

RAIL BRAKE TM



DETAILS

MAIN FEATURES

- Rail clamp
- Installation: side bolted
- Vertical float = $\pm 7,5$ mm (to be checked upon rail type)
- Horizontal float = ± 30 mm
- Tolerance respect to nominal width of the rail = $\pm 1,5$ mm
- Opening time (signal for operation) = 4 seconds
- Closing time = adjustable from 4 to 12 seconds
- Standard painting = 240 micron, RAL 5019
- Limit switch that signals clamp open

OPTIONS

- Hand Pump
- Working temperature different from standard (-20° $+40^{\circ}$)
- Double side flanges or upper flange (with hydraulic unit supplied separately from rail clamps)
- Flange for buffer fixing
- Hydraulic unit suitable to operate with more rail clamps
- Electrical board (on plate or box IP55)
- Limit switch which signals „rail clamps closed“
- Mechanical limit switch instead of inductive
- Wider horizontal and vertical float
- Security side stowage pins (to be inserted into suitable socket on the quay)

- Manufacturing according Q.C.P. different from our standard (Nuclear plan or special application)
- With special teeth for vertical force
- 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

EMERGENCY MANUAL OPENING DEVICE

- The rail clamps are supplied with suitable tierods complete with nuts. Acting on two tierods by a common too l-key it is possible to open the rail clamps in case of emergency (lack of electric energy or hydraulic unit broken)

APPLICATIONS

These rail clamps are static storm brakes suitable for small to medium forces: from 25 to 800 kN. These rail clamps are to be considered as parking devices (safety against the movement caused by wind) that work pressing on rail sides. They are spring

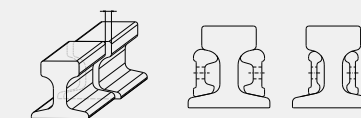
actuated (the spring generate the closing force) while an hydraulic cylinder fed by a suitable hydraulic unit provides the opening. Each rail clamp is composed substantially of one steel frame, two rail guides and two jaws operated by springs trough suitable levers.

The rail guides are placed into the frame in such a way to follow side displacement between crane and rail. The guides are constituted by plates properly shaped acting on side of the rail. In particular cases, rollers acting on the top of the rail can be used.

OPERATING RESTRICTIONS

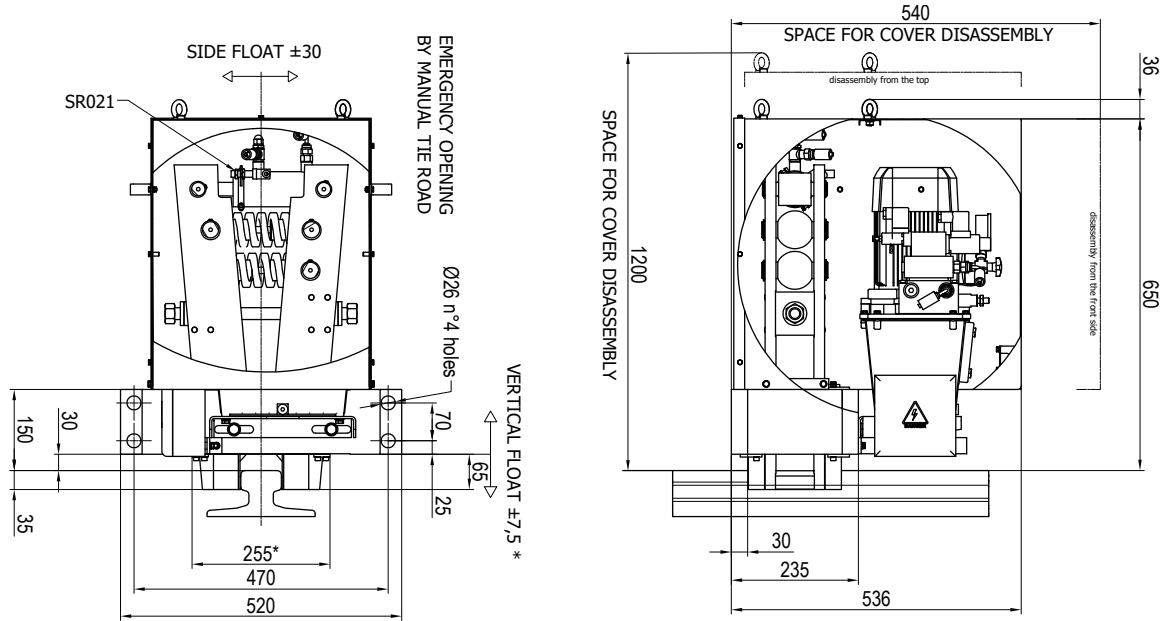
Braking shoes of our rail clamp have been designed to work on common market rails whose hardness is between 200 and 270 HB (= 70 to 90 daN/mm²). The certification of TUV is referred to above given values of rail hardness.

