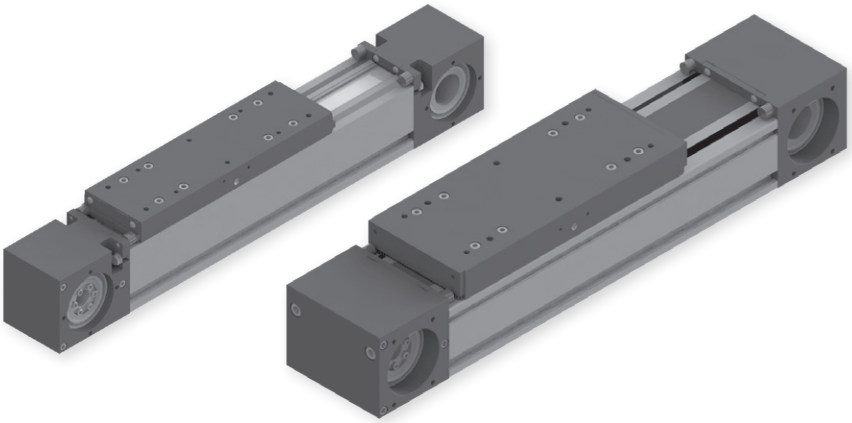
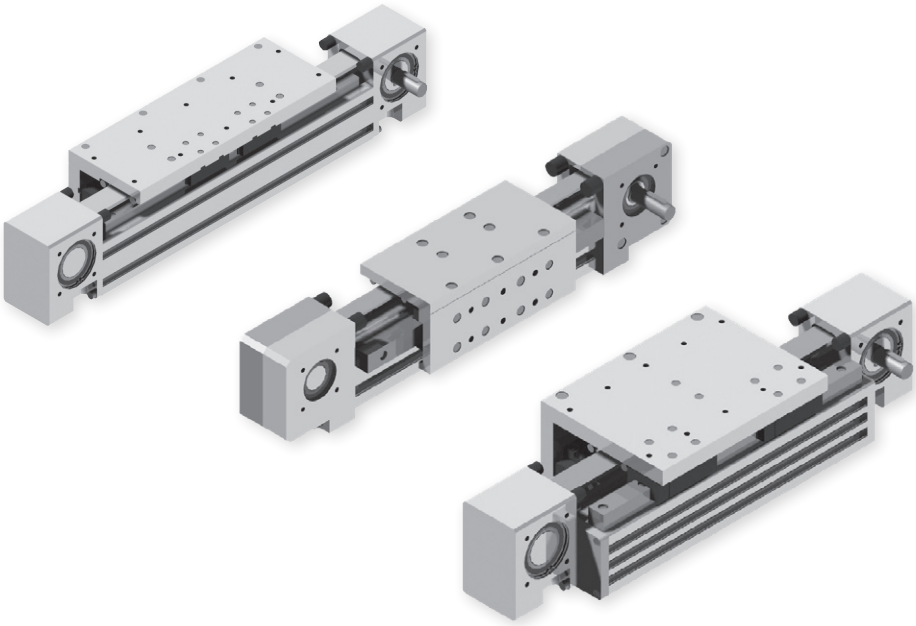


MECHANICAL LINEAR UNIT



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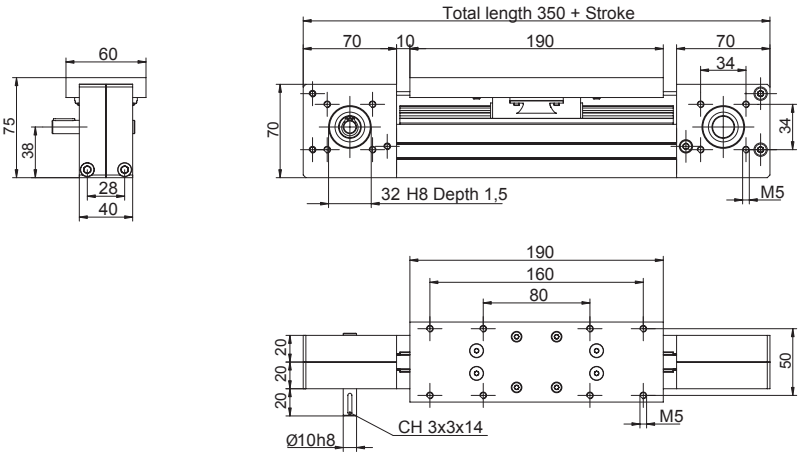
Mechanical linear unit with toothed belt drive and linear guideways



