



Alpha 1430 V(C)

Normet reserves the right to change
this specification without further notice

Pictures may include options and additional equipment.

INTRODUCTION

DOSING SYSTEM AND CONCRETE PUMP

Normet Alpha 1430 is a truck-based mobile concrete sprayer ideal for tunnel profiles of up to 14 m in height and 20 m in width. Mounting the spraying installation on a standard truck chassis not only results in a remarkably mobile machine that can be shuttled between different construction sites on public roads but also in an economically interesting solution.

TRIED AND TESTED LOW-PULSATION CONCRETE PUMP

A large-volume concrete pump designed for durability and minimum pulsation for concrete spraying allows conveying of all types of concrete mixes with aggregates up to 16 mm (including crushed materials) and all types of structural fibers up to a length of 60 mm.

LOW-PULSATION DOSING PUMP

The peristaltic dosing pump ensures accurate and low-pulsation dosing of liquid set accelerators to the spraying nozzle and does not require dry-running protection.

BIG ACCELERATOR TANK FOR CONTINUOUS SPRAYING

Uninterrupted spraying cycles are achieved by the installed 1000 l IBC accelerator tank, which reduces the refilling effort to a minimum.

AGILE SPRAYING BOOM

A responsive proportional hydraulic system ensures smooth and precise control of the spraying boom and nozzle.

REMOTE CONTROL SYSTEM FOR TOTAL CONTROL

The nozzle operator's excellent mobility is achieved through a wired and optional wireless remote control, which includes the main controls for operating the spraying installation.

POWERFUL ELECTRO-HYDRAULIC POWER PACK

Continuous operation even at hot ambient temperatures is ensured by the well-dimensioned electro-hydraulic unit for the concrete pump and spray boom.

AIR COMPRESSOR FOR INDEPENDENT SPRAY APPLICATION

The optional air compressor allows the spray application independent of an external air supply. The well-dimensioned compressor reliably delivers the air volume required for good compaction of the concrete on the wall.

SAFE STAND THROUGH HYDRAULIC SUPPORT FEET

Front and rear stabilizers provide a stable and safe stand on soft and uneven ground.

EASY INSTALLATION ON TRUCK CHASSIS VIA AUXILIARY FRAME

The complete Alpha 1430 spraying system is mounted on a subframe, which can be installed on an Ashok Leyland truck chassis (AVTR U2820 5050 WB CAB) with little effort. The carrier's diesel engine complies with the latest BS6 emissions regulations, ensuring minimal emissions, particularly of importance when operating underground.

TECHNICAL SPECIFICATION

SPRAY BOOM

SPRAY BOOM SBF 512

Nozzle nutation for better distribution of the spray material and surface quality

Boom working range:

Lateral	20.0 m
Vertical max.	14.5 m
Vertical with upper boom horizontal	8.0 m
Nozzle head rotation	360°
Nozzle tilting	120°

Rotating spraying nozzle head (nozzle nutation 5°)

Manual lubrication system for spray boom (n/a for nozzle head)

To increase the reach of the boom, a fixed extension of 1.0 m is included.

CONCRETE PUMP AND DOSING SYSTEM

CONCRETE PUMP NSP 30

Low-wear and low-maintenance double piston pump specially designed for low-pulsation concrete pumping.

Pump capacity with electric drive	3 - 25 m ³ /h
Pumping cylinder diameter and stroke	200/600 mm
Pumping pressure, max.	51 bar
Feeding hopper 300 l at height	1350 mm

The high pumping pressure enables the conveying of stiff concrete.

The pump is capable of conveying concrete with an aggregate size of 16 mm (including crushed material) and all types of structural fibres up to a length of 60 mm.

Hydraulically driven agitator in hopper.

Manual lubrication system for concrete pump

Advanced control system (hydraulic and electrical) ensure low-pulsation concrete flow.

- Nordoser XHP, Manual adjustment system for the concrete pump with peristaltic pump
- Nordoser XEP, Hydraulic pilot control system for the concrete pump with peristaltic pump

Vibrator with electric drive 24 VDC

The performance of the pump, including the maximum pumping capacity, are based on a theoretical filling rate of 100%.

