

AUSTRALIA



Equipment includes options and extra equipment.

Features

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.

The Spraymec 8100 VC is designed for high performance sprayed concrete applications and the use of alkali-free accelerators. It features the latest state-of-the-art control system of the spraying process, the NorSmart. The NorSmart concrete sprayer control system provides efficient, productive and high-quality concrete spraying with functions like:

- Low-pulsation concrete spraying and pumping
- Accurate and reliable accelerator dosing (accelerator dosing integrated into concrete output)
- Accurate and fast spray boom and nozzle movements and positioning
- Real-time control and diagnostics of the spraying process including optional kit for accelerator, concrete and ambient temperature control
- Logging of all spraying process-related data and USB data transfer
- Comprehensive vehicle fault diagnostics

The Normet concrete spraying pump NSP 40 has a theoretical maximum pumping capacity of 40 m³/h when the casting option is selected. The standard pumping capacity for spraying operations is 30 m³/h. The concrete pipe support arm at the forepart of the concrete pipeline makes cleaning of the concrete line easy and fast after each shift. The work can now be completely carried out by one operator as the strong mechanical arm makes the presence of an assistant unnecessary. The upper part of the concrete hopper can be turned away for easy service of the concrete cylinders.

Spraymec 8100 VC has an onboard compressor with a capacity of 10 m³/min for efficient and high quality sprayed concrete application. Four-wheel drive and four-wheel steering makes the Spraymec 8100 VC easy to manoeuvre in demanding driving conditions and limited tunnel spaces.

The innovative layout of the Spraymec 8100 VC features genuinely easy access to all service points on the machine. With the new layout 1 x 1000 litre accelerator tank, a 400 litre water tank and a large tool and storage box or alternatively 2 x 1000 litre accelerator tanks together with other options can easily be placed on the vehicle.

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Technical specification

SPRAYBOOM SB 508 D

Automatic functions:

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

Upper boom telescope protected with heavy duty wear resistant cover

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 - 30 m³/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 10 m³ at 7 bar

Electric motor 55 kW

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

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

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Technical specification

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 outputs:

- 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

1000 V, 50 Hz. Cable type 241.1
Cable length 150 m

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 800g
- Nozzle tip d45mm plastic
- Nozzle tip d45 boron steel
- cone for concrete piston assembly
- special bolt for concrete piston assembly

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Optional equipment

CONCRETE PUMP

Casting pumping:

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

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

When choosing this option, standard cable remote control is replaced with radio control

ACCELERATOR SYSTEM

Normet LPP-D Peristaltic additive dosing pump

CONCRETE LINE

Concrete line diameter 125 mm

COMPRESSOR

Electrically operated screw compressor

FAD 12 m³ at 7 bar

Electric motor 75 kW

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

EXHAUST SYSTEM

Particle filter (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

Warning lights, 1 unit:

- Rotating beacon; red
- Rotating beacon; blue

Additional equipment

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

Standard cable remote control included with additional radio remote control.

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

ROCK WALL WASHING SYSTEM

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 to the correct level.

Hydraulically driven water reel must be selected

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Additional equipment

HOT CLIMATE KIT

Additional cooler for compressor internal oil system
Recommended for ambient temperatures 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 SYSTEM

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

AFFF Fire suppression system

GREASING SYSTEM

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

OTHER

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 when this extra equipment is selected)
Extra hand-held fire extinguisher (12 kg)
Toolbox and maintenance tools
2 wheel chocks with brackets
Reversing camera
Spare wheel
Text labels in:GB