Weights

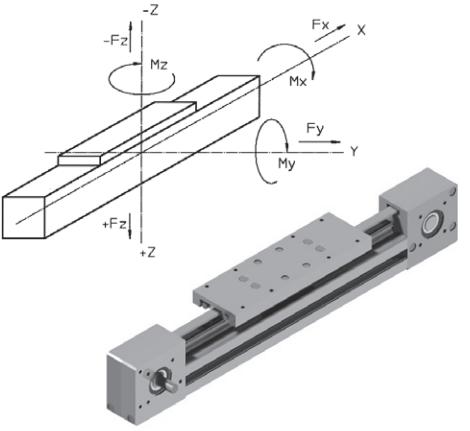
Basic length without stroke:	6.3 Kg
Each 100 mm stroke:	0.3 Kg
Carriage:	1.2 Kg
Moment of inertia:	Ix = 9.4 cm^4
	Iy = 9.4 cm^4
	It = 19 cm^4

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.1 mm
Idle torque:	0.5 Nm
Drive element:	Thoothed belt 16AT5
Stroke per revolution:	157 mm
Max. length:	up to 6000 mm (longer on request)

Version	with linear guideways size 15
Forces	dynamic [N]
Fx**	528
Fy	275
Fz +/-	275
Moments	dynamic [Nm]
Mx	8.2
My	26
Mz	26

** The max value is according to speed.



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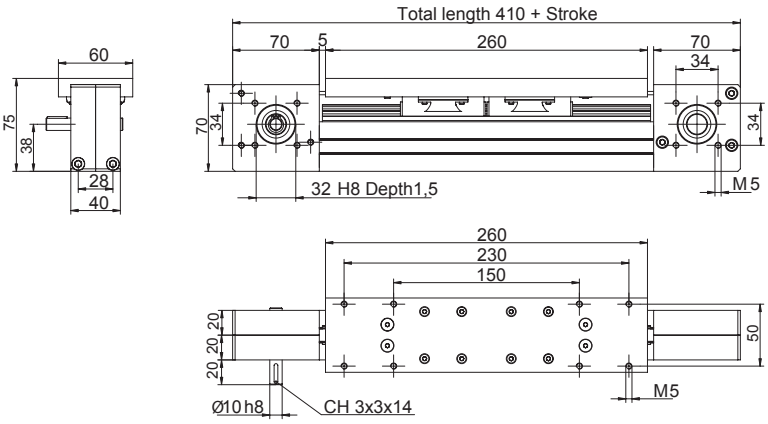
Mechanical linear unit with toothed belt drive and linear guideways



Weights

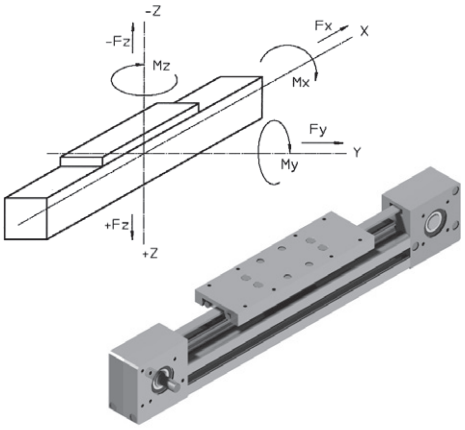
Basic length without stroke:	7.5 Kg
Each 100 mm stroke:	0.3 Kg
Carriage:	2.4 Kg
Moment of inertia:	Ix = 9.4 cm^4
	Iy = 9.4 cm^4
	It = 19 cm^4

Technical data

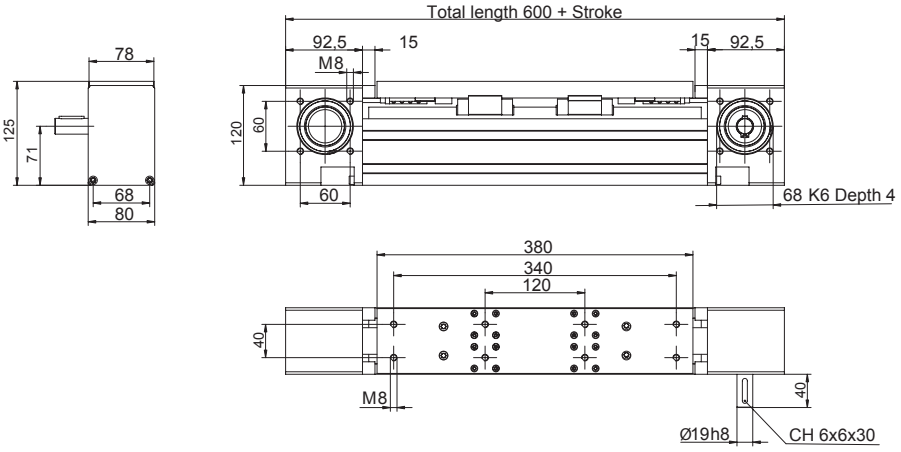
Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.1 mm
Idle torque:	0.5 Nm
Drive element:	Thoothed belt 16AT5
Stroke per revolution:	157 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 15
Forces	dynamic [N]
Fx**	528
Fy	275
Fz +/-	275
Moments	dynamic [Nm]
Mx	8.2
My	35
Mz	35

