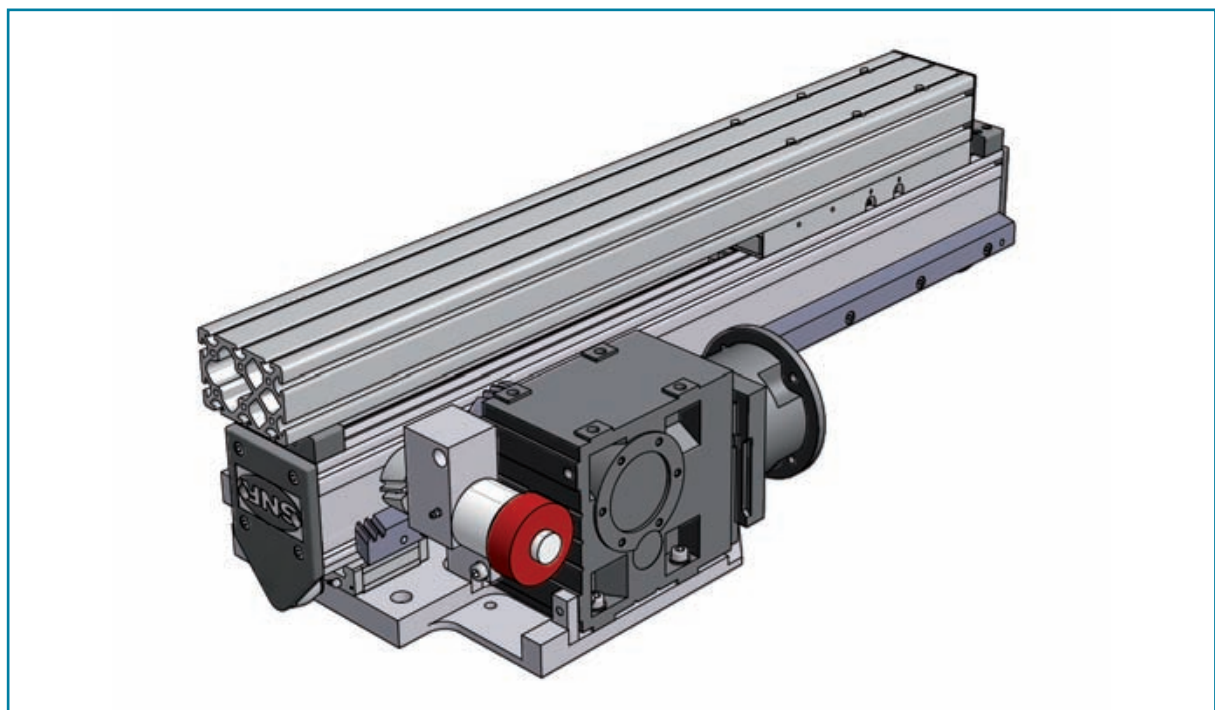
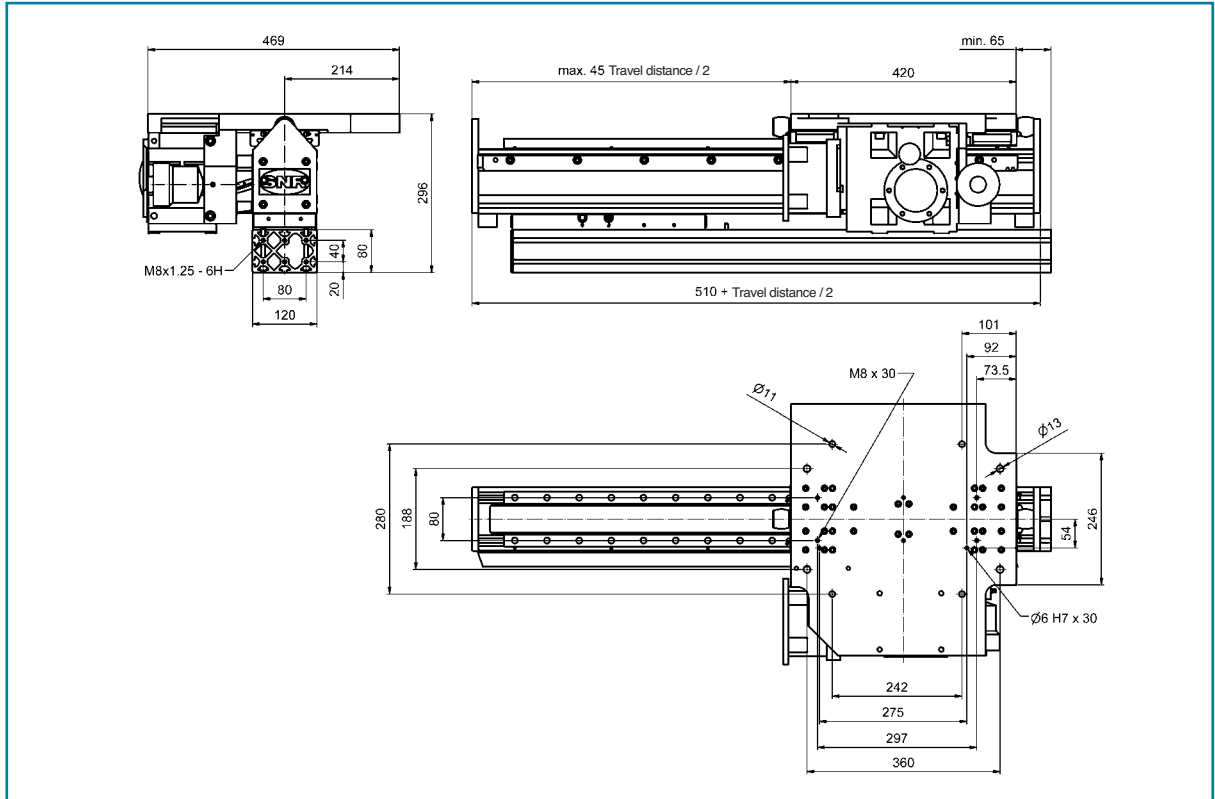


