputs:

- 115 L/min for concrete pump (piston type)
- 85 L/min for boom (piston type)
- 30 L/min for s-tube change (piston type)
- 24 L/min for agitator and dosing system (gear type)

EXHAUST SYSTEM

Particle filler (replaces catalytic exhaust gas purifier and muffler)

OTHER

Hydraulically operated water reel:

- Hose length 50 m
- Hose size 1" (25 mm)

Must be used with the wall washing system

Washing lights, 1 unit:

- Rotating beacon; red
- Rotating beacon; blue

Additional Equipment

HIGH VOLTAGE ELECTRICAL SYSTEM

Soft start system for compressor, 690 V / 50 Hz

FOR CONCRETE PUMP

Emptying of concrete pump with diesel engine

ACCELERATOR SYSTEM

IBC container 1000 L, 1 or 2 pcs

Heating element kit for IBC container:

- Easily exchangeable jacket-type heating element
- 2 circuits each 1000 W, 240 VAC
- -5°C to 40°C capillary thermostat per circuit
- Includes separate insulator cover part for container (hole for the filling gap and mixer)
- Power supply is required for heating and mixing kits if used during operation

Accelerator mixing kit for IBC container:

- Electrically-driven mixing device
- Electric motor 0.37 kW 240 VAC
- Power supply is required for heating and mixing kits if used during operation

Power supply for heating and mixing kits:

- 6.3 kVA 230 V transformer capable of transforming voltages from 400 V to 690 V (covers voltages of 400, 440, 575, 660, 690 V)

Power supply for heating and mixing kits: 1000V

- 6 pcs 230 V sockets
- Allows heating and mixing kits be used during operation

CONTROL SYSTEM

Temperature and air pressure measuring kit:

- Concrete temperature
- Additive temperature
- Ambient temperature
- Nozzle air pressure

Temperature measuring and recording enables the concrete spraying conditions to be monitored

FORM OIL SYSTEM

Air pressure-driven system with hose reel:

- Tank capacity 40 L
- Hose length 30 m
- Working pressure 7 bar

FOR WALL AND MACHINE WASHING

Hydraulically operated pressure washer:

- Max. water pressure 180 bar
- Max. water flow 90 L/min
- Can only be used when power pack is connected to the electrical mains

When using this equipment, the vehicle washing is also carried out by this washer. The washing power will automatically adjust the correct level.

Hydraulically driven water reel must be selected.

SALES & MARKETING INFORMATION

Additional equipment

HOT CLIMATE KIT

Additional cooler for compressor internal oil system
Recommended for ambient temperature from +30°C, up to max. +45°C

OIL CONDITION MONITORING

Hydraulic oil diagnostic sensor
Boom and concrete pump hydraulic oil contamination monitoring and moisture % RH indicator
Gives alarm to NorSmart if the setting limits are exceeded

OIL FILTRATION

Bypass filter kit
For concrete and boom oil circuit:

- 0.5 µm filtration, extremely clean oil
- Also absorbs the water from the oil
- Longer lifetime for the hydraulic components
- Reduces cost of ownership

FIRE SUPPRESSION SYSTEM

Fogmaker: manually actuated
Fogmaker: automatically actuated
Ansul: manually actuated
Ansul: automatically actuated

GREASING SYSTEM

Automatic greasing system (Lincoln) for the concrete pump
Automatic greasing system (Lincoln) for the carrier and spray boom

OTHER

Extra hand-held fire extinguisher (12 kg)
Toolbox and maintenance tools
2 wheel chocks with brackets
Reversing camera
400 L Stainless steel water tank
(When water tank is selected, only one 1000 L accelerator container can be used)
Large tool and storage box
Place for tools and some spare parts
(Only one 1000 L accelerator can be used for used when this extra equipment is selected)
Spare wheel
Text labels in: Fin/Pol/GB/Swe/Rus/Nor/Ger/Fra/Spa/Ita

Services

SPARE PARTS

Spare parts package A: Available for 3000 m³ of pumped concrete*. Include periodical service, most common wearing parts and most critical safety parts.
Spare parts package B: Available for 6000 m³ of pumped concrete*. Include periodical service, most common wearing parts and most critical safety parts.
*Recommendations are based on average consumption – can vary a lot depending on used shotcrete and work site conditions.

