



Pictured machine may include options and additional equipment.

## Features

**Spraymec MF 050 VC** is an electrohydraulic self-propelled mobile concrete sprayer for modern mining operations in small and medium size tunnels. It can be operated either with electric hydraulic power-pack or with diesel engine. It features a new Normet NSP 30 concrete spraying pump with maximum theoretical concrete output of 27 m<sup>3</sup>/h with electric operation.

Three different accelerator dosing system and concrete pumping control system configurations give possibilities to choose best feature for purpose in question.

Basic version is **Nordoser XH** with mono -style dosing pump and with manual adjustment for dosing and for concrete pumping output volume. Optional dosing system **Nordoser XE** comes with mono -style pump with electronically adjusted concrete output volume control and accelerator dosing is synchronized automatically with concrete output volume. High-end model **Nordoser XI** includes low-pulsation concrete pumping feature and electronically adjusted concrete output volume control together with synchronized accelerator dosing.

All Nordoser models are available with optional low-pulsation Normet peristaltic dosing pump Normet LPP-D and additional process information display in cabin.

New improved cabin has more space for operator and ergonomic drivers place. New dashboard with new LCD multi information display (MID) replaces previous separate gauges.

Improved spraying boom SB 500 B includes strengthened steel structure, modified joints and has larger diameter hydraulic cylinders to give more power for smooth spraying operations.

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### Technical specification

#### SPRAYBOOM SB 500 B

- Boom rotation 270°
- Boom lifting -20°...+75°
- Boom folding -60°...+165°
- Extension 2200 mm
- Nozzle rotation 420°
- Nozzle tilting 105°

#### CONCRETE PUMP

Spraypump NSP 30

Low-wear and low-maintenance double piston pump:

- Pumping capacity theoretical with electro-hydraulic 4 - 27 m<sup>3</sup>/h
- Pumping cylinder diameter 200 mm
- Cylinder stroke 600 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

#### ACCELERATOR SYSTEM

Nordoser XH

Hydraulically driven accelerator mono pump

Max pumping pressure 12 bar

Dozing rate 0.6...16 L/min (36 - 960 L/h)

Manual dosing control, flow L/min and dosing % readable on the display

Manual concrete output control, readable on the display

Hydraulic pilot control system for concrete pump

Accelerator tank 500 L

#### COMPRESSOR

Electric driven screw type compressor

- 10 m<sup>3</sup>/min / 7 bar FAD
- 55 kW electric motor

#### REMOTE CONTROL

10 m cable control with 2 joy sticks as a standard when open cabin

#### CONCRETE LINE

Left hand side assembly

Concrete line diameter 65 mm

#### WATER HOSE REEL

Manual, 3/4" hose 30 m

#### ENGINE

Liquid cooled turbo charged MB OM 904 LA, 110 kW/2200 rpm, TIER 3 approved

#### EXHAUST SYSTEM

Catalytic exhaust gas purifier and muffler

#### TRANSMISSION

Dana 24 000 series power shift with pump drive group

3 speeds forward and reverse

4-wheel drive

#### AXLES

Planetary type

Dana 123

Load end axle fixed

Engine end axle oscillation +/- 10°

#### TYRES

12.00 - 20 PR 20

#### PERFORMANCE

1st gear max. 6 km/h

2nd gear 13 km/h

3rd gear 25 km/h

Max. tractive effort 120 kN

Max speed in upward 1:7 inclined tunnel 7 km/h

Performance curve 100006272

#### BRAKES

Service brake: hydraulically powered two-circuit oil

immersed multidisc brakes in both axles

Safety/Parking brake: spring applied hydraulically released

fail-safe -type brake. Brake test possibility in cabin

#### STEERING

Hydraulic frame steering

Orbitrol type

Frame articulation +/- 40°

#### FUEL TANK

Capacity 240 L

#### HYDRAULIC SYSTEM

**Carrier hydraulics:**

Variable displacement pump system for carrier and SB 500

B, pump unloaded at start

Pressure setting 210 bar, 130 L/min/2200 rpm

Indication of level, filtration and temperature

Hydraulic oil tank capacity 400 L

Return oil filtration 10 µm

**For spraying functions:**

Electro hydraulic power pack 55 kW/ 50/60Hz /1500RPM

Variable displacement piston pump systems

unloaded at start:

- 140 L/min for concrete pump (piston type)
- 110 L/min for boom (piston type)
- 24 L/min for agitator and dosing system (gear type)

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**Technical specification****24 VDC ELECTRICAL SYSTEM**

CAN Bus controlled spraying process control system with fault diagnostics

Carrier electric functions NGE2

Exposed components are min IP 65 standard

Battery 2 x 115 Ah

Alternator 100 A

LED driving lights

- Front (4 pcs) 18 W
- Back (2 pcs) 18 W
- Side reversing (2 pcs) 43 W

LED working lights

- On cabin (4 pcs) 43 W
- On boom (2 pcs) 43 W
- On load end (2 pcs) 18 W

LED parking, brake and indicator lights

LED side lights; amber

Rotating beacon; amber

Wire harness (self extinguishing) with tinned wires and water tight conduits

**HIGH VOLTAGE ELECTRICAL SYSTEM**

1000 V / 50 Hz. Cable type 3 x 35 mm<sup>2</sup> + 3 x 6 mm<sup>2</sup>

Cable length 150 m

**CABLE REEL**

Power supply of the electric functions

Max cable diameter/length 3 x 95 mm<sup>2</sup> + ground / 100 m

Hydraulically driven

Cable in/out reeling function from the cabin and near the the reel

**DRIVER'S COMPARTMENT**

Open 1-man cabin FOPS/ROPS approved

Suspended driver's seat

Seat with retractable lap seat belt

The driver's compartment with driving controls and two sets of pedals

3 different mounting heights

MID 070 S Multifunctional Display with:

- Meters; e.g. speed, RPM, operating hours
- Status indicators; e.g. fluid levels, temperatures, pressures, alarms, faults

**GREASING SYSTEM**

Centralized grease fittings for the carrier

**OTHER**

Hydraulically driven high pressure washer 180 bar / 30 L

Fast fuel filling system: Wiggins

9 kg hand held fire extinguisher (A)

Standard symbol and text labels

Reversing camera

Oil evacuation system

Hydraulic front support legs

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
- 3 pcs manuals in one language  
3 pcs spare part books (English only)

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**Optional equipment****ACCELERATOR SYSTEM****Nordoser XE:**

Hydraulically driven mono-style dosing pump with electric control

Max pumping pressure 12 bar

Dozing rate 0.6...16 L/min (36 - 960 L/h)

Accelerator flow fully synchronized with the concrete output

Dosing % adjustable from the remote control unit and from the cabin

Hydraulic pilot control system for concrete pump

Concrete output adjustable from the remote control unit and from the cabin

**Nordoser XI:**

Hydraulically driven mono-style dosing pump with electric control

Max pumping pressure 12 bar

Dozing rate 0.6...16 L/min (36 - 960 L/h)

Accelerator flow fully synchronized with the concrete output

Dosing % adjustable from the remote control unit and from the cabin

Electrical control system for concrete pump with low

pulsation pumping feature

Concrete output adjustable from the remote control unit and from the cabin

**Normet LPP-D Peristaltic accelerator pump**

Accelerator tank 850 L

**CONCRETE LINE****Right hand side assembly**

Concrete line diameter 50 mm

**COMPRESSOR****Electric driven screw type compressor**

- 12 m<sup>3</sup>/min / 7 bar FAD

- 75 kW electric motor

**HIGH VOLTAGE ELECTRICAL SYSTEM**

With 1000 V electrics it is possible to use longer cable length than 130 m and 150 m. In these cases cable length and size must be checked case by case