AXS160M160 lifting axis

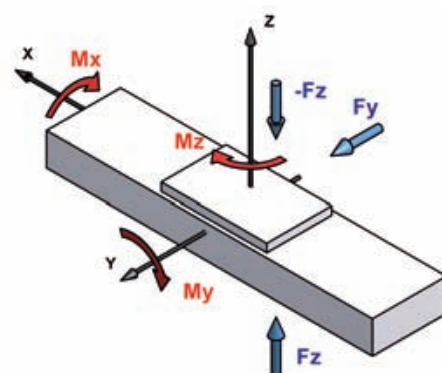
with rack and pinion drive and profile ball rail guide
(vertical installation)



I Loads and torque loads

ID number	Ball rail guide			
	B			
	1-level		2-level	
Loads [N]	dyn.	stat.	dyn.	stat.
Fy	12.200	41.500	6.900	19.500
Fz	12.200	41.500	6.900	19.500
-Fz	12.200	41.500	6.900	19.500
Torque loads [Nm]	dyn.	stat.	dyn.	stat.
Mx	470	1.600	220	635
My	1.750	5.900	580	1.650
Mz	1.750	5.900	580	1.650

The dynamic load-bearing capacities of the guidance system are based on a nominal service life of 54,000 km.



I Technical specifications

Max. traverse rate [m/min]	216
Drive element	Pinion drive, module 3, synchronous belt drives 50AT10
Allowable dynamic working force	
of the synchronous belt drive [N]	2.500
of the pinion drive [N]	5.860
Max. energy absorption (shock absorber TA37-16) [Nm]	65
Lift per revolution ¹⁾ [mm]	500
Geometrical moment of inertia Iy [cm ⁴]	661,1
Geometrical moment of inertia Iz [cm ⁴]	938,57
Maximal total length [m]	3,0