TRAINING SERVICES

Available before delivery, at start up and after delivery
Product training:
Operation and maintenance
NorSmart
Foundation of electrics, hydraulics and mechanics
Audit
Process training:
Concrete spraying
Charging
Process audit

AUDIT SERVICES

To improve performance of the machines
To improve the performance of your processes
To help improve the quality of maintenance operations

SERVICE CONTRACTS

Spare parts supply programmes
Scheduled inspection programmes
Supervision programmes
Periodic maintenance programmes
Machine usage programmes

LINK ONE

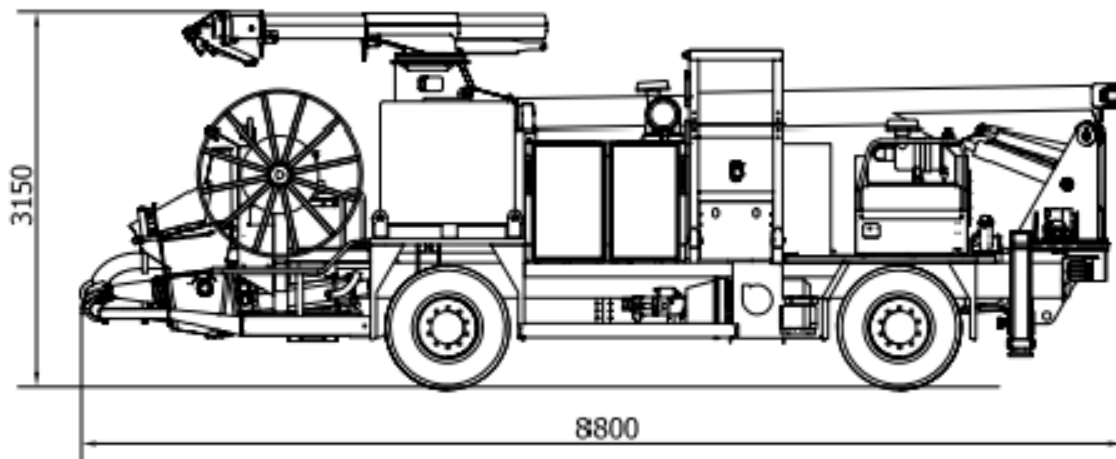
Link One electronic spare parts manuals

WARRANTY SERVICES

Extended warranty

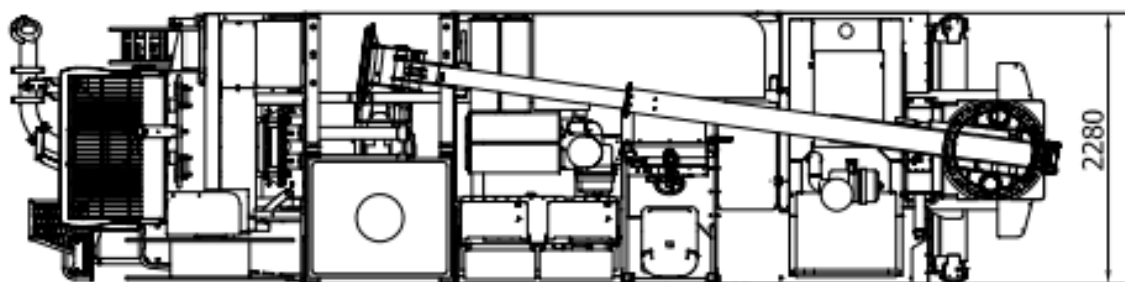
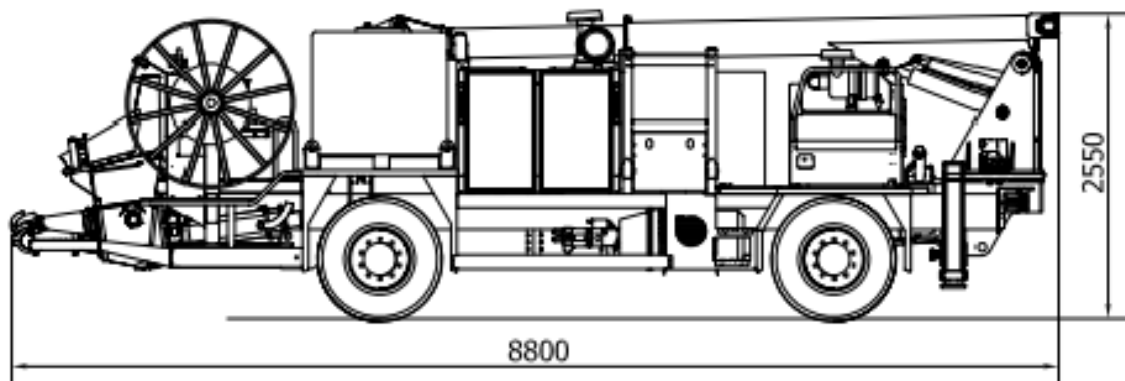
SALES & MARKETING INFORMATION

