



VT 450 Vario

Multipurpose transporter



The innovative Aebi VT 450 Vario is not only stepless and incredibly effortless to work with, it is also kind to the environment. The stepless power-split drive system, the hydro-pneumatic suspension with double transverse links and the clean Euro 6C turbo diesel engine all ensure the Aebi VT 450 Vario is the most cutting-edge transporter on the market. The clever operating and driving mode concept delivers comfort and clarity, while a large colour screen keeps the driver up-to-date with the latest information.

Highlights

- **Infinitely variable travel speed** for efficient working
- Double wishbone suspension, which increases **driving comfort** and provides long term protection
- Spacious cabin with **panoramic windows**
- **Intuitive operating concept** with multi-functional joystick with colour guide
- **Quick device change** via four quick release fasteners

Your benefits

- **Outstanding safety measures:** permanent all-wheel drive, 100% lockable differentials, permanent cross-stabilisation of the rear axle
- **Environmentally friendly technology:** clean Euro 6c turbo diesel with 109 HP and 420 Nm torque
- **Easy access:** radiators and filters are positioned for incredibly easy maintenance, while serviceable components are easily accessible

Performance features

Motor

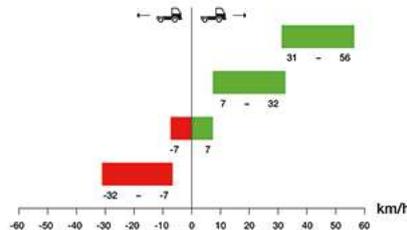
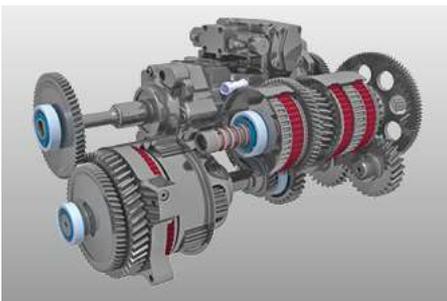
The turbo diesel engine meets the Euro 6C/Level V standard and delivers a powerful 80 kW (109 hp) at 2,600 rpm. The maximum torque of 420 Nm is reached between 1,100 and 1,400 rpm while the exceptional 43% torque rise enhances the drive performance while keeping fuel consumption low. The turbo diesel engine is equipped with a particulate filter and selective catalytic reduction (SCR). Exhaust recirculation and SCR processes are electronically monitored and fine-tuned constantly.



Stepless drive system

- **Driving and operating the vehicle** is exceptionally easy, since both the drive system and functions can **be operated at the same time** using the multi-functional control lever, without any need to change hands. Clutch and gear shifts are a thing of the past, so the driver can concentrate fully on the task at hand.
- The wheels' **permanent friction** lock and a marked **improvement in the hydrostatic drive system's brake** action, when compared to a mechanical transmission, significantly increases safety levels.
- Accurate manoeuvring and changes in direction are effortless. In practice, this translates into a huge **increase in operating speed**.

The stepless drive system covers **four modes**: purely hydrostatic, split power 1, split power 2 and split power reverse. From 0 km/h to 7.3 km/h (4.5mph), the stepless drive system works on a purely hydrostatic basis. The Vario transmission operates in split power range 1 from 7.4 km/h (4.5mph) to 32 km/h (20mph) and split power range 2 from 32 km/h (20mph) up to the country-dependent top speed. The hydrostatic and mechanical parts of the power flow are covered by the single planetary gear and so work together to influence the drive train. A top speed of 30 (18), 40 (25), 45 (27) and 50 (31) km/h (mph) is electronically controlled, according to each country's specific vehicle approval ruling.



Driving characteristics

Chassis

Guided front and rear axles, hydro-pneumatic suspension with double transverse links, progressive skew suppression and hydraulic rear cross-stabilisation all result in safer handling, optimal off-road capability and excellent suspension quality. The suspension on both wheels always works level with the ground without changing the wheelbase.



Automatic Drive Control (ADC)

ADC automatically controls the maximum driving speed depending on the attachment's different power requirements. At full engine lugging, the drive is reduced and when the power requirement eases at power take-off, the engine speed increases once more - without the driver having to lift a finger. The engine always stays within the ideal speed range.