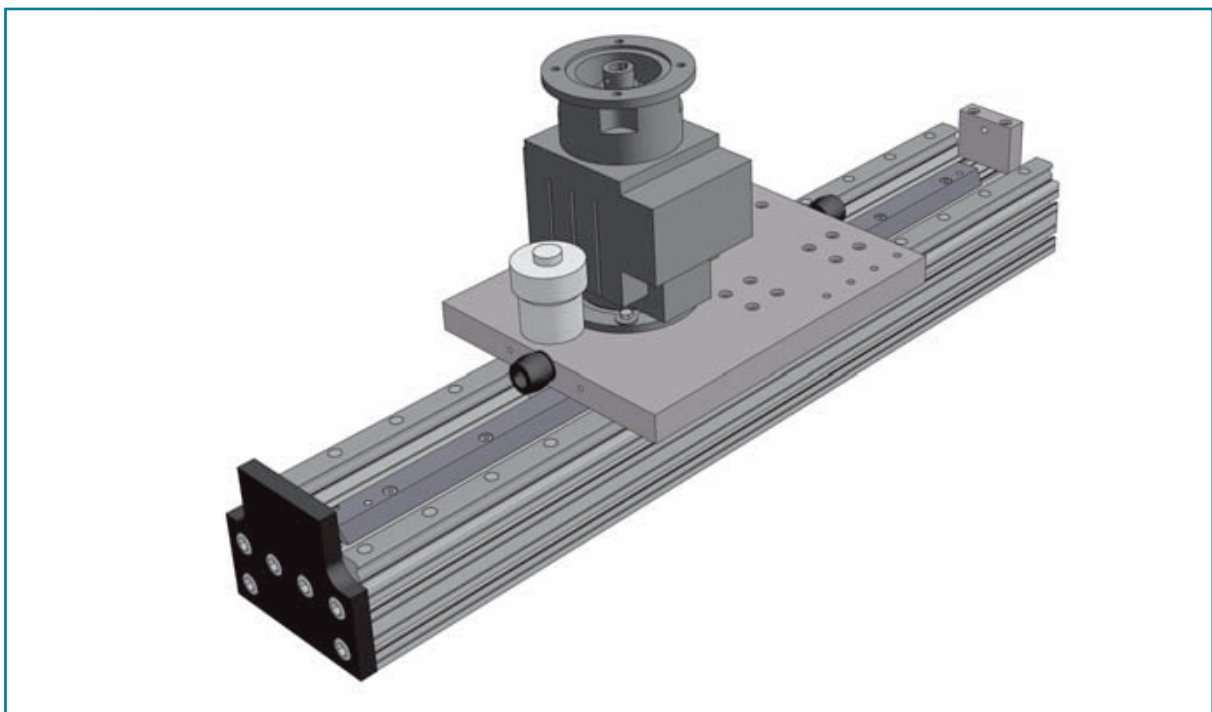
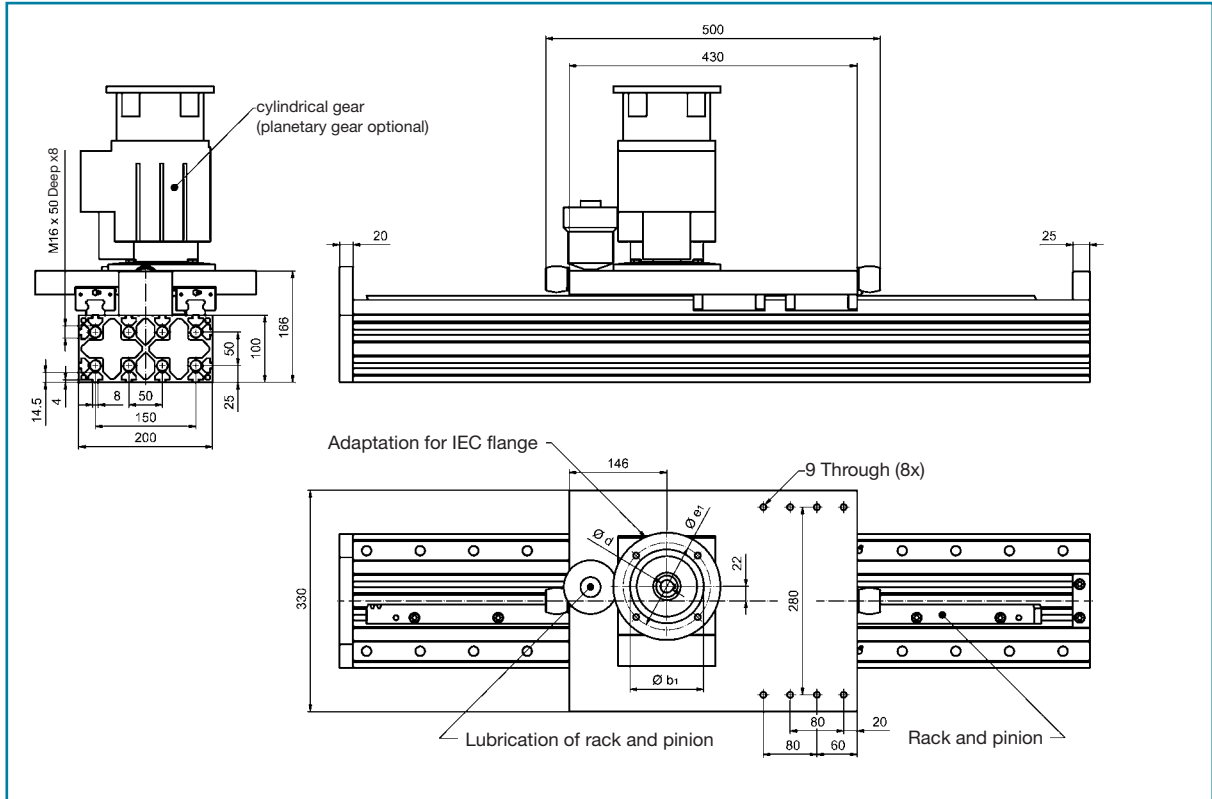
1) Greater lengths upon request.

ID number	Ball rail guide	
	B	
		1st level
Base mass [kg]	70,0	15,4
Mass per 100 mm of travel distance [kg]	4,1	
Carriage mass [kg]	5,9	

Subject to technical modifications.
Masses without gearbox.

AXS200M200 lifting axis

with rack and pinion drive and profile ball rail guide

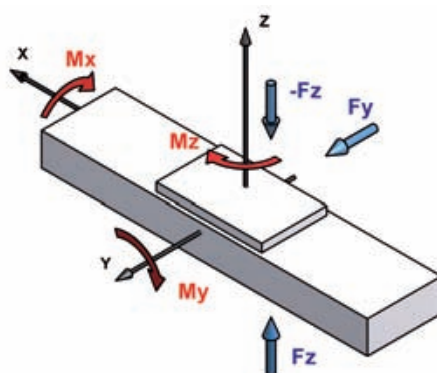


I Loads and torque loads

	Ball rail guide			
ID number	B			
Table length [mm]	430		610	
Application	individual		Y-Z combination ¹⁾	
Loads [N]	dyn.	stat.	dyn.	stat.
F _y	17.400	53.000	17.400	53.000
F _z	17.400	53.000	17.400	53.000
-F _z	17.400	53.000	17.400	53.000
Torque loads [Nm]	dyn.	stat.	dyn.	stat.
M _x	1.200	3.700	1.200	3.700
M _y	1.100	3.400	2.200	6.700
M _z	1.100	3.400	2.200	6.700

The dynamic load-bearing capacities of the guidance system are based on a nominal service life of 54,000 km.

