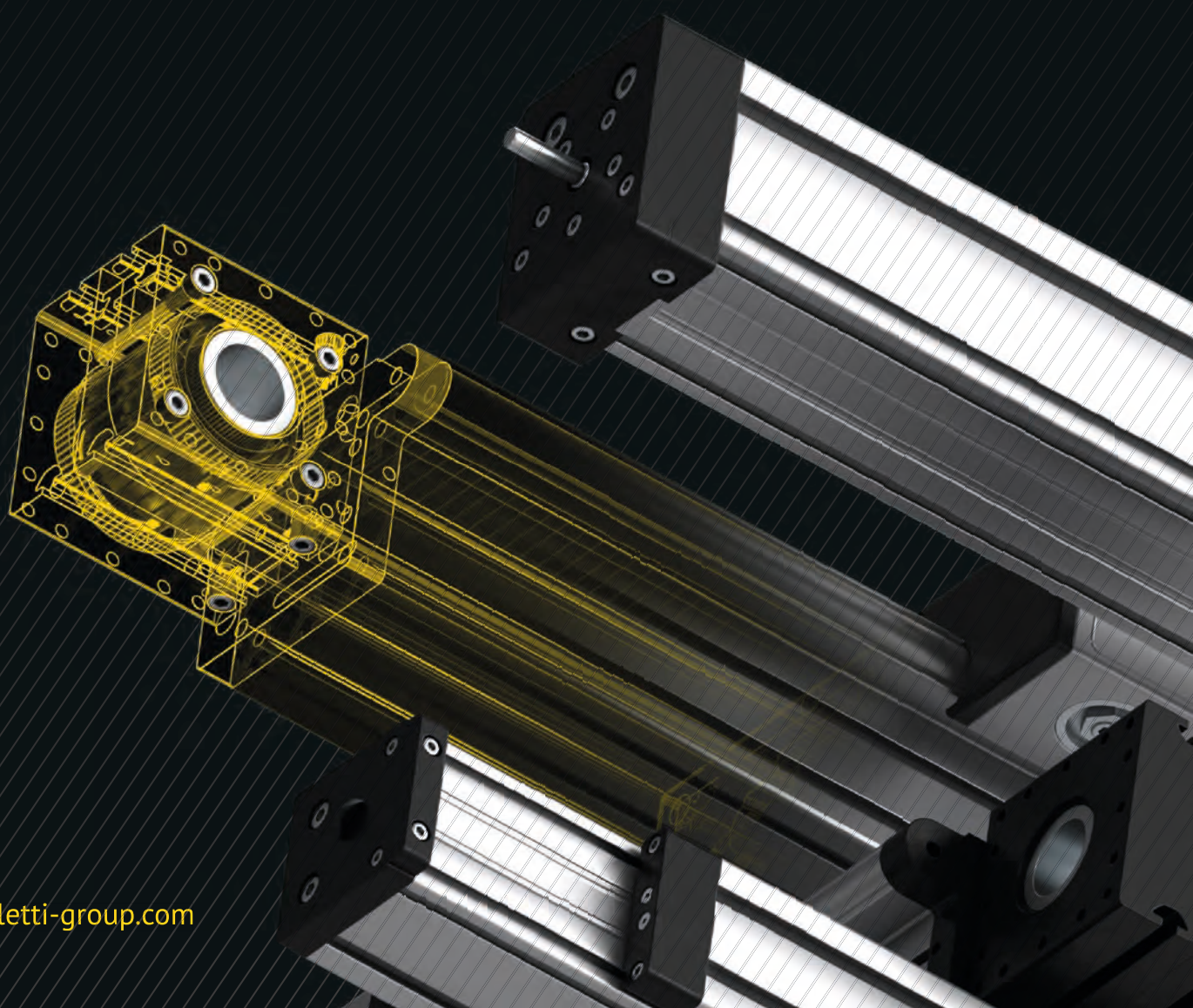


# PALETTI

PRECISE, LONG-LASTING, INDIVIDUALLY

## LINEAR MOTION SYSTEMS



[www.paletti-group.com](http://www.paletti-group.com)

## The Linear Actuator Systems

All *Paletti* linear motion systems are comprised of extruded aluminum profile track and carriage systems. Timing belts and ball bearing screws provide the transmission with a combination of electric motor and gearbox units. Pneumatic cylinders are also used to provide linear motion.

The *Paletti* modular approach allows for simple and complex systems to be manufactured to suit most customer and designer requirements. *Paletti* supplies individual linear motion components, single built actuators or complex multi axis systems.



