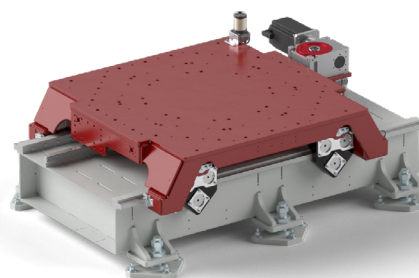


TMF-5 technical data

Carrier – energy chain

Weight carriage	1540 kg*
Energy chain	H4Q.58.300.300.0
Weight of energy chain	3.74 kg/m
Mounting bracket with tiwrap clamp	E4Q.580.300.1.12.C
Energy chain cross section (internal dimension):	Höhe: 58 mm, Breite: 200 mm
Precision (Repeatably)	± 0,05 mm

* Weight without motors, electrical boxes, cables



Drive data

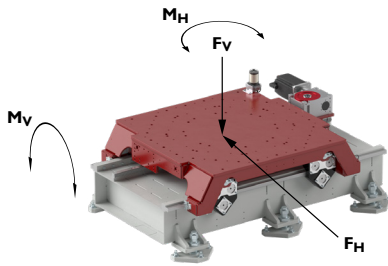
		Kuka	Fanuc	ABB	Static load
Robot type*		KR 1000 Titan	M-1000-iA	IRB 8700	-
Static payload	[N]	-	-	-	116800
Speed	m/min	60	60	60	60
Acceleration	m/s ²	1	1	1	1
Gearbox ratio	[-]	13.333	13.333	13.333	13.333
GÜDEL gearbox type HPG		120	120	120	120
Linear stroke per motor revolution	[mm]	20.000	20.000	20.000	20.000
Acceleration time	[s]	1.5	1.5	1.5	1.5
Stroke of axis while accelerating	[m]	0.56	0.56	0.56	0.56
Motor speed	rpm	3000	3000	3000	3000
Stall torque of motor	[Nm]	22	22	22	22
Max. torque of motor	[Nm]	74	74	74	74
Reduced inertia of axis	kgm ²	1.3E-01	1.3E-01	1.3E-01	1.3E-01
Motor type		MG_480	aiS40/4000	MU400	**

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

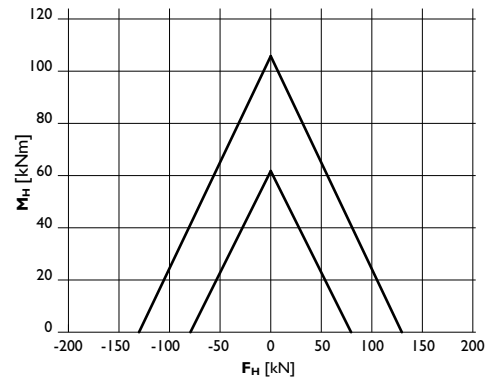
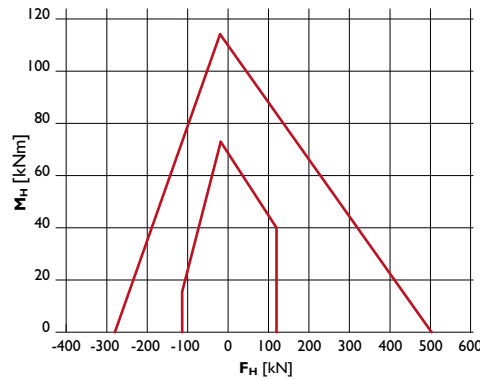
Options

Nr.	Bezeichnung	Nr.	Bezeichnung
52	Zero position mark	170	Antislip walkable covering
60	Automatic lubrication system	171	Feedthrough cable guide
91	Independent Y-multiple carriages, each with a drive	172	Pedestal
157	Anchoring plate and anchor rods with floor leveling kit	180	Bronze wiper
160	Vertical dividers, insertable shelves for energy chains	300	Documentation, other languages, on paper
162	Enclosed energy chain	310	Special painting at customer request
164	Extended energy chain support	320	ATEX certification
166	Bottom plate in energy chain duct		

Load diagram

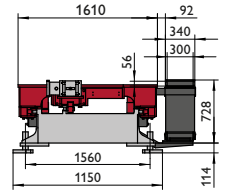
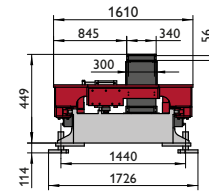
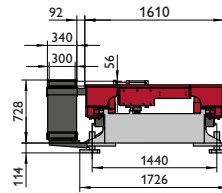
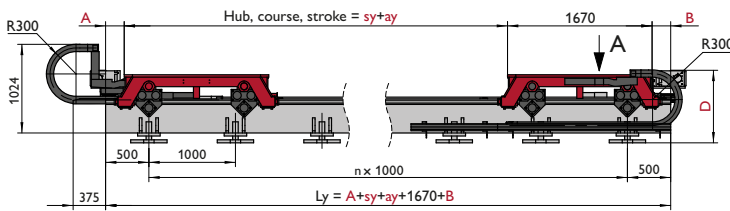


F_v max. (kN): Vertical force
 M_v max. (kNm): Vertical moment
 F_h max. (kN): Horizontal force
 M_h max. (kNm): Horizontal moment



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

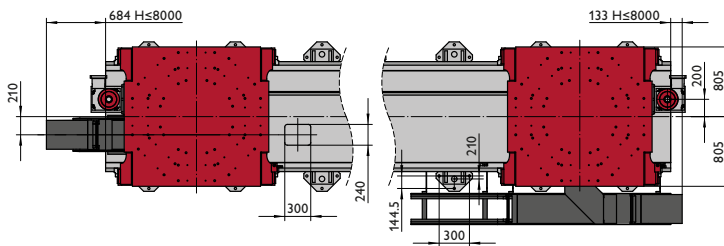
Dimensions



Energy chain left

Energy chain center

Energy chain right



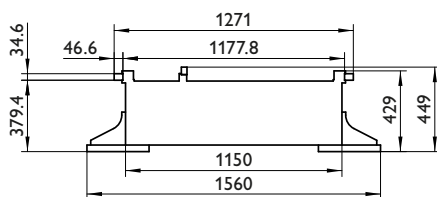
	min.	max.	
L_y	3000	-	
$sy+ay$	1000	98000	in 1 m steps
A/B	115/215*	215/215**	

Minimum recommended safety stroke $ay = 50$ mm

* 1 Carrier ** 2 Carrier

Bending and Torsion values

Y-Axis



Axis	Mat.	m^* (kg/m)	I_x^* (cm ⁴)	I_y^* (cm ⁴)
Y	S235JR	505	806828	101765

* with rails