1.) see page 117



I Technical specifications

Max. traverse rate [m/min]	204
Drive element	Rack and pinion, module 3
Allowable. dyn. working load [N]	6.130
Lift per revolution [mm]	200
Max. energy absorption (shock absorber TA40-16) [Nm]	80
Geometrical moment of inertia I _y [cm ⁴]	3.500
Geometrical moment of inertia I _z [cm ⁴]	1.100
Maximal total length [m]	6,0

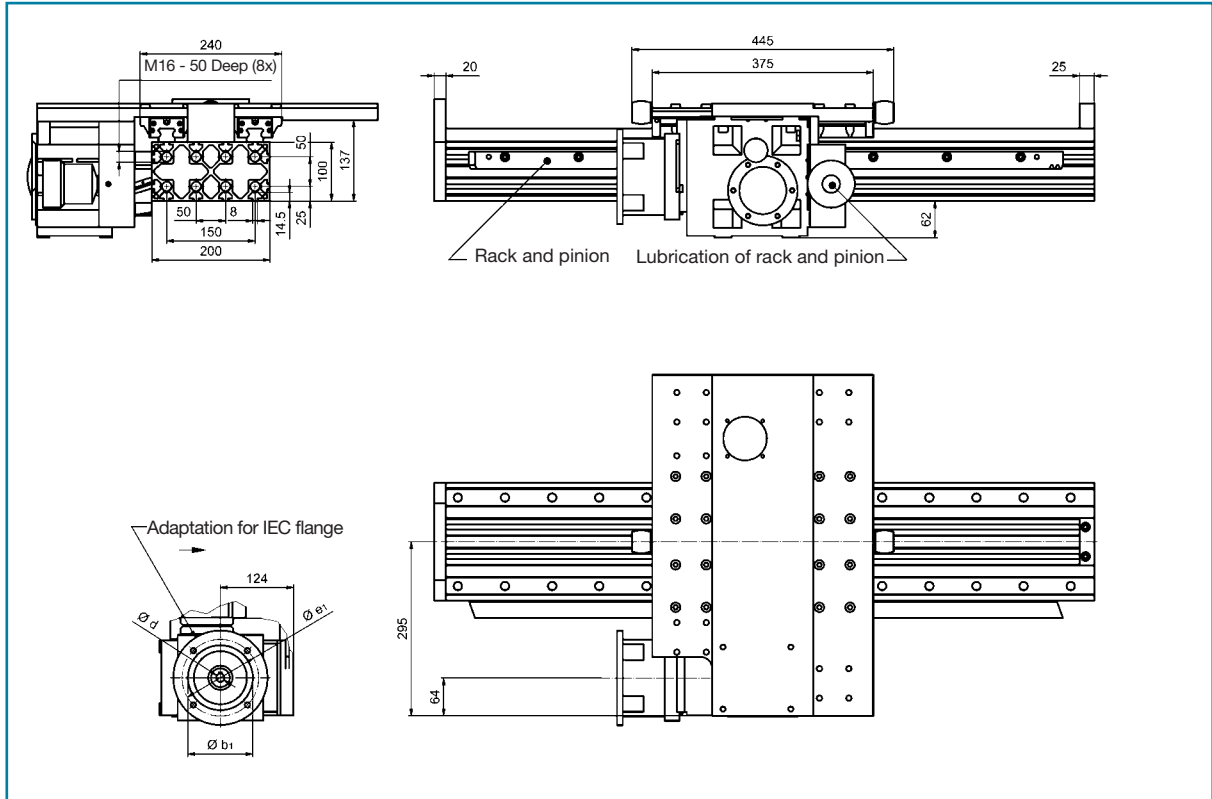
	Ball rail guide
ID number	B
Base mass [kg]	35,0
Mass per 100 mm of travel distance [kg]	3,5
Carriage mass [kg]	17,0

Subject to technical modifications.

