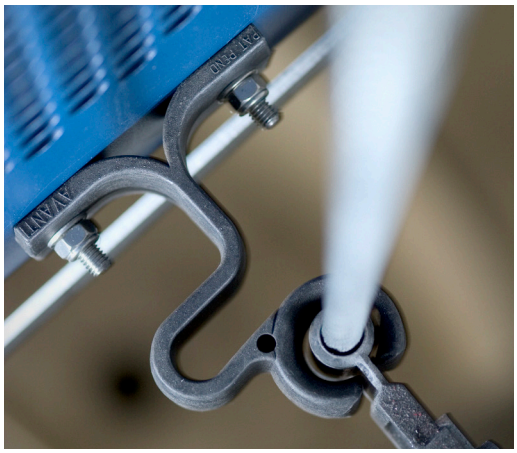
AVANTI SHARK SERVICE LIFT – A SAFE INVESTMENT

Safe work in wind turbines always has top priority at Avanti Wind Systems. The wind turbines get higher and higher – and so does the demands for the safety of the technicians working in the tower or the nacelle. An Avanti Service Lift is a good investment offering the highest safety for the technicians working in the turbines.
With an Avanti Service Lift installed, the technicians do not have to climb up and down the wind turbine using a ladder. The technicians and their tools are transported safely and quickly up and down in a Service Lift. Experience shows that service technicians are performing better when they do not have to spend time and force to climb up the ladders. The lift can be installed and taken into use even before the turbine tower is ready to produce power meaning that the equipment and tools can be transported to the nacelle under construction. The owners of more than 16.000 wind turbines have realized that an Avanti Service Lift is a good investment.

Avanti Shark Service Lift is guided on wires.
Two thick wires are mounted on a suspension beam on the top of the turbine – and in the basement of the turbine tower where they are tightened with Tension Spring System developed by Avanti. Avanti has developed a flexible wire guide ensuring that the lift is steered smoothly through the platforms with only 4-5 cm between lift and platform. The motor wire and a safety wire are mounted on the beam at the top of tower.



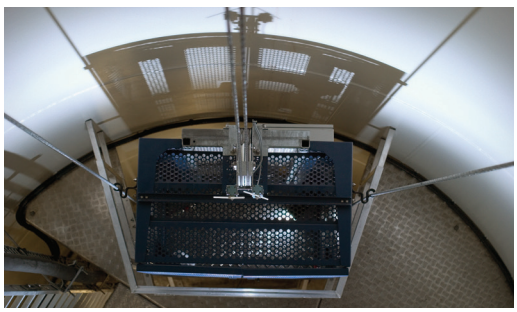
Avanti System has developed a flexible wire guide to ensure that the lift is steered smooth through the wind turbine platforms allowing 4-5cm air between lift and platform.

The motor and other electrical installations are placed on top of the Shark Lift. In case of power failure the motor is easy to operate manually from the lift and the technicians can safely bring the lift down.

The power supply comes from a cable housed in a cable collect bin in the basement of the tower. The cable coils up in the bin when the lift is running down meaning that there is no loosely hanging electrical cable when the lift is not in use – and no risk of wear or damage to the cable due to oscillation and vibrations when the turbine is producing power. The lift operates close to the ladder but independently of the ladder system. The technicians can move from the lift to the ladder with their safety equipment anywhere in the tower.

The Avanti Service Lift offers optimal space for the transportation of two persons and tools, as the cabin is produced from a self-supporting aluminium plate structure without carrying frame.

The cabin in most types of Avanti Shark Service Lift has optimal space for transportation of two technicians and their tools.
Models with more or less space are available. Avanti Wind Systems develops and produces lifts in various sizes to meet customer requirements. The cabin is produced from a self supporting aluminum plate structure without carrying frame. It is seawater resistant and can be used in offshore turbines too.



According to current regulation, the tower must be designed with a guardrail to increase safety.

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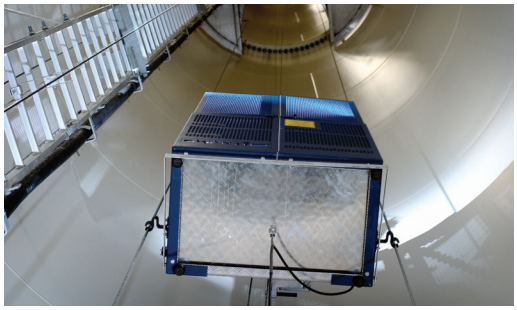
AVANTI SERVICE LIFT - A SAFE INVESTMENT

The Avanti Service Lift is available as 2-door lift or 4-door-lift. Furthermore, the Avanti Service Lift is available with 2 folding doors.

The cabin doors are developed by Avanti engineers to provide the highest possible safety for the technicians working in the turbine towers.
Avanti Shark Service Lift is available with several different door systems. Avanti's engineers have the experience to find or develop exactly the door system that the customer wants.
The model with two doors has the doors placed 110 cm above floor level. In the bottom of the turbine and around each platform hole for the lift, there is a 110 cm fence. When the lift is located at a platform, the fence can be used as a ladder when entering the lift.
Another type of Avanti Shark Service Lift also has two lower doors. They can only be opened when the lift stops in the bottom of the turbine or at a platform making it easier to get heavy tools in and out the lift.
From country to country there are different requirements to the shape and dimensions of the fence around the openings. Avanti Wind Systems can deliver and install the solutions required by law and according to what the customer wants – with save work in wind turbines as top priority.

The Service Lift can only operate with the doors closed. It is operated with a hold-and-go system called a dead-man's switch. It stops immediately if the doors are opened or the switch is released.



The Avanti Service Lift is equipped with a unique safety system, which prevents the doors from opening during transportation between platforms. The 4-door-model features a further unique safety system, which ensures that doors only open, when the lift stands still on a platform.

The technicians can stop the lift anywhere, open the doors and work from the lift without risk of falling out because the doors are placed 110 cm above lift floor level.

The noise level is 72dB at start and drops to 70 dB when running, which is not disturbing – it is the same level as for example normal TV-audio level or as a vacuum cleaner.

One-stop-shopping Avanti Wind Systems has offices locations and factories all around the world. Avanti also produces complete internals sets for wind turbine towers.

The Avanti Service Lift turns around its own axis and follows the ladder from the bottom to the top of the wind turbine.

SPECIFICATIONS

Approvals: Worldwide: CE (Europe), AECO ASME A17.7 (USA), CSA (Canada) and AUS/NZS (Australia and New Zealand).

Service: Technical service available worldwide.

Power: Europe (50 Hz) 690V or 400V 3Ph. USA/Canada (60 Hz) 400V or 480V 3Ph.

Speed: Europe 18 m/min. USA/Canada 70 ft/min.

Load capacity: Standard model: 240 kg, max. 2 persons. Also available with a load capacity of 320 kg.

Weight: Own weight 140kg.

Instructions: Available in many languages.

User manual: Available in many languages.

Technical specifications: Available upon request.