DOSING SYSTEM FOR ACCELERATOR

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Hydraulically driven dosing pump with manual adjustment of concrete and accelerator output

Max. pumping pressure	12 bar
Dosing rate	0.6...11 l/min (36 - 660 l/h)

The accelerator dosage can be adjusted from the remote control

Standard 1000 l container for liquid set accelerators (IBC)

CONCRETE LINE

Concrete line assembly side:
Left hand side

Concrete output pipes:

- Reduction from 5" to 3" including HD couplings

Concrete hose diameter:

- 75 mm (3")
 - HD couplings

Concrete hoses

- Included

ELECTRICAL SYSTEM

Mains supply voltage:

- 50 Hz
- 400 V (IEC)

Robust and abrasion-resistant mains voltage supply cable with PUR outer sheath:

- With supply cable (excluding plug)

Hydraulically driven cable reel:

Electrical power pack 55 kW

Cable reel capacity:

- 55 m - 3 x 70 mm²+ 3G16 mm²

HYDRAULIC SYSTEM

Electric power pack 55 kW, 50 Hz with hydraulic pumps

Variable displacement pump for sprayboom

Variable displacement pump for concrete pump

Fixed displacement gear pump for dosing system

Oil tank capacity 340 l

Return oil filtration 10 µm

Oil level and return filter contamination indicator

Oil cooler for concrete and spray boom circuit

Mineral hydraulic oil

Pictures may include options and additional equipment.

REMOTE CONTROL SYSTEM

Radio remote control:

Number of radio remote controls:

- 1
- 2

The following machine components can be controlled by radio remote control:

- Accelerator dosing rate
- Accelerator pump ON/OFF
- Concrete pump ON/OFF/REVERSE
- Nozzle nutation ON/OFF

24 VDC ELECTRICAL SYSTEM

Mechanical switch near battery box

LED work lights on boom (2 pcs)

LED work light on hopper (2 pcs)

Warning LED light:

Color

- Amber

Light pattern

- Strobe

TECHNICAL DOCUMENTATION

Standard documents:

Instruction manuals, hard copy 2 pcs:

- English
- Russian
- One of destination EU languages

Spare parts manuals, hard copy 2 pcs:

- English
- Russian

PDF manuals on USB-stick 2 pcs, includes instruction and spare parts manuals

Additional documentation:

- Extra hard copies of manuals
- Extra PDF manuals
- LinkOne WebView electronic manuals
- Other than standard language manuals

OTHER

Powder extinguisher:

- 6 kg

Number of extinguishers:

- 1

Rear support legs

Rear grounding straps:

- Flat cable

Painting and taping:

- Standard painting and taping

Text labels in:

- En

Standard tool set:

Cleaning plug

Rubber hose 1", 4 m

Hammer 800 g

Cone and special bolt for concrete piston assembly

Sliding protection curtain for front windshield with fixation loops for road transport

ACCESSORIES

PROCESS PRODUCTIVITY

- Automatic lubrication system for concrete pump
- Form oil system with hose reel:
 - Tank capacity 20 l
 - Hose length 20 m
 - Working pressure 7 bar
- Wired remote control with 2 joysticks and cable
 - Number of wired remote controls:
 - 1
 - 2
- Electrically operated screw compressor
 - Free Air Delivery 10,7 m³/min
 - Rated operating pressure 10 bar
 - Electric motor 55 kW
- Hydraulically driven pressure washer with hose reel:
 - Water pressure 140 bar
 - Water flow, max. 30 l/min
 - Hose length 20 m

CARRIER PRODUCTIVITY

- Reversing camera
 - 1 camera, 1 display

SAFETY

- Electric pump 24 VDC for emergency use to activate support legs and boom
- Safety roof hydraulically tiltable
- Wheel chocks with brackets

SERVICES

NORMET SERVICES

Our services cover the whole life cycle of your equipment. They include start-up and commissioning, genuine spare parts, upgrades & modifications, and remanufacturing, as well as rental and leasing offerings, and field services. We also offer improvement services such as operator training and process audits.

