WM80S

Ball Screw Drive, Ball Guide, Singel Ball Nut, Short Carriage

» Ordering key - see page 194
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	WM80S
Profile size (w × h) [mm]	80 × 80
Type of screw	ball screw with single nut
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		WM80S
Stroke length (S max), maximum	[mm]	5000
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,02
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum	[N]	3500
Dynamic load (Fy), maximum	[N]	2100[1] / 37440[2]
Dynamic load (Fz), maximum	[N]	2100[1] / 35830[2]
Dynamic load torque (Mx), maximum	[Nm]	150[1] / 890[2]
Dynamic load torque (My), maximum	[Nm]	180[1] / 580[2]
Dynamic load torque (Mz), maximum	[Nm]	180[1] / 600[2]
Drive shaft force (Frd), maximum	[N]	700
Drive shaft torque (Mta), maximum	[Nm]	55
Ball screw diameter (d0)	[mm]	25
Ball screw lead (p)	[mm]	5, 10, 20, 50
Weight	[kg]	
of unit with zero stroke		7,0
of every 100 mm of stroke		1,1
of each carriage		1,6

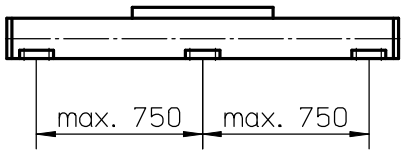
[1] Value for the complete unit
[2] Value for the ball guide only

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	2,0
1500	1,3	1,5	1,8	2,4
3000	1,7	1,8	2,0	2,9

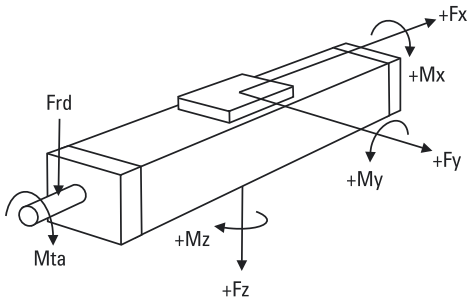
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



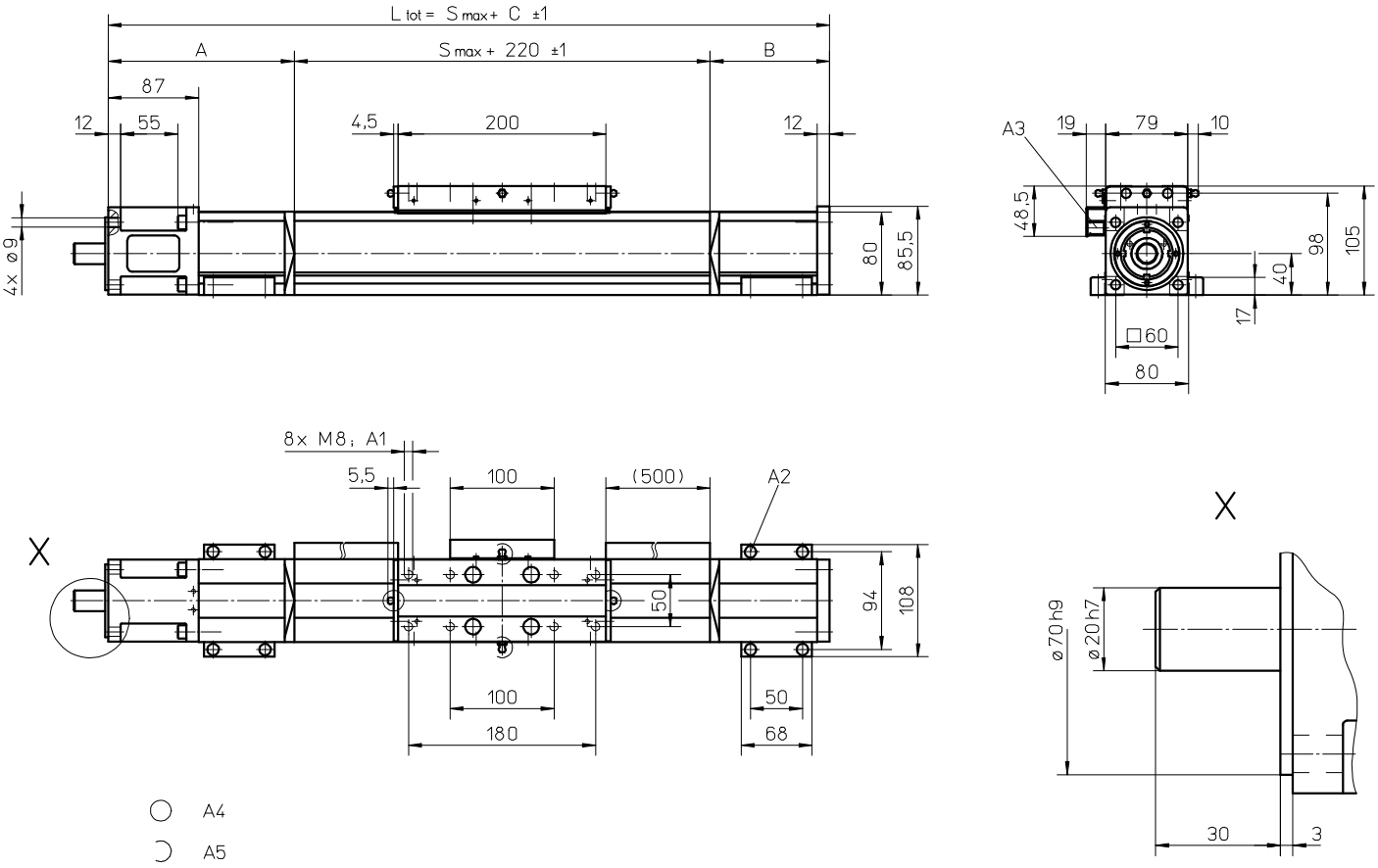
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information.

