



Equipment includes options and extra equipment.

Features

Normet's Alpha 30D is a diesel hydraulic mobile concrete sprayer designed for tunnel profiles up to 7 meters in height and 9 meters in width. The maximum longitudinal spraying reach from one set up is 3 meters.

The new NSP 30 concrete pump has a theoretical maximum pumping capacity of 30 m³/h. Alpha 30D's accelerator dosing system uses a peristaltic pump and has two stainless steel tanks with a total volume of 420 liters.

Alpha 30D can be equipped with a radio or wired remote control system for controlling boom and nozzle movements and rotation as well as accelerator dosing and concrete pump.

To make manouvering easy in narrow tunnels, the Alpha 30D has four wheel steering and four wheel drive. It has a 120 kW Liquid cooled turbo charged diesel engine meeting Tier 3 regulations.

Operator's cockpit on Alpha 30D is FOPS and ROPS approved.

The additional equipment for Alpha 30D are a high pressure washer system with 300 liter stainless steel water tank, spare wheel and wired remote control plus cable.

Normet reserves the right to change this specification without further notice.

Technical specification

SPRAYBOOM

Automatic functions:

- Nozzle rotation.
- The speed of the movements can be adjusted from the radio remote control.
- All the movements are pressure compensated and have a proportional output.
- Boom coverage for tunnels up to 7 m x 7 m.

CONCRETE PUMP

Spray pump NSP 30.

Low-wear and low-maintenance double piston pump:

- Pumping capacity theoretical 3 - 30 m³/h
- Pumping cylinder diameter 200 mm
- Cylinder stroke 600 mm
- Pumping pressure max. 50 bar
- Hydraulic pressure max. 190 bar

High pumping pressure enables the conveying of stiff concrete.

The pump is able to pump up to max. aggregate size of 16 mm and all types of fibres (max. length 60 mm) in the mix.

- Hydraulically driven agitator.

RADIO REMOTE CONTROL SYSTEM

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

- Accelerator dosing rate.
- Accelerator pump on/off.
- Concrete pump on/off/reverse.
- Nozzle rotation on/off.

ACCELERATOR SYSTEM

- Hydraulically driven Peristaltic pump.
- Max. pumping pressure 7 bar.
- Dosing rate 0.5...16 L/min (30 - 960 L/h).
- Suction line diameter 1" (25 mm).
- Pressure line diameter 1" (25 mm).
- Stainless steel additive tank with a capacity of 420 L.

CONCRETE LINE 2 1/2"

- Concrete line diameter 2 1/2" (63.5 mm).

AIR HOSE REEL

Manually operated reel

- Hose length 30 m.
- Hose size 1 1/2" (38 mm).

ENGINE

- Liquid cooled turbo charged Deutz TCD 2013 L4, 120kW/2300 rpm, TIER 3 approved.

DRIVER'S COMPARTMENT

- Open 1-man cockpit. FOPS / ROPS approved.
- Driver's seat with suspension.
- Seat with pressure sensor (dead man).
- Seat with retractable (75 mm wide) lap seat belt.
- The driver's compartment includes driving controls and pedals.
- VDO gauges (IP65):
 - Master Gauge:
 - Engine RPM
 - Hourmeter
 - Voltmeter
 - Fuel Consumption
 - Turbocharger pressure
 - Fuel level
 - Engine temperature
- Window kit is included.

EXHAUST SYSTEM

- Catalytic exhaust gas purifier.

TRANSMISSION

- Hydrostatic 4-wheel transmission.
- Variable piston pump 56 cm³.
- Variable piston motor 115 cm³.
- Stainless steel hydraulic oil tank.

AXLES

- Planetary type.
- Dana 212.
- Rear end axle fixed.
- Boom end axle oscillation +/- 7°.

TYRES

- 10.00 - 20 with steel rim.

PERFORMANCE

- Max. tractive effort 44 kN.
- Max. speed (horizontal tunnel) 20 km/h.

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.

STEERING

- Four-wheel steering as standard.
- Orbitrol type.
- Including crabwalk.

FUEL TANK

- Stainless steel tank with a capacity of 165 L.