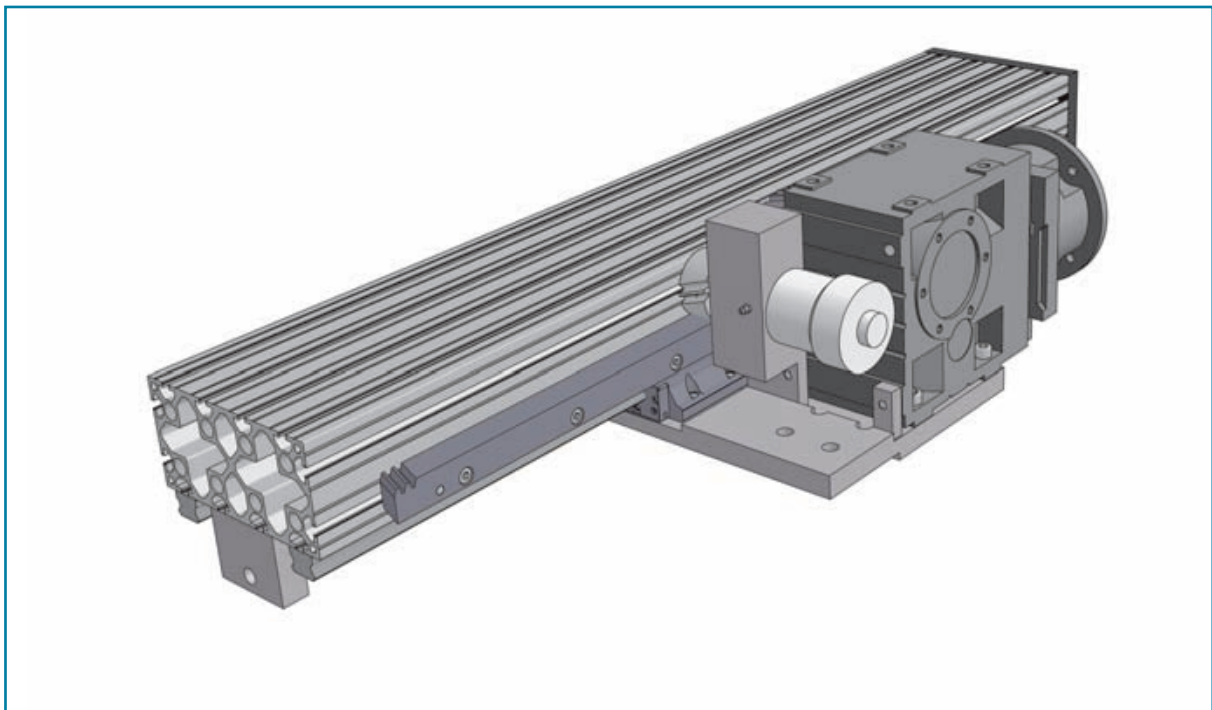
Masses without gearbox.

AXS200M250 lifting axis

with rack and pinion drive and profile ball rail guide

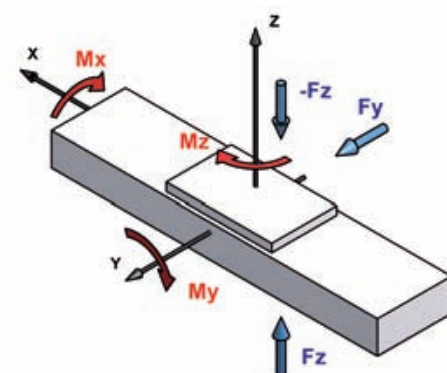


• Linear axis only in combination with gantry axis AXS280M200 (see. page 117)



I Loads and torque loads

Ball rail guide		
ID number	B	
Table length [mm]	375	
Loads [N]	dyn.	stat.
F _y	17.400	53.000
F _z	17.400	53.000
-F _z	17.400	53.000
Torque loads [Nm]	dyn.	stat.
M _x	1.200	3.700
M _y	1.850	5.700
M _z	1.850	5.700



The dynamic load-bearing capacities of the guidance system are based on a nominal service life of 54,000 km.

