

WV80

Ball Screw Drive, No Guides

- » Ordering key - see page 203
- » Accessories - see page 137
- » Additional data - see page 191

General Specifications

Parameter	WV80
Profile size (w × h) [mm]	80 × 80
Type of screw	ball screw with double nuts
Carriage sealing system	self-adjusting plastic cover band
Screw supports	included in all units that require screw supports
Lubrication	central lubrication of all parts that require lubrication
Included accessories	4 × mounting clamps

Performance Specifications

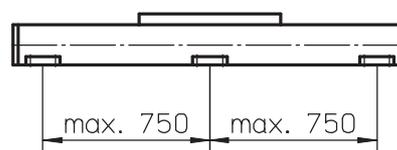
Parameter		WV80
Stroke length (S max), maximum screw lead 5, 10, 20 mm screw lead 50 mm	[mm]	11000 5000
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s ²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (F _x), maximum	[N]	5000
Dynamic load (F _y), maximum	[N]	0
Dynamic load (F _z), maximum	[N]	0
Dynamic load torque (M _x), maximum	[Nm]	0
Dynamic load torque (M _y), maximum	[Nm]	0
Dynamic load torque (M _z), maximum	[Nm]	0
Drive shaft force (F _{rd}), maximum	[N]	700
Drive shaft torque (M _{ta}), maximum	[Nm]	55
Ball screw diameter (d ₀)	[mm]	25
Ball screw lead (p)	[mm]	5, 10, 20, 50
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	7,95 0,99 2,25

Carriage Idle Torque (M_{idle}) [Nm]

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 50
150	0,9	1,1	1,3	1,4
1500	1,6	1,9	2,1	2,3
3000	2,0	2,4	2,6	3,0

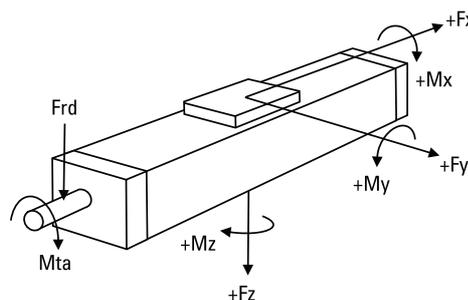
M_{idle} = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



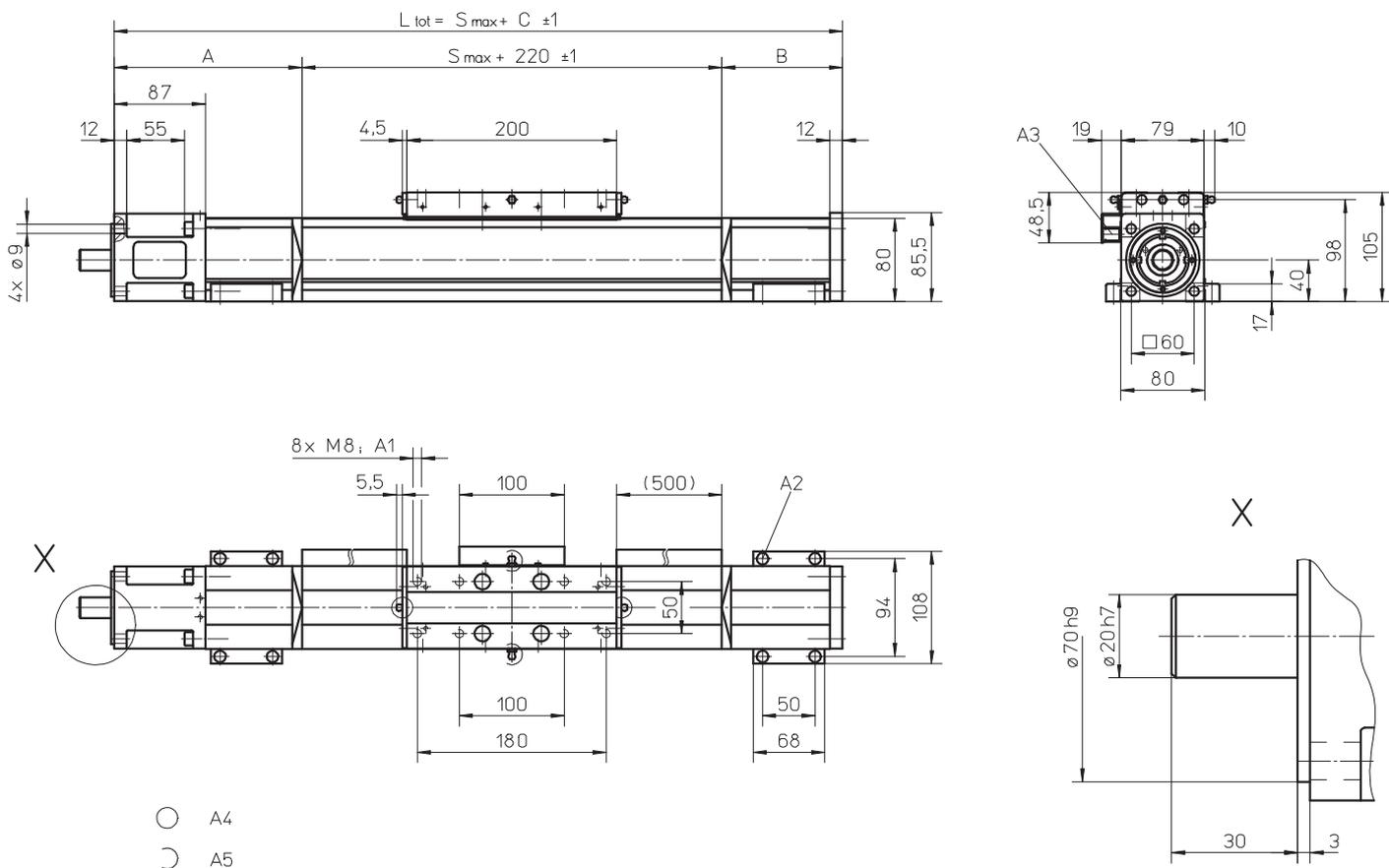
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 6300 mm consists of two profiles where the joint between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

Definition of Forces



WV80

Ball Screw Drive, No Guides



A1: depth 12 mm
 A2: socket cap screw ISO4762-M6x20 8.8
 A3: ENF inductive sensor rail option kit (optional)

A4: tapered lubricating nipple to DIN71412 AM6 on fixed-bearing side as standard feature
 A5: can be changed over to one of three alternative lubrication points by customer

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 775	125	50	395
776 - 1670	145	95	460
1671 - 2505	170	115	505
2506 - 3340	190	140	550

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
3341 - 4175	210	160	590
4176 - 5015	235	180	635
5016 - 11000	contact customer service		