SPARE PARTS

Genuine parts from Normet Services ensure that you always have the highest quality parts available to keep your equipment up and running. Depending on your needs, we can offer everything from individual parts to complete parts contracts, and our professionals around the world have the experience to ensure that you have the parts you need when you need them.

Initial spare parts package:

Available for 1000h of use*. Includes periodical service, most common wearing parts and most critical safety parts.

Spare parts packages made for customer needs:

Available based on hours of use*. Includes 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.

UPGRADES AND MODIFICATIONS

Our Upgrades and Modifications services are designed to ensure the economical, efficient and purposeful performance of your equipment over its entire life cycle. A service provided by a reliable OEM like Normet ensures the safety and performance of your equipment. Normet Upgrades and Modifications save you both time and money, while delivering the high quality you expect from us.

SERVICE CONTRACTS



With a service agreement, Normet manages your fleet with guaranteed availability and agreed costs, giving you transparency for your life cycle costs, annual operational budget and fleet uptime. This lets you focus on your core operations. Each service agreement is built and customized to meet the individual customer's needs from our portfolio of services. Depending on the level of service agreement you need, you can choose anything from basic technical support for an individual machine all the way up to services for your entire fleet, as well as process performance. The service levels we offer are:

- Parts Availability
- Fleet Support
- Fleet Availability
- Process Performance

The content of a service level can be tailored to meet your particular requirements.

TRAINING SERVICE

Our Training Services are available for you and your operators throughout the equipment lifecycle and they include:

	 Operation & Maintenance	 Spraying	 Charging	 Scaling
ADVANCED	Advanced fault diagnostics & troubleshooting	Concrete chemicals, testing and preparing for EFNARC-certificate test		
INTERMEDIATE	Troubleshooting training Foundations of electrics, hydraulics and mechanics NorSmart	Advanced training in concrete spraying Economics of concrete spraying	Advanced training in explosives Economics of charging	Advanced training in scaling Economics of scaling
BASIC	Operation and Maintenance Training Basic Product Training	Basic understanding of concrete spraying	Basic understanding of charging	Basic understanding of scaling
LEVEL	SERVICE	PROCESS KNOWLEDGE		

START-UP AND COMMISSIONING

1. OPERATOR TRAINING

	Start-up training	Commissioning
1.1 Classroom training		
General introduction and operation of machine	Basic	No classroom training included in commissioning
Safety instructions	Basic	
Use of manuals	Basic	
Technical introduction of equipment	Basic	
Hands-on service and pre-operation checks	Basic	
Controls and driving (starting, driving, stopping, parking)	Basic	
1.2 Practical training		
Pre-operation checks	Basic	Introduction
Driving, starting, stopping, parking	Basic	Introduction
Preparing the machine for specific operation conditions	Basic	Not covered
Operation	Basic	Introduction
Washing the machine	Basic	Introduction
Troubleshooting	Basic	Basic