Linear Actuators 16 roller track 16 with timing belt  
roller track 16  
with trapezoidal or ball screw spindle  
roller track 16 with omega drive

Linear Actuators 25 roller track 25 with timing belt

Internal Guidance 120 x 120 linear ball slide with ball screw  
linear ball slide with timing belt

Internal Guidance 80 x 85 linear ball slide with timing belt

C-Tracks roller track with plastic rollers  
and timing belt

roller track with plastic rollers  
and omega drive

Recirculating Ball Slides with plastic balls

Glider Slides with plastic gliders

Internal Guidances 80 / 90 single guidance  
double guidance

Internal Guidances

120 x 120 AT 10 / 75 with plastic rollers  
with steel rollers

2 Axis Systems

3 Axis Systems

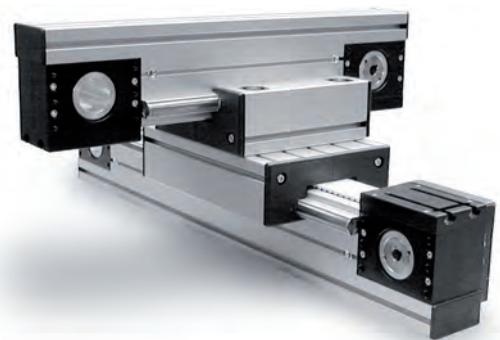
Multi Axis Systems

## Linear Systems 16



Pulley Assembly	without	40 x 40	40 x 40	40 x 80	40 x 80	80 x 90
Tensioner	-	Internal	External	Internal	External	Internal
Timing Belt	-	AT 10/22	-	AT 10/22	AT 10/22	AT 10/50
F 16 40 x 80/40						
w / l 160 / 140	SL5100N	SL5000N	-	SL5001N	-	SL5002N
w / l 160 / 280	SL5110N	SL5005N	-	SL5004N	-	SL5003N
Special Length	SL5115N	SL5008N	-	SL5006N	-	SL5007N

F 16 40 x 80/80			
w / l 200 / 140	SL5120N	SL5020N	-
w / l 200 / 200	SL5125N	SL5025N	-
w / l 200 / 280	SL5130N	SL5030N	-



## Linear Systems 16



Pulley Assembly	without	40 x 40	40 x 40	40 x 80	40 x 80	80 x 90	80 x 80	80 x 80	80 x 100	80 x 100	80 x 120	80 x 120
Tensioner	-	Internal	External	Internal	External	Internal	Internal	External	Internal	External	Internal	External
Timing Belt	-	AT 10/22	-	AT 10/22	AT 10/22	AT 10/50	AT 10/50	AT 10/50	AT 10/50	AT 10/50	AT 10/50	AT 10/50
F 16 80 x 80												
w / l 200 / 140	SL5145N	SL5035N	-	SL5210N	-	SL5071N	SL5070N	-	SL5085N	-	SL5220N	-
w / l 200 / 200	SL5150N	SL5040N	SL5202N	SL5212N	SL5050N	SL5076N	SL5075N	-	SL5090N	-	SL5222N	-
w / l 200 / 280	SL5155N	SL5045N	SL5204N	SL5214N	SL5055N	SL5081N	SL5080N	-	SL5095N	-	SL5224N	-
w / l 200 / 200 sl	SL5160N	SL5047N	-	SL5216N	-	-	SL5082N	-	SL5096N	-	SL5226N	-

F 16 80x120 8N												
w / l 200 / 140	SL5170N	-	-	SL5230N	-	-	SL6000N	-	SL5250N	-	SL6015N	-
w / l 200 / 200	SL5175N	-	-	SL5232N	SL5242N	-	SL6005N	SL5060N	SL5252N	SL5262N	SL6020N	SL6072N
w / l 200 / 280	SL5180N	-	-	SL5234N	SL5244N	-	SL6010N	SL5065N	SL5254N	SL5264N	SL6025N	SL6074N
w / l 200 / 200 SL	SL5185N	-	-	SL5236N	-	-	SL6012N	-	SL5256N	-	SL6066N	-
Special Length	SL5190N	-	-	SL5238N	SL5248N	-	SL6014N	SL5068N	SL5258N	SL5268N	SL6068N	SL6078N

## Linear Systems 25



P. Assembly	without	80 x 80	80 x 100	80 x 120	80 x 120	80 x 160	120 x 120 - 75
Tensioner	-	Internal	Internal	Internal	External	Internal	Internal
Timing Belt	-	AT 10/50	AT 10/50	AT 10/50	AT 10/50	2 x AT 10/50	AT 10/75
F 25 80x80							
w/l 280/280	SL5500N	SL5504N	SL5508N	SL5512N	-	-	-
Special Length	SL5502N	SL5506N	SL5510N	SL5514N	-	-	-