Definition of Forces



WM80S

Ball Screw Drive, Ball Guide, Singel Ball Nut, Short Carriage



A1: depth 12 mm
A2: socket cap screw ISO4762-M6×20 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

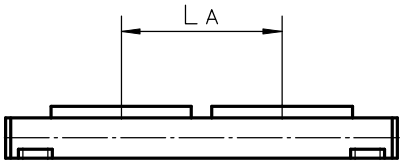
Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 680	95	35	350
681 - 1310	125	80	425
1311 - 2065	150	105	475
2066 - 2830	170	125	515

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
2831 - 3590	195	150	565
3591 - 4355	215	170	605
4356 - 5000	235	190	645

Double Carriages

Parameter		WM80S
Minimum distance between carriages (L_A)	[mm]	280
Dynamic load (Fy), maximum	[N]	4200
Dynamic load (Fz), maximum	[N]	4200
Dynamic load torque (My), maximum	[Nm]	L_A[1] × 2,1
Dynamic load torque (Mz), maximum	[Nm]	L_A[1] × 2,1
Force required to move second carriage	[N]	225
Total length (L tot)	[mm]	S max + C + L_A

[1] Value in mm



WM120D

Ball Screw Drive, Ball Guide, Double Ball Nuts

» Ordering key - see page 194
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	WM120D
Profile size (w × h) [mm]	120 × 120
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		WM120D
Stroke length (S max), maximum screw lead 5, 10, 20 mm screw lead 40 mm	[mm]	 11000 5000
Linear speed, maximum	[m/s]	2,0
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum screw lead 5, 10, 20 mm screw lead 40 mm	[N]	 12000 8000
Dynamic load (Fy), maximum	[N]	6000[1] / 74890[2]
Dynamic load (Fz), maximum	[N]	6000[1] / 71670[2]
Dynamic load torque (Mx), maximum	[Nm]	500[1] / 2890[2]
Dynamic load torque (My), maximum	[Nm]	600[1] / 6660[2]
Dynamic load torque (Mz), maximum	[Nm]	600[1] / 6960[2]
Drive shaft force (Frd), maximum	[N]	1000
Drive shaft torque (Mta), maximum	[Nm]	80
Ball screw diameter (d0)	[mm]	32
Ball screw lead (p)	[mm]	5, 10, 20, 40
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	 25,91 1,93 9,25

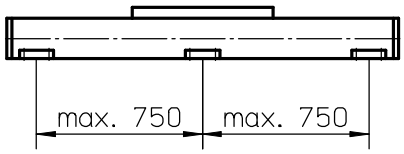
[1] Value for the complete unit
[2] Value for the ball guide only

Carriage Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 40
150	1,4	2,0	2,3	2,4
1500	2,5	3,0	3,3	3,8
3000	3,0	3,7	4,0	4,3

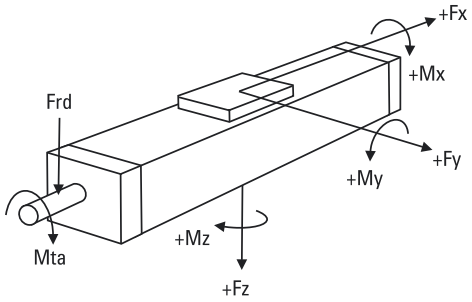
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



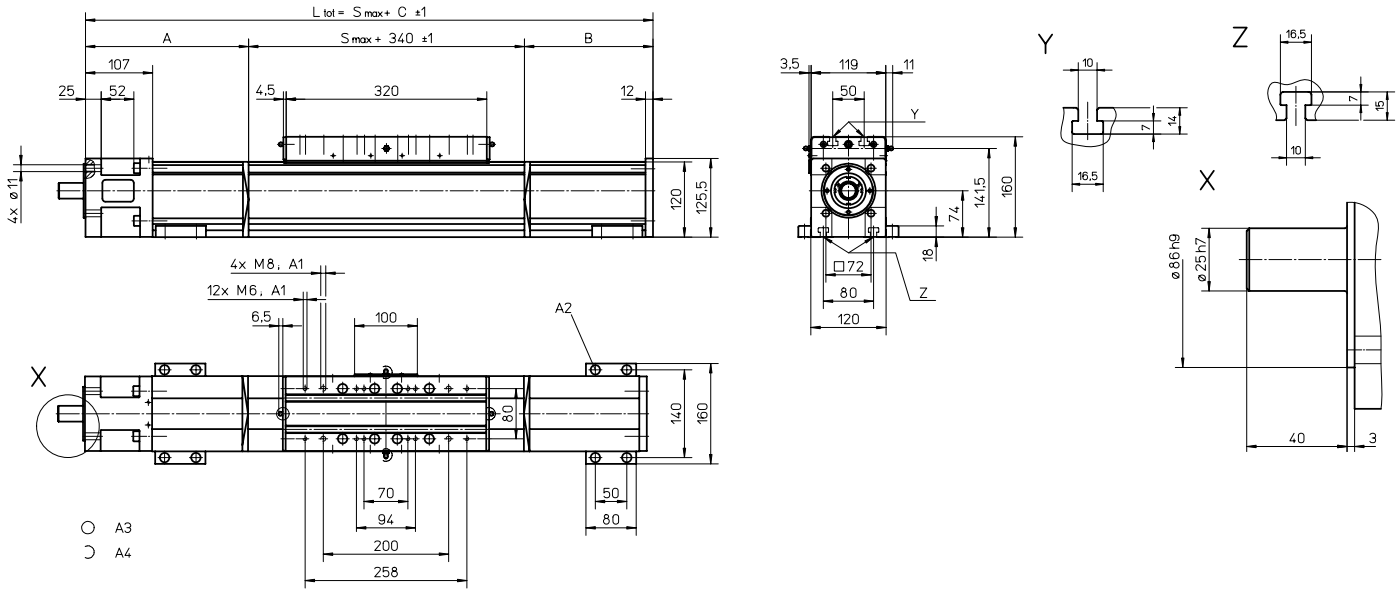
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 5400 mm consists of two profiles where the joint between the two profiles must be addequately supported on both sides.

Definition of Forces



WM120D

Ball Screw Drive, Ball Guide, Double Ball Nuts



A1: depth 22
A2: socket cap screw ISO4762-M8×20 8.8
A3: tapered lubricating nipple to DIN71412 M8×1 on fixed-bearing side as standard feature
A4: can be changed over to one of the three alternative lubricating points by the customer

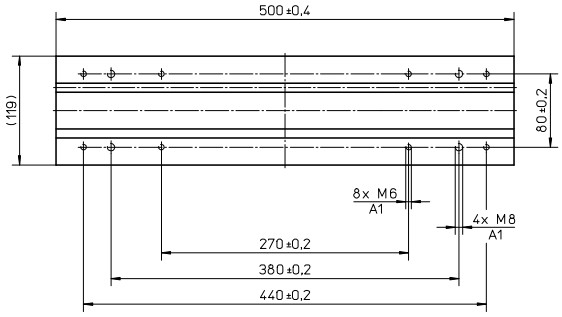
Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 890 (0 - 710)	155	100	595 (775)
891 - 1695 (711 - 1515)	225	170	735 (815)
1696 - 2625 (1516 - 2445)	260	205	805 (985)
2626 - 3555 (2446 - 3375)	295	240	875 (1055)