LTC 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

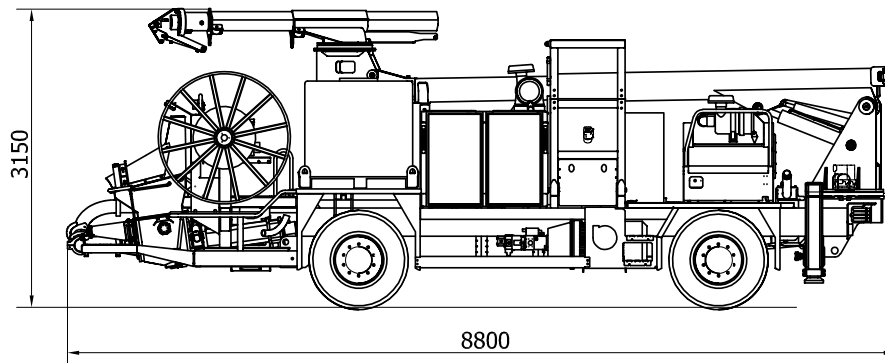
LINK ONE

Link One electronic spare part manuals

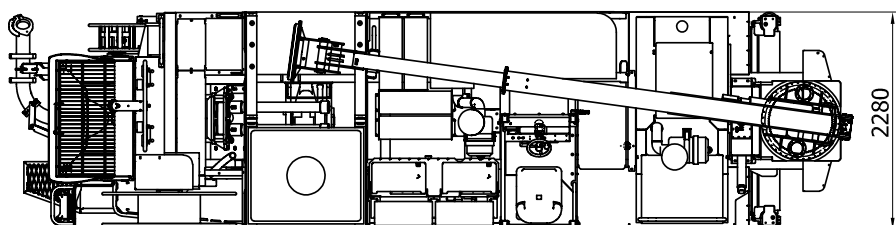
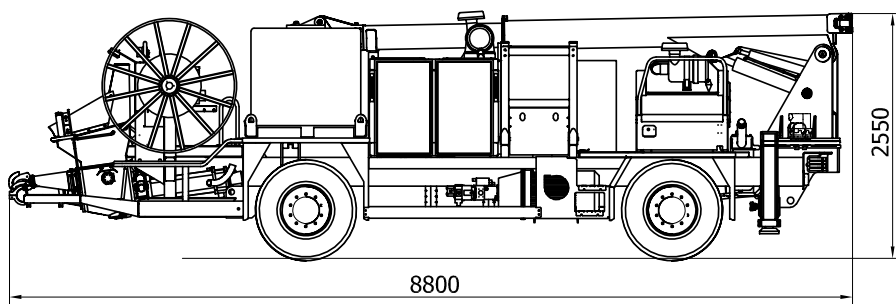
WARRANTY SERVICES