** The max value is according to speed.



Mechanical linear unit with toothed belt drive and linear guideways



Weights

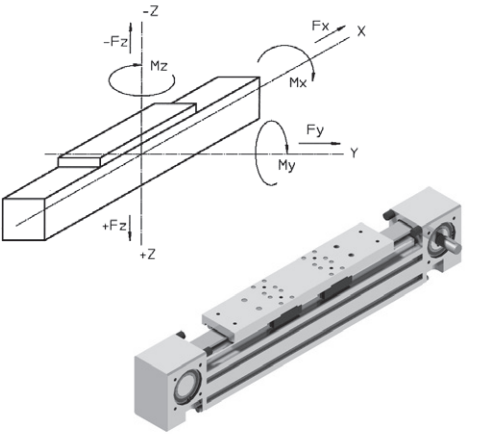
Basic length without stroke:	7 Kg
Each 100 mm stroke:	0.8 Kg
Carriage:	2.9 Kg
Moment of inertia:	Ix = 135.5 cm⁴
	Iy = 139.3 cm⁴
	It = 274.7 cm⁴

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.5 mm
Idle torque:	0.4 Nm
Drive element:	Thoothed belt 32AT10
Stroke per revolution:	200 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 15
Forces	dynamic [N]
Fx**	2200
Fy	3900
Fz +/-	3900
Moments	dynamic [Nm]
Mx	152
My	740
Mz	740

** The max value is according to speed.



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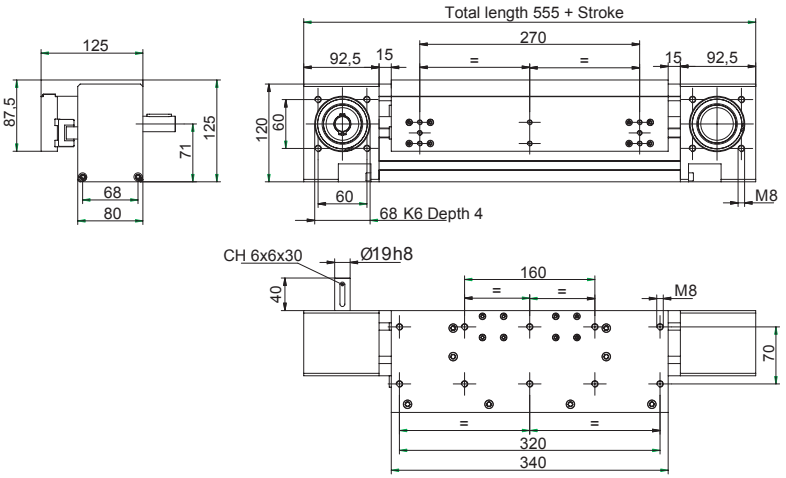
Mechanical linear unit with toothed belt drive and linear guideways



Weights

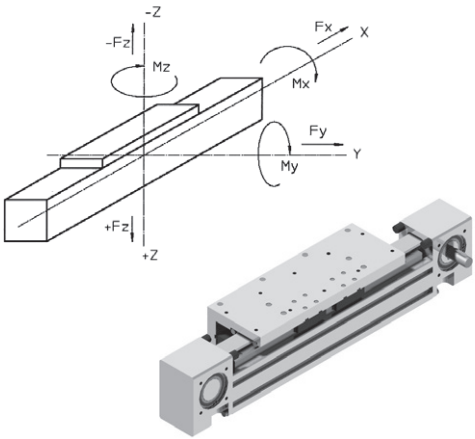
Basic length without stroke:	8,7 Kg
Each 100mm stroke:	0,8 Kg
Carriage:	3,8 Kg
Moment of inertia:	Ix = 135,5 cm⁴
	Iy = 139,3 cm⁴
	It = 274,7 cm⁴

Technical data

Max. speed:	1.4 m/s (according to load)
Repeat accuracy:	+/- 0.15 mm
Idle torque:	1.3 Nm
Drive element:	Thoothed belt 32AT10
Stroke per revolution:	200 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 15
Forces	dynamic [N]
Fx**	2200
Fy	3900
Fz +/-	3900
Moments	dynamic [Nm]
Mx	240
My	660
Mz	660