F 25 80x160							
w/l 360/360	SL5520N	SL5524N	SL5528N	SL5532N	-	SL5536N	-
Special Length	SL5522N	SL5526N	SL5530N	SL5534N	-	SL5538N	-

F 25 120x120							
w/l 320/320	SL5550N	SL5554N	SL5558N	SL5566N	SL5570N	-	SL5574N
Special Length	SL5552N	SL5556N	SL5560N	SL5568N	SL5572N	-	SL5576N

## Linear Systems 16 with Omega drive

Pulley Assembly	Omega Drive 22	Pulley Assembly	Omega Drive 50	Pulley Assembly	Omega Drive 50
Timing Belt	AT 10/22	Timing Belt	AT 10/50	Timing Belt	AT 10/50
F 16 40x80/40		F 16 80x80/G50		F 16 80x80 + F 16 40x80/80	
w/l 160/400	SL5018N	w/l 200/400	SL5229N	w/l 200/400	SL5227N
Special Length	SL5019N	Special Length	SL5231N	Special Length	SL5233N

F 16 40x80/80 + F 16 40x80/80/G50 Telescope Axis	
w/l 200/400	SL5400N

## Internal Guidances



P. Assembly	40 x 40	120 x 120	Ball Screw	
Belt/Spindle	AT 10/22	AT 10/50	20 x 5	20 x 20
F 120 x 120				
w/l 120 / 120	-	SL4050N	-	-
Special Length	-	SL4055N	-	-

P. Assembly	40 x 40	120 x 120	20 x 5	20 x 20
F 120 x 120				
w/l 120 / 225	-	-	SL4063N	SL4060N
Special Length	-	-	SL4064N	SL4061N

P. Assembly	80 x 85
F 80 x 85	
w/l 80 / 200	SL4070N
Special Length	SL4075N

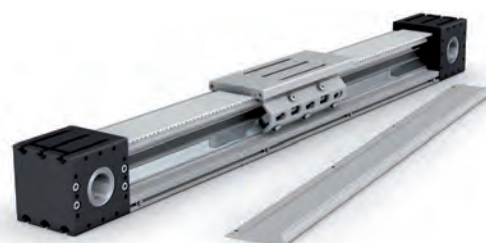


P. Assembly	80 x 90
Timing Belt	AT 10/50
F 80/90	
w/l 80 / 200	SL5300N
Single Guidance	

P. Assembly	80 x 80
Timing Belt	AT 10/50
F 80/90 double	
w/l 80 / 200	SL5350N
Double Guidance	

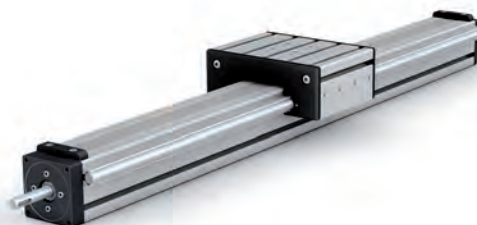
P. Assembly	120 x 120 - 75
Timing Belt	AT 10/75
120 x 120 AT 10/75 plastic rollers	
w/l 120 / 200	SL5360N
Single Guidance	

P. Assembly	120 x 120 - 75
Timing Belt	AT 10/75
120 x 120 AT 10/75 steel rollers	
w/l 120 / 200	SL5370N
Single Guidance	



## Ball Screw/Trapezoidal Screw

Shaft	Ball Screw		Trapezoidal Screw
	20 x 5	20 x 20	
F 16 80x80 open			
w/l 200 / 140	SL7000N	SL7002N	SL7003N
w/l 160 / 200	SL7005N	SL7007N	SL7008N
w/l 160 / 280	SL7010N	SL7012N	SL7013N
w/l 160 / 200 SL	SL7015N	SL7017N	SL7018N
Special Length	SL7020N	SL7022N	SL7023N



## C-Tracks



P. Assembly	without	C 40/57	C 40/100	C 80/100	C-Omega Dr.
Timing Belt	-	AT3/10	AT5/16	AT10/22	AT5/16
C 30/43					
w/l 140/8	SL4000N	-	-	-	-
w/l 280/8	SL4005N	-	-	-	-
w/l 120/225	SL4006N	-	-	-	-
Special Length	SL4008N	-	-	-	-