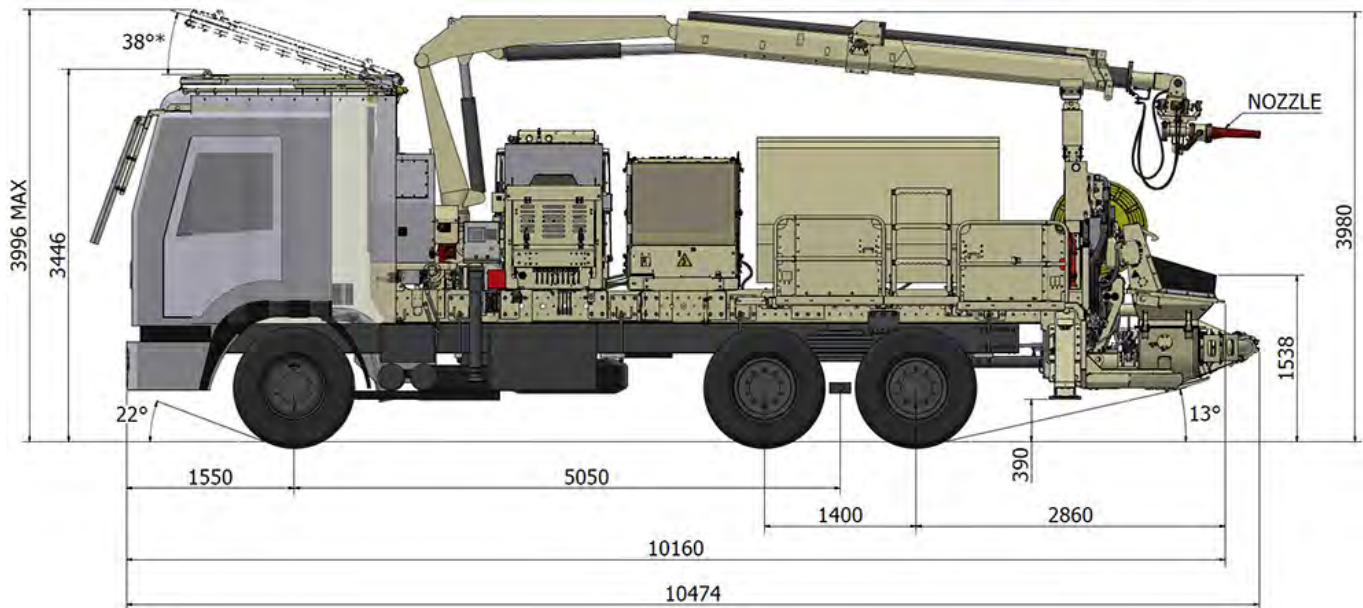
2. MAINTENANCE AND REPAIR TRAINING

General operation of machines	Basic	Introduction
Symbols of drawings and codes	Basic	Not covered
Understanding hydraulic and electric schematics	Basic	Introduction
Control systems	Basic	Introduction
Function of main components (depending on equipment)	Basic	Introduction
Locations of components in the machine	Basic	Not covered
Periodical maintenance	Basic	Introduction
Troubleshooting	Basic	Not covered
Use of manuals	Basic	Introduction
Connection of hydraulic and electrical equipment	Basic	Not covered

DIMENSIONS

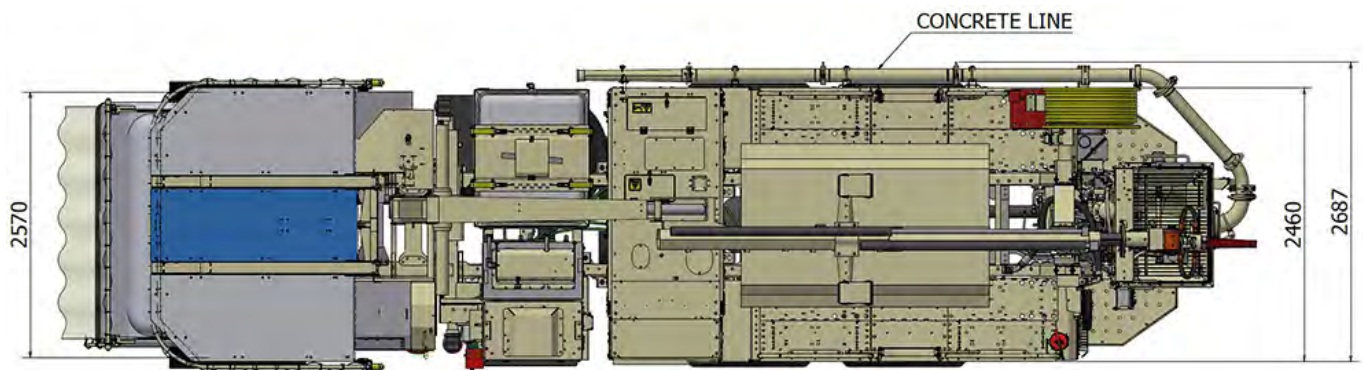
Length	10474 mm	Wheel base	5050 mm
Width	2687 mm	Turning radius outer	10010 mm
Height (with boom in transport position)	3980 mm	Turning radius inner	5060 mm
Height of cabin	3446 mm		