Dimensions



SIDE VIEW 1

Basic machine. Transportation and driving dimensions, boom turned on the vehicle. Vehicle width 2500 mm

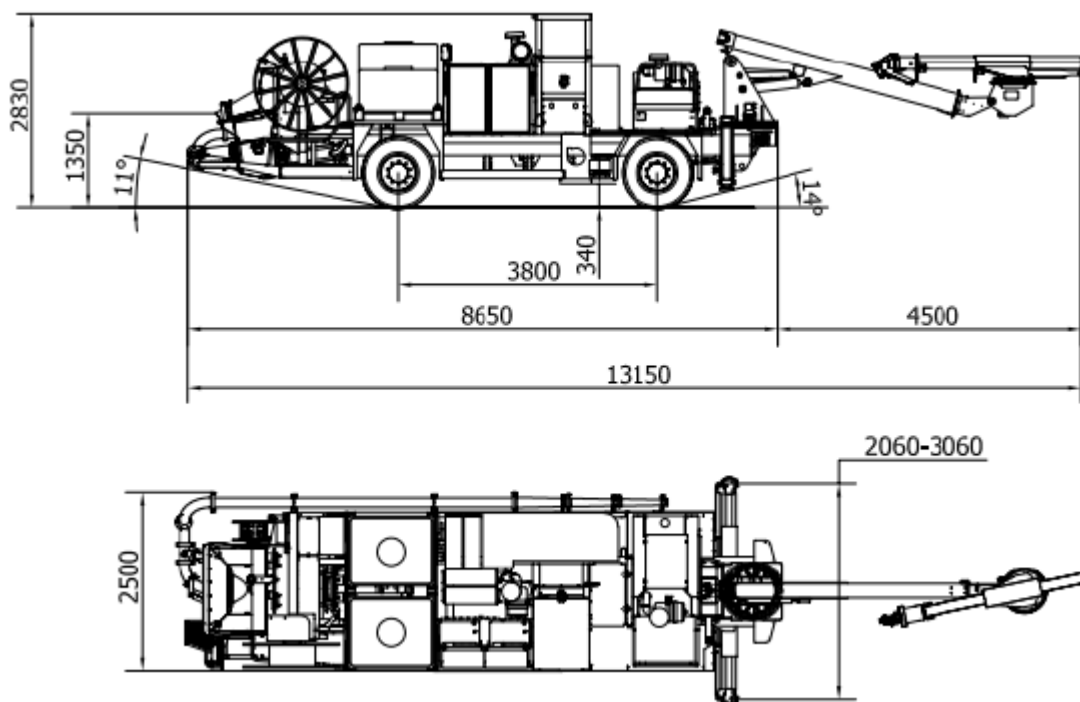


SIDE AND OVERVIEW 2

Basic machine. Transportation dimensions for container transport. Upper part of the cabin, concrete line, ladders and upper part of the boom must be removed