Max misalignment of 1mm

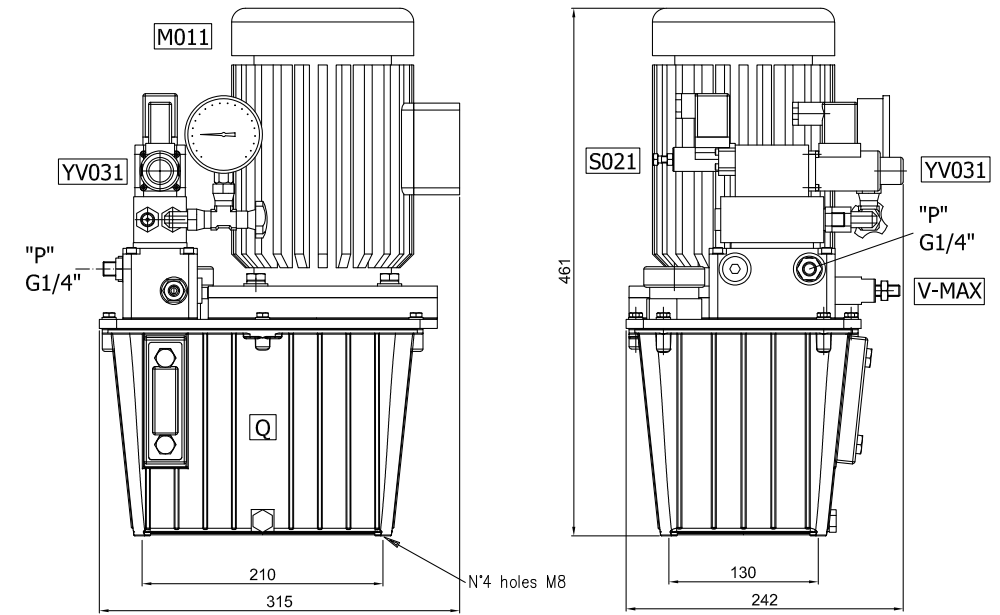


Presence and shape of eventual Fish plates (rail joints) must be communicated (this could impede the regular functioning of rail clamps).

In case of different values we must be informed at order.



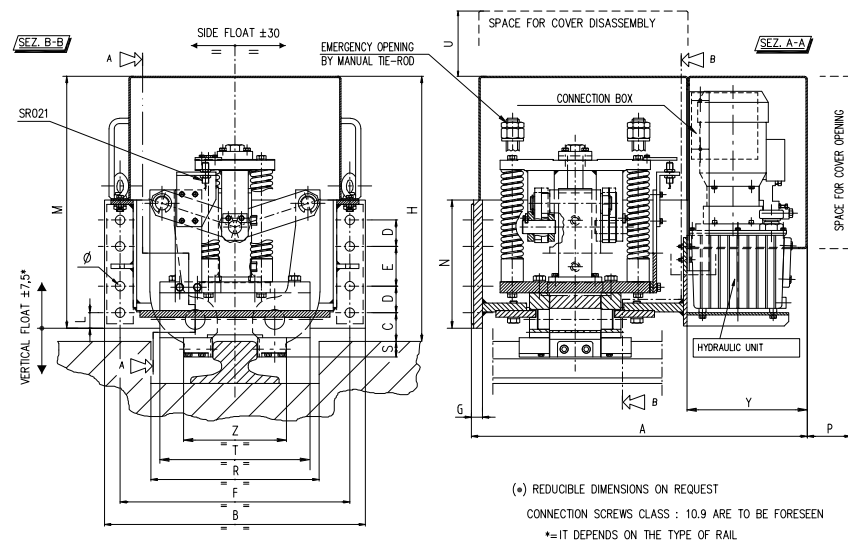
* IT DEPENDS ON THE TYPE OF RAIL
CONNECTION SCREWS CLASS : 10.9 ARE TO BE FORESEEN



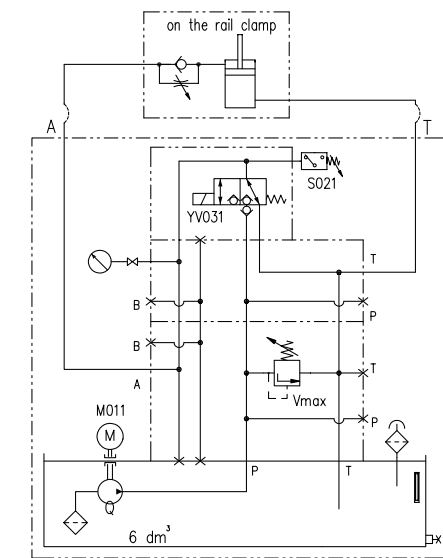
CODE	HOLDING FORCE	WEIGHT
TM06-100-A	100 kN	135 kg

