



The Specialist range

S9000 • S12000 • S14000

The Beam Specialist range

Based in Denmark, Beam manufactures a range of high performance sweeping, cleaning and high pressure washing equipment which is sold via our worldwide distribution network.

Each machine is tailored to each individual customer requirements from a wide range of modular options.

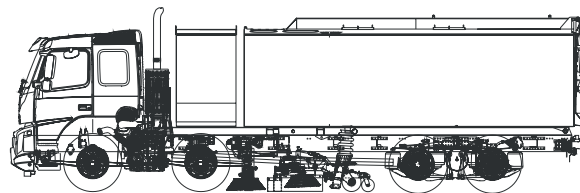
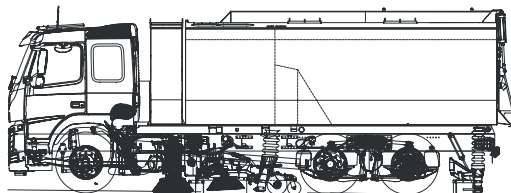
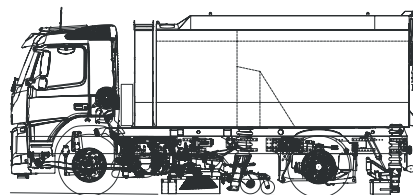
Modular options

- Hoppers – From 9 m³ up to 14 m³. Stainless steel type 1.4301 (304).
- Power packs – Auxiliary engine, High capacity fan or Hydrostatic.
- Sweepgear options – Centre brushes, channel brushes, side sliding units, rotatilt functions, etc.
- High-pressure water systems – Standard systems up to 400 bar and flows up to 172 litres with a vast array of spray bar options.
- Front equipment – Fixed, pivoting and side sliding front brushes, scraper bars, detergent spray bars, etc.
- Full width suction – between or behind the rear axle.
- Additional options – Autolube systems, cameras, fuel tanks, rear and top-mounted wanderhoses. A rotor cleaner can also be mounted instead of the full width suction or spraybars.

Hopper modules:

With a choice of materials and capacities, the hopper is the starting point for the sweeper specification. Each hopper is made up of 3 primary parts – the engine cowl, the hopper body and the integral water tanks.

Other features include, a rear screen shaker, inspection hatch ladder, beacons, single colour paint finish on the exterior of the hopper, dirt inlet to the hopper via replaceable rubber coated wear plates, marker lights, marker boards and the safety prop.



	S9000	S12000	S14000
Voided air volume:	9 m ³	12 m ³	14 m ³
Typical chassis GVW:	18 tonne	26 tonne	26 tonne
Typical chassis layout:	4x2	6x2*4	6x2*4
Water volume standard:	2660 litres	3660 litres	4320 litres
Water volume with rear suction:	2320 litres	3320 litres	3980 litres

Water tank modules

The S range has two linked water tanks located on either side of the hopper for optimum weight distribution and balance.

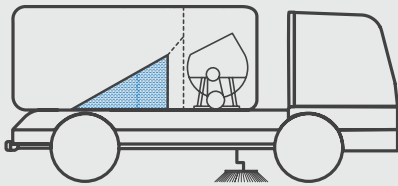
Additional water tanks can be installed inside the hopper or outside between the cab and the hopper. Increase your water capacity by up to 2000 litres.

Tanks are manufactured in stainless steel, type 1.4301 (304).

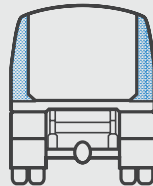
Notes:

- * In-hopper water tanks reduce voided volume
- ** Weight calculation needed to ensure axles aren't overloaded

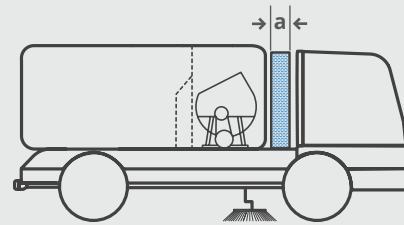
Model	Additional water tanks (litres)				
	In hopper*		Behind cab**		
S9000	600	1000	1100	1500	2000
S12000	600	1000	1100	1500	2000
S14000	600	1000	1100	1500	2000
Dimension 'a' (mm)			315	450	650



Additional tank in hopper
(600 or 1000 litre)



Standard tanks



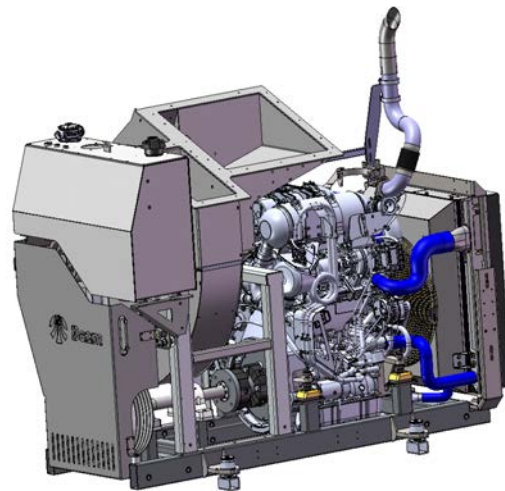
Additional tank behind cab
(1100, 1500 or 2000 litre)

Power pack modules

- Standard - With the use of an auxiliary engine with 129 kW, power is transmitted to the dynamically balanced fan via a belt drive system and fluid flywheel.
- High capacity fan (HCF) - Air flow as high as with the hydrostatic powerpack and at a very low fuel consumption, and low noise level. Power transmission is done via a belt drive system and fluid flywheel.
- Hydrostatic (HCF) – for ultimate speed control from 0 km/h, we offer hydrostatic transmissions, driven from the chassis engine. These transmissions can also be used to power the entire sweeper and washer functions from the chassis engine.