**DRIVER'S CABIN****Enclosed cabin, FOPS/ROPS**

Spraying process controls and boom controls

**OTHER****Hydraulically operated water reel:**

- Hose length max 120 m

- Hose size max 1 1/2"

Must be used with the wall washing system

**Warning lights, 1 unit:**

- Rotating beacon; red

- Rotating beacon; blue

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**Additional equipment****CONCRETE PUMP****Diesel operated concrete pumping with required hydraulics**

- Pumping capacity theoretical with diesel 4 - 19 m<sup>3</sup>/h

NOTE: Spraying requires external air supply

Variable displacement pump system for concrete pump,  
pump unloaded at start

Pressure setting 250 bar, 135 L/min/2200 rpm

Gear pump system for agitator and Nordoser

Pressure relief valve setting 250 bar, 24 L/min/2200 rpm

Common hydraulic tank for all functions

Capacity 400 L

Return oil filtration 10 µm

**REMOTE CONTROL**

Radio control with cable support

**ACCELERATOR SYSTEM**

Extra display for Nordoser in cabin

**FOR ENCLOSED CABIN**

CD/Radio system

Cabin ventilation:

- Air conditioning

**FORM OIL SYSTEM****Electric driven pump with hose reel:**

- Tank capacity 30 L
- Hose length 20 m
- Working pressure 7 bar

**FOR MACHINE AND WALL WASHING****Rock wall washing system 180 bar / 90 L, hydraulic motor driven:**

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

**Wall washing system 180 bar / 90 L/min, piston to piston type hydraulic pump****Wall washing system 450 bar / 50 L/min****SUSPENSION**

Front axle suspension system

**FIRE SUPPRESSION SYSTEM**AFFF fire suppression system <sup>(A)</sup>**GREASING SYSTEM****Automatic greasing system (Lincoln) for the concrete pump****Automatic greasing system (Lincoln) for the carrier and spray boom****OTHER****Two Hand Held Fire Extinguishers 4.5 & 9kg (A)****Extra warning lights:**

- Rotating beacon; amber
- Rotating beacon; red
- Rotating beacon; blue
- Strobe light; white

Radio and enclosure (A)

2 wheel chocks with brackets

Spare wheel with tyre for M-series

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**LTC services****SPARE PARTS**

**Spare parts package A:** Available for 1000 h of use\*. Include periodical service, most common wearing parts and most critical safety parts.

**Spare parts package B:** Available for 3000 h of use\*. Include periodical service, most common wearing parts and most critical safety parts.

\* Recommendations are based on average hours - can vary a lot depending on work site conditions.

**TRAINING SERVICES**

Available before delivery, at start up and after delivery.

NOTE! after/during Start up / Commissioning as additional training days these are cheaper.

In general training reduces operation costs.

