

Case Study

Bali International Airport



Client **Angkasa Pura I, International Airport
Ngurah Rai Bali, Indonesia**

Requirement **Fall Protection systems for accessing the
roof for periodic maintenance**

Solution **Latchways Constant Force Post Horizontal
Lifeline, Latchways Horizontal Lifeline,
Latchways Vertical Lifeline.**

Product Details **150 Constant Force Posts**



WE KNOW WHAT'S AT STAKE.

Case Study



Background

Ngurah Rai International Airport, which carries a unique and futuristic building design, is the first airport in Indonesia that blends modernity and tradition. The roof is shaped like a wave, giving the iconic airport a representation to Bali's famous sea waves and beautiful beaches.

Being adventurous in its architectural form, the airport also faced challenges in carrying out its maintenance work. The roof has curves posing as potential fall hazards for workers and existing maintenance activities are conducted using rope access techniques, which however, do not cover all work areas on the roof.

Requirement

Ngurah Rai International Airport is designed with a substantial use of glass on its facade to achieve optimal lighting. Bali's tropical climate needs the glass and the associated gutters to be regularly maintained in order to prevent staining. The Fall Arrest System had to be installed without impairing the visual characteristics of the airport itself. Due to the airport's close proximity to the sea, it was also necessary to use high quality materials. Moreover, any installation work conducted had to be minimally invasive as airport operations were on-going.

MSA Latchways Solution

After having discussions with Angkasa Purah I, PT. Utomodeck Metalworks and MSA Latchways designed a bespoke fall arrest system to ensure operators are able to practice 100% Fall Arrest tie-off work methods when conducting any maintenance activities. Designs were undertaken for the membrane wave roof and canopy departure gates constructed of glass and metal. Vertical Lifeline systems were incorporated for workers to be tied-off from the ground up. Bespoke walkways were included to create safe passageways for tricky access areas.

The MSA Latchways Constant Force Post system ensured that only a maximum of 6.5KN of force was transmitted to the roof in the event of a fall, ensuring a high level of protection for the workers, without damaging the integrity of the roof itself. The systems are tested to the European EN795:2012 standards for Fall Arrest anchor points, and the CEN TS 16415 standards for systems with multiple workers.

MSA Latchways also utilised a full weathering collar for the Constant Force Posts, which featured a robust weather-proof membrane collar compatible with the wave roof's Firestone membrane. This weathering collar is designed to have rain water flow smoothly off the Costant Force Posts with zero leakage possibility upon proper installation.



About MSA Latchways

Established in 1974, Latchways has become a worldwide leading brand synonymous with engineering strength in fall protection. Maybe it's because we were the very first company to successfully develop and market engineered cable-based fall arrest systems. Or maybe it's because our constant innovations in worker safety at height have improved so many workplaces and lives. One thing is certain: In a global industry with ever evolving demands and ever-changing regulations, the call for fall protection that works with you and your specific needs has never been stronger. That's why, in October 2015, Latchways joined forces with MSA Safety, Inc., a Pennsylvania-based Fortune 500 company with sales and manufacturing operations in more than 140 countries. Together, we bring unprecedented global leadership to protecting workers and satisfying customers around the world.



Our Mission

MSA's mission is to see to it that men and women may work in safety and that they, their families and their communities may live in health throughout the world.

MSA: Because every life has a purpose.

Your direct contact



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