I Technical specifications

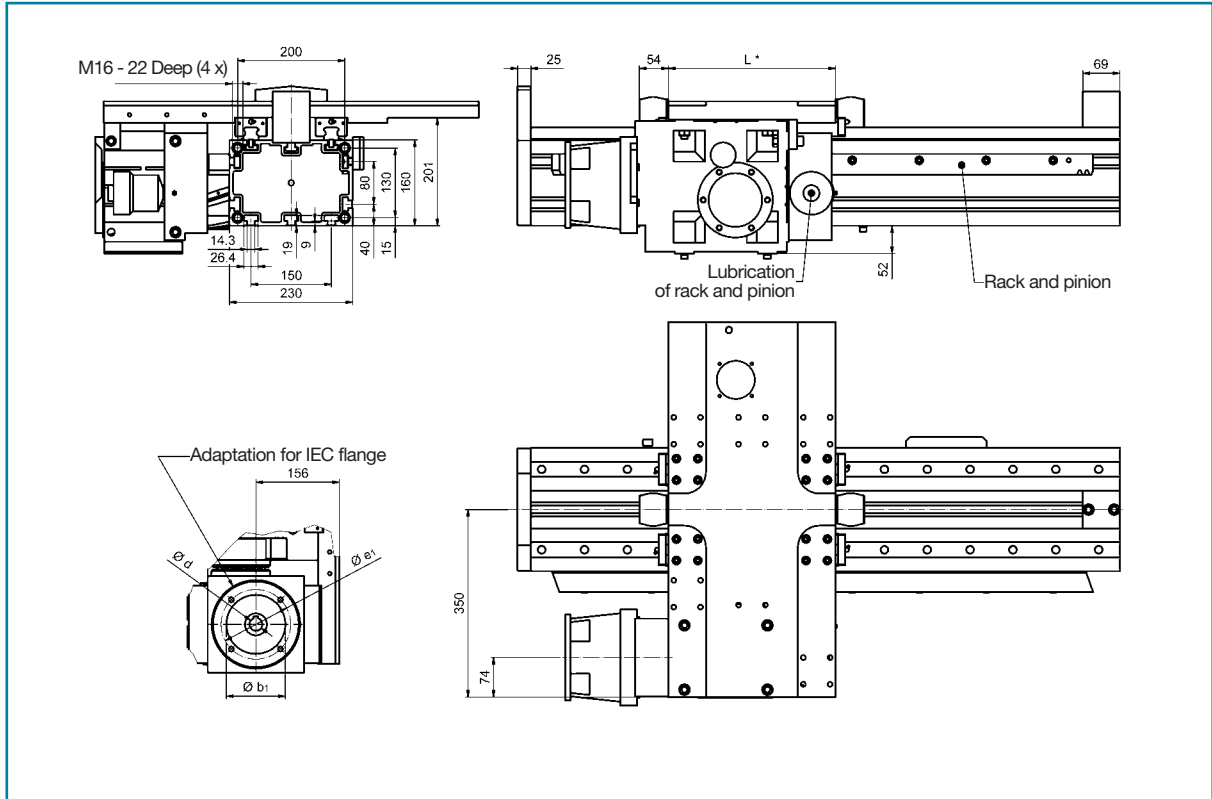
Max. traverse rate [m/min]	108
Drive element	Rack and pinion, module 3
Allowable. dyn. working load [N]	5.860
Lift per revolution [mm]	250
Max. energy absorption (shock absorber TA40-16) [Nm]	80
Geometrical moment of inertia I _y [cm ⁴]	3.500
Geometrical moment of inertia I _z [cm ⁴]	1.100
Maximal total length [m]	6,0

Ball rail guide	
ID number	B
Base mass [kg]	39,5
Mass per 100 mm of travel distance [kg]	3,5
Carriage mass [kg]	23,0

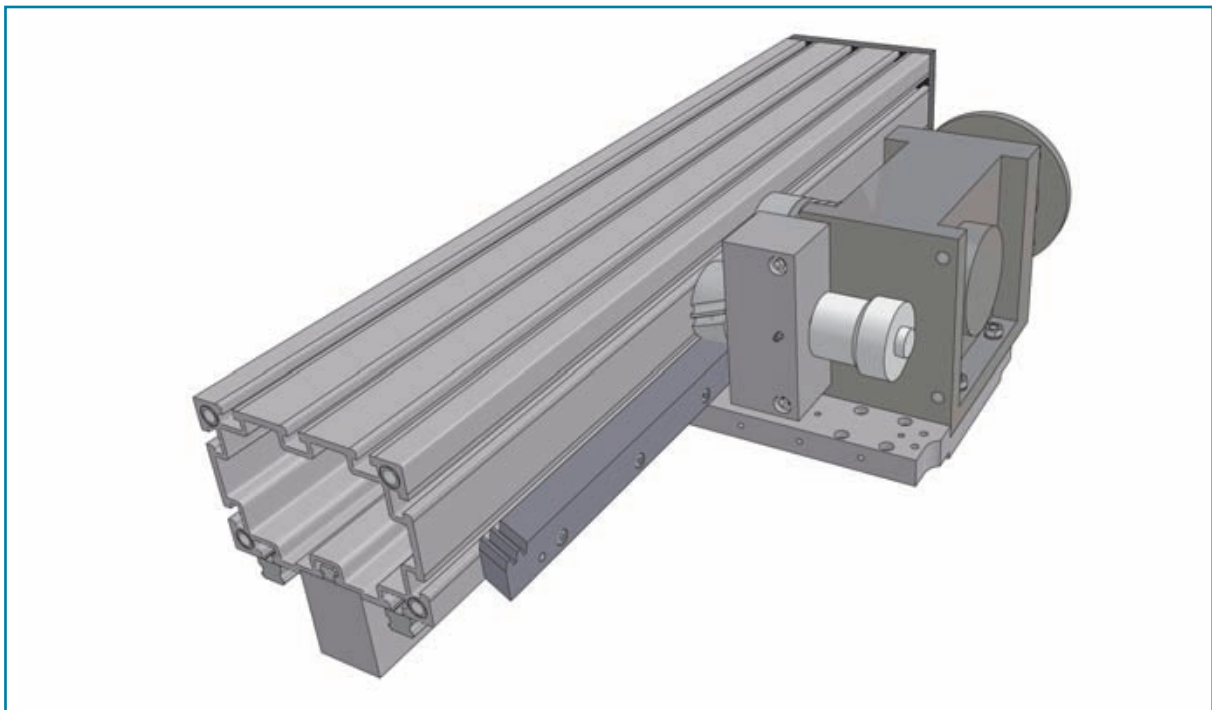
Subject to technical modifications.
Masses without gearbox.