Extended warranty

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Dimensions**SIDE VIEW 1**

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

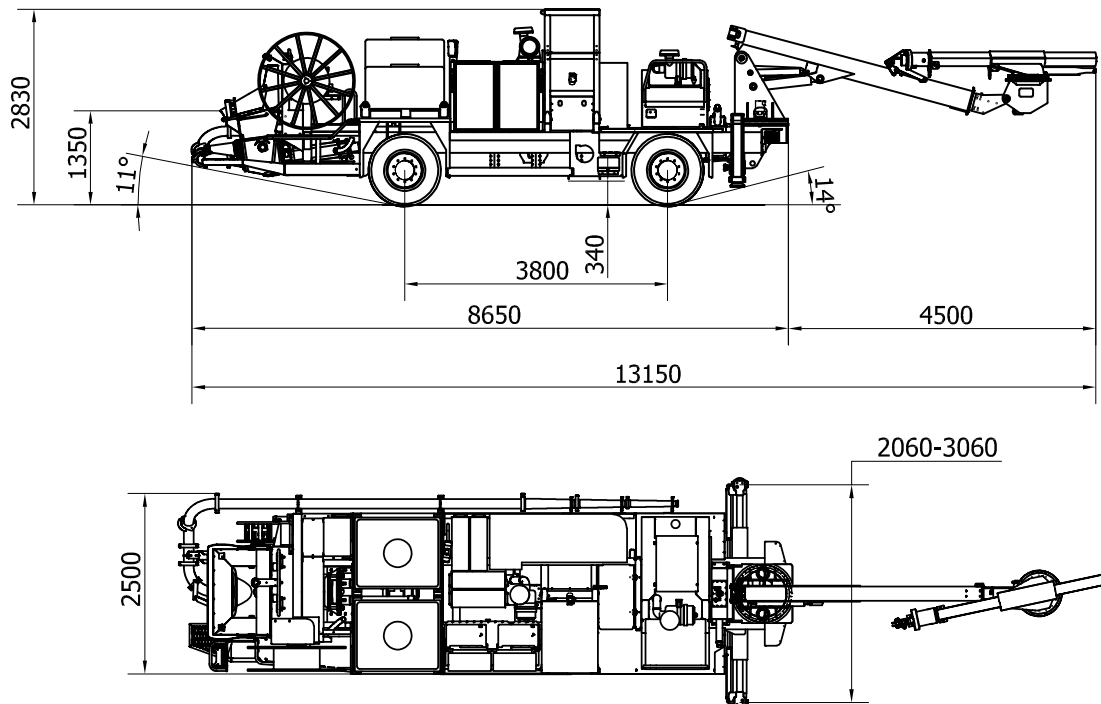
**SIDE AND OVERVIEW 2**

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

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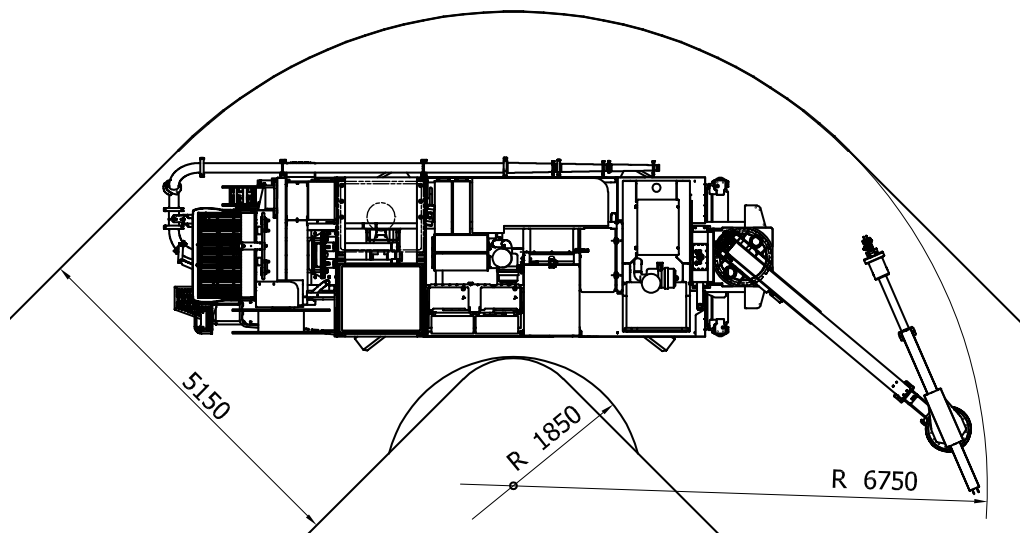
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Dimensions



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

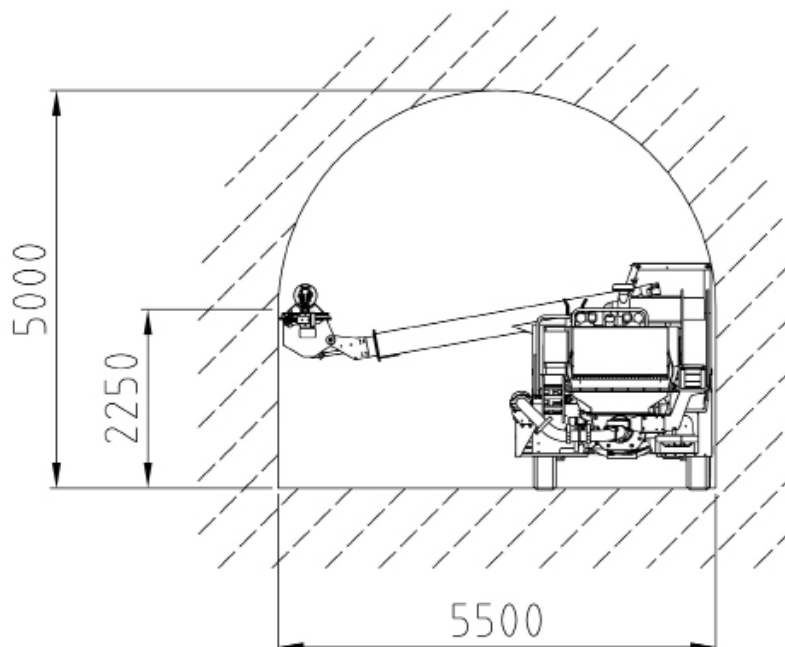
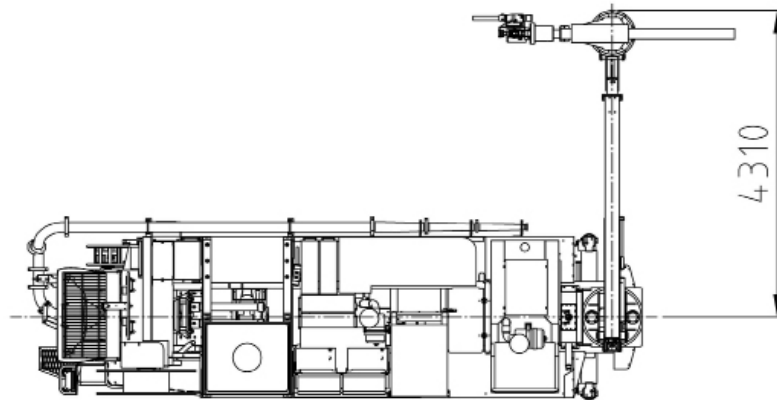
Outer	6750 mm
Inner	1850 mm