Technical specification

HYDRAULIC SYSTEM

- Variable displacement piston pump system with following outputs:
 - 150 L/min for concrete pump (piston pump).
 - 90 L/min for boom (piston pump).

Stainless steel hydraulic oil tank with a capacity of 500 L.

Oil cooler for concrete and boom circuit.

Return oil filtration 10 µm.

Oil level and temperature indication.

Return filters with contamination indicator.

24 VDC ELECTRICAL SYSTEM

- Exposed components are IP65 standard min.
- Battery 2 x 80 Ah.
- Alternator 55 A.
- Wire harness (self extinguishing) with tinned wires and watertight conduits.
- LED driving lights:
 - Front end, LED lights 2 x 1300 lm
 - Rear end, LED lights 2 x 1300 lm
- Service brake lights.
- LED directional lights on front and back side.

WORKING LIGHTS

- 24 VDC LED lights.
- 2 pcs on boom of 6700 lm.
- 1 pc over the concrete pump.

GREASING MANIFOLD

Centralized grease fittings for:

- Concrete pump.

OTHER

- 6 kg hand held fire extinguisher.
- Standard symbol labels.
- Text labels in : Spa / Eng.
- Basic tool set:
 - Cleaning plug
 - Washing ball
 - Rubber hose 3/4" 4 m
 - Suction hose 1" 4 m
 - Sledge hammer 800 g
 - Special tools for concrete pump

Optional Equipment

LOWER DRIVER'S COMPARTMENT

- Open 1-man cockpit. Not FOPS / ROPS certified.
- Suspended driver's seat.
- Seat with pressure sensor (dead man).
- Seat with retractable (75 mm wide) lap seat belt.
- The driver's compartment with driving controls and pedals.
- Window kit is included.

Additional Equipment

HIGH PRESSURE WASHER

Hydraulically operated pressure washer with hose reel:

- Max. water pressure 140 bar
- Max. water flow 15 L/min

Manually operated hose reel

- Hose size 3/8" x 15 m
- Stainless steel tank; capacity 300 L

FOR ENCLOSED CABIN

Options available only for Tier 3 equipment.

- HVAC

GREASING SYSTEM

- Automatic greasing system for the concrete pump.

FIRE SUPPRESSION SYSTEM

- **Fogmaker:** Automatically and manually actuated.
- **ANSUL:** Manually actuated.

FORM OIL SYSTEM

Air pressure-driven system with hose reel:

- Tank Capacity 20 L.
- Hose length 20 m.
- Working pressure 7 bar.

REMOTE CONTROL SYSTEM

Wired remote control including:

- Remote control box.
- Remote control cable 10 m.

SPARE WHEEL

- 10.00 - 20 with steel rim.

SAFETY KIT

- Wheel nut locker.
- Laminated cabin glass.

Additional Equipment

WHEEL CHOCKS*

Steel wheel chocks

- Steel wheel chocks kit (2 pieces).

Polyurethane wheel chocks

- Polyurethane wheel chocks kit (2 pieces).

* One must be selected.

SAFETY EQUIPMENT

Reversing camera

- Infrared LEDs for ultra-low light performance.
- Illumination distance 5 m.
- Heater.
- Day/Night sensor.

Obstacle detection system

- Two units ultrasound sensor, adjustable detection distance up to nine meters.
- Two units ultrasound sensor, fix detection distance for blind spots.
- Cockpit display with audio and visual signals.