Values between brackets = for units with long carriage

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
3556 - 4485 (3376 - 4305)	330	275	945 (1125)
4486 - 5000 (4306 - 4820)	365	310	1015 (1195)
5001 - 11000 (4307 - 10820)	contact customer service		

Long Carriage

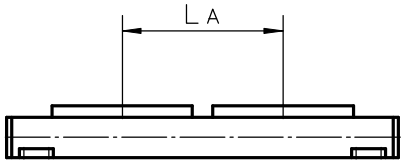
Parameter		WM120D
Carriage length	[mm]	500
Dynamic load torque (My), maximum	[Nm]	1500
Dynamic load torque (Mz), maximum	[Nm]	1500
Weight	[kg]	14,2



A1: depth 22

Double Carriages

Parameter		WM120D
Minimum distance between carriages (L_A)	[mm]	450
Dynamic load (Fy), maximum	[N]	12000
Dynamic load (Fz), maximum	[N]	12000
Dynamic load torque (My), maximum	[Nm]	L_A[1] × 6
Dynamic load torque (Mz), maximum	[Nm]	L_A[1] × 6
Force required to move second carriage	[N]	300
Total length (L tot)	[mm]	S max + C + L_A



[1] Value in mm

WV60

Ball Screw Drive, No Guides

» Ordering key - see page 195
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	WV60
Profile size (w × h) [mm]	60 × 60
Type of screw	ball screw with double nut
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

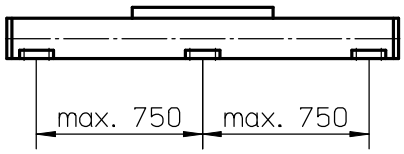
Parameter		WV60
Stroke length (S max), maximum screw lead 5, 20 mm screw lead 50 mm	[mm]	 11000 5000
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum	[N]	4000
Dynamic load (Fy), maximum	[N]	0
Dynamic load (Fz), maximum	[N]	0
Dynamic load torque (Mx), maximum	[Nm]	0
Dynamic load torque (My), maximum	[Nm]	0
Dynamic load torque (Mz), maximum	[Nm]	0
Drive shaft force (Frd), maximum	[N]	500
Drive shaft torque (Mta), maximum	[Nm]	35
Ball screw diameter (d0)	[mm]	20
Ball screw lead (p)	[mm]	5, 20, 50
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	 4,72 0,55 1,42

Carriage Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead [mm]		
	p = 5	p = 20	p = 50
150	0,7	0,9	1,1
1500	1,3	1,5	1,5
3000	1,7	1,9	2,1

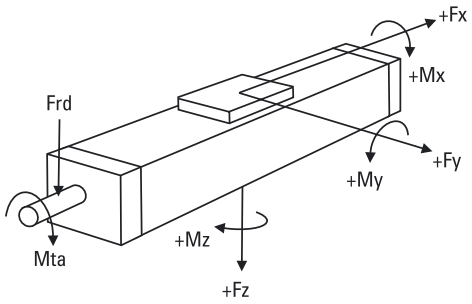
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



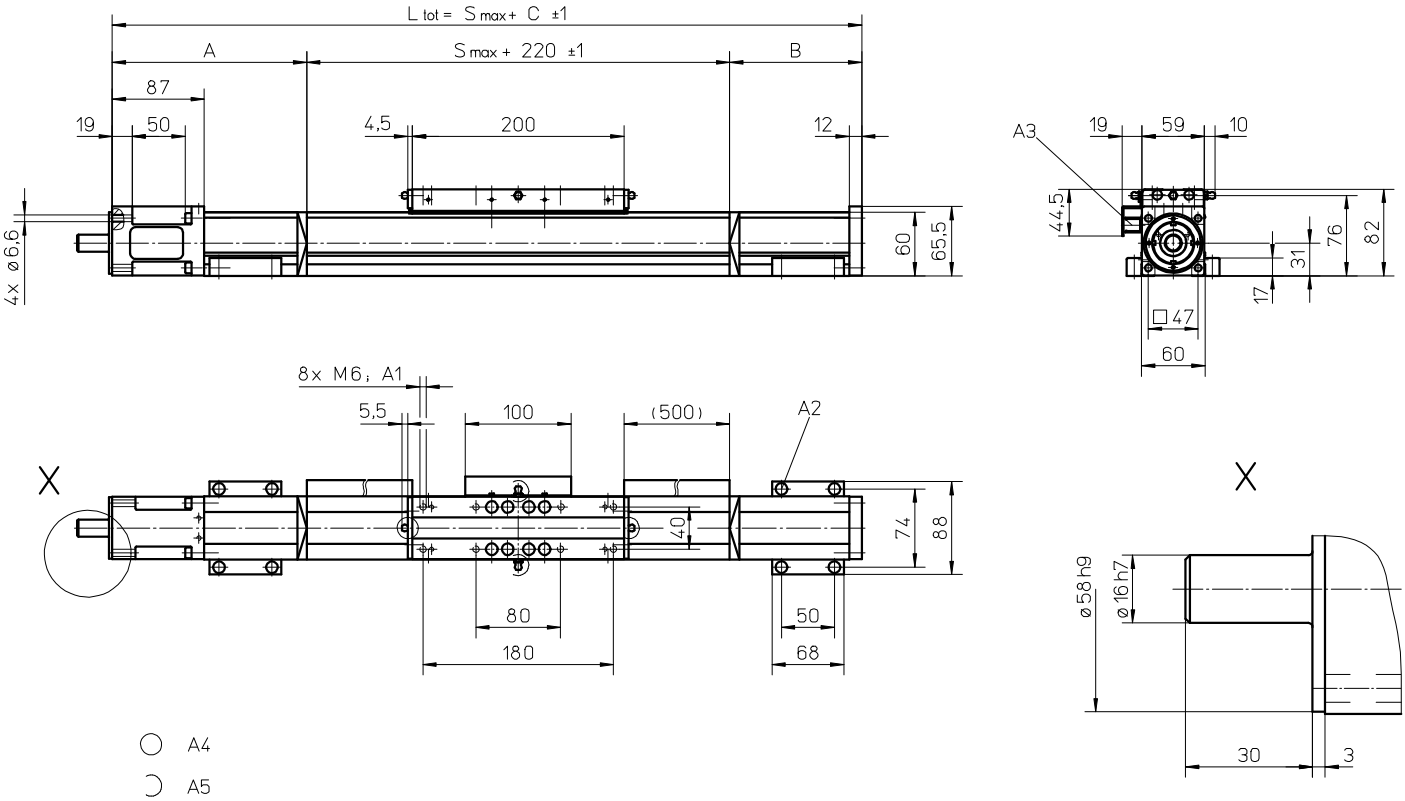
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 6300 mm consists of two profiles where the joint between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

