WH80

Belt Drive, Wheel Guide

» Ordering key - see page 207
» Accessories - see page 131
» Additional data - see page 180

General Specifications

Parameter	WH80
Profile size (w × h) [mm]	80 × 80
Type of belt	32ATL10
Carriage sealing system	none
Adjustable belt tensioning	the belt can be retensioned by the customer if necessary
Lubrication	lubrication of guiding surfaces
Included accessories	4 × mounting clamps

Performance Specifications

for Units with Single Standard Carriage (N)[1]

Parameter		WH80
Stroke length (Smax), maximum	[mm]	11000
Total length (L tot), maximum	[mm]	11550
Linear speed, maximum	[m/s]	10,0
Acceleration, maximum	[m/s²]	40
Repeatability	[± mm]	0,05
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum	[N]	2700 [2]
Dynamic load (Fy), maximum	[N]	882
Dynamic load (Fz), maximum	[N]	2100
Dynamic load torque (Mx), maximum	[Nm]	75
Dynamic load torque (My), maximum	[Nm]	230
Dynamic load torque (Mz), maximum	[Nm]	100
Drive shaft force (Frd), maximum [3]	[N]	500
Input/drive shaft torque (Mta), maximum	[Nm]	100
Pulley diameter	[mm]	63,66
Stroke per shaft revolution	[mm]	200
Weight	[kg]	
of unit with zero stroke		8,63
of every 100 mm of stroke		0,93
of each carriage		2,75

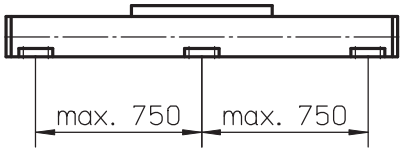
[1] See next page for deviating values of units with other carriage types.
[2] See diagram Force Fx.
[3] Only relevant for units without RediMount flange.

Carriage Idle Torque, (M idle) [Nm]

Input speed [rpm]	Idle torque [Nm]
150	2,4
1500	3,5
3000	5,0

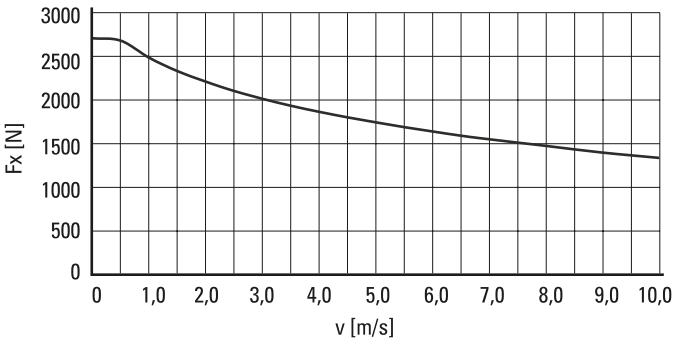
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile

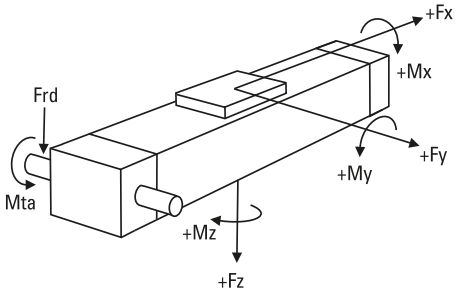


A mounting clamp must be installed at least every 750 mm to be able to operate at maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 6300 mm consist of two profiles where the joint between the two profiles must be adequately supported on both sides.