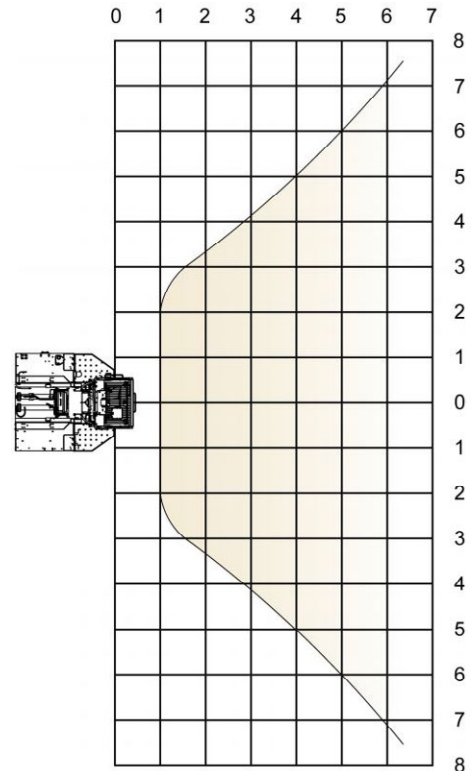
ACCELERATOR SYSTEM

Standard Nordoser XEP

- Electrically controlled Normet peristaltic pump.
- Simple real time process display.
- Accurate accelerator output ratio adjustment.
- Work shift based data logging.
- Reports uploading to a USB drive.
- System settings.
- Process settings.
- System diagnostics.
- Process diagnostics.
- USB access drive programming.
- Multi colour display module.
- Switches for quick functions.
- Multi language user interface.
- Dosing rate 0.6 - 16 L/m.

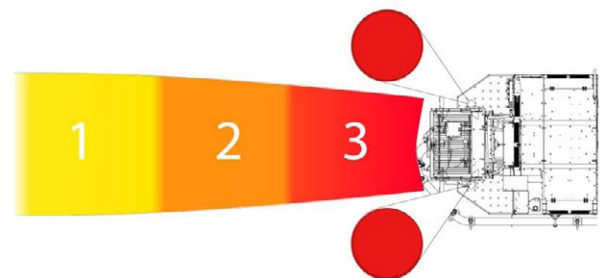
CONCRETE THICKNESS MEASUREMENT SYSTEM

- Normet SmartScan
- Normet SmartScan Align for georeferenced profile data



TOP VIEW

Reversing camera coverage diagram.

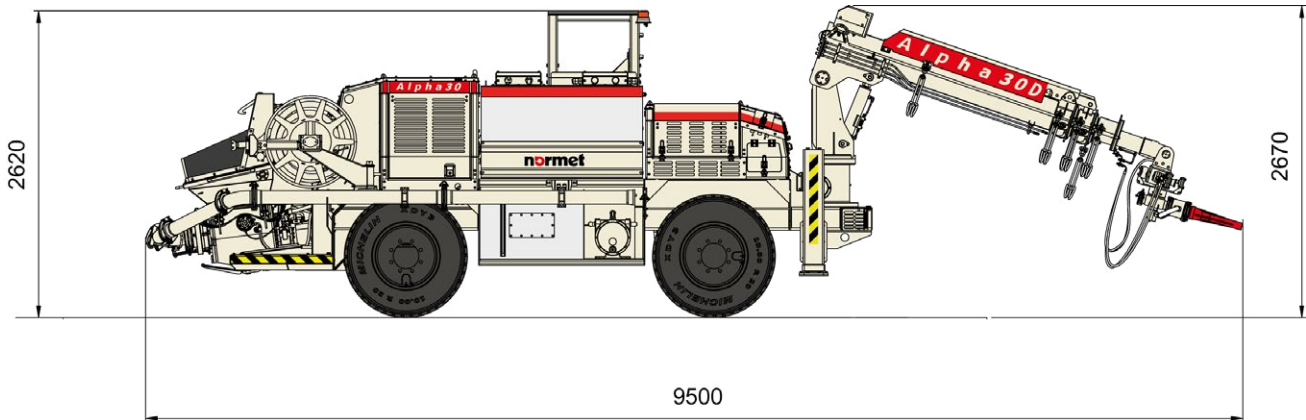


TOP AND SIDE VIEW

Obstacle detection system diagram.