C 40/57					
w/l 140/8	SL4009N	SL4010N	-	-	-
w/l 280/8	SL4014N	SL4015N	-	-	-
Special Length	SL4016N	SL4017N	-	-	-

C 40/100					
w/l 140/3	SL4019N	-	SL4020N	-	-
w/l 280/4	SL4024N	-	SL4025N	-	-
Special Length	SL4026N	-	SL4027N	-	-

C 80/100					
w/l 140/6	SL4029N	-	-	SL4030N	-
w/l 280/8	SL4034N	-	-	SL4035N	-
Special Length	SL4036N	-	-	SL4037N	SL4038N

C 80/100	
w/l 140/3	SL4040N
w/l 280/4	SL4045N
Special Length	SL4046N

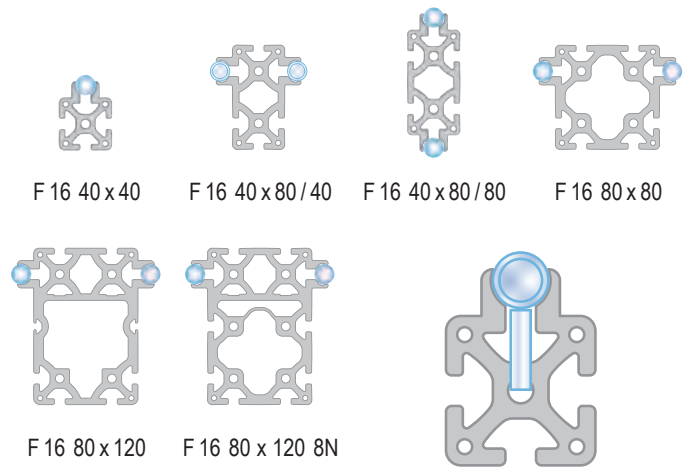
Recirculating Ball Slides	
w/l 80	SL4080N
w/l 120	SL4082N
w/l 160	SL4084N
Special Length	SL4086N

Glider Slides	
w/l 80	SL4090N
w/l 120	SL4092N
w/l 160	SL4094N
Special Length	SL4096N



## Track Profiles 16

The *Paletti* actuator system 16 is based on several types of track profiles and carriages. The carriages run on 16 mm diameter steel rails that are pressed into the track profiles. Specific loading, speeds and acceleration are catered to by using a combination of drive units, timing belt widths and carriage lengths that meet the needs of most designers.



F 16 40 x 40

F 16 40 x 80 / 40

F 16 40 x 80 / 80

F 16 80 x 80

F 16 80 x 120

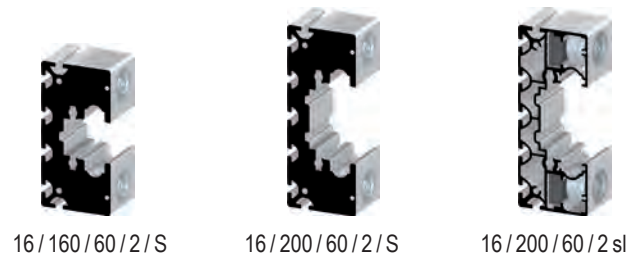
F 16 80 x 120 8N

The ground steel rails are pressed into the profile slot on each side of the track profile and forms a rigid and stable unit.

The guide rails in highly dynamic systems are doweled to the profile or fixed with plates at the end of the profile. This procedure prevents the rails from moving in the profile.

## Carriage Profiles And Carriages 16

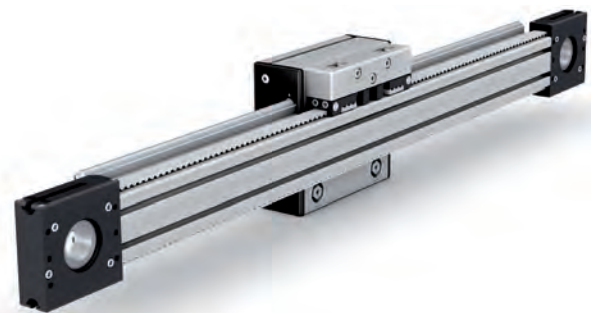
The carriages are made from one extruded profile and come in several standard sizes. Specific carriage lengths of up to 2300 mm long are manufactured to meet the needs of each specific application. For high load systems the carriages are manufactured with additional rollers or as a combination of shaped and flat rollers. Should rollers need to be changed, standard carriages are made with service pockets so the rollers can be serviced or replaced with the carriage in place. The rollers are adjusted via two excentric axles and fixed using a double locking mechanism of a large locknut retained in position by a grub screw. A Wiper and Lubrication System lubricates the rollers and guide rails with felt pads which retain lubricant. For high dynamic loads we recommend the use of our external lubricant. For carriages with short strokes, lubrication of the rollers may not be guaranteed and in such cases service pockets with internal felt pads to wipe and lubricate the system are required. The timing belt is attached to the carriage by internal or external timing belt tensioners.