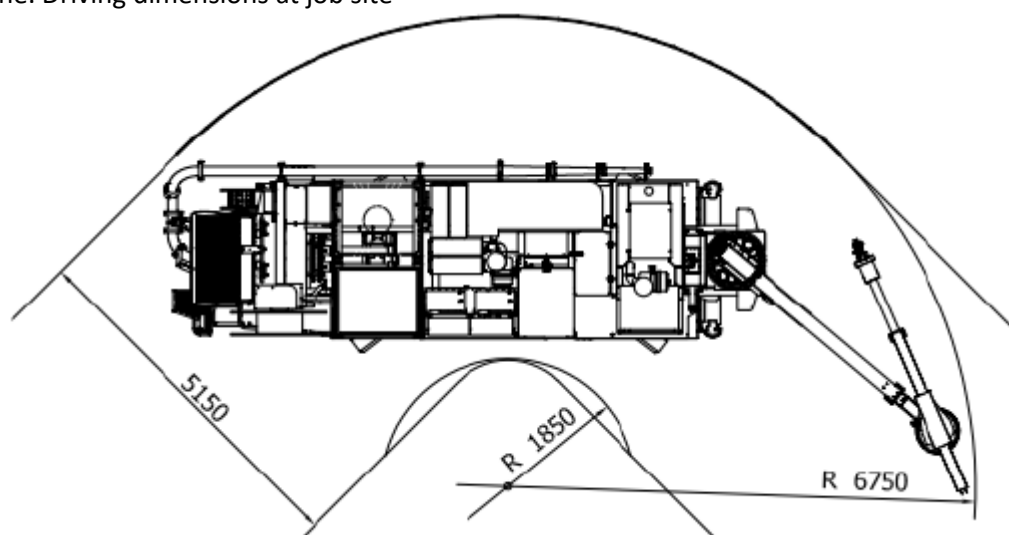
SALES & MARKETING INFORMATION

Dimensions



SIDE AND OVERVIEW 3

Basic machine. Driving dimensions at job site



Turning Radius

Dimensions

Length	13150 mm
Width	2500 mm
Height	2830 mm
Wheel base	3800 mm
Ground clearance	340 mm

Turning Radius

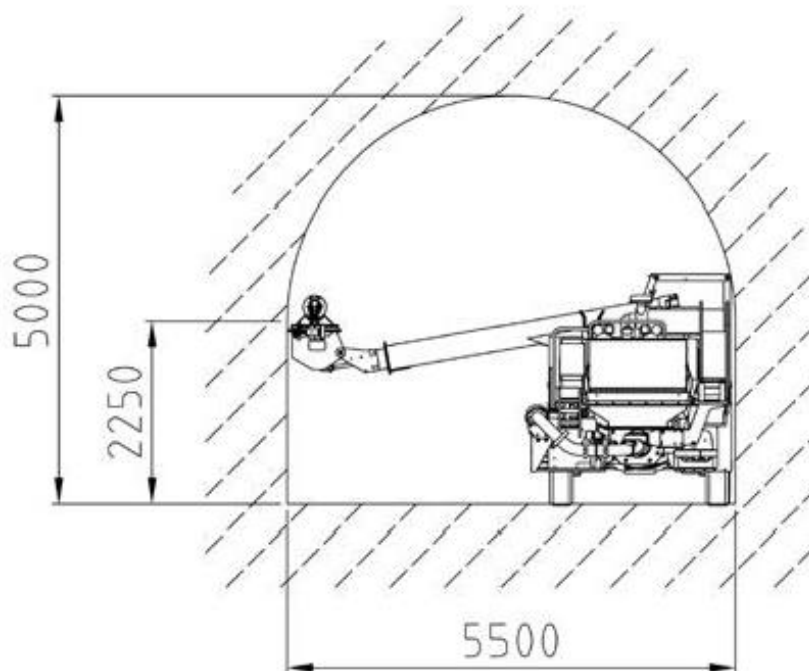
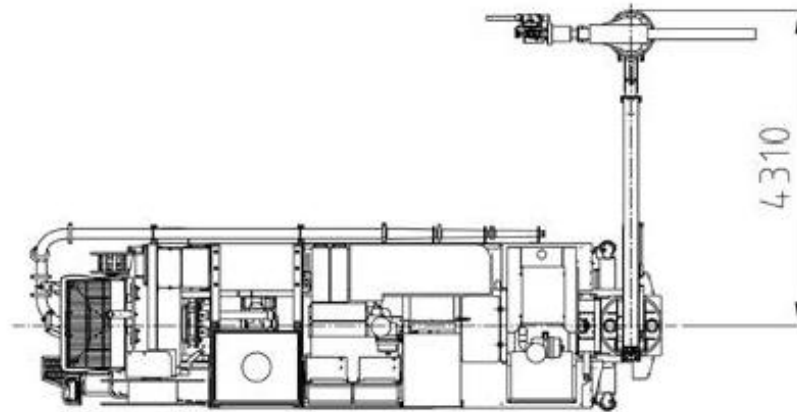
Outer	6750 mm
Inner	1850 mm