CALIBRATION

Type of brake	Pressure reliefe valve	Pressure switch
TM06-100	22 MPa	19 MPa
TM11-200	22 MPa	19 MPa
TM21-400	22 MPa	19 MPa
TM31-600	22 MPa	19 MPa
TM41-800	22 MPa	19 MPa



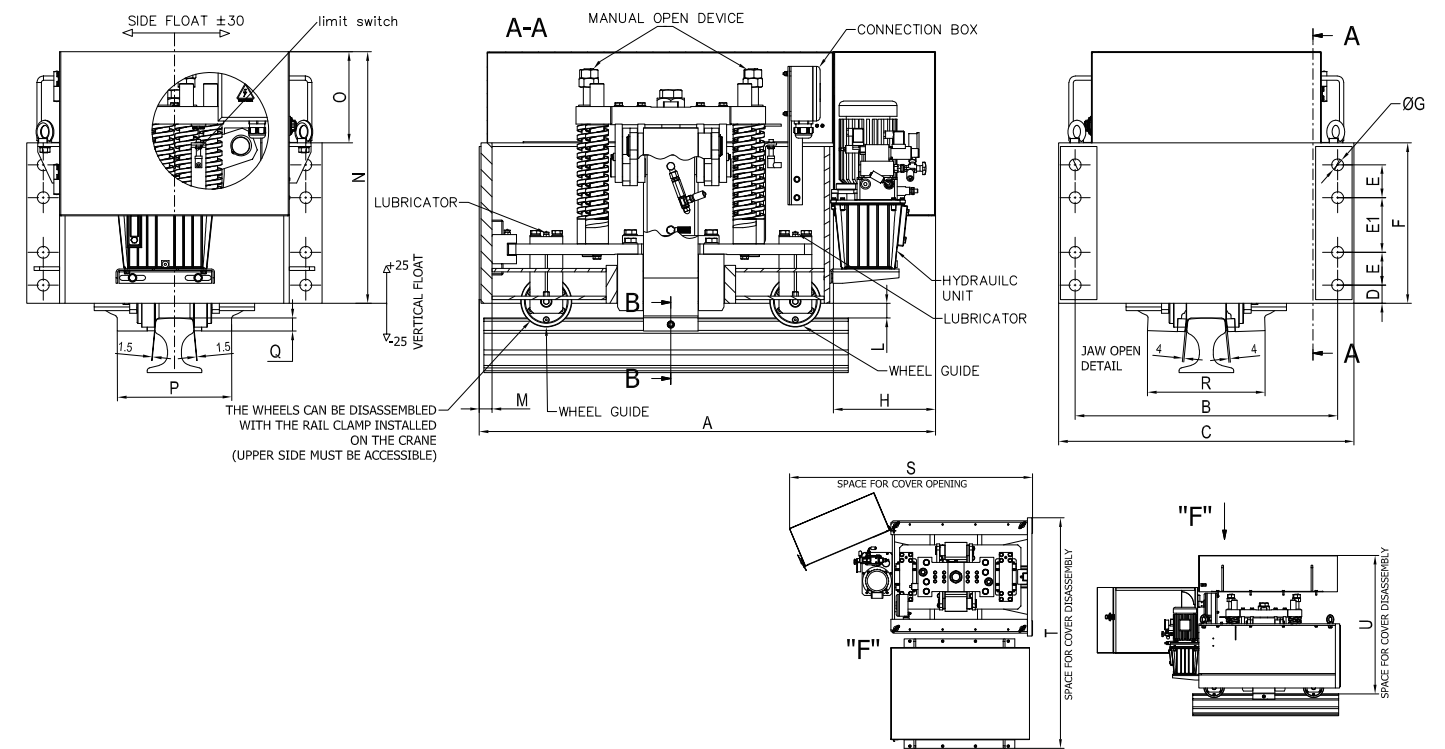
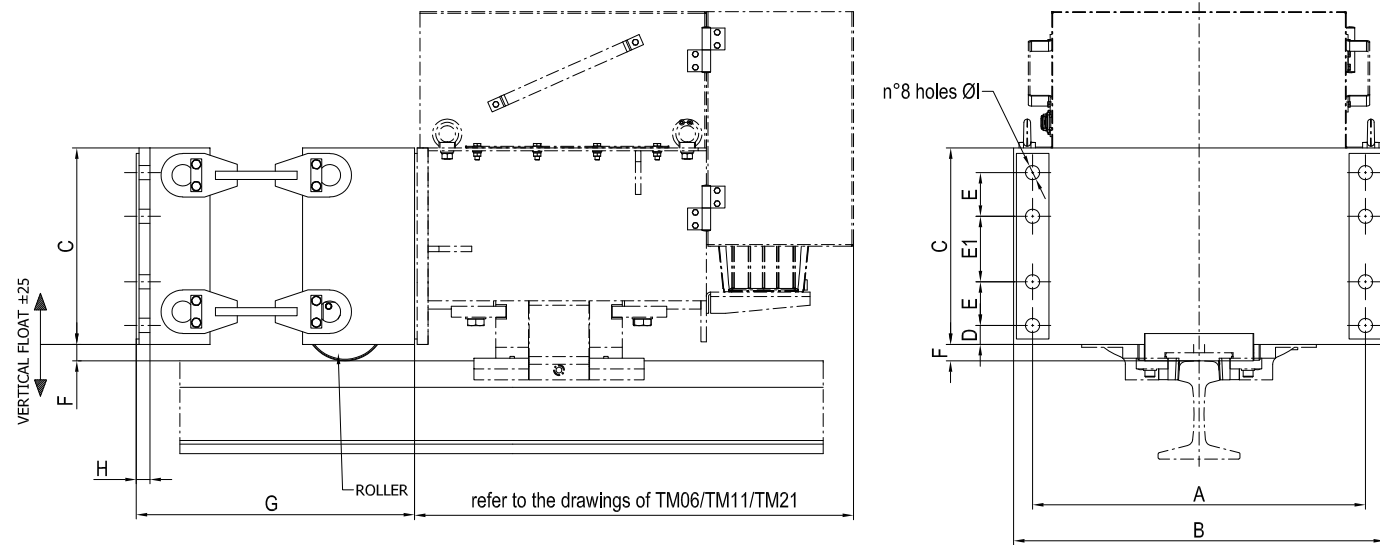
SPECIFICATIONS ELECTROVALVE	
YV031 *	24V DC - 30W



