

AVANTI STANDARD APPROVALS AND TESTS – A SAFE INVESTMENT FOR TURBINE OWNERS



Health and safety issues have a continuously increasing focus on the agenda in the wind turbine industry. As wind turbines get higher and higher - and as they increase in number - focus is turned to safer equipment for people working in wind turbines. The Avanti Service Lift and other Avanti products are designed in compliance with or have even been tested and certified by third parties to comply with the standards in Europe, USA, Canada, Australia, New Zealand and Brazil.

Safe work in wind turbines always has top priority at Avanti Wind Systems. And Avanti will assist you in obtaining the acceptance by your local Authorities for the use of Avanti products for fast and safe ascending and descending in wind turbine towers in any country throughout the world.

Occupational health and safety regulations may vary from country to country. OSHA requirements in the US are often very different from European guidelines. Likewise, a different set of rules may apply in the UK compared to Germany.

Avanti products have been installed in all major wind markets in the world putting Avanti in a unique position to assist our customers.

Avanti engineers proactively approach local authorities, customers, standard drafting organizations, accredited bodies and working groups on country international wind energy associations in existing and emerging wind markets to ensure compliance of its products. Avanti also works on creating necessary standards to satisfy safety requirements of those countries - and the requirements from our customers. Avanti Wind Systems is part of technical committees in the most challenging countries involved with design and safety for its products.

Lifts: Certificates – Tests – Standard Compliance

Approval and permitting processes in new markets demand a deep knowledge of international and local regulations as well as mastering technology for lifting equipment. Avanti Wind Systems is the world's leading producer and installer of Service Lifts, and we will provide the support and experience to get the right certificates and permits for our products in any country.

The Avanti Service Lifts have already received the following approvals. Special permitting in countries where there are no specific standards or regulations has also been obtained. Please check with Avanti for your new project.

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)	Australia New Zealand (AS / NZ)
Shark	APPROVED - MD 2006/42/EC - EN 1808	APPROVED - UL 1322 - ASME 17.7 (AECO)	APPROVED - CSA-Z271 - CSA B44.7	APPROVED - AS 1418.8 - AS 1735.9
Dolphin	APPROVED - MD 2006/42/EC - EN 1808	(1)	(2)	APPROVED - AS 1735.9

(1) In Progress UL 1322 & ASME 17.7 (AECO)
(2) In Progress CSA Z271 & CSA B44.7

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Hoist and Safety Brakes: Certificates – Tests – Standard Compliance

Hoist, Safety Brakes and Wire Ropes are certified components. The Avanti Traction Systems have been tested to comply with the most demanding standards worldwide. The M508 Hoist together with the ASL508 has already obtained the following approvals:

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)
M508 / ASL508	APPROVED - MD 2006/42/EC - EN 1808	APPROVED - UL 1322	APPROVED - CSA Z271-10

Climb Assistance: Certificates – Tests – Standard Compliance

Climb Assistance products are usually not covered by a specific standard. As a consequence, more general standards or regulations are followed. The following standards and regulations have been used for the design of Avanti Climb Assistance. Third parties have been involved in the evaluation of the design to general regulations. The Climb Assistance is tested for compatibility with many fall protection systems, including of course Avanti Fall Protection System.

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)
Climb Assistance VI	APPROVED - MD 2006/42/EC	UL listed components Follows NEC - NFPA 70	UL listed components Follows NEC - NFPA 70
Climb Assistance VII	APPROVED - MD 2006/42/EC	UL listed components Follows CEC - C22	UL listed components Follows CEC - C22

Fall Protection System for Fixed Ladders: Certificates – Tests – Standard Compliance

Avanti Fall Protection System for Fixed Ladders is following the strictest requirements. Additionally, Avanti performs its own testing program going beyond the requirements of current standards. The following tests and approvals have been carried out by different authorities and certifying organizations:

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)	Australia New Zealand (AS / NZ)	Brazil (NBR)
Fall Protection For Fixed Ladders	APPROVED - PPED 89/686/EC - EN 353-1 - prEN 353-1 - Rfu CNB/P/11.073 - TUV NEL Fall back tests	APPROVED - ANSI A14.3 Section 7 - ANSI Z359-1 - OSHA 1926.502	APPROVED - CSA Z259.2.1 - CSA Z259.11-5 - CSA Z259.12-11	APPROVED - AS 1891.3	APPROVED - NBR 14627

Fixed Ladders: Certificates – Tests – Standard Compliance

The Avanti ladder design is optimized to meet our customers' needs. The Avanti Ladder has passed the most demanding tests, which include:

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)
Ladder	APPROVED - EN 131	APPROVED - ANSI A14.3 - OSHA 1910.27	- AS 1657

Avanti Ladder Anchor: Certificates – Tests – Standard Compliance

Avanti Ladder Anchors can be mounted on the Avanti Ladder. The Anchor can be used anywhere on the ladder. Being part of personal protective equipment, they follow very strict standards. They are subjected to a wide variety of static and dynamic tests to ensure its reliability in case of a fall. The following standards and regulations have been followed to obtain a certificate:

MODEL	Europe (CE / EN)	USA (ANSI / UL / ASME)	CAN (CSA)
Ladder Anchor	APPROVED - PPED 89/686/EC - EN 795	APPROVED - ANSI Z359-1 - OSHA 1926.502	- AS 1891.3