Definition of Forces



WV60

Ball Screw Drive, No Guides



A1: depth 11
A2: socket cap screw ISO4762-M6×20 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 the three alternative lubricating points by the customer

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 690	130	80	430
691 - 1415	155	105	480
1416 - 2155	175	125	520
2156 - 2885	200	150	570

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
2886 - 3625	220	170	610
3626 - 4355	245	195	660
4256 - 5095	265	215	700
5096 - 11000	contact customer service		

WV80

Ball Screw Drive, No Guides

» Ordering key - see page 195
» Accessories - see page 127
» Additional data - see page 183

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

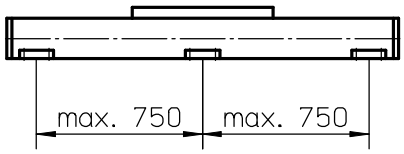
Parameter		WV80
Stroke length (S max), maximum screw lead 5, 10, 20 mm screw lead 50 mm	[mm]	 11000 5000
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum	[N]	5000
Dynamic load (Fy), maximum	[N]	0
Dynamic load (Fz), maximum	[N]	0
Dynamic load torque (Mx), maximum	[Nm]	0
Dynamic load torque (My), maximum	[Nm]	0
Dynamic load torque (Mz), maximum	[Nm]	0
Drive shaft force (Frd), maximum	[N]	700
Drive shaft torque (Mta), maximum	[Nm]	55
Ball screw diameter (d0)	[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

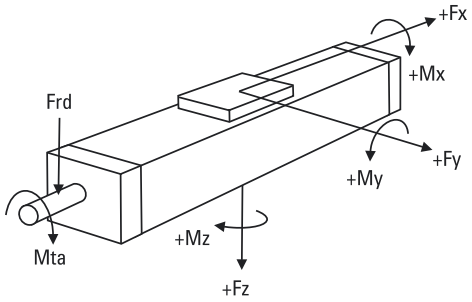
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



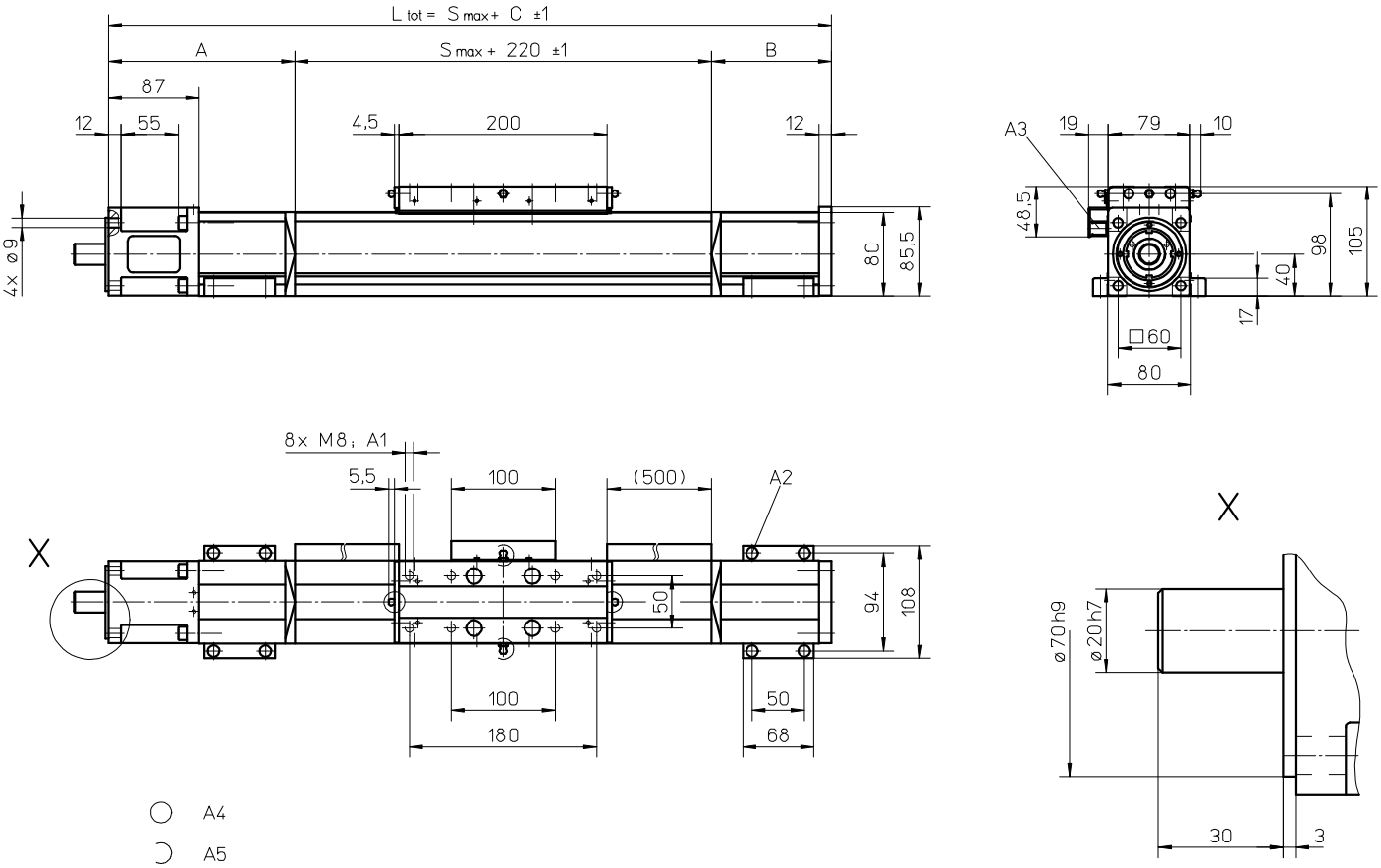
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 6300 mm consists of two profiles where the joint between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

Definition of Forces



WV80

Ball Screw Drive, No Guides



A1: depth 12 mm
A2: socket cap screw ISO4762-M6×20 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		

WV120

Ball Screw Drive, No Guides

» Ordering key - see page 195
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	WV120
Profile size (w × h) [mm]	120 × 120
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