Force Fx as a Function of the Speed



Definition of Forces



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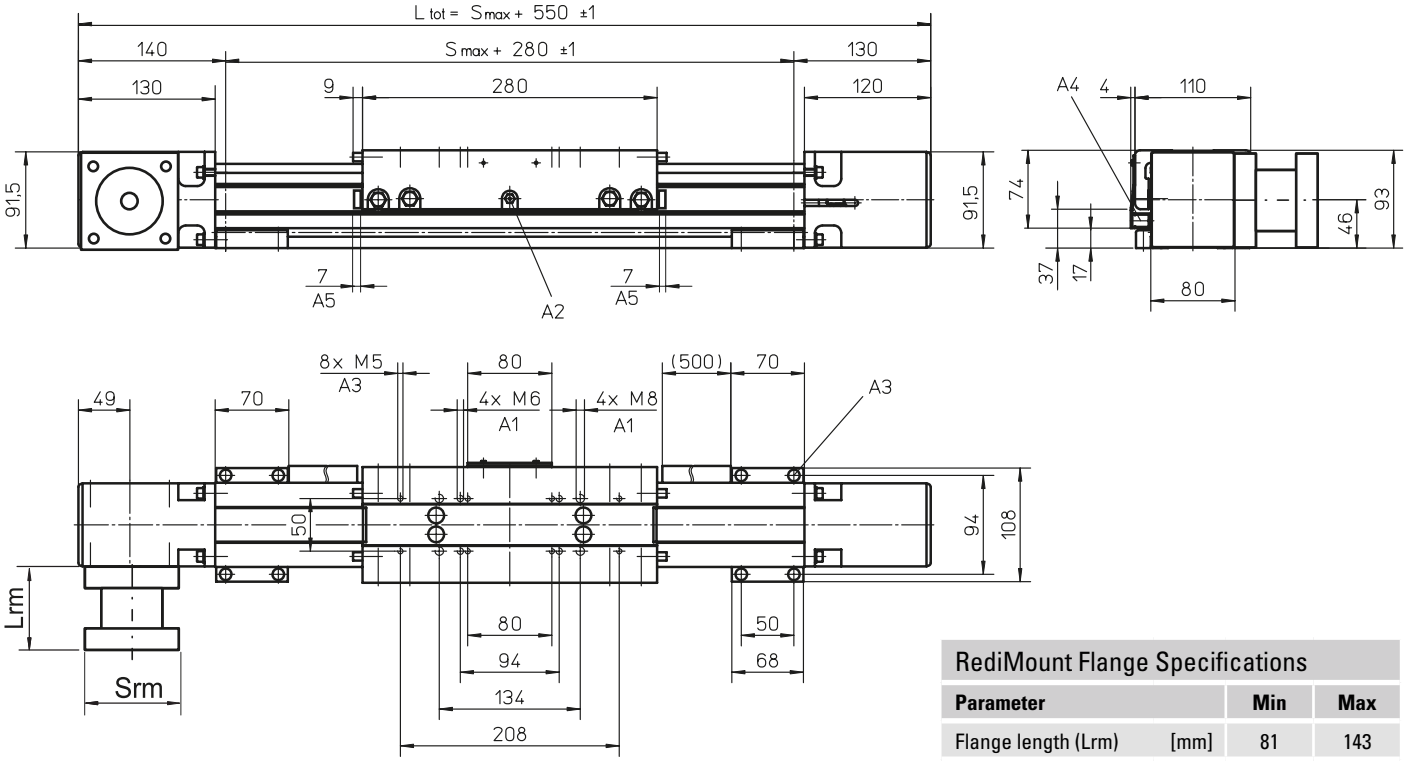
Dimensions	Projection	Online Sizing & Selection!
METRIC		www.LinearMotioneering.com



A1: depth 12
A2: funnel type lubricating nipple DIN3405-M6×1-D1
A3: socket cap screw ISO4762-M6×20 8.8
A4: ENF inductive sensor rail kit (optional - see page 166)
A5: felt pad wipers on both sides of the carriage

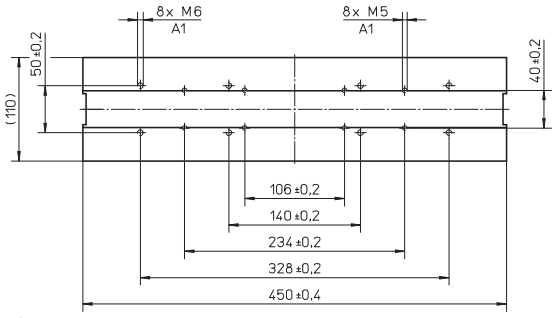
RediMount Flange Specifications

Parameter		Min	Max
Flange length (Lrm)	[mm]	81	143
Flange square (Srm)	[mm]	90	200
Flange weight *	[kg]	5,70	

* Max. weight including coupling and fastening screws

Performance Specifications
for Units with Single Long Carriage (L)

Parameter		WH80
Stroke length (Smax), maximum	[mm]	11000
Total length (L tot), maximum	[mm]	11720
Carriage length	[mm]	450
Dynamic load torque (My), maximum	[Nm]	345
Dynamic load torque (Mz), maximum	[Nm]	150
Weight	[kg]	3,43



A1: depth 12

Performance Specifications
for Units with Double Standard Carriage (Z)

Parameter		WH80
Stroke length (Smax), maximum	[mm]	10870
Total length (L tot), maximum	[mm]	11720
Minimum distance between carriages (Lc)	[mm]	300
Dynamic load (Fy), maximum	[N]	1764
Dynamic load (Fz), maximum	[N]	4200
Dynamic load torque (My), maximum	[Nm]	Lc[1] × 0,882
Dynamic load torque (Mz), maximum	[Nm]	Lc[1] × 2,1
Force required to move second carriage	[N]	20
Total length (L tot)	[mm]	Smax + 550 + Lc

[1] Value in mm