** The max value is according to speed.



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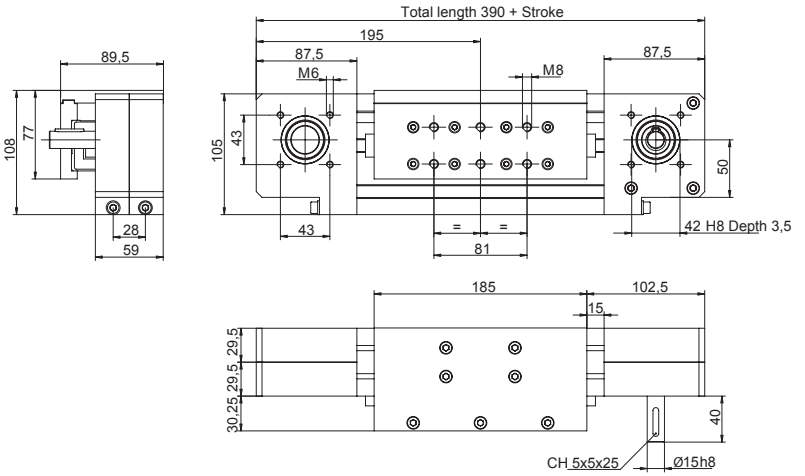
Mechanical linear unit with toothed belt drive and linear guideways



Weights

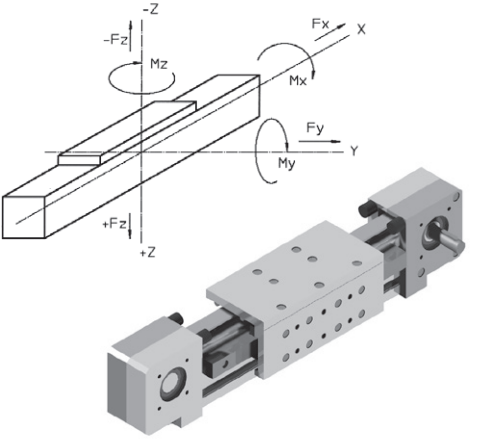
Basic length without stroke:	4,3 Kgg
Each 100 mm stroke:	0,7 Kg
Carriage:	2 Kg
Moment of inertia:	Ix = 22.7 cm^4
	Iy = 88.9 cm^4
	It = 111.6 cm^4

Technical data

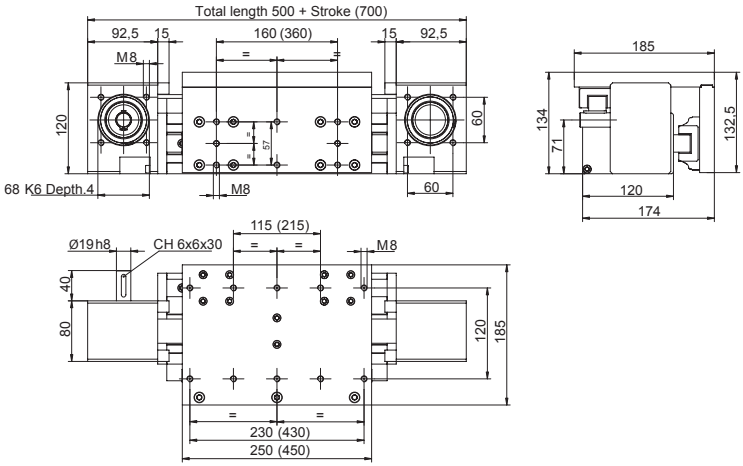
Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.1 mm
Idle torque:	0.8 Nm
Drive element:	Thoothed belt 20AT5
Stroke per revolution:	157 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 20
Forces	dynamic [N]
Fx**	525
Fy	1287
Fz +/-	1615
Moments	dynamic [Nm]
Mx	32
My	72
Mz	119

** The max value is according to speed.



Mechanical linear unit with toothed belt drive and linear guideways



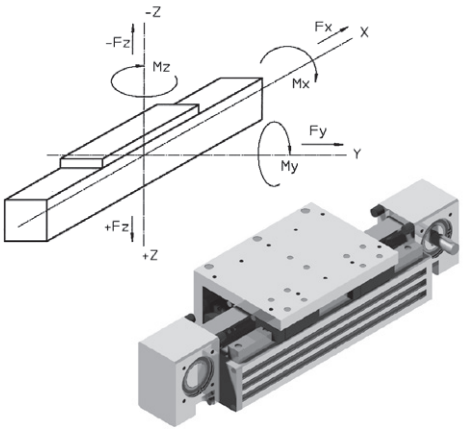
Weights

Basic length without stroke:	9.5 (10,7) Kg
Each 100 mm stroke:	1.7 Kg
Carriage:	6.8 Kg
Moment of inertia:	Ix = 242.5 cm⁴
	Iy = 499.7 cm⁴
	It = 742.2 cm⁴

