

## FEATURES AND BENEFITS: GRC-H-E-xxx-050-SF/TF

### GRC Guided Rail Clamps – Side Flange and Top Flange mount

Brelx Rail Clamp mechanism weight is distributed to two hardened, low friction, flangeless Cylindrical Rollers riding on a rail. Hardened Guide Blocks guide rail clamp along the rail protecting the serrated shoes from hitting the sides of the rail. It contributes to minimal wear and tear. Guide Blocks are easily removable for quick maintenance and replacement. Designed holding force (capacity) rated at  $\mu=0.5$  coefficient of friction.

**AVAILABLE HOLDING CAPACITIES** GRC-HS-SF from 50 kN to 1000 kN SF Side Flange mounting  
GRC-HS-TF from 50 kN to 700 kN TF Top Flange mounting

### KEY FEATURES:

- Spring set – Hydraulic & Electric release
- Rail Clamp mechanism weight is distributed to two hardened, low friction, flangeless Cylindrical Rollers riding on a rail.
- Hardened Guide Blocks guide Rail Clamp along the rail.
- Release of the serrated shoes done with a single, top-mounted hydraulic cylinder.
- Serrated shoes protected from hitting the rail sides.
- Top suspended mechanism (double parallelogram) allows for very low mechanism float forces, no need for lubrication points.
- Top-mounted hydraulic cylinder with no rod connection, easily removable for quick maintenance and replacement (remove the hydraulic hose and four bolts).
- Mechanism compensates force loss as springs extend due to variations in rail head width, providing a constant designed clamping/holding force.
- Mechanism caging bolts in released position for maintenance safety.
- Rail clamp mounted on the crane by a Side Flange.
- Marine grade C4 paint system for superior corrosion protection.
- Stainless steel removable cover with the inspection doors located on both sides of a rail clamp (Side Flange mount model).
- Inspection doors with high quality rubber door latches (jeep style) and weatherproof strips.
- Horizontal Float:  $\pm 30$ mm
- Vertical Float:  $\pm 25$  mm
- Clamp release monitored by IFM proximity switch.

**Hydraulic Power Unit HPU:** Installed inside a rail clamp (integral unit).

- Rail Clamp Release Time: Up to 6-8 seconds nominal.
- Motor / Pump controlled by a pressure switch.
- In case of power loss, rail clamp sets on the rail within pre-set delay time, hydraulically adjustable at the site (8 – 30 sec).
- Hand Pump for hydraulic release in case of power loss.
- Prewired Junction box.
- Solenoid valve with manual override.
- Solenoid coil with LED indicator.
- Integrated Temperature/Level Switch.
- Top Flange model has inspection and maintenance doors located on both sides of a rail clamp.

**Electric Linear Actuator:** Installed inside a rail clamp (integral unit)

- No hydraulic oil, no possibility for oil spill / leaks
- Means for mechanical release in case of power loss
- Prewired Junction box
- Mechanically adjustable control of setting time at site
- Electric actuators are cleaner, easier to control, and require less maintenance than hydraulic cylinders
- Electric Actuators are much more reliable than hydraulic equipment
- Eliminate fossil-based hydraulic fluids which are potentially toxic to humans, along with being harmful to the environment

NOTE: Equipment controls and integration into crane's PLC – by others. Existing PLC loop time latency to be verified.