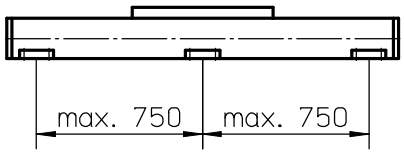
Parameter		WV120
Stroke length (S max), maximum screw lead 5, 10, 20 mm screw lead 40 mm	[mm]	 11000 5000
Linear speed, maximum	[m/s]	2,0
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum screw lead 5, 10, 20 mm screw lead 40 mm	[N]	 12000 8000
Dynamic load (Fy), maximum	[N]	0
Dynamic load (Fz), maximum	[N]	0
Dynamic load torque (Mx), maximum	[Nm]	0
Dynamic load torque (My), maximum	[Nm]	0
Dynamic load torque (Mz), maximum	[Nm]	0
Drive shaft force (Frd), maximum	[N]	1000
Drive shaft torque (Mta), maximum	[Nm]	80
Ball screw diameter (d0)	[mm]	32
Ball screw lead (p)	[mm]	5, 10, 20, 40
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	 18,10 1,94 4,75

Carriage Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 40
150	1,0	1,1	1,4	1,5
1500	2,1	2,2	2,5	2,8
3000	2,4	2,6	3,0	3,5

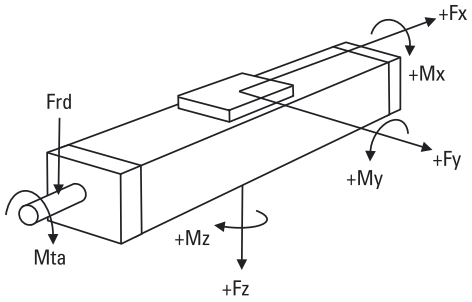
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



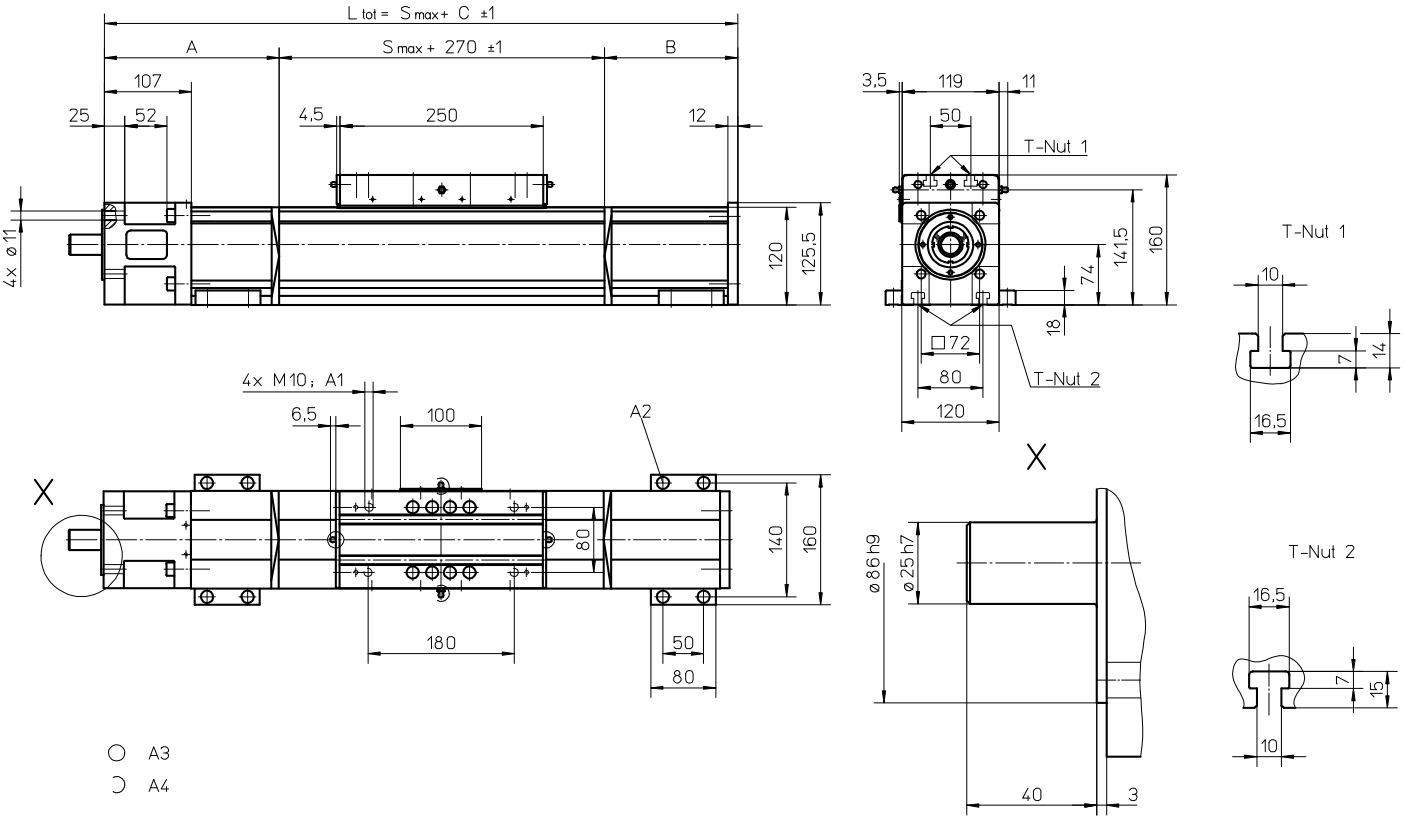
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 5400 mm consists of two profiles where the joint between the two profiles must be addequately supported on both sides.

Definition of Forces



WV120

Ball Screw Drive, No Guides



A1: depth 22
A2: socket cap screw ISO4762-M8×20 8.8
A3: tapered lubricating nipple to DIN71412 M8×1 on fixed-bearing side as standard feature
A4: can be changed over to one of the three alternative lubricating points by the customer

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 940	145	50	465
941 - 1860	180	120	570
1861 - 2790	215	155	640
2791 - 3720	250	190	710

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
3721 - 4650	285	225	780
4651 - 5000	320	255	845
5001 - 11000	contact customer service		

MLSM60D

Ball Screw Drive, Ball Guide

» Ordering key - see page 196
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	MLSM60D
Profile size (w × h) [mm]	160 × 65
Type of screw	ball screw with double nuts
Carriage sealing system	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		MLSM60D
Stroke length (S max), maximum	[mm]	5500
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum	[N]	5000
Dynamic load (Fy), maximum	[N]	6000[1] / 55090[2]
Dynamic load (Fz), maximum	[N]	6000[1] / 55090[2]
Dynamic load torque (Mx), maximum	[Nm]	400[1] / 2890[2]
Dynamic load torque (My), maximum	[Nm]	460[1] / 4490[2]
Dynamic load torque (Mz), maximum	[Nm]	460[1] / 4490[2]
Drive shaft force (Frd), maximum	[N]	350
Drive shaft torque (Mta), maximum	[Nm]	60
Ball screw diameter (d0)	[mm]	25
Ball screw lead (p)	[mm]	5, 10, 20, 50
Weight	[kg]	
of unit with zero stroke		14,40
of every 100 mm of stroke		1,65
of each carriage		5,70