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.15 mm
Idle torque:	1.3 Nm
Drive element:	Thoothed belt3 2AT10
Stroke per revolution:	200 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 25	
Forces	dynamic [N]	
Fx**	2200	
Fy	3900	
Fz +/-	3900	
Moments	dynamic [Nm]	
Mx	550	
My	2375	(3325*)
Mz	1855	(2597)



* Values related to carriage L = 450 mm

** The max value is according to speed.

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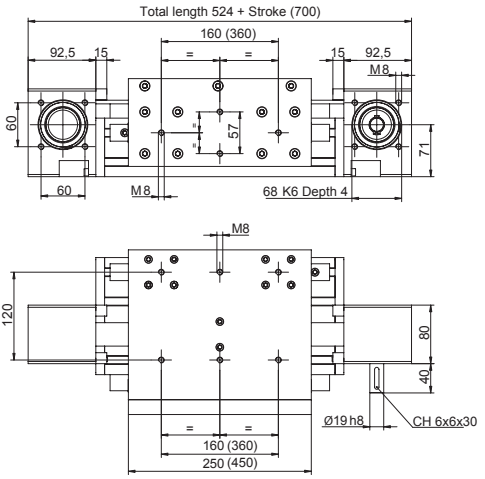
Mechanical linear unit with toothed belt drive and linear guideways



Weights

Basic length without stroke:	11.7 (12,9) Kg
Each 100 mm stroke:	1,7 Kg
Carriage:	9,8 Kg
Moment of inertia:	Ix = 291,3 cm⁴
	Iy = 1024,6 cm⁴
	It = 1315,9 cm⁴

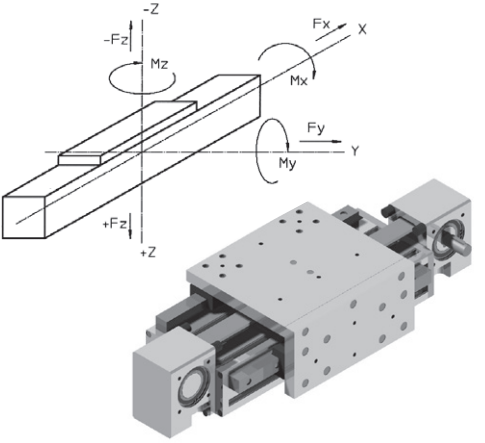
Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.15 mm
Idle torque:	1.3 Nm
Drive element:	Thoothed belt 32AT10
Stroke per revolution:	200 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 25	
Forces	dynamic [N]	
Fx**	2200	
Fy	3900	
Fz +/-	3900	
Moments	dynamic [Nm]	
Mx	550	
My	2375	(4275*)
Mz	1855	(3335*)

* Values related to carriage L= 450 mm.

** The max value is according to speed.



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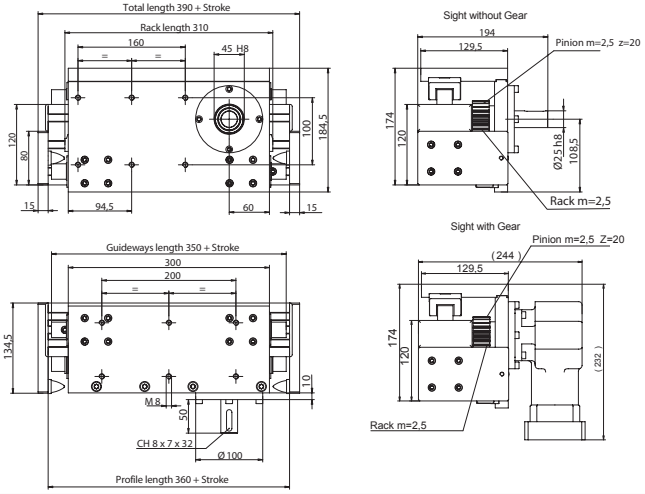
MECHANICAL LINEAR UNIT TYPE LPA Z120

Mechanical linear unit with rack drive and linear guideway



Weights

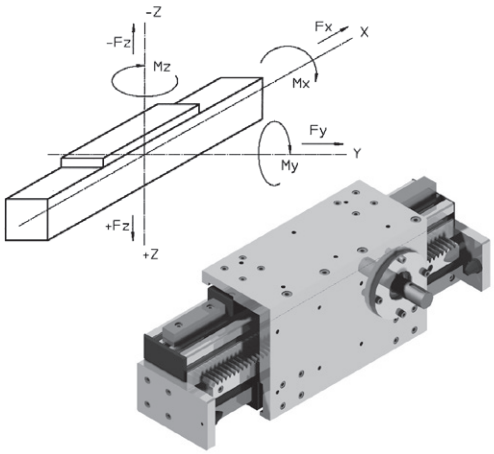
Basic length without stroke:	14,8 Kg
Each 100mm stroke:	1,6 Kg
Carriage:	7.1 Kg
Momento di inerzia:	Ix = 242.5 cm⁴
	Iy = 499.7 cm⁴
	It = 742.2 cm⁴