16/160/60/2/S

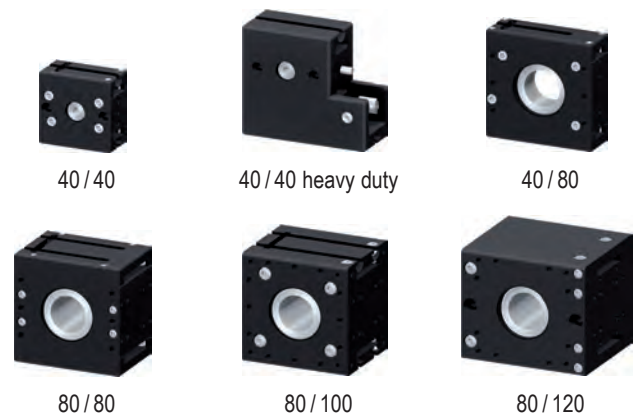
16/200/60/2/S

16/200/60/2/sl



## Pulley Assemblies

The pulley assemblies are manufactured for timing belts AT 10/22 and AT 10/50. The motor is attached using standard motor attachment flange plates or plates to suit customer requirements. The bore of the pulley assembly is either plain or comes with a shrunken steel insert to suit customer drive requirements. Motors can be either direct drive or via flexible couplings and timing belt gearing can also be provided.



40/40

40/40 heavy duty

40/80

80/80

80/100

80/120

## Trapezoidal / Ball Screw Transmission

Linear actuator system 16 using track profile 80 x 80 open have either trapezoidal or recirculating ball screw transmissions. Screw diameters and pitches of 20 x 20 or 20 x 5 are standard. Customer specific spindles with strengthened bearings are available on request.



## Linear Actuators 16 with Omega drive

The omega drive is manufactured for timing belts AT 10 / 22 and AT 10 / 50. The carriage becomes the fixed part and motion is transferred to the profile axis. Standard ranges of omega drives are either attached to carriages or stand-alone for special customer applications.



Omega Drive AT 10 / 22



Omega Drive 22 with carriage



Omega Drive AT 10 / 50



Omega Drive 50 with carriage



Omega Drive 50 closed



Telescope Axis 16  
 40 x 80 + 40 x 80 / 200 / G 50



Linear Actuator 16  
 80 x 80 + 40 x 80 / 80 / G 50

End Attachment Plate

Timing Belt Tensioner, external

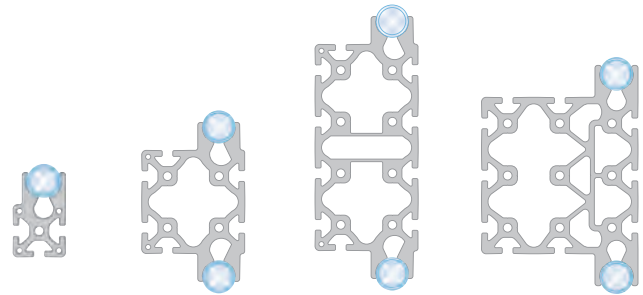
Omega Drive 50, with carriage  
 bore diameter:  $\varnothing 40^{H7}$

Various carriage attachment plates significantly increase the overall system stability.



## Track Profiles 25

The *Paletti* actuator system 25 is based on several types of track profiles and carriages. The carriages run on 25 mm diameter steel rails that are pressed into the track profiles. Specific loading, speeds and acceleration are catered to by using a combination of drive units, timing belt widths and carriage lengths that meet the needs of most designers



F 25 40 x 40

F 25 80 x 80

F 25 80 x 160

F 25 120 x 120

The ground steel rails are pressed into the profile slot on each side of the track profile and form a rigid stable unit. Within highly dynamic systems they are doweled to the profile.

## Carriages 25

The *Paletti* carriages 25 come in several standard sizes. Specific carriage lengths of up to 700 mm long are manufactured to meet the needs of each specific application. For high load systems the carriages are manufactured with additional rollers or as a combination of shaped and flat rollers. Should rollers need to be changed, standard carriages are made with service pockets so the rollers can be serviced or replaced with the carriage in place. The rollers are adjusted via two excentric axles and fixed using a double locking mechanism of a large lock nut retained in position by a grub screw. A Wiper and Lubrication System lubricates the rollers and guide rails with felt pads which retain lubricant. For carriages with short strokes, lubrication of the rollers may not be guaranteed and in such cases service pockets with internal felt pads to wipe and lubricate the system are required. The timing belt is attached to the carriage by internal or external timing belt tensioners.