Note:

Typical operating speed for normal sweeping is 1200 rpm.



	4 cylinder - 129 kW	4 cylinder - 129 kW HCF	Hydrostatic HCF
Capacity (cc):	4765	4765	Chassis dependent
Operating revs (RPM):	900 – 1800	900 – 1800	1100-1400
Power output (kW @ RPM):	129 @ 2050	129 @ 2050	Chassis dependent
Max torque (Nm):	690	690	Chassis dependent
Fuel consumption (l/hour):	5 – 18	5 - 20	8 – 30



Side sliding brush unit



Side sliding brush unit

Sweep gear options

Designed to withstand the most arduous conditions, we offer a wide range of sweeping equipment to suit all application needs. Below are example layouts although most machines are designed and built to customers' specific requirements.

Power pack	Brush unit trunking diameter	Brush unit nozzle width
Standard	275 mm	600 mm x 140 mm
High capacity	300 mm	600 mm x 180 mm

• Side sliding brush unit

The channel brush and the suction nozzle can extend up to 400 mm enabling the machine to keep away from the edges of a freshly laid surface. As an option, you can have an sliding centre brush.

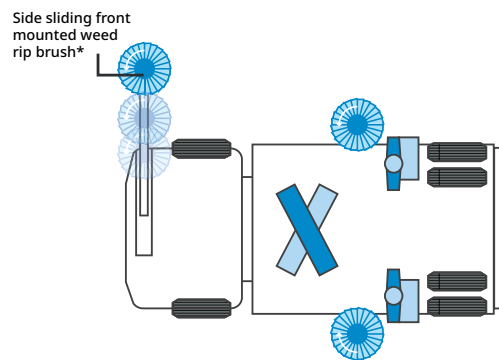
• Centre brush

Also called wide sweep brush. Choose between having a fixed or pivoting type depending on your needs.

Examples:

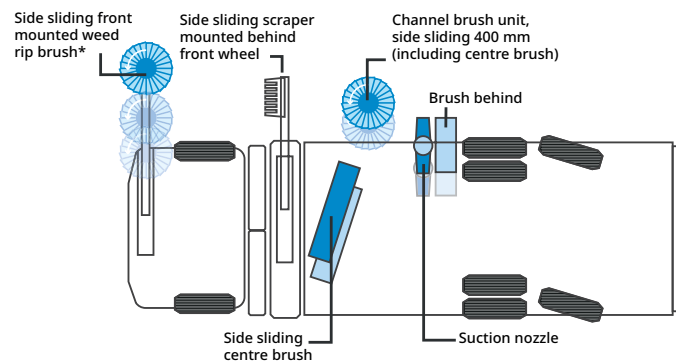
S9000

Conventional sweep gear configuration



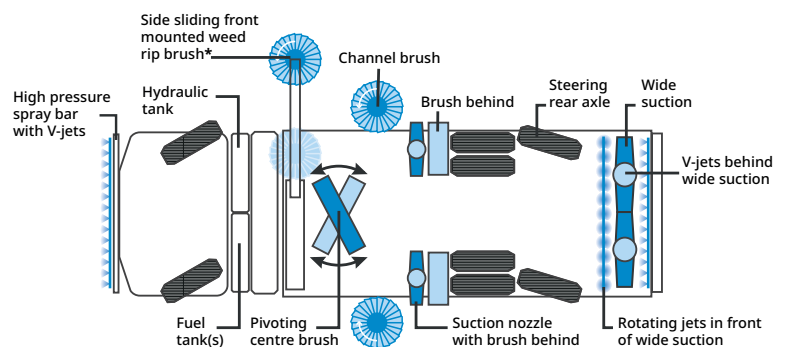
S12000

Heavy duty multi-task sweep gear configuration



S14000

Heavy duty construction sweep gear configuration



*Can be replaced by a scraper or edge cutter

Sweep gear options

- **Channel brush**

Channel brushes feature trailing arms that minimise the risk of damage on collision with curbs or other obstructions. Choose between single or dual, fixed or sliding.

- **Brush behind**

The brush sits immediately behind the suction nozzle to enable rapid pick up at very low auxiliary engine rpm, reducing both fuel cost and noise.

- **Rotatilt function**

The Rotatilt function of the channel brush precisely angles the brush both laterally and longitudinally within a 360 degree angle.

- **Simple scraper**

Mounted behind the front wheel, the simple scraper can extend up to 750 mm to lift compacted mud and debris from the surface.