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	+/- 0.15 mm
Idle torque:	0.6 Nm
Drive element:	Rack m=2.5
Stroke per revolution:	157 mm
Max. length:	up to 6000 mm (longer on request)

Version	With linear guideways size 25
Forces	dynamic [N]
Fx**	3500
Fy	4900
Fz +/-	4900
Moments	dynamic [Nm]
Mx	680
My	1610
Mz	1085

** The max value is according to speed.



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Ordering code for LPA linear units:

LPA	-	2	-	3	-	4	-	5	-	6	-	7	-	8	-	9	-	10	-	11
1		2		3		4		5		6		7		8		9		10		11

1. Type
LPA

2. Version Thoothed
RH = Belt
Z = Rack

3. Size
40-15; 40-15L; 40-80-20;
80-15; 80-15R; 120-25;
120-25L; 160-25; 160-25L

4. Design
S = Standard
A = Special

5. Thoothed belt type
Size and Pitch
40-15 => 16AT5
40-15L => 16AT5
40-80-20 => 20AT5
80-15 => 32AT10
80-15R => 32AT10
120-25 => 32AT10
120-25L => 32AT10
160-25 => 32AT10
160-25L => 32AT10

6. Stroke per revolution
40-15 = 157 mm
40-15L = 157 mm
40-80-20 = 157 mm
80-15 = 200 mm
80-15R = 200 mm
120-25 = 200 mm
120-25-L = 200 mm
160-25 = 200 mm
160-25L = 200 mm

7.Stroke (mm)

8. Total length (mm)

9. Drive shaft
AZ1 = Short shaft on the left
AZ2 = Short shaft on the right
AZ6 = Long shaft on the right or on the left

10. Limit switch
ENM = Mechanical limit switch
ENO = Inductive limit switch closed version;
ENS = Inductive limit switch open version; please inform us during the order about the required cable length (2 or 10 m)

11. Special design
0 = None (standard)
1 = With (special)

ORDERING CODE EXAMPLE

LPA	-	RH	-	4015L	-	S	-	16AT5	-	157	-	1500	-	1850	-	AZ6	-	ENM	-	0
1		2		3		4		5		6		7		8		9		10		11

1. Type
LPA

2. Version
RH

3. Size
40-15

4. Design
S = Standard

5. Thoothed belt type
16AT5

6. Stroke per revolution
157 mm

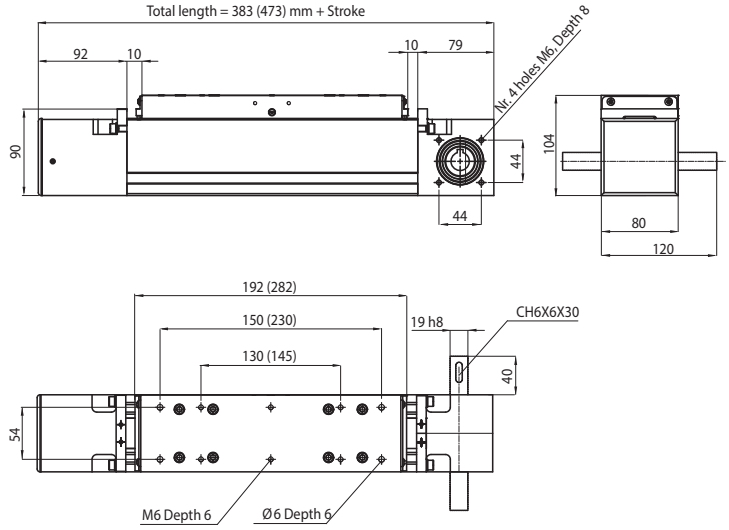
7. Stroke (mm)
1500 mm

8. Total length (mm)
1850 mm

9. Drive shaft
AZ6 = Long shaft on the right or on the left

10. Limit switch
ENM = Mechanical limit switch

11. Special design
0 = None (standard)

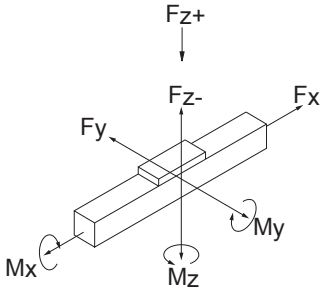


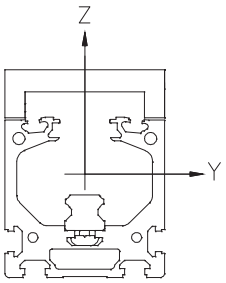
Weights

Basic length without stroke STD version:	5,1 kg
Basic length without stroke compact version:	4,2 kg
Each 100 mm stroke:	0,9 kg/100 mm
Moment of inertia:	$I_y = 127,9\ cm^4$
	$I_z = 172,8\ cm^4$
Acceleration:	$40\ m/s^2$