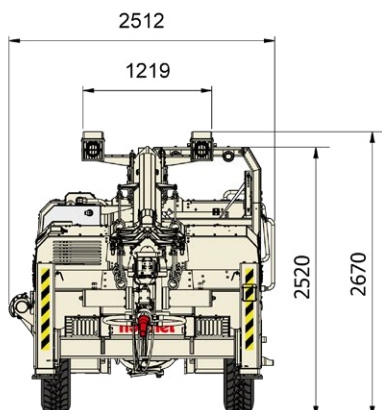
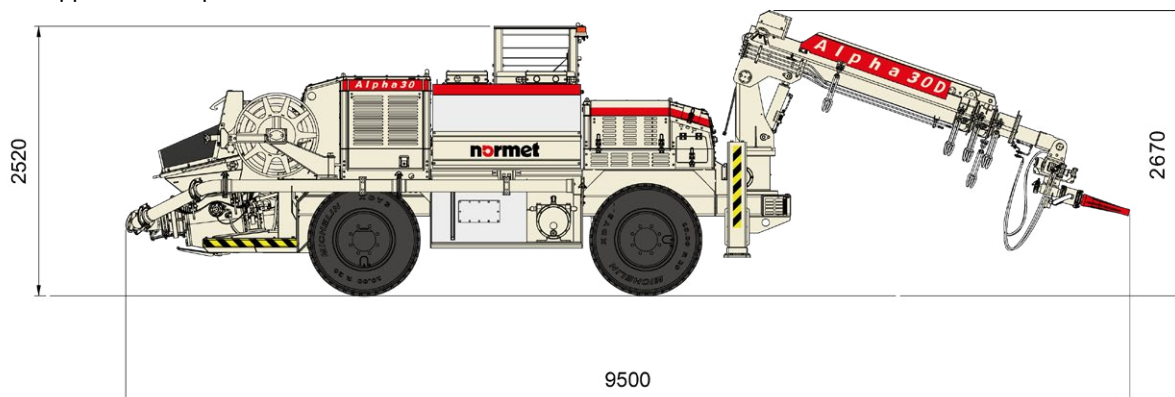
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Dimensions



SIDE VIEW 1

Basic machine. Driving dimensions at job site.
Driver compartment corresponds to the standard FOPS / ROPS approved cockpit.