Top left
Trailing arm channel brush

Top right
Brush behind suction nozzle

Bottom left
Simple scraper behind front wheel

Bottom right
Channel brush rotatilt function

Sweep gear options

- **Full width scraper**

A full width scraper under the body of the chassis.

- **Edge cutter**

Edge cutter cutting back encroaching verge, maintaining road width and preventing surface damage.

- **Pivoting roller brush**

The front mounted roller brush is ideal for brushing freshly milled asphalt onto the unmilled section. It can also be used for brushing snow.

- **Weed rip brush**

For tough jobs you can use a side sliding weed rip brush . extend up to 750mm. It can also be interchanged with the simple scraper or edge cutter.

- **1100mm dia. front mounted brush**

For the ultimate in reach and flexibility, the front mounted 1100mm brush (1100mm side sliding).



Top left
Full width scraper bar

Top right
Edge cutter and plough

Bottom left
Front mounted pivoting roller brush

Below
Side sliding brush unit with weed rip brush

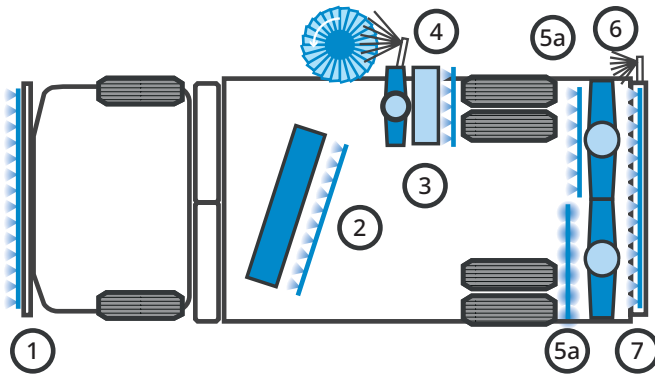
Bottom
1100mm diameter side sliding front brush



High pressure water system modules

A wide range of high pressure systems is available up to 400 bar @ 100 l/min. Water may be applied to the road surface through a selection of spray bars via either V-jets or, for deep cleansing, rotary jets.

System	Pump type	System	Pump type
140 bar @ 47 l/min	Piston	175 bar @ 172 l/min	Piston
150 bar @ 106 l/min	Piston	300 bar @ 136 l/min	Piston
200 bar @ 106 l/min	Piston	240 bar @ 172 l/min	Piston
280 bar @ 74 l/min	Piston	400 bar @ 100 l/min	Piston



Ref Spray bar position

- 1 Front mounted, fixed
- 1 Front mounted, manual pivot
- 1 Front mounted, pneumatic pivot
- 2 Behind wide sweep brush
- 3 Behind suction nozzle with V-jets
- 4 Behind channel brush with V-jet
- 5a In front of wide suction with V-jets
- 5b In front of wide suction with rotating jets
- 6 To the side of the wide suction with V-jets
- 7 Behind wide suction with V-jets



Top left
Rear spray bar. V-jets behind wide suction

Top right
Rotary jets. Powerful rotary jets for deep cleaning

Bottom left
Front spray bar. High pressure front spray bar options

Below
Side jets. High pressure jet gets into the very edge

Bottom
Channel brush spray bar. Channel brush spray jet cleans right into the kerb edge





Top left
Full width rear suction

Top right
Side suction

Bottom left
Front mounted detergent spray bar

Bottom right
Variable dosing system

Detergent options

Detergent system options for grease and oil spill removal. Front mounted detergent spray bar for stand-alone dispersal. Variable dosing system to control the dilution of the detergent by mixing with water.

Full width suction nozzle

Also known as wide suction, it features two articulated rubber-lined nozzles which, in combination with a choice of high pressure water systems, offers optimum surface cleansing increasing surface friction levels and providing safer driving conditions. Side suction pods minimise the spill of water. Choose between having it rear or mid mounted.



In-cab control systems

The sweeping controls are located in the cab.

Left
Standard control panel

Right
Integrated controls are an extra option



Wanderhoses

There are nine different wanderhose options mounted either at the rear or on top of the vehicle – ideal for clearing out gulleys at the edge of the runways or taxiways or for tough to reach areas.

Left
Top mounted wanderhose

Right
Rear mounted wanderhose

The Beam Rotorcleaning system

As an alternative to full width rear suction and spray bars, Beam offers a rear mounted Rotorcleaning system. The Rotorcleaner achieves superior results using lower volumes of water. It operates at 60 to 80 litres per minute compared to the traditional 100 litres per minute.

This reduces the costs of fuel, waste disposal, refilling and allows for better utilisation (more on-station time). This system is equally valuable when used in road maintenance, construction, industrial site cleaning, and aircraft parking stand cleaning.

The system is rear mounted, it uses 4 rotating spray bars covering the full width of the truck and full width suction. It is completely enclosed ensuring no water seepage and a high vacuum that collects all water and waste. It can be used with a range of high pressure pumps from 100 to 400 bar.



Top left
Rotorcleaner system

Top right
Side view of system

Bottom left and right
Before and after on mud road

Notes





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Due to continuous product development Beam A/S reserves the right to alter specifications without prior notice.
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