SIDE VIEW – BASIC MACHINE

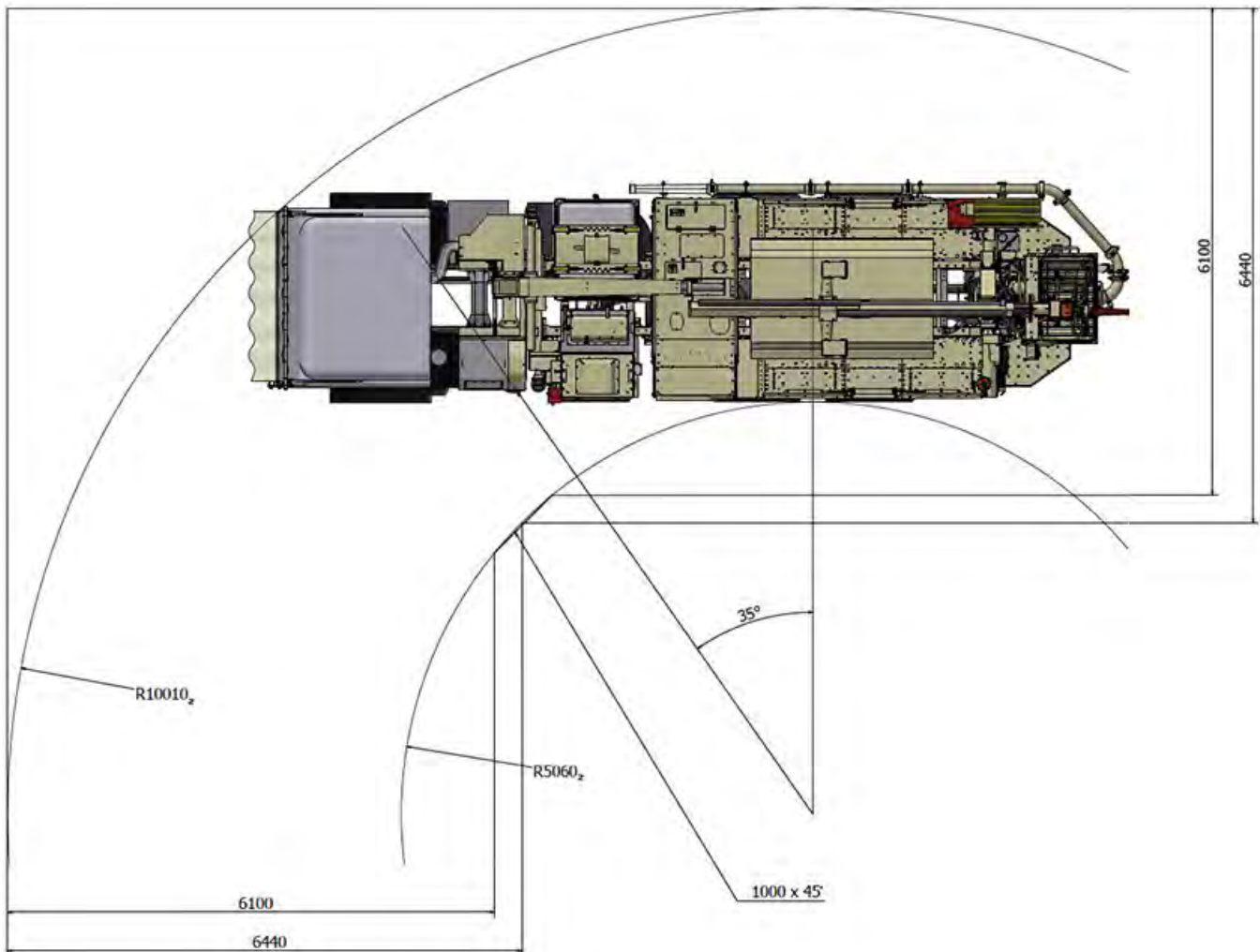


The concrete delivery line and the spray nozzle must be removed for transport.

