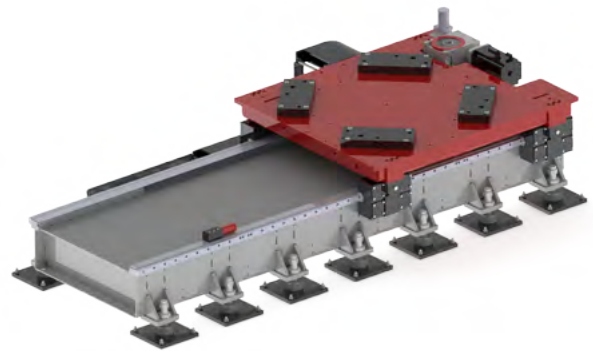


TMF-5 technical data

Carrier – energy chain

Weight carriage	1,560 kg*
Energy chain	H4.56.30.250.0
Weight of energy chain	4.0 kg/m
Mounting bracket with tiwrap clamp	E4.560.30.2.C
Energy chain cross section (internal dimension):	Height: 56 mm, width: 300 mm
Precision (Repeatability)	±0.05 mm

* Weight without motors, electrical boxes, cables.



Drive data

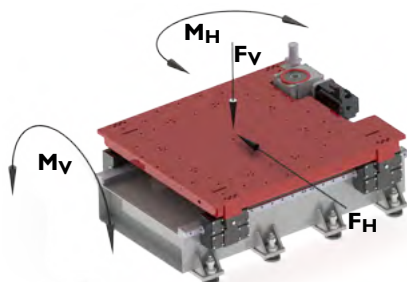
		Kuka	Fanuc	ABB	Static load
Robot type*		KR 1000 Titan	M-900iB/400 L M-900iB/700	IRB 8700	-
Static payload	[N]	-	-	-	104000
Speed	m/min	60	60	60	60
Acceleration	m/s ²	0.8	0.8	1	1
Gearbox ratio	[-]	10	13.333	16	13.333
GÜDEL gearbox type HPG		120	120	120	120
Linear stroke per motor revolution	[mm]	26.667	20.000	16.667	20.000
Acceleration time	[s]	2	2	1.5	1.5
Stroke of axis while accelerating	[m]	1	1	0.8	0.8
Motor speed	rpm	2250	3000	3600	3000
Stall torque of motor	[Nm]	20	11	13	22
Max. torque of motor	[Nm]	57	38	41	74
Reduced inertia of axis	kgm ²	1.6E-01	6.6E-02	5.9E-02	1.3E-01
Motor type		MG_480	aiS40/4000	MU400	**

* incl. 500 mm spacer ** acc. to customer request

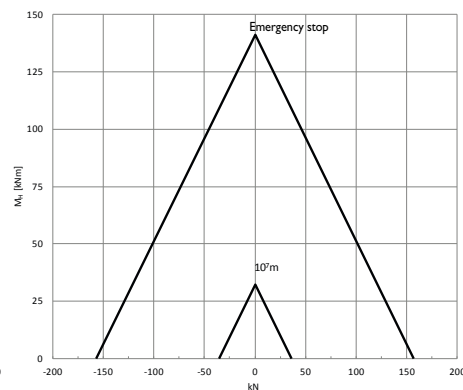
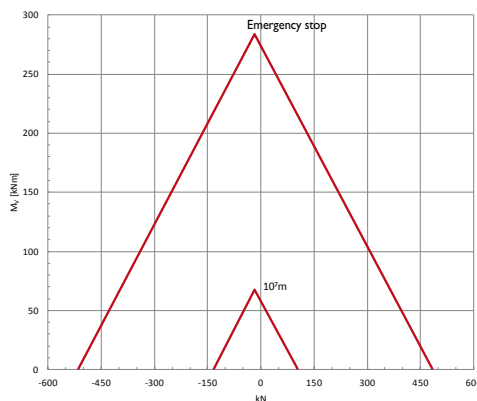
Options

No.	Designation	No.	Designation
50	Cam rails and cams	164	Extended energy chain support
51	Mechanical multi-limit switch	166	Bottom plate in energy chain duct
52	Zero position mark	171	Feedthrough cable guide
60	Automatic lubrication system	172	Pedestal
81	Coated rollers, guideways, racks, and pinion	180	Bronze wiper
90	Y-multiple carriages linked with one drive	300	Documentation, other languages, on paper
91	Independent Y-multiple carriages, each with a drive	310	Special painting at customer request
160	Vertical dividers, insertable shelves for energy chains	311	Gaskets for low temperature
162	Enclosed energy chain	320	ATEX certification

Load diagram

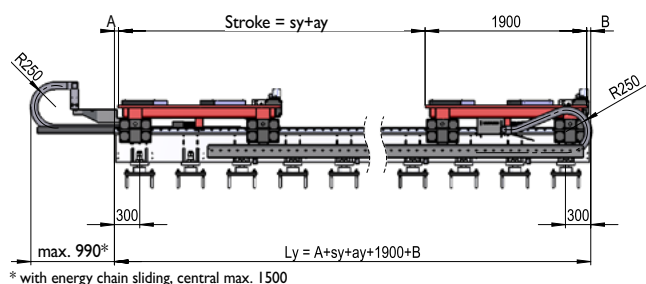


FV max. (kN): Vertical moment
 MV max. (kNm): Overturning torque
 FH max. (kN): Horizontal moment
 MH max. (kNm): Rotation moment

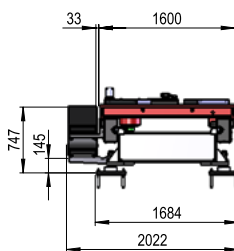


Recommended basic values for dimensioning the linear axis (M_v , F_v , M_h , F_h), emergency stop and service life 10^7 m.

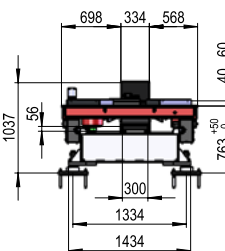
Technical dimensions



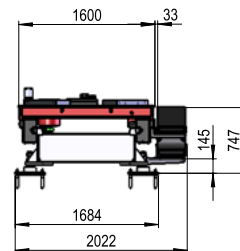
* with energy chain sliding, central max. 1500



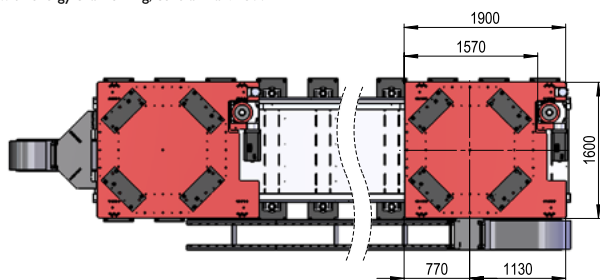
Energy chain left



Energy chain center



Energy chain right

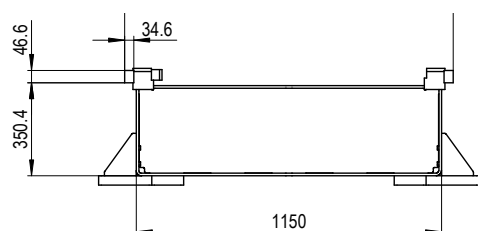


	min.	max.	
L_y	3000	-	
$sy+ay$	1000	98000	in 1 m steps
A/B	50	-	

Minimum recommended safety stroke $ay = 50$ mm

Bending and torsion values

Y-axis



Axis	Mat.	m^* (kg/m)	I_x^* (cm ⁴)	I_y^* (cm ⁴)
Y	S235JR	500	912597	107204

* With rails