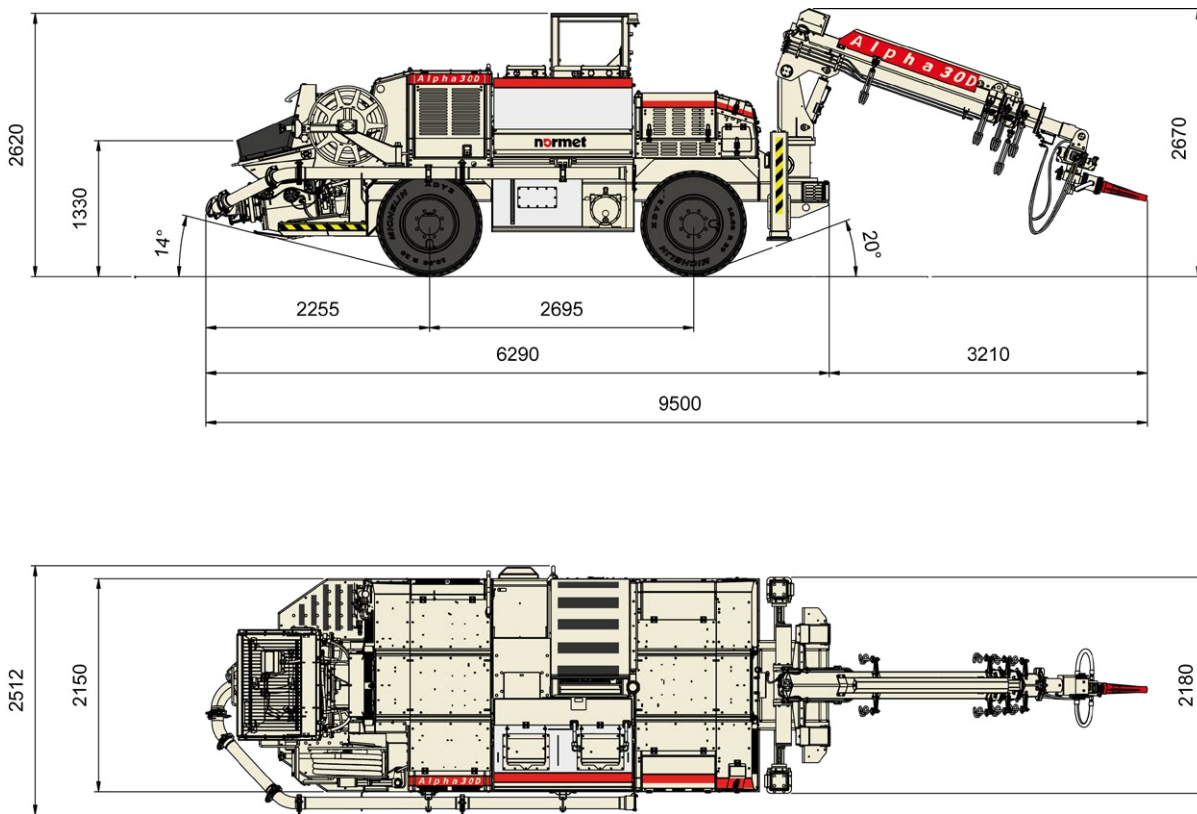


SIDE AND FRONT VIEW 2

Basic machine. Driving dimensions at job site.
Optional driver compartment corresponds to the Non FOPS / ROPS certified.

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Dimensions



SIDE AND OVERVIEW 3

Basic machine. Driving dimensions at job site.

DIMENSIONS

Length	9500 mm
Width	2512 mm
Height	2670 mm
Wheel base	2695 mm
Ground clearance	448 mm