TOP VIEW

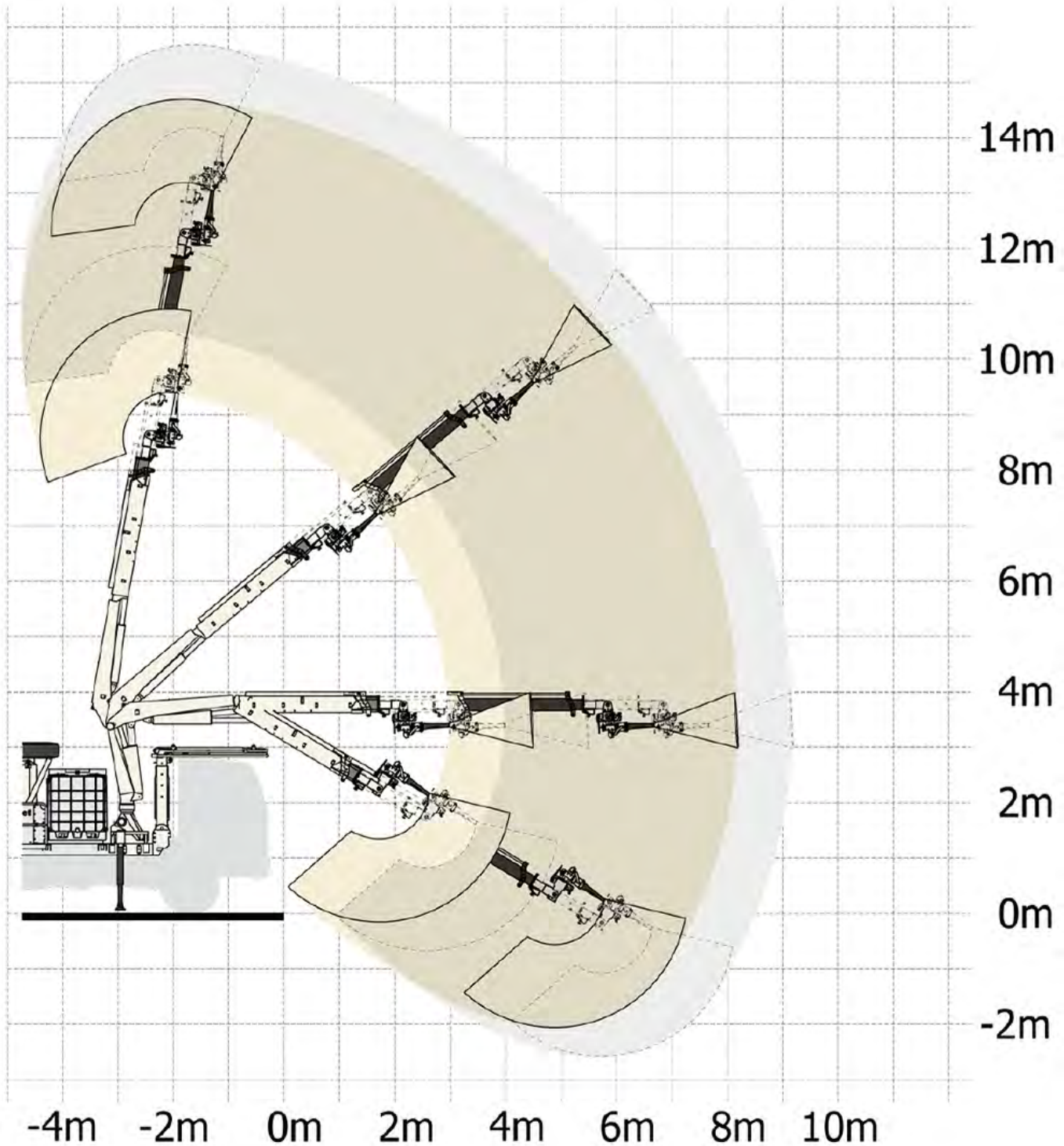


The concrete delivery line and the spray nozzle must be removed for transport.

TURNING RADIUS

The concrete delivery line and the spray nozzle must be removed for transport.