WEIGHT

Operating	14 500 kg
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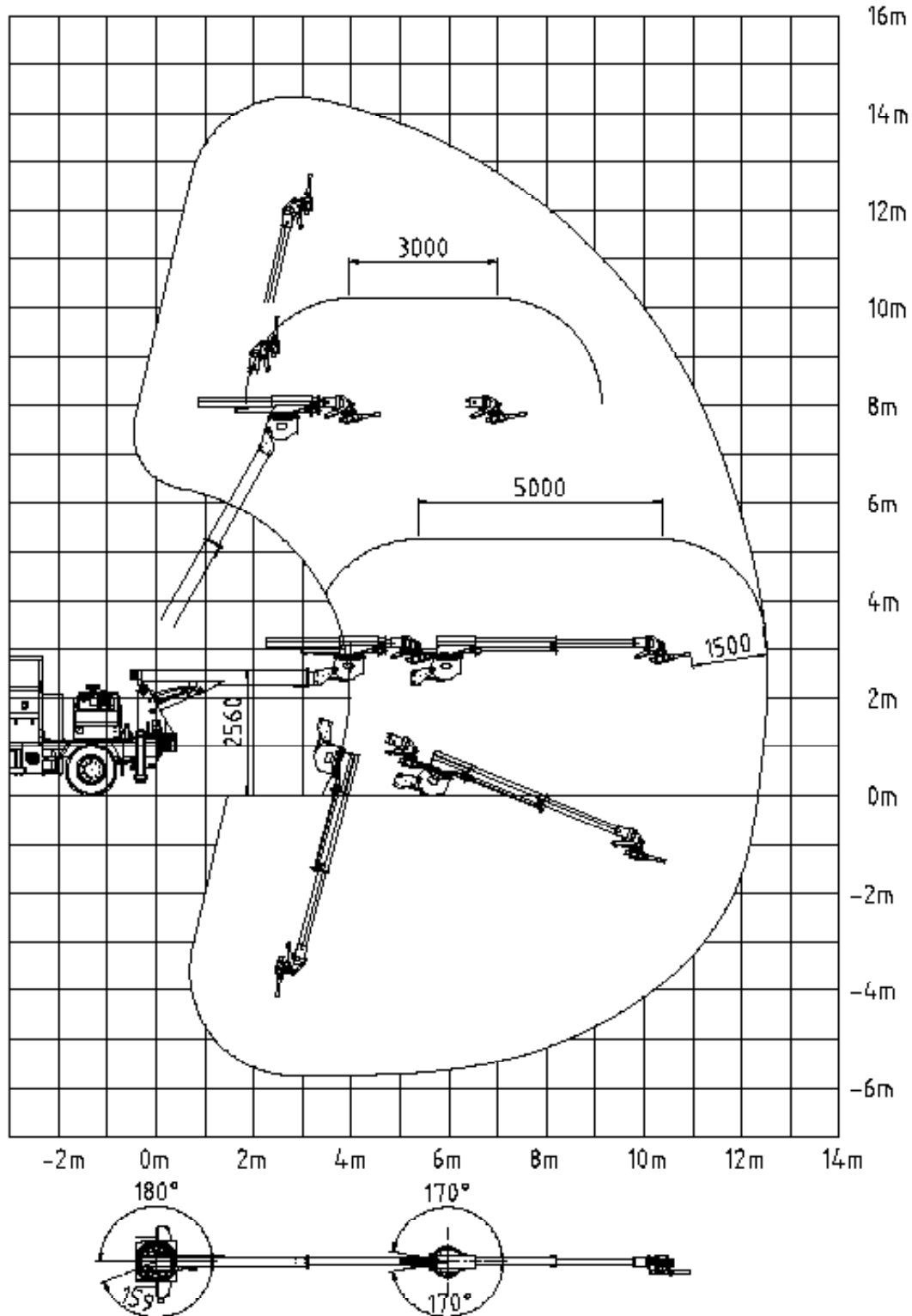
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Dimensions**FRONT AND TOP VIEW**