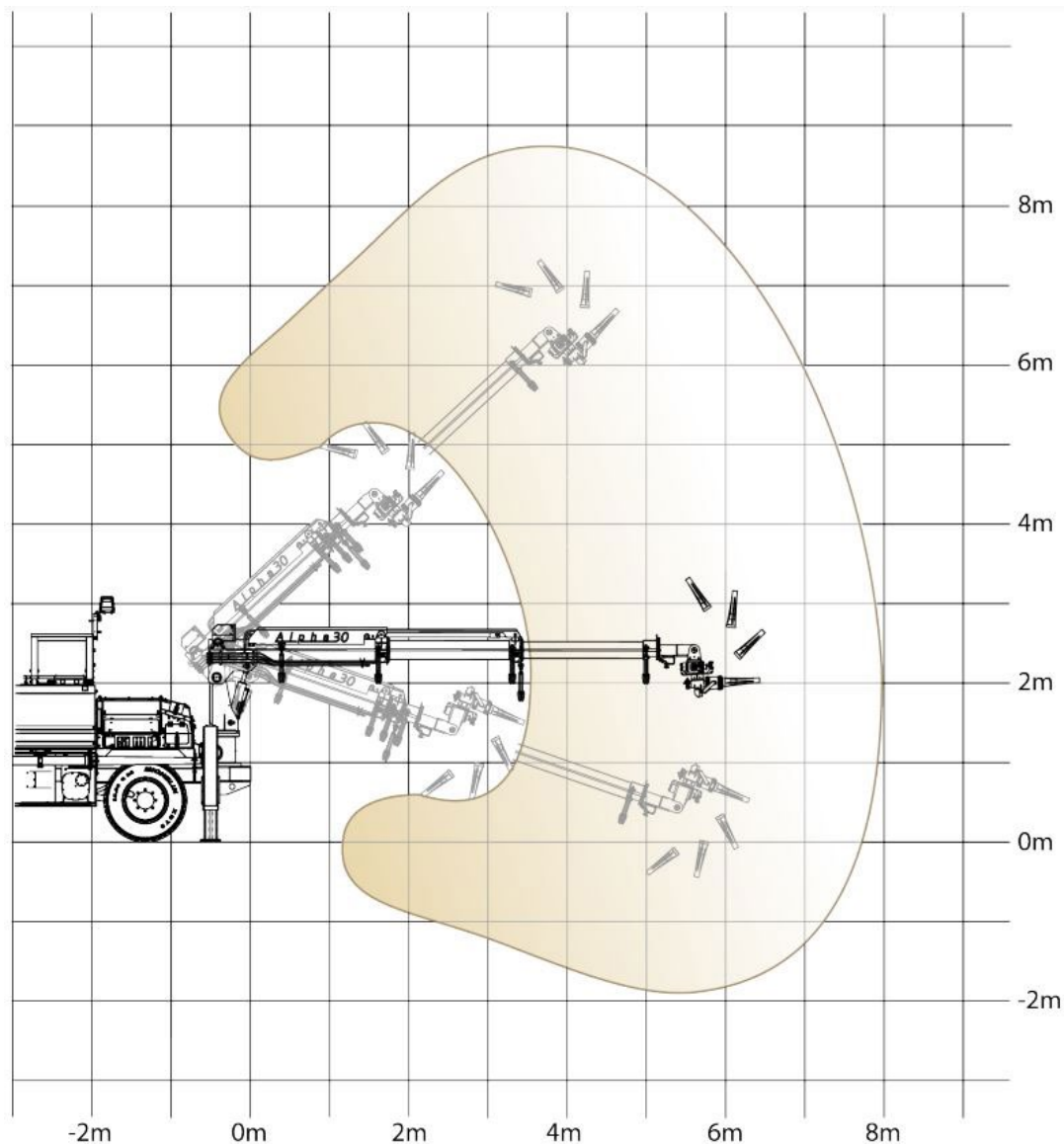
TURNING RADIUS

Outer	4953 mm
Inner	1650 mm

WEIGHT

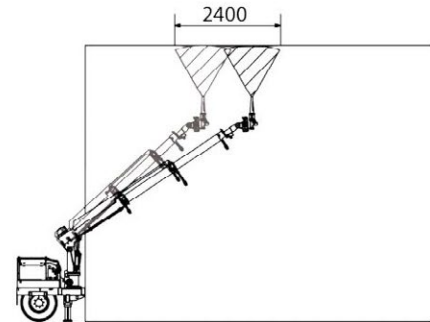
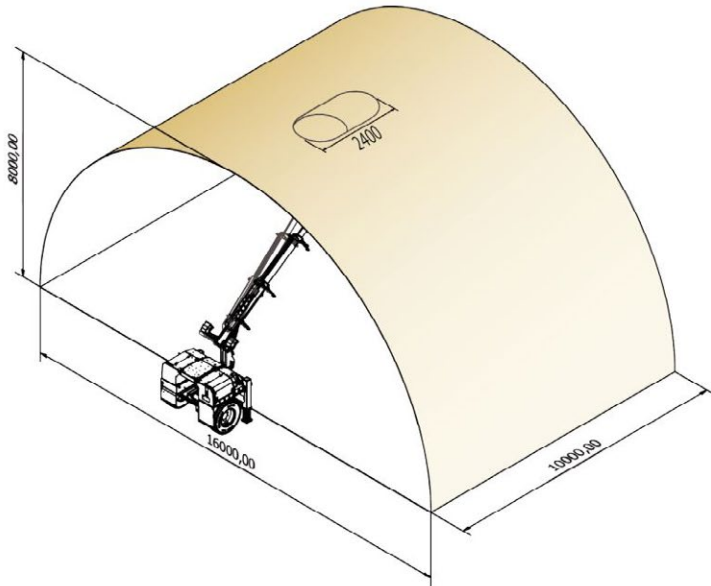
Operating	9500 kg
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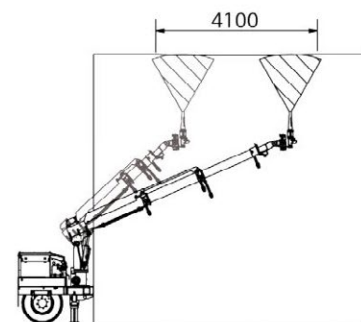
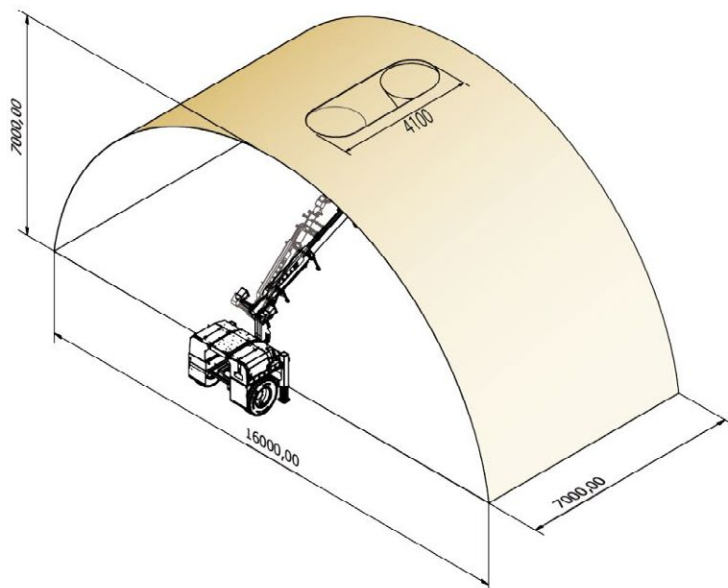