SPRAY BOOM SBF 512 REACH

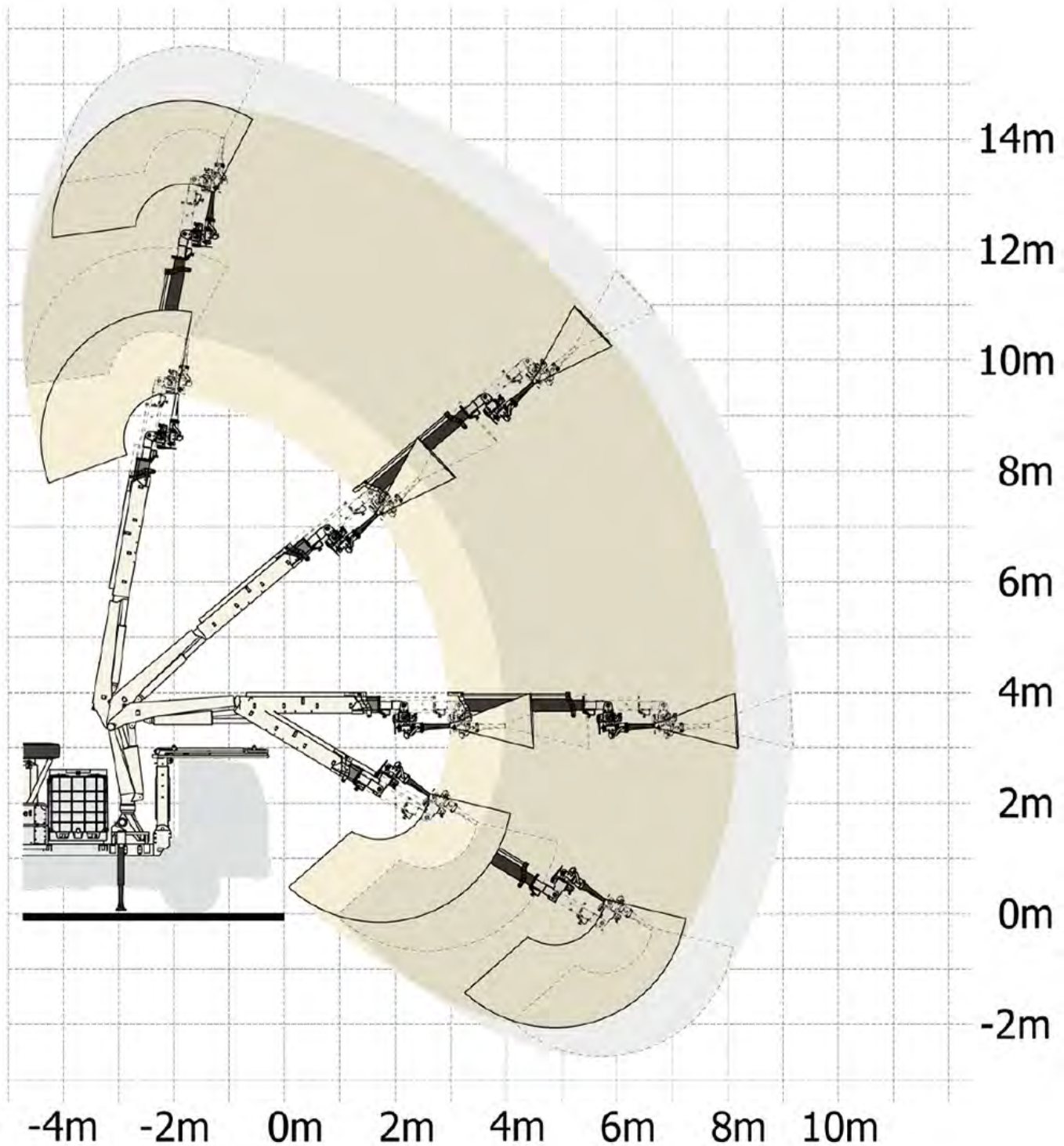


- Standard spraying area
- Spraying area with boom extension

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SPRAY BOOM SBF 512 REACH



- Standard spraying area
- Spraying area with boom extension

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OPERATING WEIGHT

Base machine

19 500 kg

final machine weight variate in agree with selected options