

UWE M. JANSSEN

Fall Protection, Façade Access & Building Maintenance Unit (BMU) Systems — Technical Specialist

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PROFESSIONAL SUMMARY

Independent technical specialist with more than four decades of hands-on field and assessment experience in fall protection, façade and building-envelope access, Building Maintenance Units (BMUs), suspended and permanent access systems, rigging, and rescue systems on landmark and high-consequence infrastructure. Authority is grounded in direct field practice — design intent, installation, commissioning, and lifecycle performance of these systems in real-world conditions — rather than classroom theory.

Work has spanned the United States, Europe, Asia, and North Africa across bridges, high-rise and commercial towers, marine and offshore assets, industrial and power-generation facilities, and government and military infrastructure. Operates independently of contractors, manufacturers, and installers, providing unbiased, system-level evaluation across the full lifecycle.

Author of the Integrated Design Guide for Work-at-Height & Access Systems (Edition 3, 2026). Retained by counsel on approximately 30 matters involving fall protection, access, rigging, and containment systems. Available for non-testifying consulting and for testifying engagements, on behalf of plaintiff or defense.

AREAS OF EXPERTISE

Fall Protection & Work-at-Height: Fall-protection system failure · fall-arrest and lifeline systems · roof anchor and anchorage systems · suspended-platform failure · work-at-height system performance and lifecycle exposure

Façade Access & BMU Systems: Building Maintenance Unit (BMU) failure · façade and building-envelope access · suspended access and suspended scaffolding · permanent and custom/project-specific access systems · commissioning and installation-readiness conditions

Failure & Responsibility Analysis: System performance and failure analysis · construction defect analysis · design-vs-installation discrepancy · contractor and OEM responsibility allocation · building-maintenance and access accidents · infrastructure access-system failures

Standards & Lifecycle: OSHA, ANSI, and IWCA standards interpretation (as applicable to fall protection and access systems) · lifecycle and maintenance-condition assessment · commissioning condition review · independent system review across the full lifecycle

CONSULTING & ENGAGEMENT SCOPE

Engagements are frequently initiated prior to expert designation, allowing counsel to evaluate the technical validity of a claim, defense, or opposing position before proceeding into formal expert pathways. Scope includes:

- Early-case technical evaluation and case-feasibility / merit review
- Failure analysis of fall protection and access systems (design, manufacturing, installation, operation)
- Construction-defect and system-performance analysis
- BMU / façade access and suspended / permanent access system review
- Commissioning and installation-condition review; lifecycle and maintenance-condition assessment
- Design-vs-installation discrepancy and contractor / OEM responsibility analysis
- Review and rebuttal of opposing expert reports

PROFESSIONAL EXPERIENCE

Rauch Safety & Engineering Inc. — Founder & Principal **2021 – Present**

- Independent technical practice focused on fall protection, façade access, BMU, suspended and permanent access, and rescue systems across the lifecycle of high-consequence built assets.
- Provides owner-direct technical assessment, specification review, inspection, failure analysis, and lifecycle / compliance evaluation; serves asset owners, architects, asset managers, project teams, and counsel.
- Operates independently of contractors, manufacturers, and installers. The practice originated within Rauch International and was established as a distinct entity in 2021.

Rauch International Inc. — Founder & Principal **2001 – Present**

- Originated and led the fall-protection and access technical practice (established as Rauch Safety & Engineering in 2021), delivering technical assessment, specification, and standards-compliance evaluation of access and fall-protection systems on landmark high-rise and infrastructure projects.
- Rauch International is a multi-disciplinary practice; the fall-protection and access systems work summarized above is the basis for the expert engagements described in this document.

Rigging Specialists, Inc. — Founder & Owner **1984 – 2000**

- Founded and led a specialized access and rigging firm serving major infrastructure, industrial, marine, and government clients in the United States and internationally.
- Representative work included rigging support for the 50th-year inspection of the Golden Gate Bridge, a 35-bridge steel-replacement inspection program for the State of Illinois, and U.S. Navy projects delivered on an international basis. The field authority built in this period underpins the technical practice today.

REPRESENTATIVE PROJECTS — LANDMARK & INTERNATIONAL INFRASTRUCTURE

U.S. landmark assets: Golden Gate Bridge (50th-year inspection) · San Francisco–Oakland Bay Bridge · George Washington Bridge · Manhattan Bridge · Sunshine Skyway Bridge · Sears Tower & John Hancock Tower (Chicago) · State of Illinois 35-bridge inspection / steel-replacement program · major Las Vegas hospitality and resort properties (Bellagio, Caesars, MGM, Wynn, Venetian, Mandalay Bay)

International engagements: Kap Shui Mun Bridge (Hong Kong) · Vasco da Gama Bridge (Lisbon) · Wolfson Medical School (Glasgow) · Nokia (Helsinki) · Medina Redevelopment (Casablanca) · government infrastructure projects in China and France · U.S. Navy (delivered internationally)

Sectors & environments: High-rise and commercial buildings · bridges and specialized structures · airports and transportation infrastructure · industrial and processing facilities · power generation and transmission · marine, offshore platforms, and vessels · mining and heavy industrial · towers and vertical-access structures · government and military

EXPERT-WITNESS & LITIGATION-CONSULTING EXPERIENCE

- Approximately 30 attorney-retained case reviews in fall protection, façade access, BMU, rigging, and containment matters.
- Engagements undertaken on behalf of both plaintiff and defense; available as a non-testifying consulting expert and for testifying engagements.
- Listed on Experts.com under Fall Protection / Façade Access Systems (expert-witness and consultant profiles).

PUBLICATIONS

- Integrated Design Guide for Work-at-Height & Access Systems, Edition 3 (2026), Rauch Safety & Engineering — Author and developer.

Technical Article Series — Rauch Safety & Engineering

2026

Eight-article technical series by Uwe Janssen, published by Rauch Safety & Engineering at rauchafetyengr.com/articles.

- BMU Inspection and Certification: Who Is Actually Responsible, and What the Certificate Does Not Tell You
- Common Failure Modes in Building Maintenance Units: A Field Engineer's Perspective
- BMU Factory and Site Acceptance Testing: What FAT and SAT Actually Verify — and What They Don't
- Façade Access Design: The Decisions That Must Be Made Early
- Suspended Access Accidents: What an Engineering Investigation Examines
- Buying a BMU from an Overseas Manufacturer: What Protects the Owner Between Order and Acceptance
- BMU Beneficial Use and Construction Use: Separating Interim Use from Acceptance
- Retrofitting and Replacing Permanent Access Systems: The Second Installation Is the One the Owner Runs

PROPRIETARY FRAMEWORKS & METHODOLOGIES

- **Rauch Access Readiness™ Assessment** — Author / Developer. A structured early-stage diagnostic framework for surfacing access, fall-protection, and rescue risk while design and capital decisions remain flexible.
- **Infrastructure Access Observation Program (IAOP)** — Author / Developer. An execution-governance framework for independent, longitudinal observation of permanent access and rescue systems during installation on infrastructure-scale assets.

TRAINING & CERTIFICATION

- OSHA 40-Hour Safety Training.

PROFESSIONAL ASSOCIATIONS (FORMER)

Society for Protective Coatings (SSPC) · Design-Build Institute of America (DBIA) · Scaffold Industry Association (SIA) · Society of Naval Architects and Marine Engineers (SNAME) · International Window Cleaning Association (IWCA) · Building Owners and Managers Association (BOMA) · National Shipbuilding Research Program (NSRP ASE) · National Association of Corrosion Engineers (NACE) · American Institute of Architects (AIA).