Select the best driving mode at the touch of a button

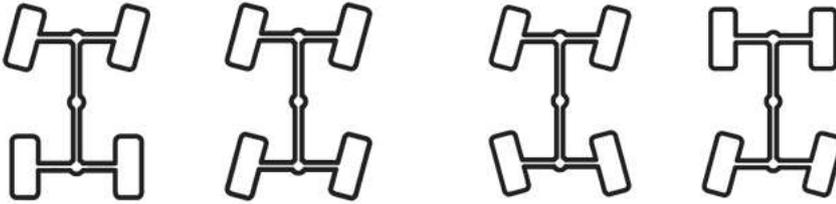
- **Driving on roads:** The entire engine output is delivered to the drive system. The whole traction of 6,200 kg is available at 1,100 rpm.
- **Working mode:** Between 30% and 70% of the engine output is delivered to the drive system. Full traction from 1,400 rpm - ideal for loaders, manure spreaders and slurry tanks.
- **Proportionally:** Between 30% and 70% of the engine output is delivered to the drive system.

TipTronic

The TipTronic driving speeds can be programmed from six (default setting) to 40 individual driving speeds and can be changed at the touch of a button.

Types of steering

Standard front steering can be extended with all-wheel, rear and crab steering. This additional equipment significantly increases the manoeuvrability of the VT 450 Vario and delivers advantages for special applications. The different types of steering can be selected at the touch of a button and the wheels can be automatically locked in a neutral position.



Workplace

Cabin

The decoupled driver's cab is flexibly mounted and the clear, modern and ergonomic layout creates an agreeable environment. A large colour display constantly keeps the driver in the loop with all crucial information and, if a warning message is issued, the driver can respond without delay. A range of comfortable and well-sprung seats are available to choose from. The comfortable cab

is equipped with heating and a defrosting system as standard. The doors feature sliding windows and the rear window can be opened. Working lights and winter maintenance lights are integrated into the plastic roof. Air conditioning and a sunroof are available as an option. Different exterior mirrors are available depending on the approval requirements.



A no-holds-barred control lever!

Enhanced ergonomics, comfort and functionality all in one package. Precise and ultra-quick operation of the attachments with just one finger? Ingeniously simple. Changing the direction of travel quickly and easily without stopping? No problem. Intuitive controls mean there is no need to waste time pouring over operating manuals, and we are well aware that your time and health are precious. That's why the new control lever with Smart Navigator is integrated into the armrest and allows the driver to adopt a relaxed posture in any situation.



Sustainability

ECO Drive

The engine speed is reduced, while the speed remains the same, thereby cutting fuel consumption and producing less noise.

Hydraulics

The hydraulic connectors at the rear are behind the cab and the hydraulic hoses are easy to connect. Hydraulic connectors in the front bumper are available as an option.

Hydraulics variants:

- Standard hydraulics
- Additional hydraulics 40 l/200 bar
- Power hydraulics 100 l/300 bar.



Agriculture

Versatility increases economic operation

The VT 450 transporter can be used in a number of different ways, and the sheer variety of easy-change attachments and equipment allows all year round usage.

Forage harvesting is one area where the VT 450 excels. The solid construction, the easy-grip, all-wheel drive and low effort required for mounting attachments make it ideal for both summer and **winter** use.

Mounted and semi-mounted implements:



- Multi-blade ploughs such as the Schmidt MPC, CPM, SNK or Tarron Compact
- Spreaders such as the Schmidt Stratos, Schmidt Syn-tos
- Front sweeping brushes, such as the Schmidt VKS 26 or VKS 24, can remove relatively large amounts of snow
- Snowblower
- Crawler tracks for transport work in winter sports areas.

Municipal service

Summer service

- **Sweeper:** As a truck-mounted sweeper, the VT 450 Vario cleans streets and squares in inner city areas
- **Mower:** A front boom flail mower enables the maintenance of roadsides and road embankments.
- **Irrigation technology:** Water tank and front spray bar allow the cleaning or dust control of contaminated roads and surfaces.

Winter maintenance

The VT 450 Vario is robustly built, powerful and manoeuvrable, and is ideally suited for use in snow and black ice. The four-wheel drive ensures excellent traction and, in combination with the powerful engines, provides effortless clearing of large quantities of snow.

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Construction Industry

Where space is at a premium, such as construction sites or narrow inner city streets, the all-wheel steering system can reach even seemingly inaccessible angles, while the high payload is another major benefit.

Mounted implements:

- Three-way tipper
- Hook lift
- Skip loader
- Cranes

Special tasks

- **Disposal:** A waste disposal skip ensures disposal of waste in smaller communities in mountainous regions, even in poor driving or winter conditions.
- **Sewer cleaning:** Sludge extraction, flushing of sewers and many other applications are possible with the special sewer cleaning structure.
- **Construction of power lines:** The possibility of mounting double wheels all around the vehicle brings obvious advantages when building or maintaining overhead power lines in rough terrain. The VT 450 is suitably equipped for use on the most difficult slopes while, at the same time, protecting the soil.