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

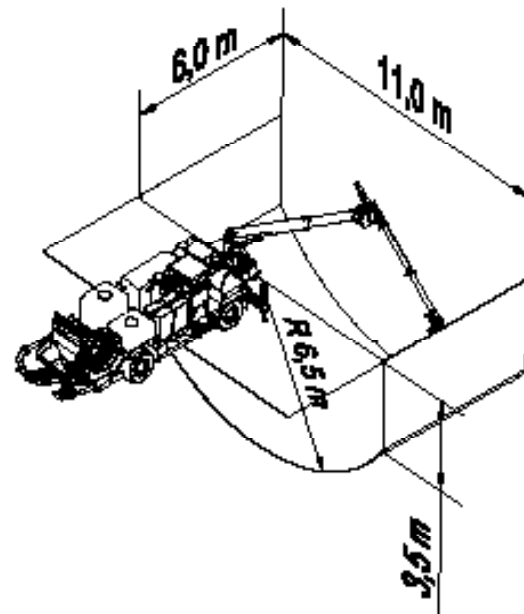
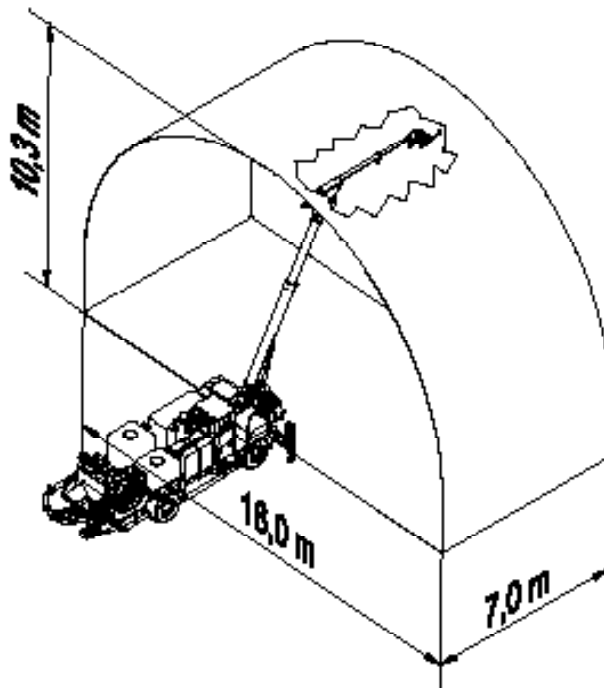
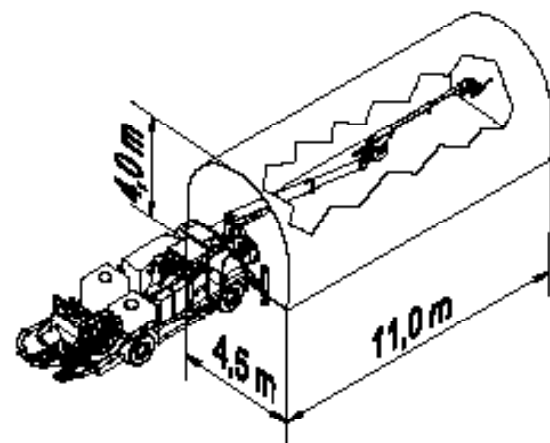
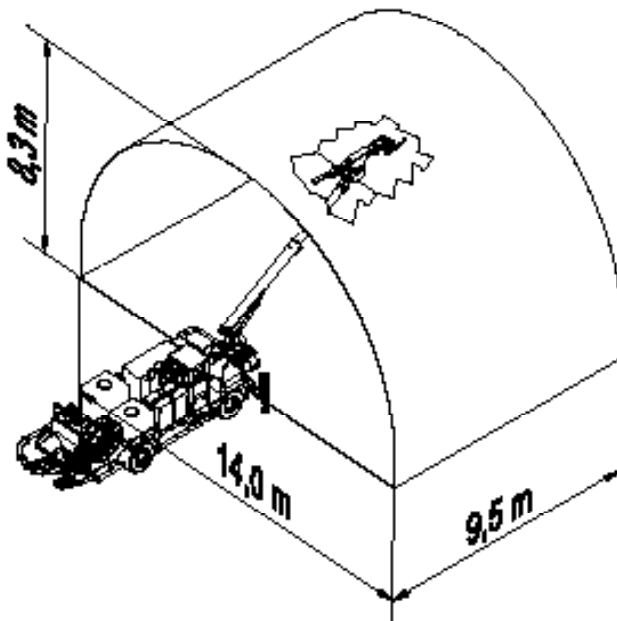
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COVERAGE AREA OF SPRAY BOOM SB 508