Weight

Operating	14 500 kg
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SALES & MARKETING INFORMATION

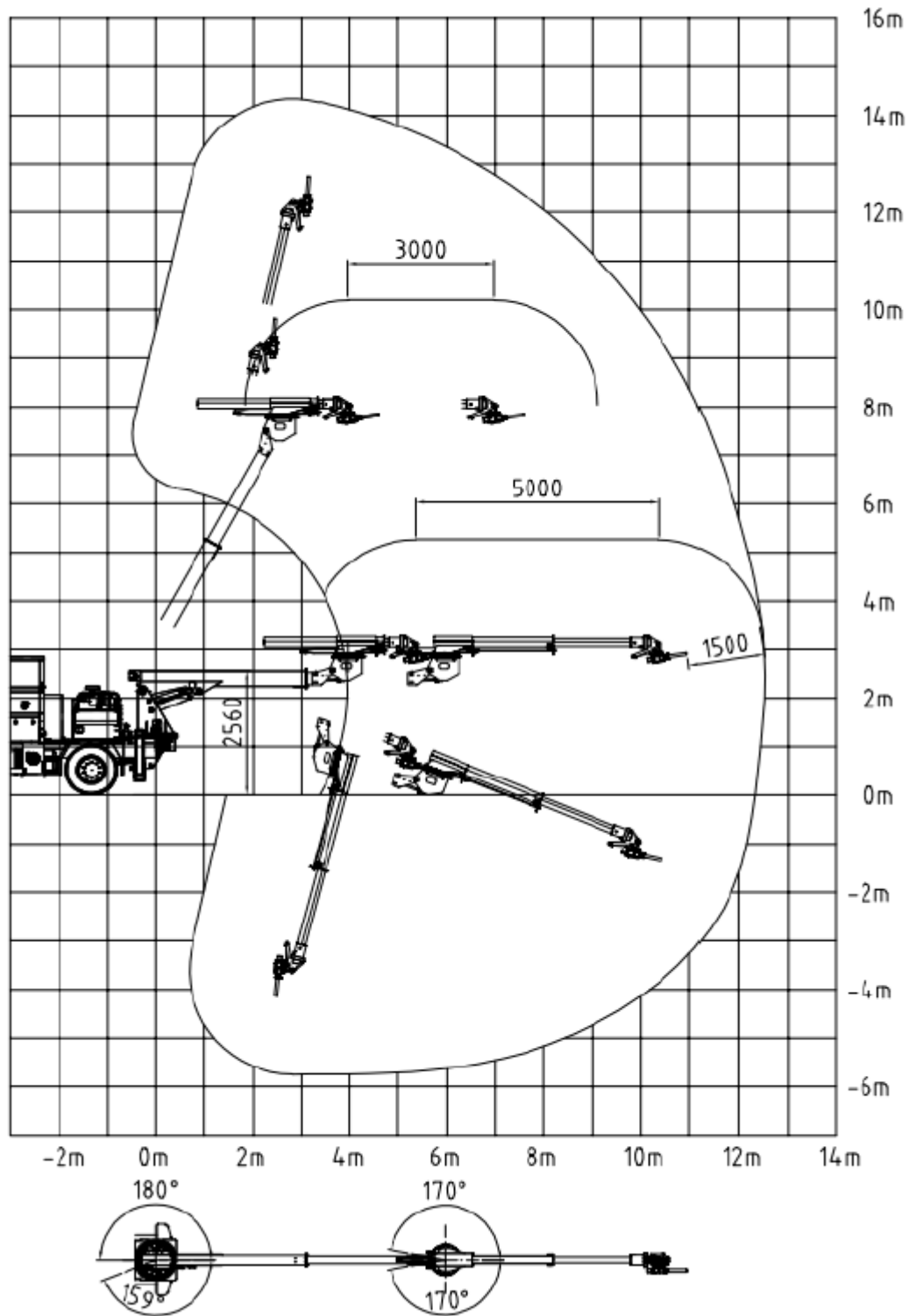
Dimensions



FRONT AND TOP VIEW

Basic machine. Required space to unfold boom from transport position to working position