25 / 280 / 280 / 4 / S

25 / 320 / 320 / 4 / S

25 / 360 / 360 / 4 / S



## Pulley Assemblies

The pulley assemblies are manufactured for timing belts AT 10 / 50 and AT 10 / 75. The motor is attached using standard motor attachment flange plates or plates to suit customer requirements. The bore of the pulley assembly is either plain or comes with a shrunken steel insert to suit customer drive requirements. Motors can be either direct drive or via flexible couplings and timing belt gearing can also be provided.



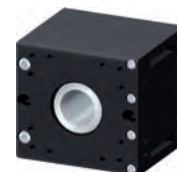
80 / 80



80 / 100



120 / 120 - 75



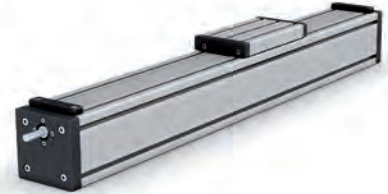
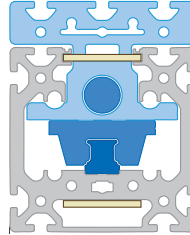
80 / 120



80 / 160

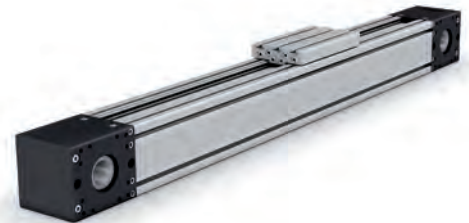
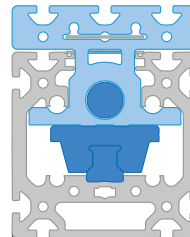
**Internally Guided Actuator 120 x 120**  
Ball Screw With Recirculating Steel Ball Guide Rail

The actuator 120 x 120 is guided by means of an internal 25 mm recirculating steel ball guide rail. The unit is driven via ball screw and is maintenance free in operation. In order to guard the internal steel guide rail against contaminants, *Paletti* incorporates a textile cover strip in the actuator.



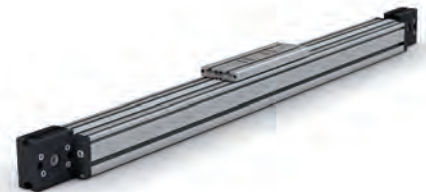
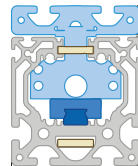
**Internally Guided Actuator 120 x 120**  
Belt Drive With Recirculating Steel Ball Guide Rail

The belt driven actuator 120 x 120 is guided by means of an internal 25 mm recirculating steel ball guide rail. A 50 mm wide AT 10 timing belt is used in combination with the pulley assembly 80 / 120 to drive the unit. The belt also acts as a cover in order to guard the internal steel guide rail against contaminants.



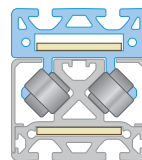
**Internally Guided Actuator 80 x 100**  
Belt Drive With Recirculating Steel Ball Guide Rail

The belt driven actuator 80 x 85 is guided by means of an internal 15 mm recirculating steel ball guide rail. A 22 mm wide AT 10 tooth belt is used in combination with the pulley assembly 40 / 40 to drive the unit. The belt also acts as a cover in order to guard the internal steel guide rail against contaminants.



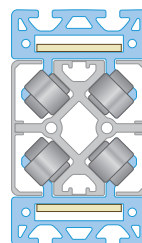
**Internally Guided Actuator 80 / 90**  
Single Axis Actuator

The internally guided actuator 80 / 90 can be mounted and operated at any angle due to its unique roller guided design. This unit is maintenance free due to its engineered plastic rollers. A 50 mm wide AT 10 timing belt is used in combination with the pulley assembly 80 / 90 to drive the unit and also acts as a cover.