AXS230M320 lifting axis

with rack and pinion drive and profile ball rail guide

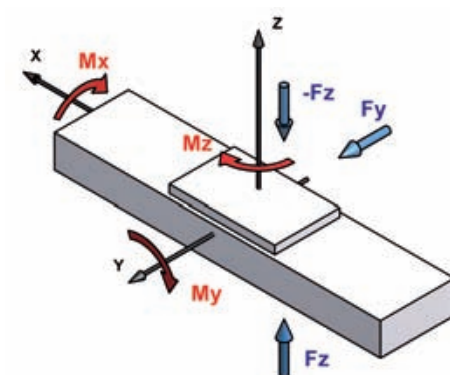


• Linear axis only in combination with gantry axis AXS280 and AXS460 (see page 113).



I Loads and torque loads

Ball rail guide				
ID number	B			
Table length L [mm]	312		492	
Loads [N]	dyn.	stat.	dyn.	stat.
Fy	17.400	53.000	17.400	53.000
Fz	17.400	53.000	17.400	53.000
-Fz	17.400	53.000	17.400	53.000
Torque loads [Nm]	dyn.	stat.	dyn.	stat.
Mx	1.200	3.700	1.200	3.700
My	1.850	5.700	3.000	9.300
Mz	1.850	5.700	3.000	9.300



The dynamic load-bearing capacities of the guidance system are based on a nominal service life of 54,000 km.

I Technical specifications

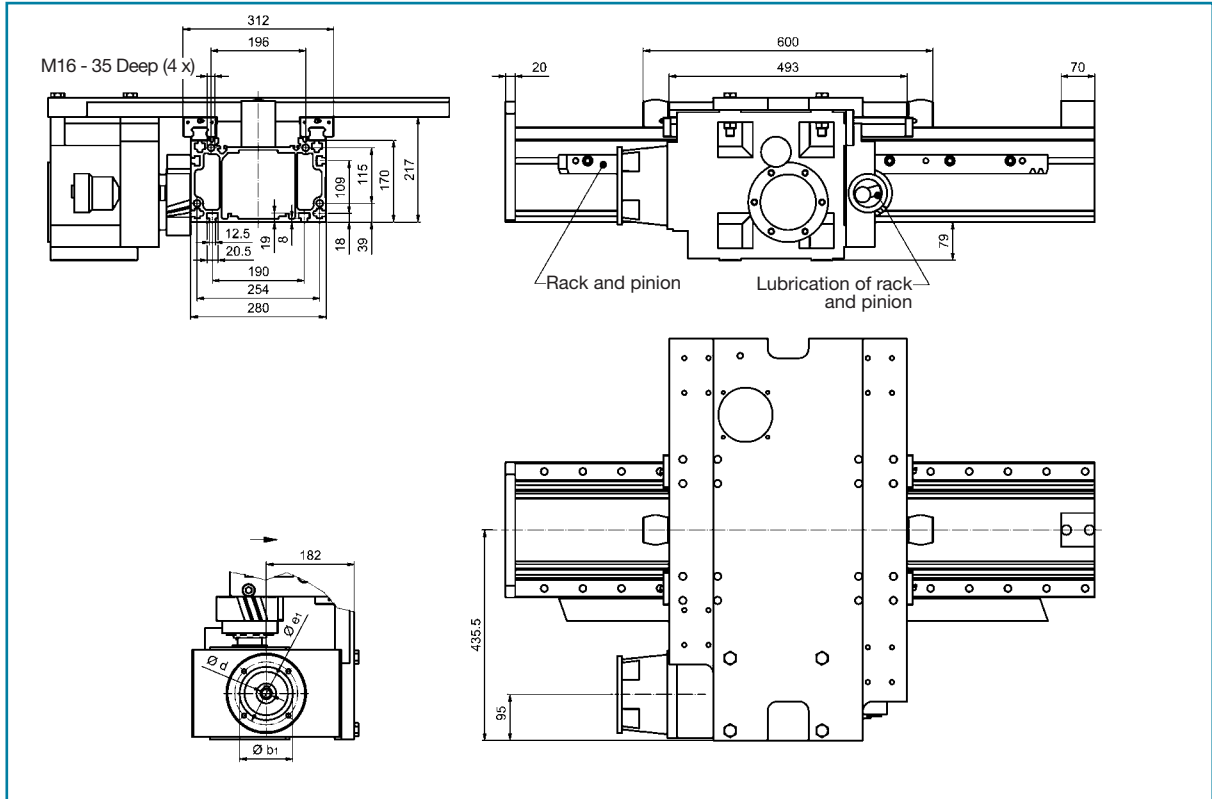
Max. traverse rate [m/min]	150
Drive element	Rack and pinion, module 4
Allowable. dyn. working load [N]	10.750
Lift per revolution [mm]	320
Max. energy absorption (shock absorber TA62-25) [Nm]	280
Geometrical moment of inertia Iy [cm ⁴]	8.850
Geometrical moment of inertia Iz [cm ⁴]	6.780
Maximal total length [m]	10