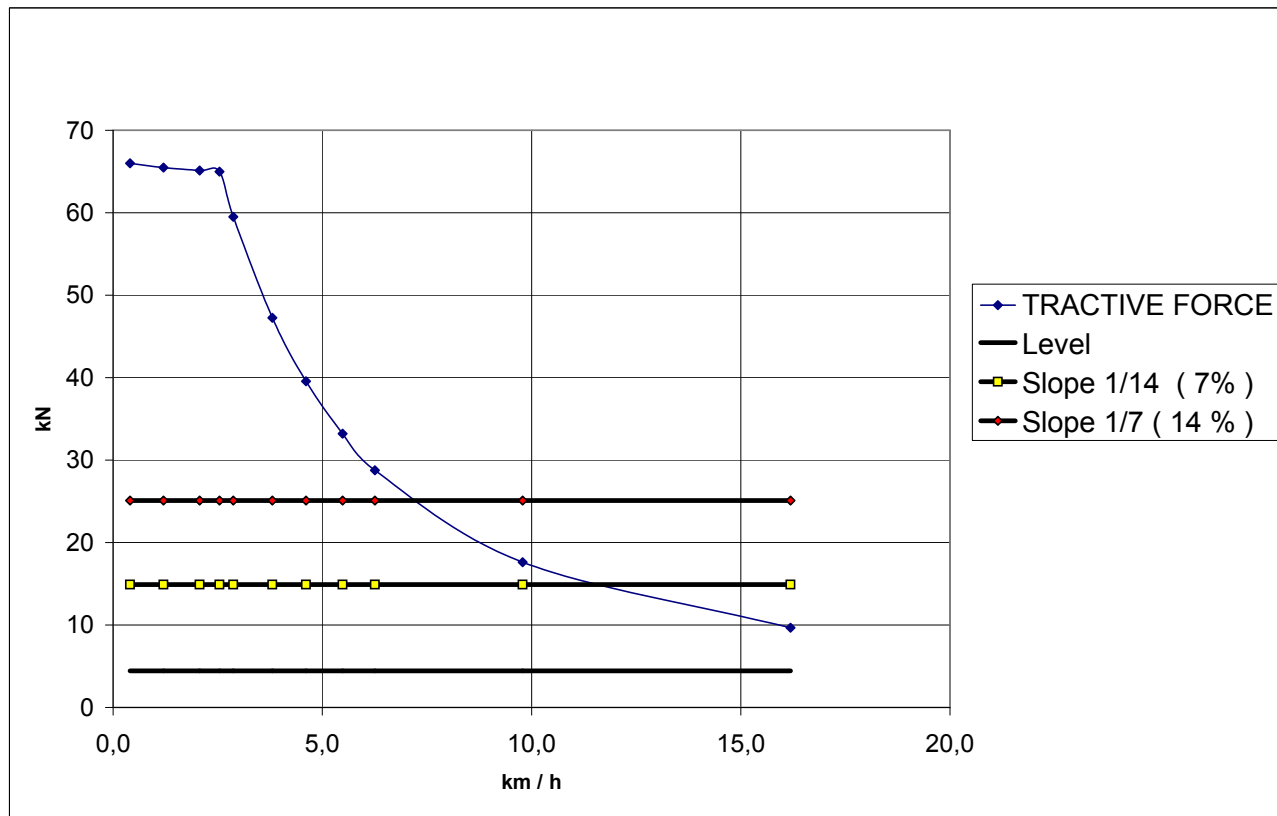
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Max. reach**Min. section****COVERAGE AREA OF SPRAY BOOM SB 508**

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Tractive force**DEUTZ TCD 2011 L4 74,9 kW WITHOUT ACCELERATOR CONTAINER****Performance curve 100018270**