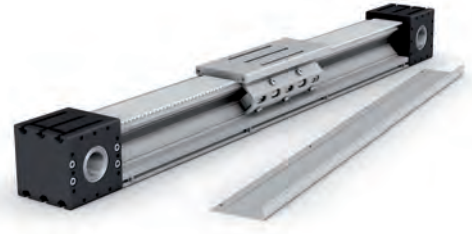
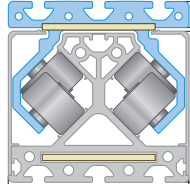
**Internally Guided Actuator 80 / 90**  
Double Axis Acuator

The internally guided actuator 80 / 90 can be mounted and operated at any angle due to its unique roller guided design, and allows two carriages to be driven in opposite direction to one another. This unit is maintenance free due to its engineered plastic rollers. A 50 mm wide AT 10 timing belt is used in combination with the pulley assembly 80 / 90 to drive the unit and also acts as a cover.



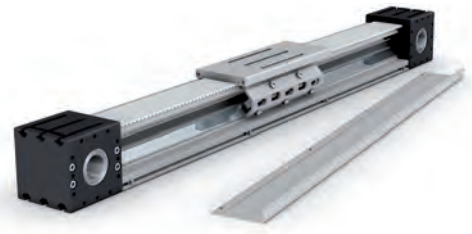
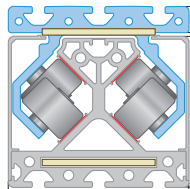
**Internally Guided Actuator 120 x 120**  
**Single Axis Actuator With Plastic Rollers**

The internally guided actuator 120 x 120 AT 10 / 75 can be mounted and operated at any angle due to its unique roller guided design. This unit is maintenance free due to its engineered plastic rollers. A 75 mm wide AT 10 timing belt is used in combination with the tooth belt guide 120 / 120 - 75 to drive the unit and also acts as a cover.



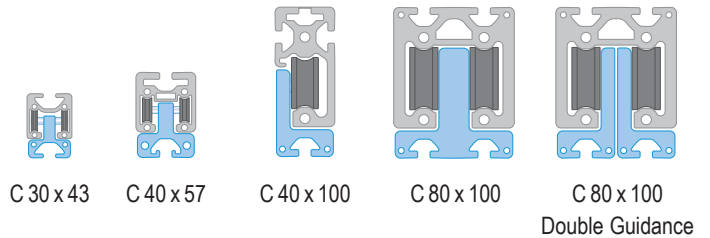
**Internally Guided Actuator 120 x 120**  
**Single Axis Actuator With Steel Rollers**

The internally guided actuator 120 x 120 AT 10 / 75 can be mounted and operated at any angle due to its unique roller guided design, and is maintenance free. This unit has larger load carrying capacity than the plastic roller version due to use of steel rollers riding on a steel strip in the unit. A 75 mm wide AT10 timing belt is used in combination with the timing belt guide 120 / 120 - 75 to drive the unit and also acts as a cover.



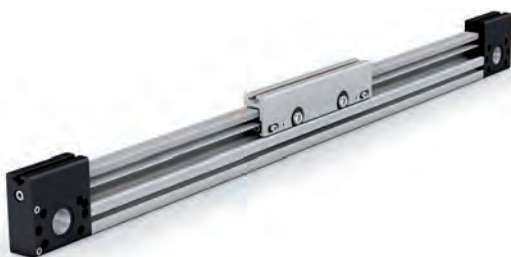
**C-Tracks**  
**With Plastic Rollers And Timing Belt**

The *Paletti* C-track linear actuator system is based on a large selection of track and carriage profiles. Plastic rollers made from POM run directly in the aluminum profile. Pulley assemblies are selected based upon the track profiles which are used, and are tensioned internally to the carriage. C-track actuators are especially suited for rolling door applications.



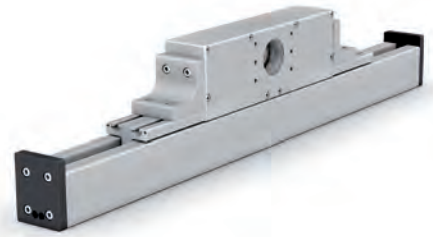
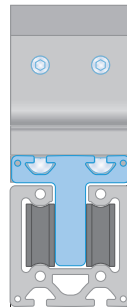
**C-Pulley Assemblies**

The C-pulley assemblies are used together with AT 3 – 10 mm wide, AT 5 – 16 mm wide and AT 10 – 22 mm wide timing belts. The motor connection is made to the customer's requirements, and *Paletti* will also provide the adapter plates and couplings if desired.



## Omega Drive C-Type

The Omega drive is manufactured for the *Paletti* C 80/100 linear actuator system. The drive is transferred from the end of the actuator to the carriage which is now fixed, thereby transferring movement to the track profile.



## Recirculating Ball Slide

The *Paletti* recirculating ball slide system uses an aluminum guidance rail and recirculating ball carriage that houses plastic ball bearings. The ball bearings go around in four guidance bores and are returned back through the carriage by plastic end caps attached to each end of the carriage.