CODE	HOLDING FORCE	A	B	C	D	E	F	G	H	L	M	N	P (*)	R (+)	S (+)	T	U	Y	Z	Ø	MØ	PESO KG
TM11-200-A	200 kN	760	620	65	60	90	550	25	640	35	610	290	300	315	40	340	320	275	295	22	M20	280
TM21-400-A	400 kN	810	680	65	80	120	610	30	640	35	610	360	340	315	40	430	250	270	270	26	M24	420
TM31-600-A	600 kN	1000	810	90	90	150	720	35	730	50	690	440	420	345	40	490	250	280	325	33	M30	730
TM41-800-A	800 kN	1140	840	100	110	170	750	45	800	50	750	500	450	350	40	500	250	285	330	39	M36	1130

FORCES AND DIMENSIONS INDICATED ARE REFERRED TO MAXIMUM HEAD WIDTH OF RAIL 120 mm. FOR RAIL WITH HEAD WIDTH GREATER THAN 120 mm PLEASE CONTACT OUR TECHNICAL OFFICE

SCI-TM-01	*OTHER TENSIONS ON REQUEST			
TYPE	SPECIFICATIONS MOTOR	GEAR PUMP	TANK	
HYDRAULIC UNIT	RAIL CLAMP	M011 *	Q	S1
SCI-TM06-01	TM11-200/TM21-400	0.75 kW / 400V-50Hz	Q = 2.4 l/min	6l
SCI-TM10-01	TM41-800/TM31-600	1.5 kW / 400V-50Hz	Q = 5 l/min	10l



CODE	BLOCKING POWER	A	B	C	D	E	E1	F	G	H	I	Screws	Total Weight kg
TM06-100WR-A	100 kN	470	520	290	25	60	90	30	510	25	22	M20	315
TM11-200WR-A	200 kN	550	620	290	35	60	90	30	510	25	22	M20	470
TM21-400WR-A	400 kN	610	680	360	35	80	120	30	510	30	26	M24	655

CODE	BLOCKING POWER	A	B	C	D	E	E1	F	G
TM31-600WR-A	600 kN	1255	720	810	50	90	150	440	33
TM41-800WR-A	800 kN	1385	750	840	50	110	170	500	39

H	L	M	N	O	P	Q	R	S	T	U	Screws	Weight kg
280	40	35	690	250	314	36.5	322	1670	1580	950	M30	855
285	50	45	750	250	322	36.5	330	1825	1650	1050	M36	1240