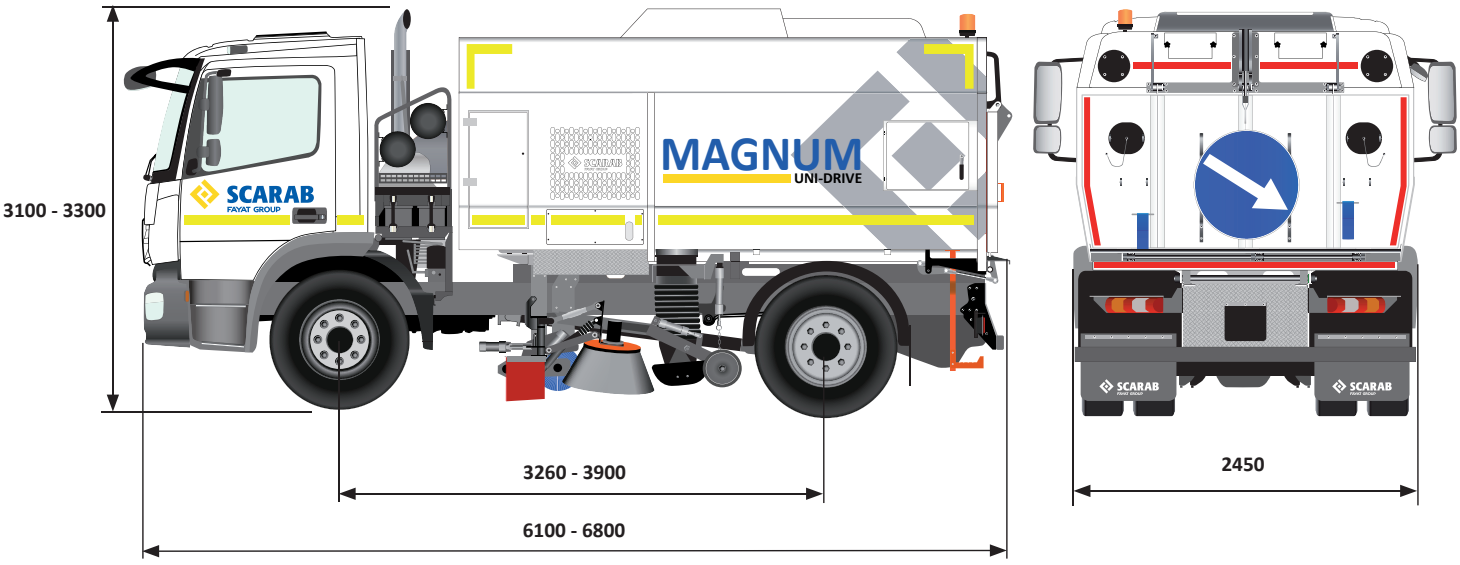
Technical Specification

Magnum Unidrive

All Dimensions in mm



Dimensions representative and may vary according to chassis type selected

General Data	
Chassis Requirement	15-18 Ton GVW
Wheelbase	3260mm-3900mm
Overall Length*	6100mm
Overall Height*	3100mm
Max Height Hopper Up*	4735mm
Discharge Height*	1000mm
Discharge Angle	45 degrees
Door Opening Angle	90 degrees
Filter Mesh Type	Perforated Steel
Low Pressure Pump Output	22.7 lpm / 4.8 Bar
Hydraulic Suction Filtration	125 Micron
Hydraulic Return Filtration	20 micron
Fan Pump Displacement	45cc / rev
Gear Pump(s) Displacement	23cc / rev
Suction Fan Capacity	6000 ft^3/min / 170m^3/min
Suction Fan Diameter	905.5mm
Sweeping Speed	0-20mph / 0-32 kph

Sweeping Equipment	
Side Brush Diameter	600mm
Widesweep Brush Diameter	400mm
Side Brush Speed	0-125rpm Fully Variable
Widesweep Brush Speed	0-125rpm Fully Variable
Side Brush Life Expectancy	80 Working Hours
Widesweep Life Expectancy	150 Working Hours
Suction Tube Diameter	250mm
Nozzle Width	740mm