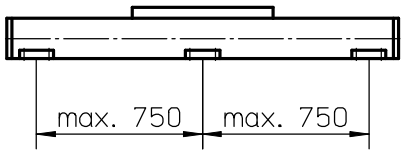
[1] Value for the complete unit
[2] Value for the ball guide only

Carriage Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 50
150	1,0	1,6	1,9	2,7
1500	1,6	2,2	2,3	3,4
3000	2,0	2,6	2,6	4,0

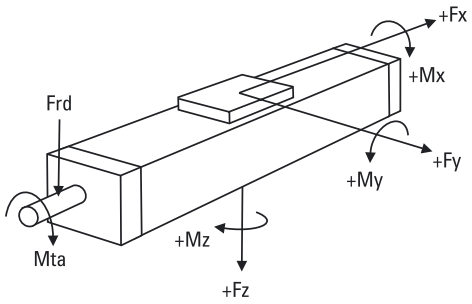
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



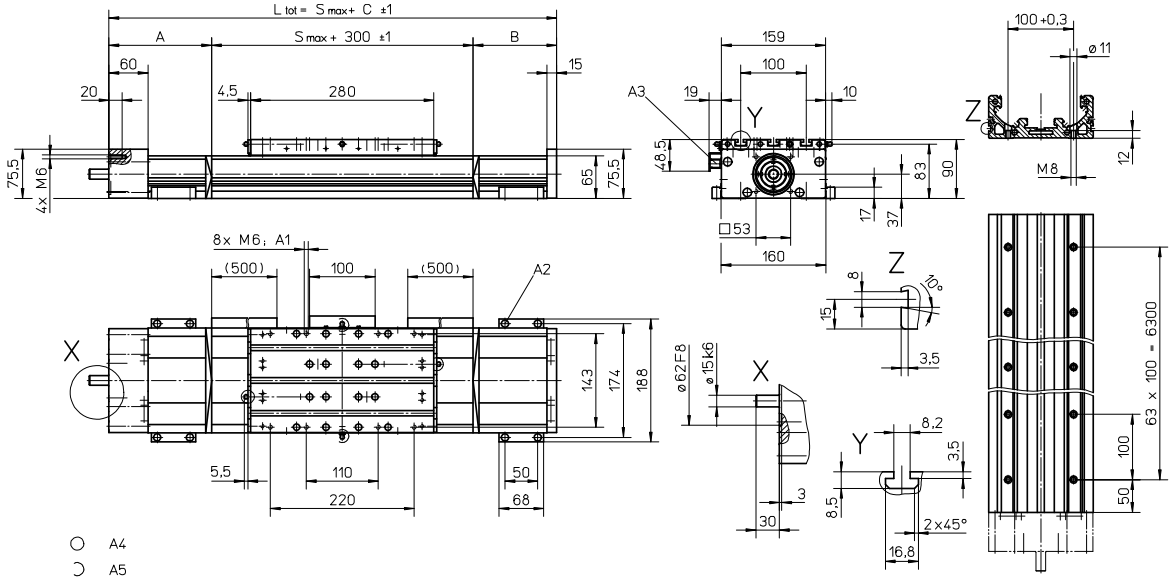
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information.

Definition of Forces



MLSM60D

Ball Screw Drive, Ball Guide



A1: depth 10
A2: socket cap screw ISO4762-M6×20 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 the three alternative lubricating points by the customer

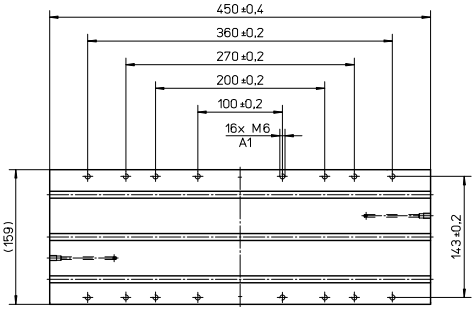
Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 750 (0 - 580)	90	45	435 (605)
751 - 1220 (581 - 1050)	105	90	495 (665)
1221 - 1980 (1051 - 1810)	125	110	535 (705)
1981 - 2730 (1811 - 2560)	150	135	585 (765)

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
2731 - 3490 (2561 - 3320)	170	155	625 (795)
3491 - 4240 (3321 - 4070)	195	180	675 (845)
4241 - 5000 (4071 - 4830)	215	200	715 (885)
5001 - 5500 (4831 - 5330)	235	220	755 (925)

Values between brackets = for units with long carriage

Long Carriage

Parameter		MLSM60D
Carriage length	[mm]	450
Dynamic load torque (My), maximum	[Nm]	940
Dynamic load torque (Mz), maximum	[Nm]	940
Weight	[kg]	6,5

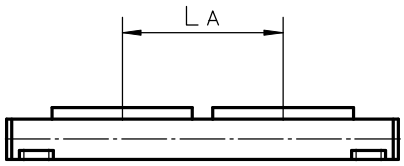


A1: depth 10

Double Carriages

Parameter		MLSM60D
Minimum distance between carriages (LA)	[mm]	320
Dynamic load (Fy), maximum	[N]	12000
Dynamic load (Fz), maximum	[N]	12000
Dynamic load torque (My), maximum	[Nm]	L A[1] × 6
Dynamic load torque (Mz), maximum	[Nm]	L A[1] × 6
Force required to move second carriage	[N]	270
Total length (L tot)	[mm]	S max + C + L A

[1] Value in mm



MLSM80D

Ball Screw Drive, Ball Guide

» Ordering key - see page 196
» Accessories - see page 127
» Additional data - see page 183