Technical data

Max. speed:	0,8 ÷ 5 m/s (according to load)
Repeat accuracy:	± 0,05 (according to length)
Idle torque:	1,6 N · m
Drive element:	Thoothed belt 25 AT10
Stroke per revolution:	160 mm/revolution
Max. length:	up to 6000 mm (longer on request)





Forces and dynamic moments							
Version	Permitted forces [N]				Permitted moments [N · m]		
	Fx	Fy	Fz+	Fz-	Mx	My	Mz
Short carriage	1120	1000	4100	2500	100	289	255
Long carriage						340	300

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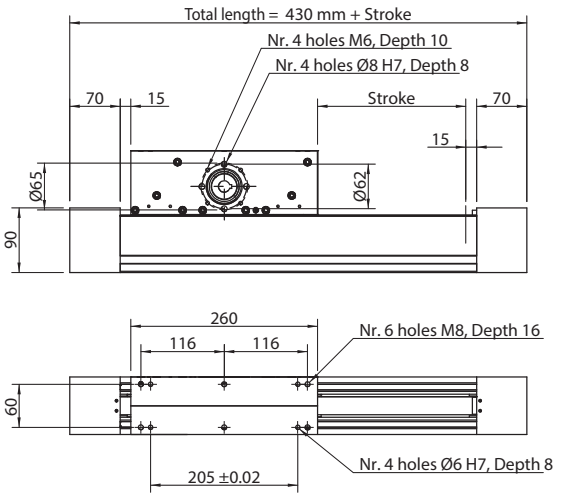
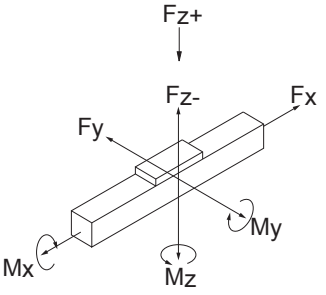


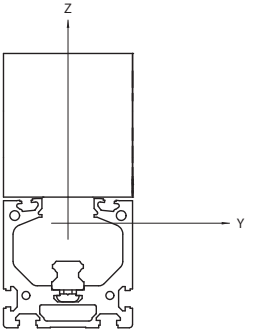
Weights

Basic length without stroke:	9,7 kg
Each 100 mm stroke:	0,4 kg/100 mm
Moment of inertia:	$I_y = 127{,}9\ cm^4$
	$I_z = 172{,}8\ cm^4$
Acceleration:	$40\ m/s^2$

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	± 0.08 (according to length)
Idle torque:	1.5 Nm
Drive element:	Thoothed belt 32AT10
Stroke per revolution:	220 mm/revolution
Max. length:	up to 6000 mm (longer on request)





Forces and dynamic moments							
Version	Permitted forces [N]				Permitted moments [N · m]		
	Fx	Fy	Fz+	Fz-	Mx	My	Mz
LE 80	1000	500	2400	1200	60	200	150

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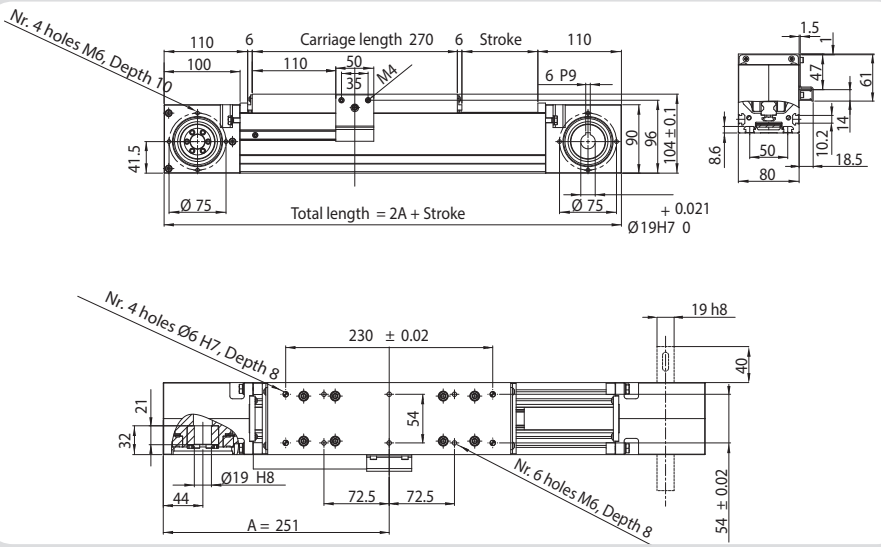
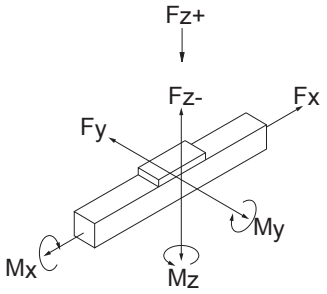