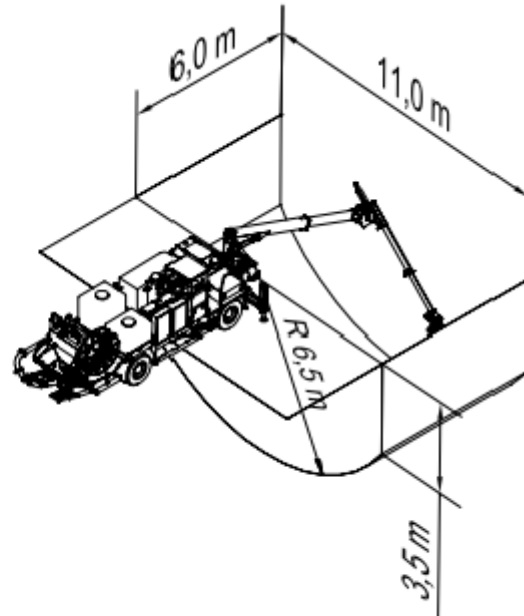
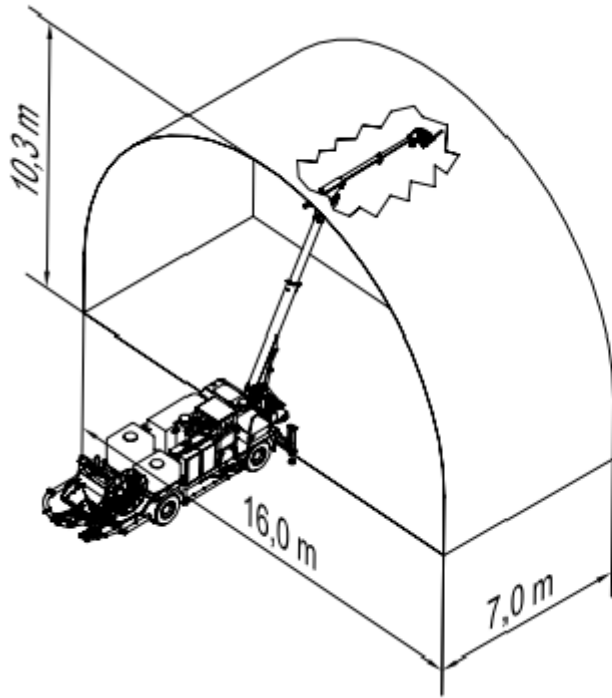
SALES & MARKETING INFORMATION



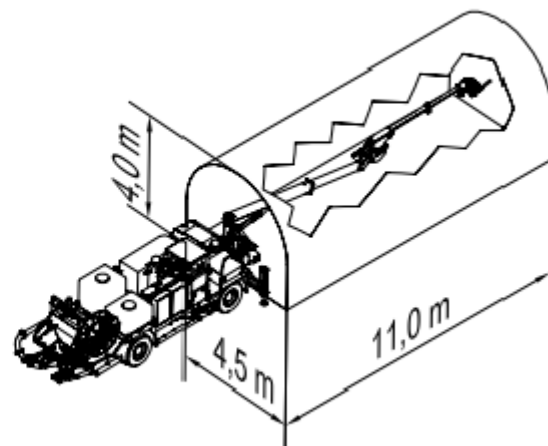
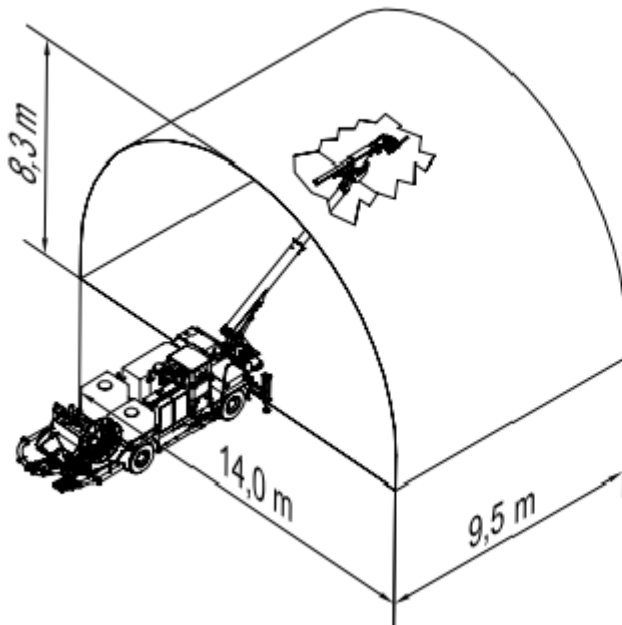
COVERAGE AREA OF SPRAY BOOM SB 508

