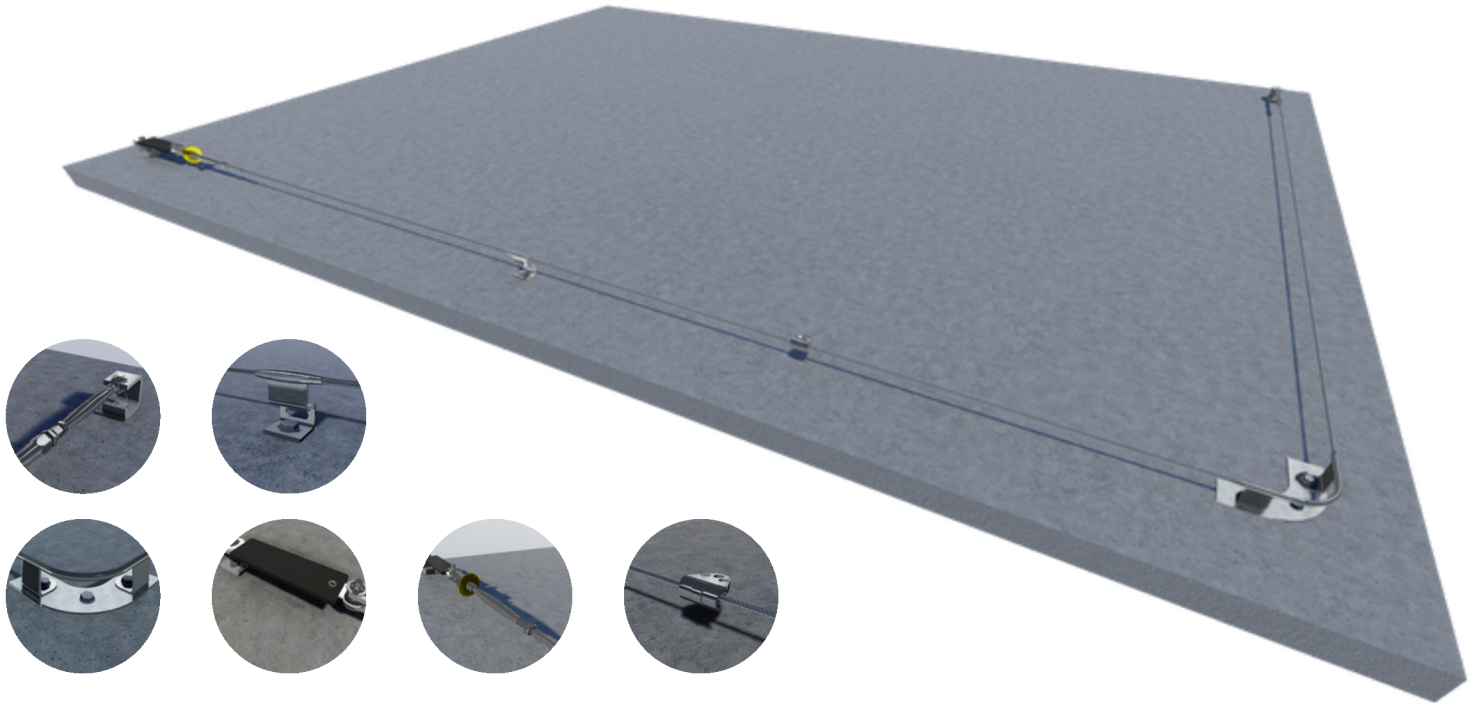


HORIZONTAL LIFELINE ON CONCRETE

GRXHLLC



TECHNICAL SPECIFICATION



PRIMARY STRUCTURAL INTERFACE: CHEMICAL ANCHORAGE

The reliability of the GRXHLLC system begins with the interface between the G-Anchor Extremity Posts and the concrete slab.

- **Substrate Requirement:** Installation is typically performed on reinforced concrete with a minimum compressive strength of 25 MPa (C20/25).
- **Fixing Mechanism:** Utilizing GRX851 Modified Epoxy Resin and GRXNG143 SS316 Threaded Bolts.
- **The “Bond” Logic:** Unlike mechanical expansion anchors that rely on friction and induce internal “bursting” stresses (limiting edge distance), the GRX851 chemical anchor creates a tension-free molecular bond. The epoxy penetrates the concrete pores, distributing the load across the entire surface area of the drilled hole (10d–15d depth). This allows for maximum pull-out resistance even in cracked concrete zones.

KINETIC ENERGY MANAGEMENT (THE LOAD PATH)

Concrete is a high-modulus, non-yielding material. In a fall event, the system must prevent the “impact spike” from reaching the user or the anchors.

- **Stage 1: Inline Energy Absorption:** The system incorporates a high-capacity 316 Stainless Steel Energy Absorber. Upon reaching a pre-defined trigger force, the absorber undergoes controlled deformation (unfolding), which extends the deceleration distance and caps the Maximum Arrest Force (MAF) to safe levels (typically <6kN).
- **Stage 2: Cable Span Deflection:** The 8mm 7×19 wire rope acts as a flexible spring. The horizontal tension and the “sag” (deflection) during a fall absorb a significant portion of the energy before it reaches the extremity G-Anchors.

SYSTEMATIC PASS-THROUGH TECHNOLOGY

Continuous protection is maintained through the engineering of the Intermediate Supports and the Traveler Shuttle.

- **Continuous Tie-Off:** The traveler shuttle features a unique “gated” geometry. As the user moves along the slab, the shuttle passes over intermediate supports without manual disconnection.
- **Bypass Geometry:** The intermediate supports hold the cable in a way that leaves the top and bottom of the cable profile accessible to the shuttle’s tracking wheels/jaws, ensuring 100% connectivity across the entire length of the slab.

GROXX HORIZONTAL LIFELINE SYSTEM

GRXHLLC



TECHNICAL SPECIFICATION

The Groxx GRXHLLC Horizontal Lifeline system for concrete substrates is a professional-grade fall-arrest solution that converts rigid reinforced concrete into a dynamic safety anchorage. The system is specifically engineered to manage high-velocity kinetic energy while maintaining the structural integrity of the slab.

COMPONENTS



G-ANCHOR
GGAP001



**SWAGED
TENSIONER**
GGJT003



**SWAGELESS
CABLE EXTREMITY**
GGSM005



G-BRACKET
GGIB006



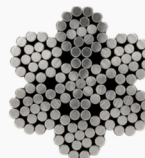
**GO SHOCK
ABSORBER**
GGSA050



**GROXX | SS316
THREADED ROD**
GRXNG143



**GRX NUGGET |
CHEMICAL ANCHOR**
GRX851



**7 X 19 STAINLESS
WIRE ROPE**
GGSWR316



EN 795:2012 Type C
CEN/TS 16415:2013
ISO 9227

USED IN INDUSTRY