Ball rail guide	
ID number	B
Base mass [kg]	56,0
Mass per 100 mm of travel distance [kg]	4,4
Carriage mass [kg]	30,5

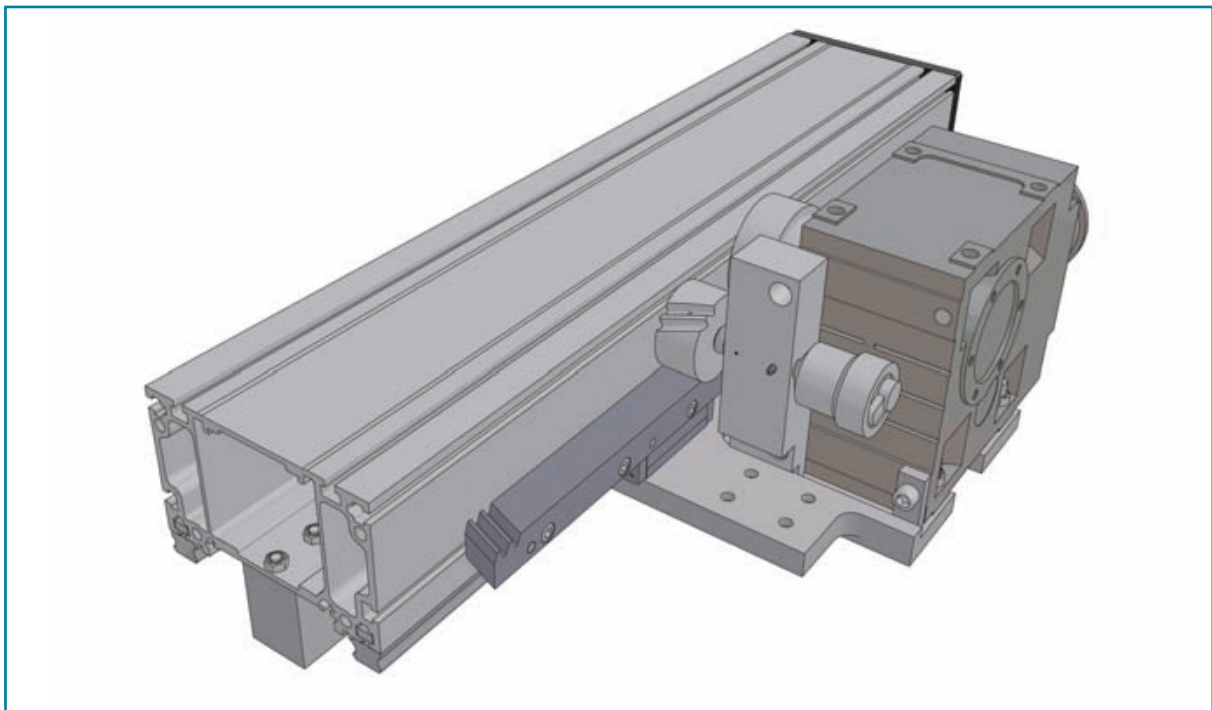
Subject to technical modifications.
Masses without gearbox.

AXS280M400 lifting axis

with rack and pinion drive and profile ball rail guide

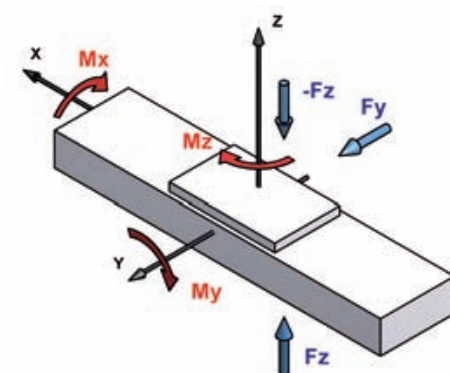


- Linear axis only in combination with gantry axis AXS460M250 (see page 117).



I Loads and torque loads

Ball rail guide		
ID number	B	
Table length [mm]	493	
Loads [N]	dyn.	stat.
F _y	28.000	100.000
F _z	28.000	100.000
-F _z	28.000	100.000
Torque loads [Nm]	dyn.	stat.
M _x	3.000	10.500
M _y	4.300	15.500
M _z	4.300	15.500



The dynamic load-bearing capacities of the guidance system are based on a nominal service life of 54,000 km.

I Technical specifications

Max. traverse rate [m/min]	198
Drive element	Rack and pinion, module 5
Allowable. dyn. working load [N]	16.240
Lift per revolution [mm]	400
Max. energy absorption (shock absorber TA62-25) [Nm]	280
Geometrical moment of inertia I _y [cm ⁴]	14.645
Geometrical moment of inertia I _z [cm ⁴]	7.958
Maximal total length [m]	10

Ball rail guide	
ID number	B
Base mass [kg]	96,0
Mass per 100 mm of travel distance [kg]	5,9
Carriage mass [kg]	54,5

Subject to technical modifications.
Masses without gearbox.