**Product training:**

Operation and Maintenance

NorSmart

Foundation of electrics, hydraulics and mechanics

Audit

**Process training:**

Concrete spraying

Charging

Scaling

Process audit

**AUDIT SERVICES**

To improve machines performance

To improve your processes performance and quality

**SERVICE CONTRACTS**

**Spare parts supply programmes**

**Scheduled inspection programmes**

**Supervision programmes**

**Periodic maintenance programmes**

**Machine usage programmes**

**LINK ONE**

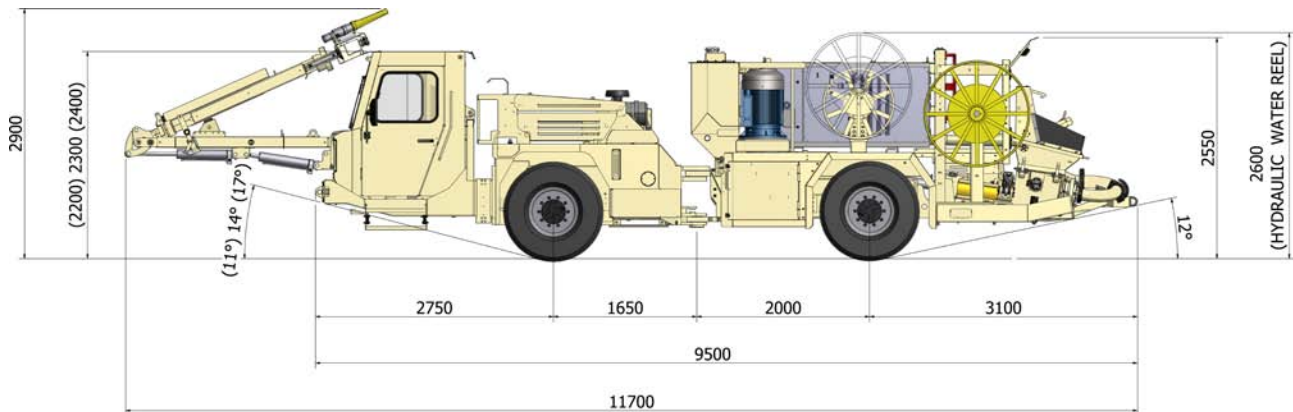
Link One electronic spare part manuals

**WARRANTY SERVICES**

Extended warranty

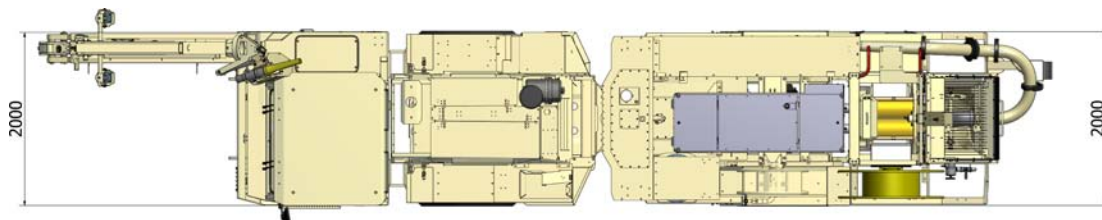
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### Dimensions



### SIDE VIEW

Machine with enclosed cabin



### SIDE VIEW

#### DIMENSIONS

Length	11 700 mm
Width as shown	2000 mm
Height	2550 (2600) mm
Wheel base	3650 mm
Track	1650 mm
Ground clearance as shown	320 mm