General Specifications

Parameter	MLSM80D
Profile size (w × h) [mm]	240 × 85
Type of screw	ball screw with double nuts
Carriage sealing system	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		MLSM80D
Stroke length (S max), maximum	[mm]	5200
Linear speed, maximum	[m/s]	2,0
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (Fx), maximum screw lead 5, 10, 20 mm screw lead 40 mm	[N]	 12000 8000
Dynamic load (Fy), maximum	[N]	8000[1] / 71860[2]
Dynamic load (Fz), maximum	[N]	8000[1] / 71860[2]
Dynamic load torque (Mx), maximum	[Nm]	780[1] / 5890[2]
Dynamic load torque (My), maximum	[Nm]	900[1] / 6640[2]
Dynamic load torque (Mz), maximum	[Nm]	900[1] / 6640[2]
Drive shaft force (Frd), maximum	[N]	700
Drive shaft torque (Mta), maximum	[Nm]	85
Ball screw diameter (d0)	[mm]	32
Ball screw lead (p)	[mm]	5, 10, 20, 40
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	 29,5 2,7 11,5

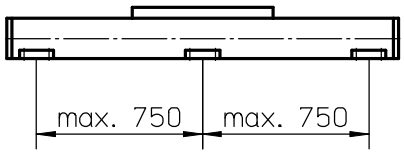
[1] Value for the complete unit
[2] Value for the ball guide only

Carriage Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 40
150	1,6	2,2	2,5	2,8
1500	2,7	3,2	3,4	4,0
3000	3,2	4,0	4,2	4,5

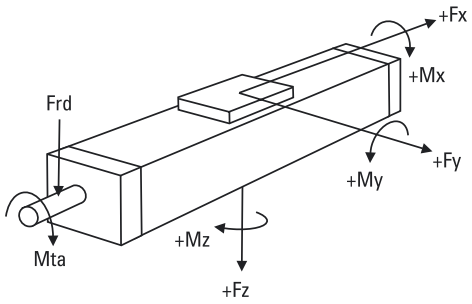
M idle = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



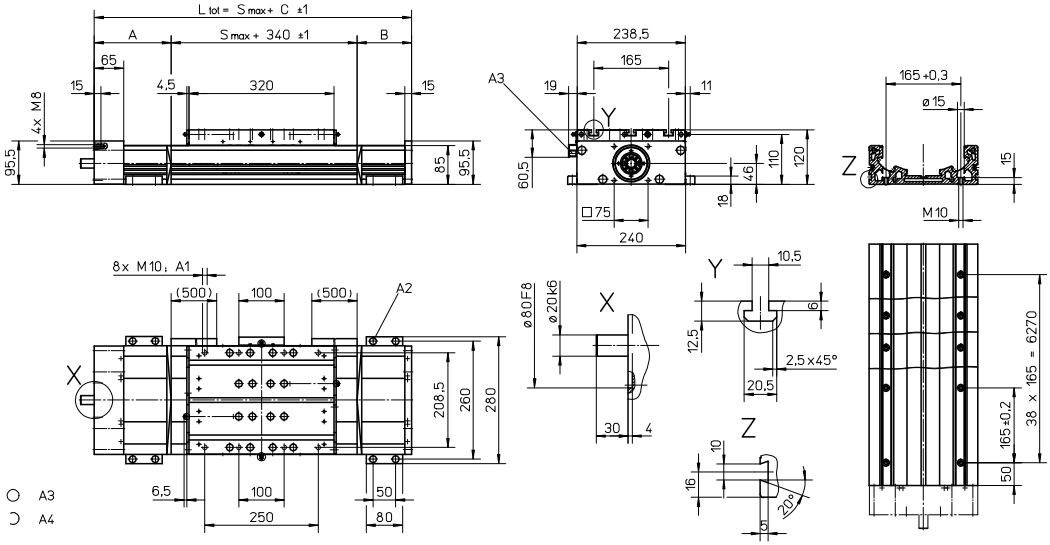
A mounting clamp must be installed at least at every 750 mm to be able to operate the maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information.

Definition of Forces



MLSM80D

Ball Screw Drive, Ball Guide



A1: depth 15
A2: socket cap screw ISO4762-M8×20 8.8
A3: ENF inductive sensor rail option kit (optional)
A4: tapered lubricating nipple to DIN71412 M8×1 on fixed-bearing side as standard feature
A5: can be changed over to one of the three alternative lubricating points by the customer

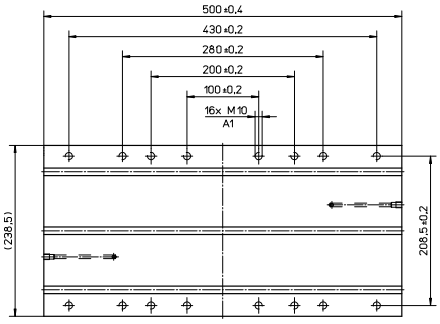
Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
0 - 750 (0 - 570)	100	90	530 (710)
751 - 1140 (571 - 960)	130	120	590 (770)
1141 - 1880 (961 - 1700)	160	150	650 (830)
1881 - 2620 (1701 - 2440)	190	180	710 (890)

Stroke length (S max) [mm]	A [mm]	B [mm]	C [mm]
2621 - 3360 (2441 - 3180)	220	210	770 (950)
3361 - 4100 (3181 - 3920)	250	240	830 (1010)
4101 - 4840 (3921 - 4660)	280	270	890 (1070)
4841 - 5000 (4661 - 4820)	310	300	950 (1130)

Values between brackets = for units with long carriage

Long Carriage

Parameter		MLSM80D
Carriage length	[mm]	500
Dynamic load torque (My), maximum	[Nm]	1750
Dynamic load torque (Mz), maximum	[Nm]	1750
Weight	[kg]	16

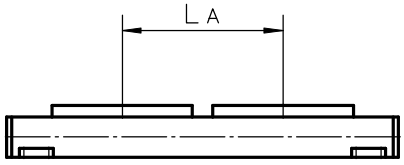


A1: depth 15

Double Carriages

Parameter		MLSM80D
Minimum distance between carriages (L_A)	[mm]	400
Dynamic load (Fy), maximum	[N]	16000
Dynamic load (Fz), maximum	[N]	16000
Dynamic load torque (My), maximum	[Nm]	L_A[1] × 8
Dynamic load torque (Mz), maximum	[Nm]	L_A[1] ×8
Force required to move second carriage	[N]	350
Total length (L tot)	[mm]	S max + C + L_A

[1] Value in mm



2HBE10

Ball Screw Drive, Ball Guide

» Ordering key - see page 197
» Accessories - see page 127
» Additional data - see page 183

General Specifications

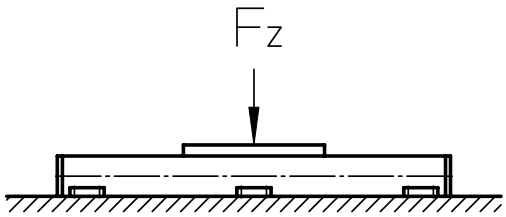
Parameter	2HBE10
Profile size (w × h) [mm]	100 × 33,5
Type of screw	ball screw with double nut
Carriage sealing system	none
Screw supports	none
Lubrication	lubrication of screw and guides
Included accessories	none