COVERAGE AREA OF SPRAY BOOM

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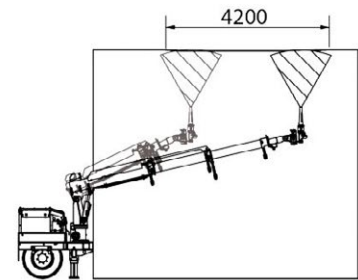
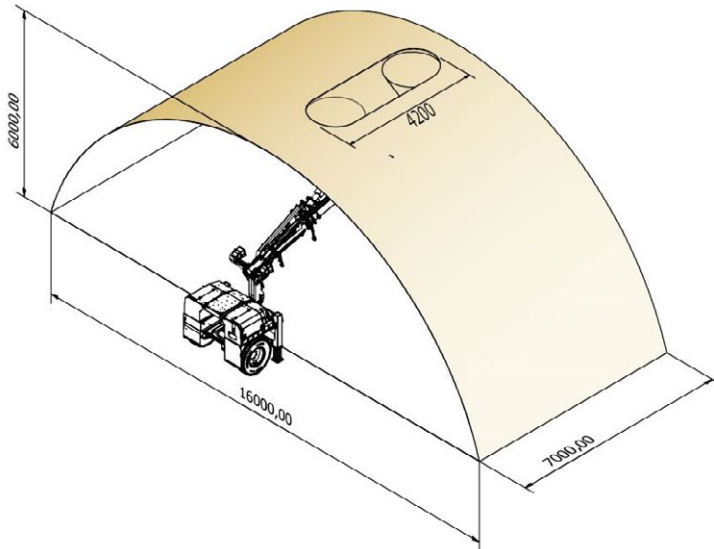
8 meter high tunnel.



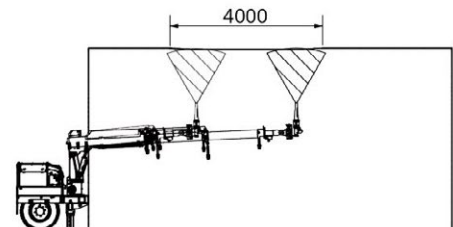
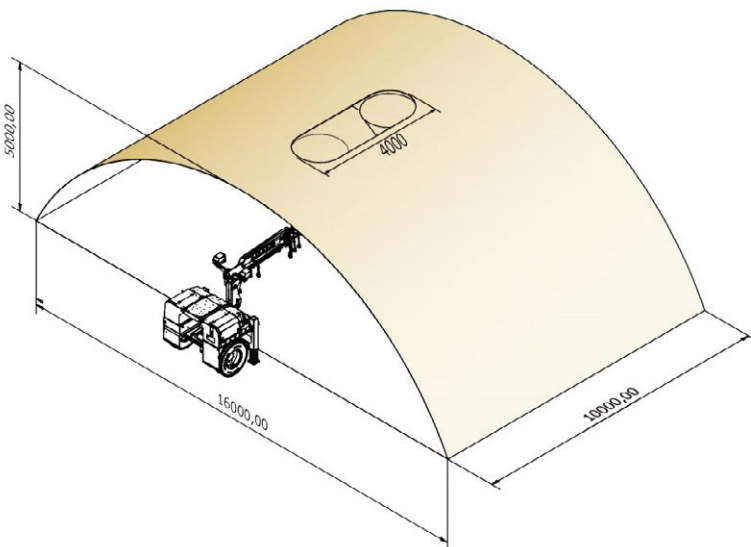
7 meter high tunnel.

