


Document No.: D40073 Reference: 160518 Revision:	<b>STORM BRAKES</b> <b>GUIDED RAIL CLAMPS</b> <b>TECHNICAL DATA SHEET</b>	 <b>BRELX</b> Storm Braking Solutions A Division of the Portal Crane Group
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### Leading Features - Guided Rail Clamps GRC

Item	Description
<b>A. SAFETY</b>	<ul style="list-style-type: none"> <li>BRELX rail clamps can be released with hand pump if power is not available</li> <li>Bolts for caging a rail clamp in open position (released) and for mechanical release</li> <li>No accumulators on rail clamp hydraulic system</li> <li>Clamp release, positioning on the rail for proper shoe to rail engagement and reserve stroke monitored by proximity switches</li> </ul>
<b>B. MAINTENANCE ABILITY</b>	<ul style="list-style-type: none"> <li>Maintenance friendly system</li> <li>Easy accessible cylinder position for regular visual inspections &amp; replacement</li> <li>Low friction Hardened Plain Rollers without flanges for minimum wear.</li> <li>Shoe replaceable in field without brake removal from the crane.</li> </ul>
<b>C. QUALITY &amp; PERFORMANCE</b>	<ul style="list-style-type: none"> <li>All products are quality inspected as per BRELX standard quality policy.</li> <li>All BRELX products are performance-tested before shipment.</li> <li>CSA, UL approved components</li> <li>Rail clamp performance test witnessed by internationally recognized organization</li> </ul>

### Standard Technical Design Data – Mechanical Parts

Item	Description
<b>A. GRC-Rail Clamp</b>	<ul style="list-style-type: none"> <li>Available sizes: Static GRC 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600 (kN)</li> <li>Spring set / hydraulic released guided rail clamp device</li> <li>Holding capacity calculated with coeff of friction <math>\mu=0.5</math></li> <li>GRC Allowable Rail Float: Horizontal +/-30 mm; Vertical +/-30 mm</li> <li>Operating Pressure &lt; 13.8 MPa</li> <li>Setting time: Adjustable up to 30 seconds by flow control valve (<b>8</b> sec at factory)</li> </ul>
<b>B. CORROSION PROTECTION</b>	<ul style="list-style-type: none"> <li>Non-structural pins &amp; fasteners are stainless steel</li> <li>All mechanical parts are zinc plated, powder coated or painted</li> <li>Standard frame painting is good for five years warranty</li> </ul> <p><b>Frame painting specification:</b></p> <ul style="list-style-type: none"> <li><b>Sand blasting, Zinc rich primer 50-75 <math>\mu\text{m}</math></b></li> <li><b>2'nd coat, Epoxy min.100-125 <math>\mu\text{m}</math></b></li> <li><b>3'rd coat, Urethane min. 50-75 <math>\mu\text{m}</math></b></li> <li><b>Total coat, (min. 200-275 <math>\mu\text{m}</math>)</b></li> <li><b>Standard finish color: Pure Orange (RAL 2004)</b></li> </ul>
<b>C. HYDRAULIC CYLINDER</b>	<ul style="list-style-type: none"> <li>Hydraulic cylinder rods are double plated nickel and chrome</li> <li>Cylinders are sealed for total corrosive protection</li> <li>Easy accessible location for regular visual inspection &amp; replacement</li> <li>Easy removal if any maintenance, without any dismantle of mechanical parts</li> </ul>
<b>D. STATIC BRAKE SHOE</b>	<ul style="list-style-type: none"> <li>Heat treated &amp; serrated tool steel brake shoes</li> <li>As new sharp serrations provides the effect of friction factor 0.8 – 0.95 under static load. Rated capacity calculated with coeff of friction of <math>\mu=0.5</math>.</li> <li>Replaceable in field without requiring disassembly of any mechanical parts</li> </ul>
<b>E. SPRING</b>	<ul style="list-style-type: none"> <li>Series of standard coil springs with powder coat finish</li> <li>Springs designed for over 500,000 cycles</li> </ul>
<b>F. ENCLOSURE</b>	<ul style="list-style-type: none"> <li>Stainless steel cover &amp; doors</li> <li>Enclosure external fitting &amp; hinges are of stainless steel</li> <li>Rubber gaskets are installed on enclosure doors</li> </ul>
<b>G. PROXIMITY SWITCH</b>	<ul style="list-style-type: none"> <li>IFM inductive proximity switches for brake release signal and reserve stroke signal (out of adjustment).</li> </ul>
<b>H. PLAIN ROLLER &amp; RAIL GUIDES</b>	<ul style="list-style-type: none"> <li>Low friction Hardened Plain Rollers without flanges support the mechanism and ride on the top of a rail. Hardened steel rail guides supplied for horizontal float are attach to the guide roller frame.</li> </ul>