RAIL CLAMPS SELF-BLOCKING TYPE TR

APPLICATIONS
As storm brakes the self-blocking rail clamp even in working position starts really to work, pressing the rail sides, only if the wind force overcomes the gantry brakes capacity. When this happens and the crane tends to move, the rail clamps pressing on the rail sides with a force proportional to the wind force deducted the gantry brakes force.

DETAILS

MAIN FEATURES
- Rail clamp self-blocking type
- Minimize the friction contacts and consequently the rail guides wear
- Wide gap between rail guides and rail
- Installation: Bolted side flange
- Vertical float = ± 25 mm
- Horizontal float = ± 30 mm
- Tolerance respect to nominal width of the rail = ± 1.5 mm (or more upon request)
- Opening time (signal for operation) = 4 s
- Closing time = adjustable from 5 to 18 s
- Duty = 24 hours full operation
- Standard painting = 240 micron, RAL 5019
- Emergency Manual opening device

OPTIONS
- Hand Pump
- Working temperature different from standard (-20°, +40°)
- Double side flanges or upper flange (with hydraulic unit supplied separately from rail clamps)
- Hydraulic unit suitable to operate with more than one rail clamps
- Electrical board (on plate or box IP55)
- Limit switch which signals „rail clamps closed”
- Security side stowage pins
- Manufacturing according Q.C.P. different from our standard
- Language of documentation different from standard
- Certificates of materials (EN 10204-2.2, EN 10204-3.1 o EN 10204-3.2) for all main components

OPERATING RESTRICTIONS
- Braking shoes of our rail clamp are suitable to work on rails commonly on the market whose hardness is between 200 and 270 HB (= 70 to 90 daN/mm²). The certification of TÜV are referred to above given values of rail hardness. In case of different values we must be informed at order, because this could affect the rail clamp functioning.

EXECUTIONS:
TR20-500 GL:
- Absence of rail guides. (No contact between any part of the rail clamp and the rail).
- Advantage: No need to replace rail guides due to wear. (Advantage particularly important for fast continuously moving gantry cranes, like for example ASC)
- Wide horizontal float (± 30 mm) and vertical float (± 25 mm) without need of part in contact with the rail (like sliding guides or rollers).

TR20-500T RG:
- Wide tolerance on the rail head (± 1 mm - 10 mm)
- Advantage: 11 mm of tolerance allows these clamps guaranteeing their performances also on sites where rails are old or anyhow in wear / miss-shape condition; this happens quite frequently for reasons of wear or overload on rails.
- There are also special TR (requested from Japanese market) where the friction coefficient is ≤ 0,25 and the rail head tolerance is + 1 - 10 mm.
- There is the possibility to open the brakes, in case of earthquake, even in the absence of power voltage.
- For both type: Option with Opening by thruster. Advantage: Absence of hydraulic unit, hoses, cylinder.
### TR TECHNICAL DETAILS

**Type Holding**

| TYPE          | FORCE (kN) | A | B | C | D | E | F | G | H | I | M | N | O | P | Q** | R | Weight (kg) |
|---------------|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| TR20-0500-GL  | 500        | 86| 700| 640| 240| 105| 95| 400| 980| 850| 955| 40| 930 | N'8 Ø33 (M30) ±30 | 550 |
| TR20-0500-RG  | 500        | 86| 700| 640| 240| 105| 95| 400| 980| 850| 955| 40| 930 | N'8 Ø33 (M30) ±40 | 550 |

**Notes:**
- GL - guides less
- RG - with roller guides
- (*) Variable with vertical float
- (**) Connection screws class 10.9 are to be foreseen

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|---------------|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| TR40-0750     | 750        | 86| 700| 605| 252| 100| 90| 500| 895| 500| 930| 1175 | 1300 | N'8 Ø36 (M33) 880 | 35 | 750 |
| TR50-1100     | 1100       | 86| 700| 655| 322| 100| 90| 400| 915| 500| 960| 1195 | 1510 | N'8 Ø42 (M39) 1090 | 40 | 1100 |

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*All dimensions in mm

Alterations reserved without notice.