#### TURNING RADIUS

Outer	6800 mm
Inner	3900 mm

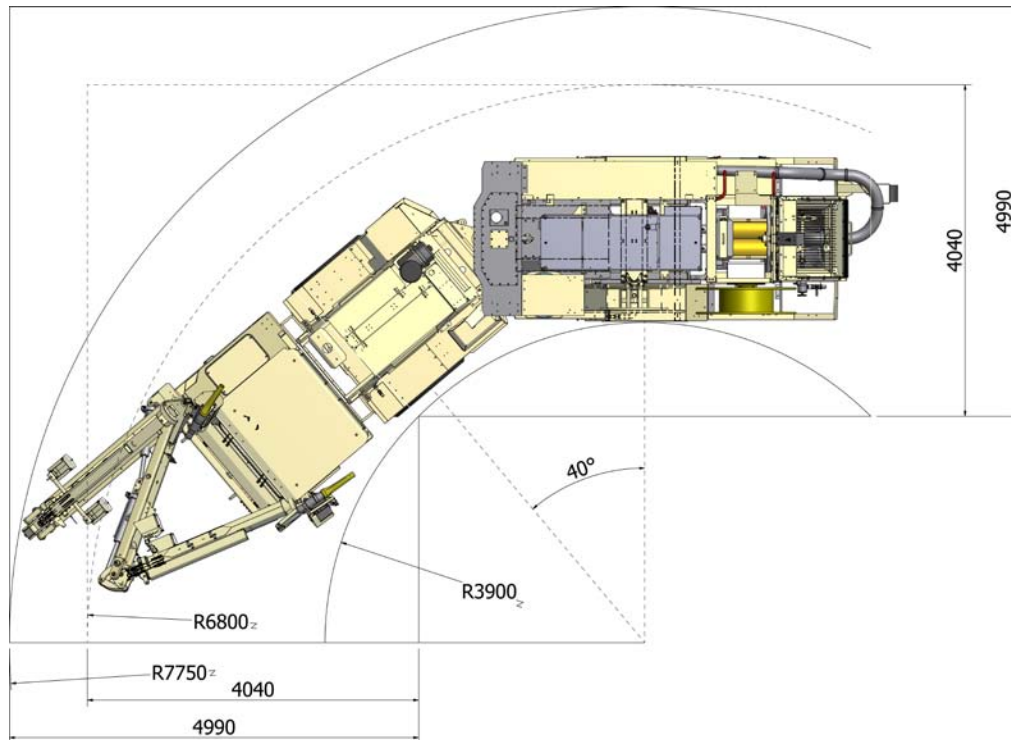
#### WEIGHT

Operating	18 000 kg
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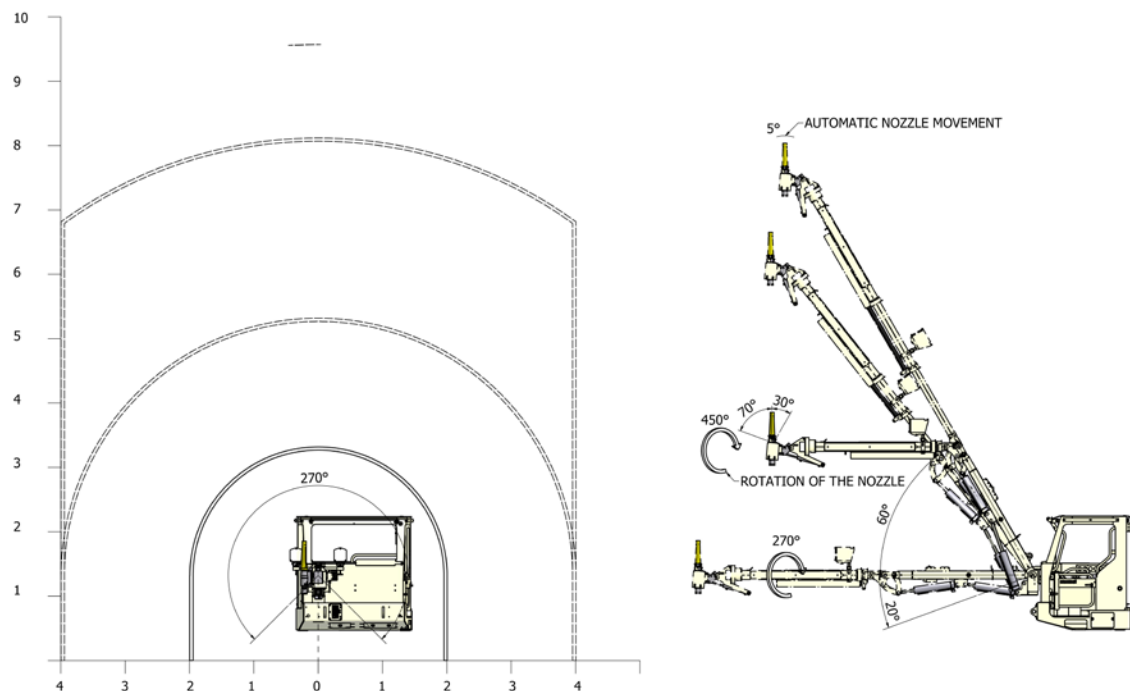
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### Dimensions