Performance Specifications

Parameter		2HBE10
Stroke length (S max), maximum	[mm]	850
Linear speed, maximum	[m/s]	0,5
Acceleration, maximum	[m/s²]	20
Repeatability	[± mm]	0,005
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	-20 – 70
Dynamic load (Fx), maximum	[N]	2500
Dynamic load (Fy), maximum	[N]	8250[1] / 2065[2]
Dynamic load (Fz), maximum	[N]	8250[1] / 2065[2]
Dynamic load torque (Mx), maximum	[Nm]	290[1] / 395[2]
Dynamic load torque (My), maximum	[Nm]	225[1] / 305[2]
Dynamic load torque (Mz), maximum	[Nm]	225[1] / 305[2]
Drive shaft force (Frd), maximum	[N]	0
Drive shaft torque (Mta), maximum	[Nm]	4,4
Ball screw diameter (d0)	[mm]	16
Ball screw lead (p)	[mm]	5, 10
Weight of unit with zero stroke of every 100 mm of stroke of each carriage	[kg]	 - - 0,4

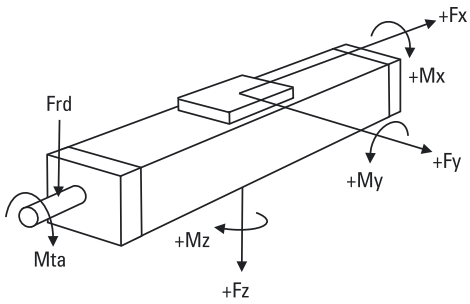
[1] Value for the complete unit
[2] Value for the ball guide only

Deflection of the Profile



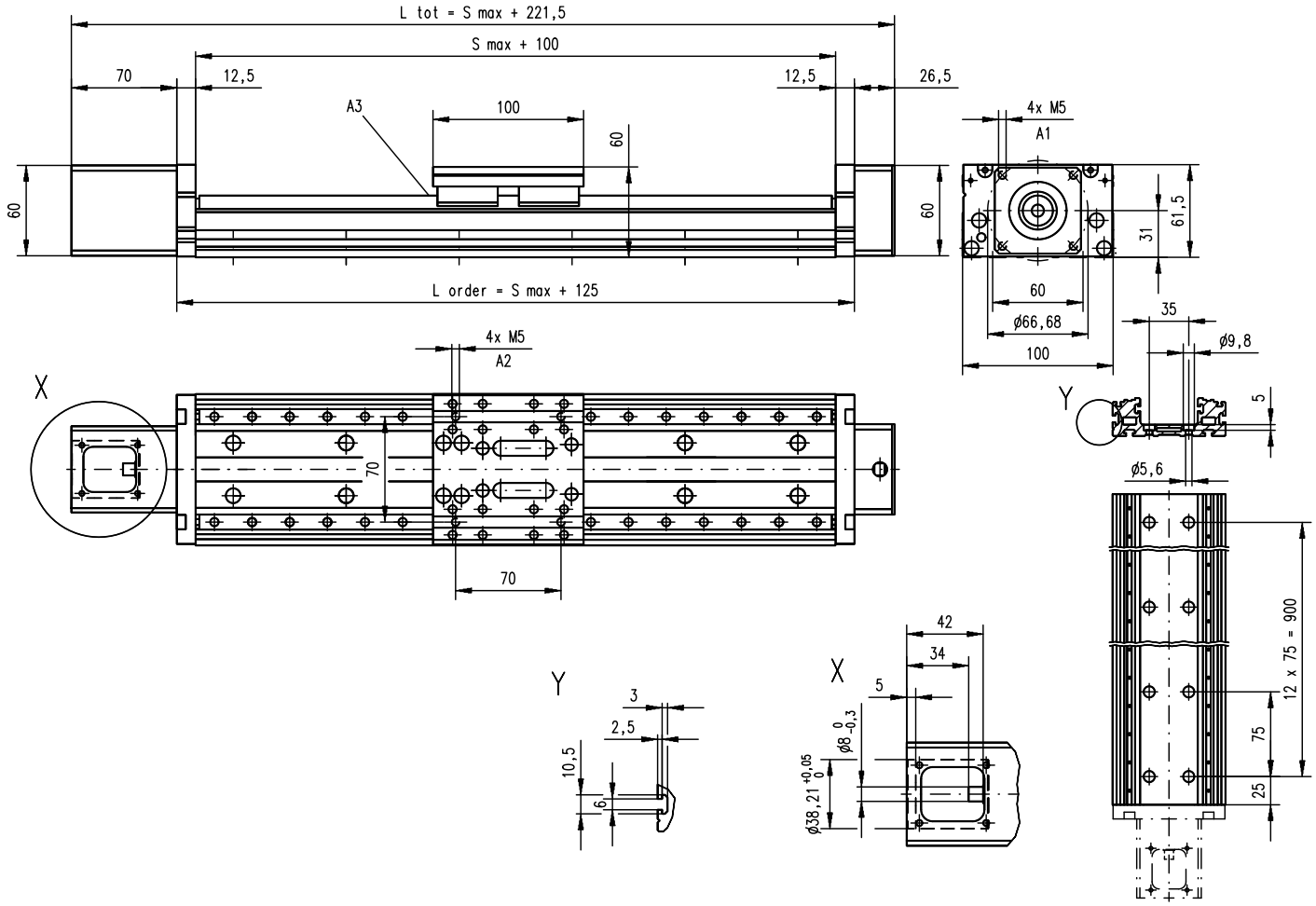
The unit must be continiously supported by a machined surface under its entire lenght.

Definition of Forces



2HBE10

Ball Screw Drive, Ball Guide



A1: depth 10
A2: depth 10 Heli coil

A3: lubrication nipple (using the unit with the nipple mounted makes stroke 10 mm shorter)

Double Carriages

Parameter		2HBE10
Minimum distance between carriages (Lc)	[mm]	112
Dynamic load (Fy), maximum	[N]	16500
Dynamic load (Fz), maximum	[N]	16500
Dynamic load torque (My), maximum	[Nm]	Lc[1] × 8,25
Dynamic load torque (Mz), maximum	[Nm]	Lc[1] × 8,25
Force required to move second carriage	[N]	12
Ordering lenght (L order)	[mm]	S max + Lc + 125
Total length (L tot]	[mm]	L order + 96,5
Weight of unit with zero stroke of carriages	[kg]	 - -

[1] Value in mm