

# AVANTI SERVICE LIFT DOLPHIN - A SAFE INVESTMENT



As wind turbines get higher and higher, the demand for the safety of employees working daily in the nacelle or in the tower of the wind turbine also gets higher. The owners of 16.000 wind turbine have come to realize that the Avanti Service Lift is a good investment in the safety of their employees with an added value by running the wind turbine at high performance.

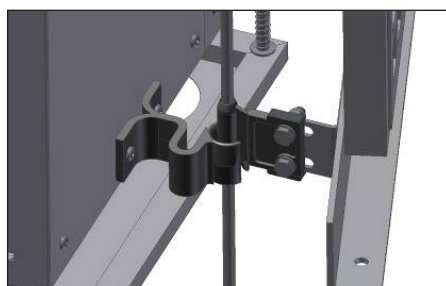
## DESIGN

The Avanti Service Lift Dolphin has a special electrically monitored slide door, which function is related to an interlock switch mounted on the fence; this function achieves, for open or closing the slide door and the fence, a high level of safety for the technicians.

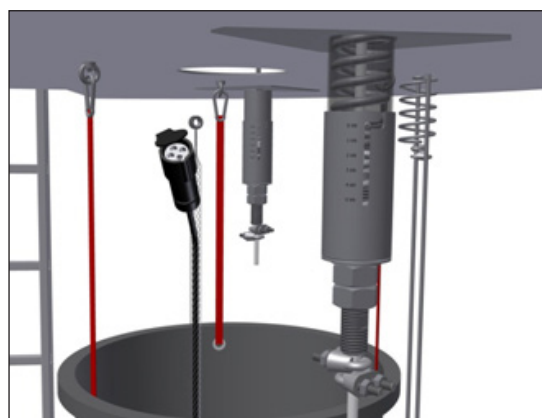
A further advantage of using the Avanti Service Lift is that it can be taken into use already during the construction, installing and commissioning period of the tower. Thus the turbine owner can soon get a return on the investment, as well through the additional high performance of the service technicians.

### Safe solution for transport of persons and material

The Avanti Service Lift may be used to transport two persons plus their tools and equipment to the most convenient height to work on the tower. The Avanti Service Lift is manufactured with sea water resistant aluminium and high quality components. It uses state of the art safety and tensioned spring system.



Avanti has developed a flexible wire guide to ensure that the lift is steered smooth through the wind turbine platforms.



Tension Systems. The spring inside this system absorbs dynamic effects and makes it easy to adjust guide wire tension.

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Avanti Service Lift can always be self evacuated in case of emergency. The manual descent system allows the user to descend to the lowest platform under controlled speed in case of power failure. In extreme situations the lift can be evacuated safely to the tower climbing ladder using the PPE anchor points installed inside the lift.

## SAFETY

### New design features

In addition to the well known features from previous service lift models, the Dolphin service lift includes new innovative concepts:

1) Fully integrated interlock system for fences and lift. The sliding door can be divided in upper part (window) and bottom part (door). The upper part can be easily opened to make service from the lift. The bottom part remains closed except on landing areas ensuring safe and easy entrance and exit with tools to and from the platform.

2) Optimised cabin geometry and component arrangement, thought to provide the maximum possible space for the user. The standing surface is 0.57 m<sup>2</sup> (+10% compared to Shark) and the standing height is kept to more than 2100 mm inside the lift.

3) Inspection window for traction and safety wire inspection and service. The traction and safety wires can now be easily and comfortably inspected and serviced from the lift reducing fatigue and service time.

4) New options:

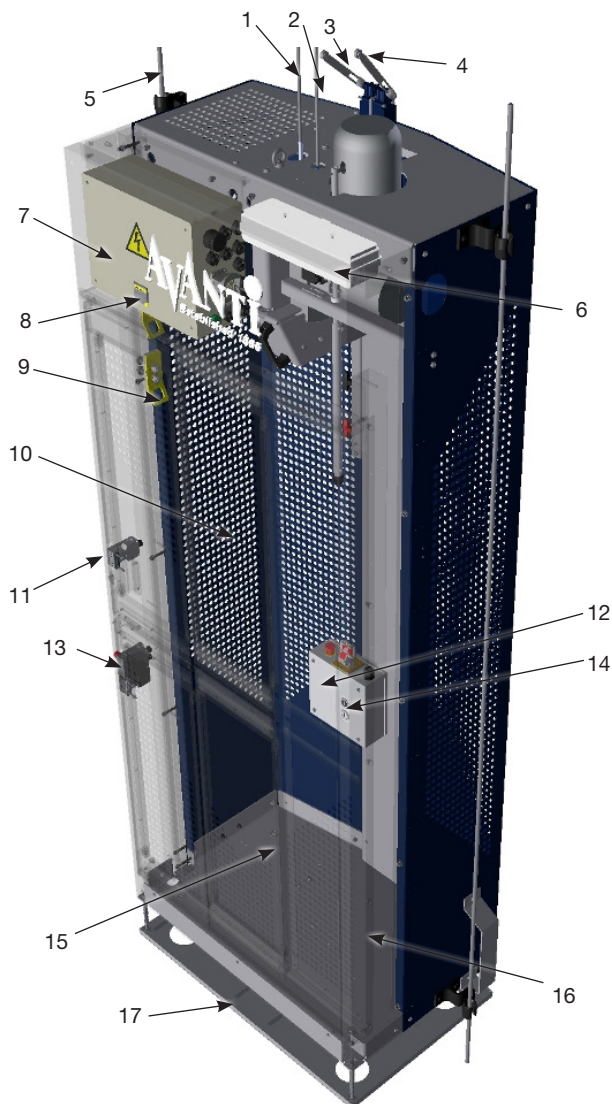
- Internal light.
- Visible hour counter
- Manual descent acoustic signal
- Side windows for inspection

### Service

Avanti Service: Technical service available worldwide.

### Standards and Approvals

Avanti service lift is CE approved (2006/42) AECO and UL approvals in progress



1. SAFETY WIRE
2. TRACTION WIRE
3. EMERGENCY TOP LIMIT STOP SWITCH
4. TOP LIMIT STOP SWITCH
5. GUIDE WIRE
6. CABIN LIGHT
7. MAIN CONTROL BOX
8. HOUR COUNTER

9. PPE ANCHOR POINT
10. TOP SLIDING DOOR
11. TOP DOOR SWITCH
12. USER CONTROL BOX
13. BOTTOM DOOR INTERLOCK
14. EXTERNAL SEND CONTROL
15. BOTTOM SLIDING DOOR
16. TRACTION & SAFETY WIRE INSPECTION WINDOW
17. BOTTOM SAFETY STOP

## TECHNICAL DATA

|                          |   |
|--------------------------|---|
| <b>Lifting capacity:</b> | 240 kg (max 2 persons)  |
| <b>Weight of lift:</b>   | 165 kg  |
| <b>Power supply:</b>     | Europe 690 V / 400 V – 50 Hz - USA/Canada 400 V / 480 V – 60 Hz |
| <b>Speed:</b>            | Europe 18 m/min - USA/Canada 33 feet/min                        |
| <b>Door opening:</b>     | 580 mm  |