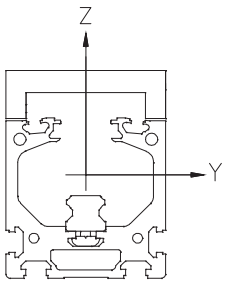
Weights

Basic length without stroke and coverband (ZS):	7,3 kg
Basic length without stroke with coverband (ZSS):	6,3 kg
Each 100mm stroke:	0,4 kg/100 mm
Moment of inertia:	$I_y = 127{,}9\ cm^4$
	$I_z = 172{,}8\ cm^4$
Acceleration:	$40\ m/s^2$

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	± 0.08 (according to length)
Idle torque:	1.5 Nm (version ZSS)
	1.3 Nm (version ZS)
Drive element:	Thoothed belt 32AT5
Stroke per revolution:	210 mm/revolution
Max. length:	up to 6000 mm (longer on request)





Forces and dynamic moments							
Version	Permitted forces [N]				Permitted moments [N · m]		
	Fx	Fy	Fz+	Fz-	Mx	My	Mz
LE 80	1120	1000	4100	2500	100	340	300

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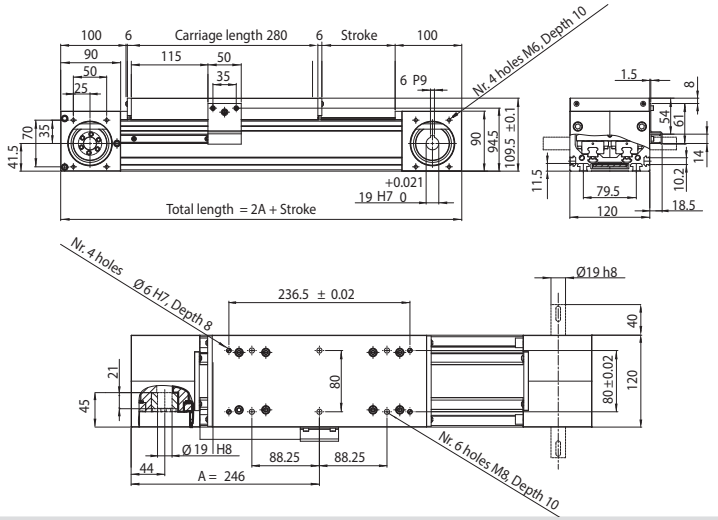
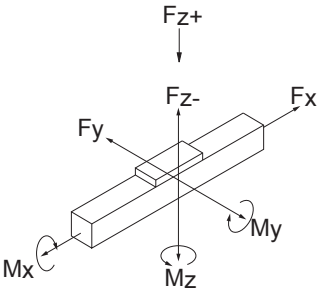


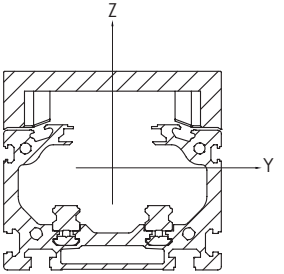
Weights

Basic length without stroke and coverband (ZS):	8,5 kg
Basic length without stroke with coverband (ZSS):	7,9 kg
Each 100 mm stroke:	1,3 kg/100 mm
Moment of inertia:	$I_y = 287{,}3\ cm^4$
	$I_z = 597{,}9\ cm^4$
Acceleration:	$40\ m/s^2$

Technical data

Max. speed:	5 m/s (according to load)
Repeat accuracy:	± 0.08 (according to length)
Idle torque:	2.6 Nm (version ZSS)
	2.4 Nm (version ZS)
Drive element:	Thoothed belt 50 AT5
Stroke per revolution:	210 mm/revolution
Max. length:	up to 6000 mm (longer on request)





Forces and dynamic moments							
Version	Permitted forces [N]				Permitted moments [N · m]		
	Fx	Fy	Fz+	Fz-	Mx	My	Mz
LE 120	2100	2000	6400	3900	205	620	560