SALES & MARKETING INFORMATION

Max. reach

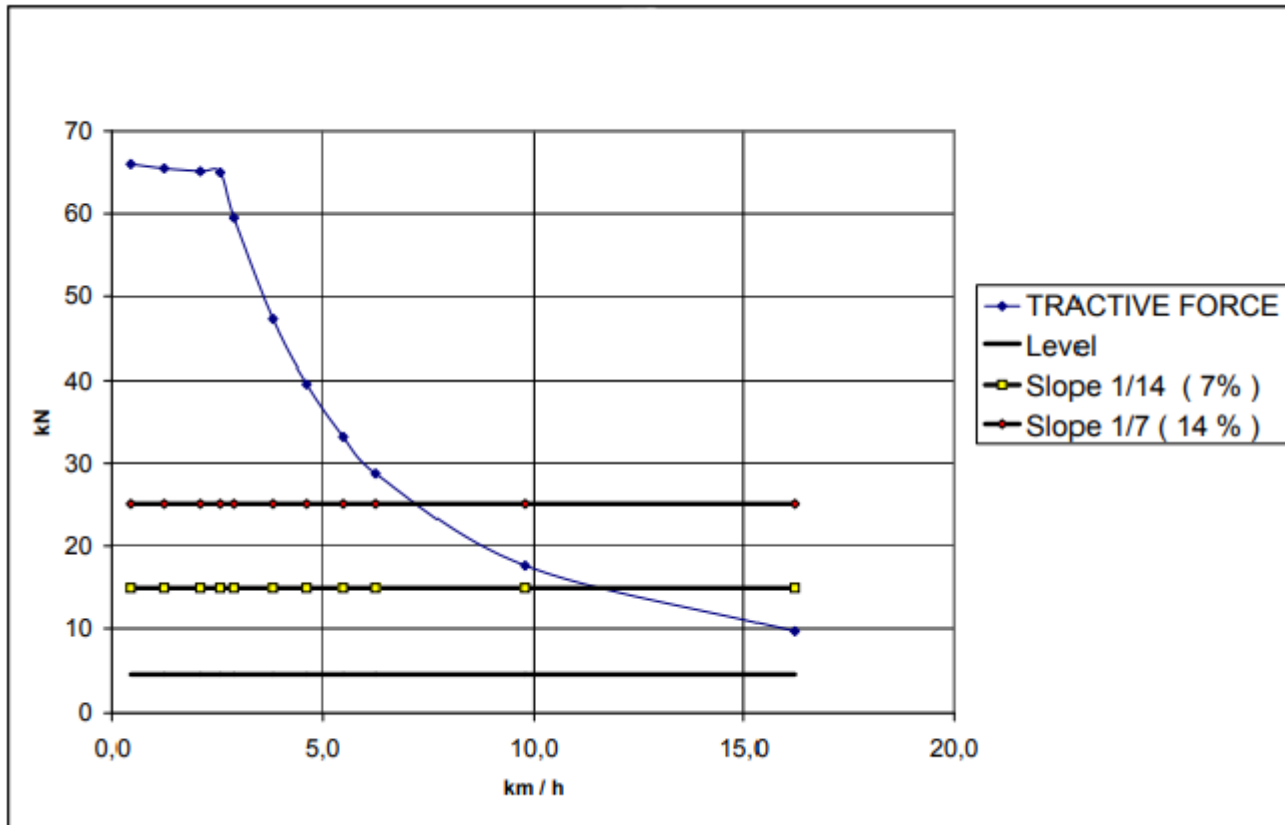


Min. section



SALES & MARKETING INFORMATION

Tractive force



DEUTZ TCD 2011 L4 74.9 kW WITHOUT ACCELERATOR CONTAINER
Performance curve 100018270