### TURNING RADIUS



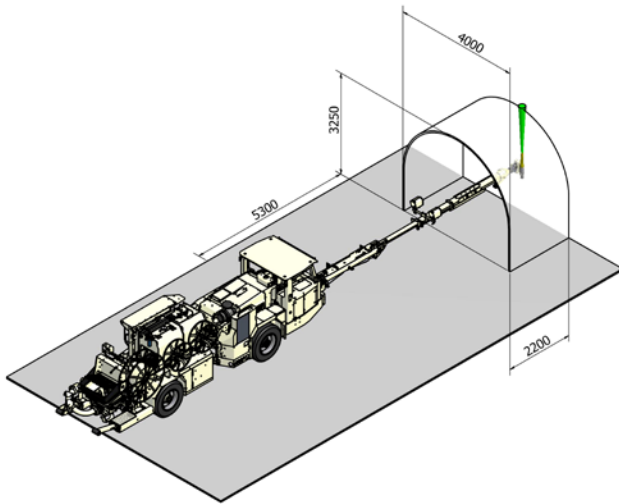
### SB500 B BOOM MOVEMENTS AND REACH AREA

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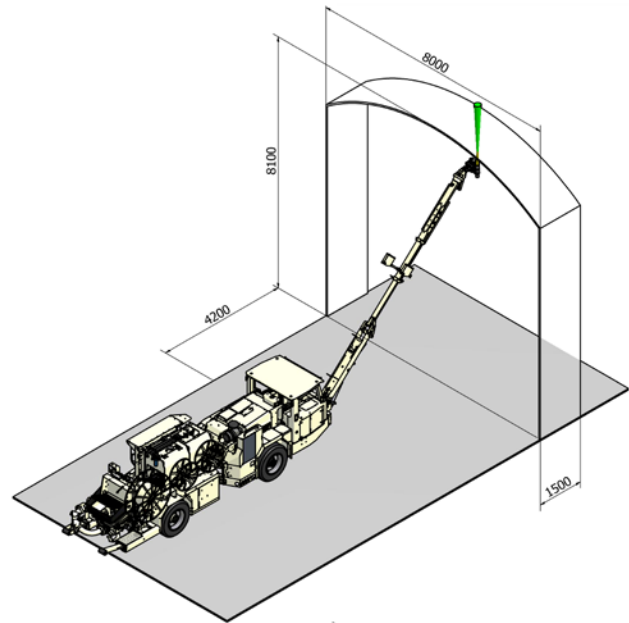


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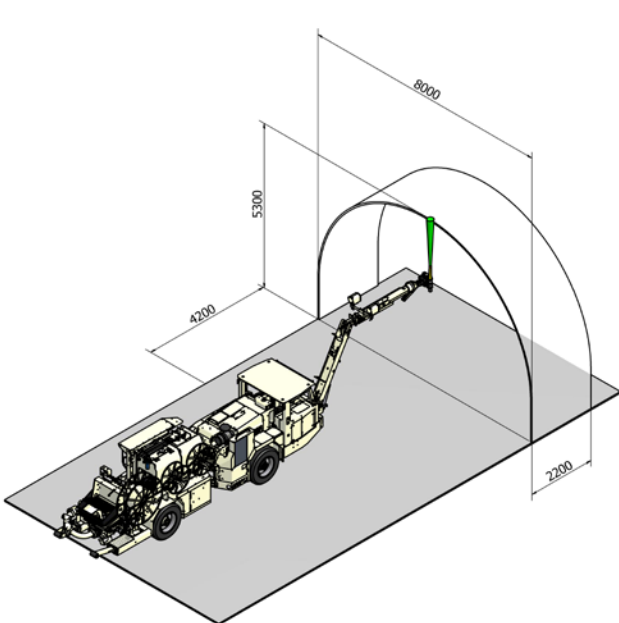
**Dimensions**