Gallery



Variants

VT 450 Vario Agricultural



The VT 450 Vario clearly surpasses the high requirements for agricultural use and will be your long-standing and powerful companion in and around the farm.

VT 450 Vario Municipal



The VT 450 Vario in the municipal version is specifically designed to meet the needs of city and local authorities. With its powerful, continuously variable drive train and intuitive operation, it is convincing all along the line.

Related product

TP 410

Multipurpose transporter



MT

Multipurpose transporter



Keywords

#Farmers & Winery Owners #Contractors #Foresters & Landscapers #Counties, Cities & Municipalities #Airports #Fire brigade, Military & Civil Defence #Industry, Construction & Facility Management #Clearing Snow #Maintaining Green-Spaces #Transport #Prepare Ski Slopes #Special Solutions #Deicing #Innecity Roads #Agricultural Areas #Industrial & Port Areas #Parking Facilities & Underground Car Parks #Green Areas & Parks #Airport Airside #Airport Landside

Technical data

	VT 450 Vario Agricultural	VT 450 Vario Municipal
Chassis		
Longitudinal differential with lock	yes	yes
Longitudinal differential with lock via multi-plate clutch	no	no
Hydropneumatic suspension front and rear	yes	yes
Hydraulic skew suppression	yes	yes
Drive system - Engine		
Engine type	VM R754EU6C	VM R754EU6C
Number of cylinders	4	4
Exhaust emission	Euro 6c	Euro 6c
Displacement	2,970 cm ³	2,970 cm ³
Fuel	Diesel	Diesel
Performance	80 kW (109 PS) @ 2,600 1/min	80 kW (109 PS) @ 2,600 1/min
Max. torque at speed	420 Nm at 1,100 1/min	420 Nm at 1,100 1/min
Torque rise	43 %	43 %
Fuel tank	100 l	100 l
AdBlue tank	14 l	14 l
Fuel consumption	215 g/kWh	215 g/kWh
Vario split-power stepless	yes	yes
Forward speed	50 km/h	50 km/h
Reverse speed	31 km/h	31 km/h
Rear power take-off shaft speed	998 1/min	998 1/min
Powershift rear take-off shaft	yes	yes
Hydraulic system		
Standard hydraulics flow rate	40 l/min / 200 bar	40 l/min / 200 bar
Additional hydraulics flow rate	40 l/min / 200 bar	40 l/min / 200 bar
Power hydraulics flow rate	100 l/min / 300 bar	100 l/min / 300 bar
Front lifting mechanism (optional) lifting force	2,000 kg	2,000 kg
Brakes		
Brakes	Dual circuit disc hydraulic brake system with load control on the rear axle	Dual circuit disc hydraulic brake system with load control on the rear axle
Hydraulic dual-circuit brake	yes	yes
Hill-holder function	no	no
Parking brake mechanical	no	no
Parking brake hydraulic	yes	yes
Wear-free brake	option	option
Steering		
Front steering	yes	yes
All-wheel steering	yes	yes
Rear steering	yes	yes
Crab steering	yes	yes
Front-wheel steering turning circle radius - short wheelbase	5,800 mm	5,800 mm
Front-wheel steering turning circle radius - long wheelbase	6,500 mm	6,500 mm
Four-wheel steering turning circle radius - short wheelbase	4,100 mm	4,100 mm
Four-wheel steering turning circle radius - long wheelbase	4,400 mm	4,400 mm
Tyres		
Double tyres front and rear	option	option
Equipment		
Full-view cab with heating and defrosting system	yes	yes
Radio pre-installation	yes	yes
On-board computer	yes	yes
Air conditioning	yes	yes
Air Multifunctional control lever	yes	yes
Dimensions		

	VT 450 Vario Agricultural	VT 450 Vario Municipal
Width by tyres	1,950 - 2,800 mm	1,950 - 2,800 mm
Width by cabin	1,900 mm	1,900 mm
Height by cabin	2,300 mm	2,300 mm
Length	4,784 mm / 5,184 mm	4,784 mm / 5,184 mm
Wheelbase	2,850 mm / 3,250 mm	2,850 mm / 3,250 mm
Weights		
Empty weight without mounting	3,500 kg	3,500 kg
Total weight	8,500 kg / 9,500 kg	8,500 kg / 9,500 kg



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