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UNRIVALED SAFETY.

KS GROUP

CASE STUDY

HARLEY-DAVIDSON THAILAND



VERTICAL LIFELINE SYSTEM FOR MAINTENANCE

AFF7500 VERTICAL WIRE LIFELINE SYSTEM

PROJECT CASE STUDY

Client : Harley-Davidson (Thailand) Limited
Industry : Automotive Manufacturing
Project name : Installation of Vertical Lifeline System for Maintenance Purpose
Products used : AFF7500 Vertical Wire Lifeline System
Installed and Supervised By : KStrong Certified Installer - Ultimate Plus Supply Company Limited

Background

Harley-Davidson (Thailand) Limited operates a state-of-the-art motorcycle manufacturing facility where precision, efficiency, and safety go hand in hand. Within the plant, maintenance teams routinely access elevated work areas via fixed ladders to carry out inspections, servicing, and preventive maintenance critical to keeping operations running smoothly. Working at height is an essential part of these activities—making reliable fall protection not just important, but imperative.

Recognizing the need to further enhance on-site safety and proactively reduce risk, the company **initiated a project to upgrade its vertical fall protection systems for maintenance personnel**. The objective was clear: to **provide a safer, more secure climbing solution that aligns with internationally recognized fall protection standards while supporting productivity and ease of movement**. This upgrade reflects the client's ongoing commitment to protecting its workforce, strengthening compliance, and fostering a safety-first culture across its operations.



Client Requirement

The client required a vertical fall protection solution that would deliver reliable, continuous safety for personnel accessing fixed ladders—without disrupting the efficiency of routine maintenance activities. Because technicians frequently ascend and descend to perform inspections and servicing at height, the system needed to provide seamless protection while allowing them to work confidently and without restriction.

To meet operational and safety objectives, the solution was expected to fulfill the following key requirements:

- **Continuous fall protection** during ladder ascent and descent to ensure uninterrupted safety at every stage of access
- **Compliance with internationally recognized safety standards** to support regulatory alignment and best practices
- **Unrestricted vertical movement** to enable smooth climbing and efficient completion of maintenance tasks
- **A certified system engineered for industrial environments**, capable of withstanding demanding plant conditions
- **Long-term durability with minimal maintenance requirements**, ensuring sustained performance and reduced lifecycle costs

These criteria ensured the selected system would not only enhance worker safety, but also integrate seamlessly into daily maintenance operations while supporting long-term reliability.

KStrong Solution

KStrong supplied and implemented the AFF7500 Vertical Wire Lifeline System, a certified ladder safety solution engineered specifically for permanent installation on fixed ladders. Designed to deliver dependable vertical fall protection in demanding industrial environments, the system provides workers with continuous security while maintaining smooth and efficient access to elevated areas.

The AFF7500 features a high-strength vertical wire lifeline securely anchored at both the top and bottom of the structure, forming a stable and reliable safety line. A guided rope grab travels effortlessly along the cable during normal climbing movement, allowing technicians to ascend and descend without restriction. In the event of a fall, the rope grab automatically locks onto the lifeline, instantly arresting the descent and minimizing risk of injury.

Key technical advantages of the system include an engineered energy absorption mechanism to reduce arrest forces on the user, corrosion-resistant components suitable for harsh industrial conditions, and a compact rope grab design that supports comfortable, uninterrupted climbing. Built for long-term indoor and outdoor use, the AFF7500 is designed to withstand frequent, repetitive access while delivering consistent performance over time.

Installation and supervision were carried out by a KStrong Certified Installer, ensuring correct anchorage, precise alignment, and full system functionality—all completed seamlessly without disrupting ongoing maintenance operations.



Results and Benefits

- **Continuous vertical fall protection** through a guided wire lifeline system paired with an automatic rope grab, ensuring uninterrupted security during ascent and descent
- **Reduced fall arrest forces** via an integrated energy-absorbing mechanism designed to minimize impact on the user
- **Smooth, unrestricted climbing movement**, allowing maintenance personnel to work efficiently without hindrance
- **Durable, corrosion-resistant components** engineered to withstand demanding industrial environments
- **Full alignment with internationally recognized fall protection standards**, supporting compliance and best practices
- **Enhanced worker confidence and safety awareness**, fostering a stronger safety culture across maintenance operations

Conclusion

The installation of the AFF7500 Vertical Lifeline System marked a significant advancement in fall protection for maintenance personnel working at height. By introducing a technically robust, permanently installed ladder safety solution, the **facility has strengthened protection during routine inspection and servicing activities—without compromising operational efficiency.**

With a system designed in accordance with internationally recognized fall protection standards, the project reflects the client's firm commitment to global safety best practices, proactive risk mitigation, and long-term workforce protection. Beyond compliance, the upgrade reinforces a culture where worker safety is prioritized at every level, ensuring that maintenance teams can perform their duties with greater confidence, security, and peace of mind.

About KStrong

The founders of KStrong have been successfully manufacturing personal protective equipment globally for over 25 years. With the support of a large team of highly experienced research and product development specialists along with global manufacturing facilities, KStrong is poised to become the preeminent brand of choice for personal protective safety products. KStrong takes pride in assuring careful measures to ensure all products meet applicable government codes and professional standards, such as EN, AS/NZS and ANSI. We look forward to helping your company protect its most valued possession, its workers!







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