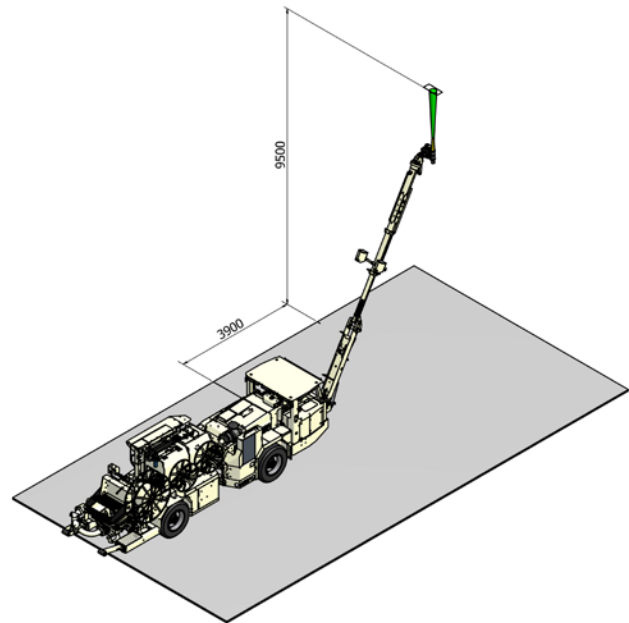
**MINIMUM SPRAYING AREA**



**MAXIMUM SPRAYING AREA**



**OPTIMAL SPRAYING AREA**



**SPOT SPRAYING REACH**

**SPRAYING AREAS**

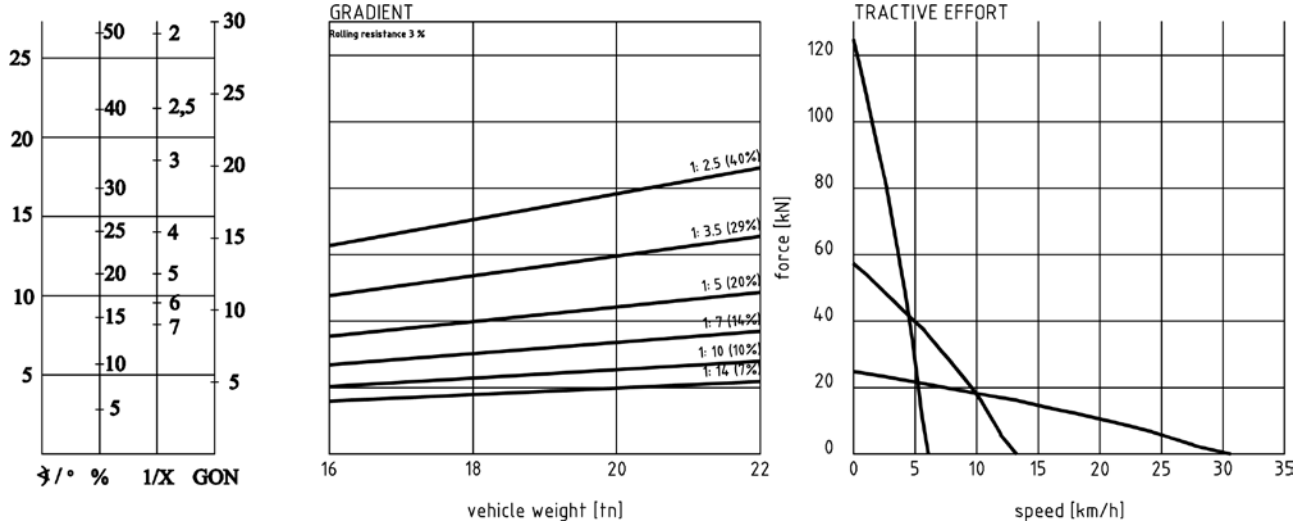
Spraying area from one stand with:

- maximum tunnel size 33 m<sup>2</sup>
- minimum tunnel size 19,3 m<sup>2</sup>
- optimized tunnel size 32,8 m<sup>2</sup>

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### Tractive efforts



MERCEDES-BENZ OM 904 LA 110 kW  
Performance curve 100006272