Capacities	
Hopper Voided Volume**	7.2m^3
Hopper Payload Volume**	6.5m^3
Actual Payload Capacity*	7500 - 9000kg
Fuel Tank*	150 litres
Water Tank	1800 litres
Hydraulic Tank	25 litres

* Dependent on chassis selected

** All Scarab Hopper Capacities are measured in accordance with European Standard EN15429

Scarab Sweepers Ltd, Pattenden Lane, Marden, Kent. TN12 9QD
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SCARAB FAYAT GROUP

Technical Specification

Magnum Unidrive

Unidrive System
The Unidrive system utilises PTO-driven pumps to operate all hydraulic sweeper functions, whilst retaining the conventional chassis transmission, allowing seamless transition between sweeping and travel modes
Sweep speed from 1.6 mph (2.5 kph) up to 15 - 20 mph (20 - 32 kph)
Minimum of moving parts
Uses single (vehicle) engine to ensure low fuel consumption and emissions

Suction Fan
905.5mm diameter
2000rpm Standard, low noise. 2200rpm Boost, hi-power
Capacity 6000 ft3/min (170m3/min)
Stainless Steel standard

Suction Nozzle
Robust all-steel construction
740mm mouth width
250mm diameter suction tube
Adjustable wear-resistant flaps
Low-Pressure water jets
Heavy Duty rubber-tyred wheels

Brushes
600mm diameter steel-tined side brushes
400mm diameter polypropylene-segmented widesweep
Fully proportional variable speed to all brushes from 0-125rpm from in the cab

Hopper
7.2m^3 Gross Hopper Volume, constructed entirely of corrosion-resistant stainless steel
Hydraulically-operated rear door with safety check valve
Twin side loading doors
Automatic self-deploying hopper prop
Twin body drains at different levels
Auto-blanking flaps to suction tubes
Stainless Steel swing-down mesh suction filter screen
Access for suction fan cleaning

Hydraulic System
In plated steel piping where possible
10 micron filters to ensure maximum protection
Hydraulic valve block in easily-accessible location
25 litre steel oil tank with 10 micron return filter
Low oil automatic shut-off
Sight glass

Water System
Self-priming low pressure water pump for dust suppression
Solenoid-controlled valving from the CAN Bus system

Water Tank
1800 litre GRP water tank with large access lid for cleaning
Sight glass with level indicator
Hydrant connector with regulation air break

Pneumatic System
Fitted with a pressure regulator, filter/water separator
Pneumatic solenoid valves to control the side brush, wide sweep brush and suction nozzle
Located for easy servicing in a protected compartment

CAN Bus Control
The Scarab proven CANbus system, in service since 2003
Compact panel adjacent to the driver's seat contains all controls for operating the main sweeper functions
LCD screen displays relevant operating data and provides system diagnostics and a fault-finding facility
Satellite control panel for frequently used operations mounted conveniently to hand

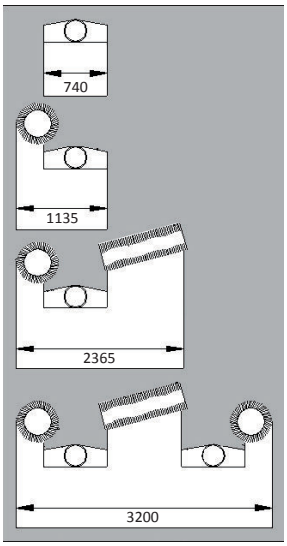
Sweeping Widths

Suction Nozzle only

Suction Nozzle and Side Brush

Suction Nozzle, Side Brush and Widesweep

Both Nozzles, Both Side Brushes and Widesweep



Options
A comprehensive Options List is available for the Magnum, including Hi-Volume Pumps, Larger Water Tanks and many others. Please contact the Scarab Sales Department for more information

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