COVERAGE AREA OF SPRAY BOOM

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6 meter high tunnel.

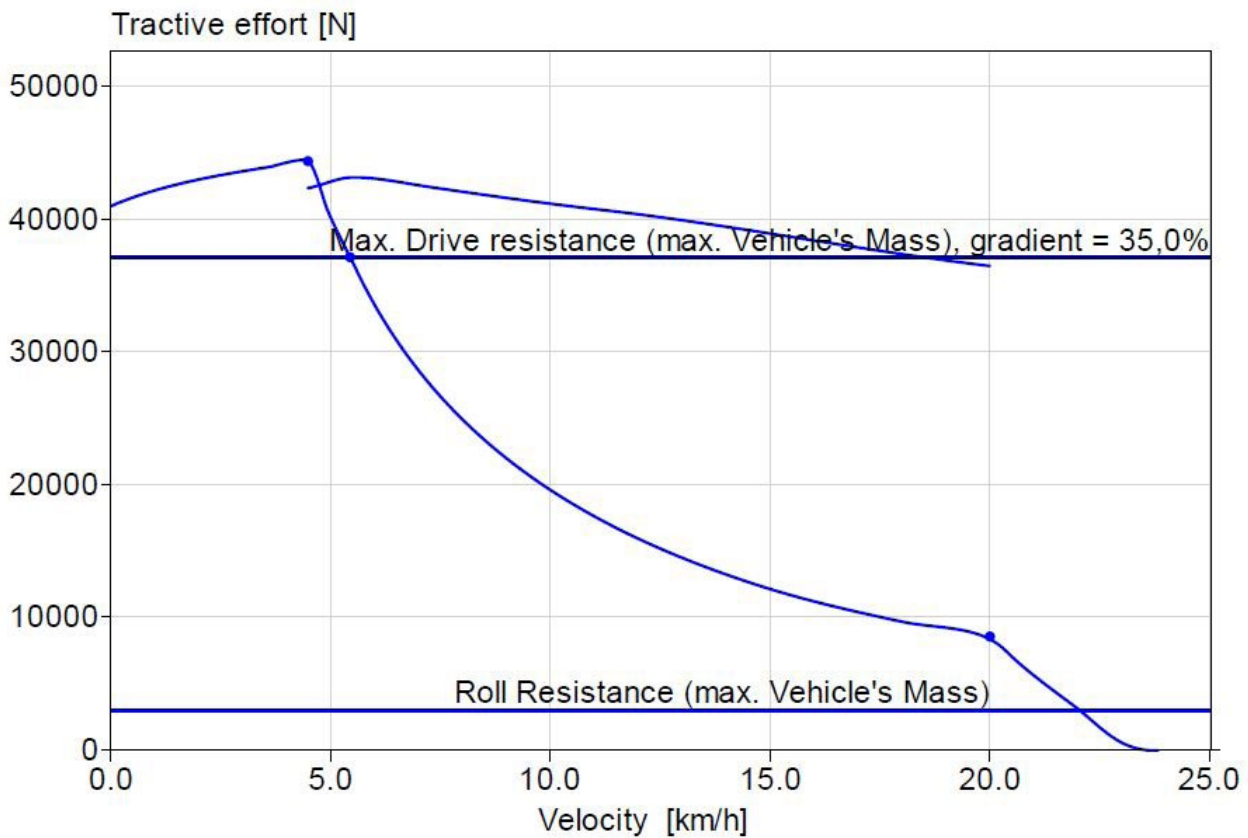


5 meter high tunnel.

COVERAGE AREA OF SPRAY BOOM

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Tractive Effort



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