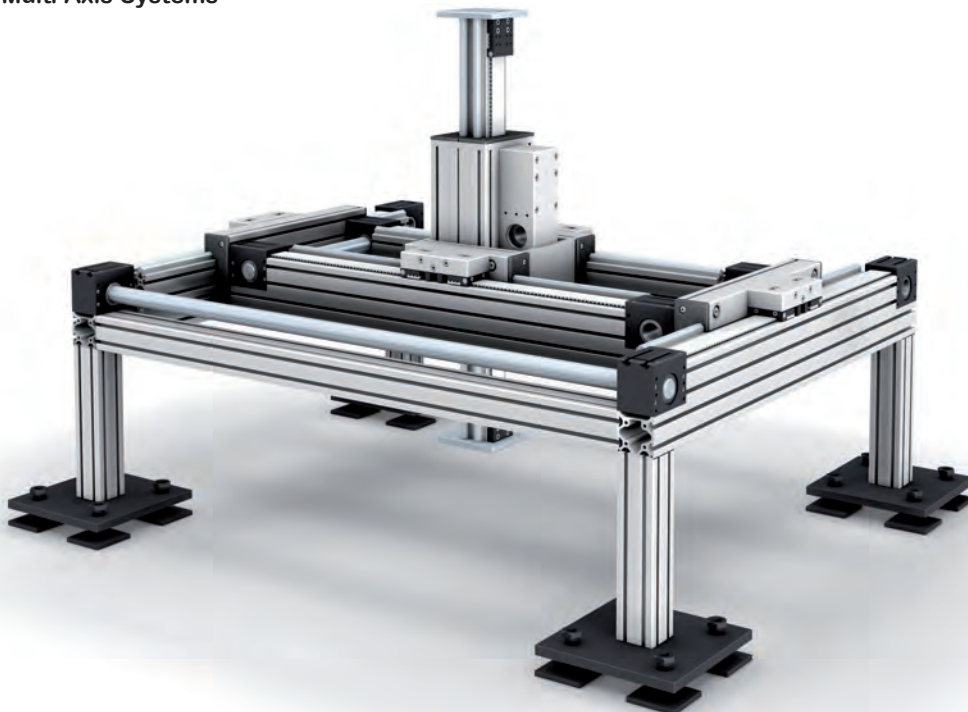


## Glider Slide

The *Paletti* glider slide guidance system uses an aluminum guidance rail and carriage that has four open round channels. Each channel holds up to four small plastic rods. The rods are retained by plastic end caps attached to each end of the carriage.



## Multi Axis Systems



The combination of individual linear actuator systems allows the assembly of complex multi axis systems to customer specifications. Using the extensive range of linear motion system accessories, the application complexity can also be accentuated afterwards.

**40** Linear Actuator Systems 16



SL5100N



SL5000N



SL5001N



SL5002N



SL5125N



SL5025N



SL5150N



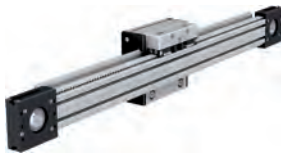
SL5040N



SL5202N



SL5212N



SL5050N



SL5075N



SL5090N



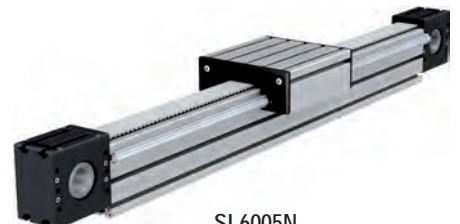
SL5222N



SL5175N



SL5232N



SL6005N



SL5242N



SL5060N



SL5252N



SL6020N



SL5262N



SL6072N



SL7005N, SL7007N  
 Ball Bearing Screw 20 x 5, Ball Bearing Screw 20 x 5



SL7008N  
 Trapezoidal Screw

**40**

Linear Actuator Systems 16 with Omega Drive



SL5018N



SL5229N



SL5290N



SL5227N



SL5400N  
 Telescope Axis



SL5500N



SL5504N



SL5508N



SL5512N



SL5520N



SL5524N



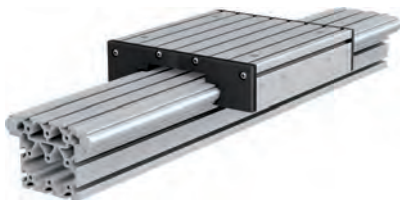
SL5528N



SL5532N



SL5536N



SL5550N



SL5554N



SL5558N



SL5566N



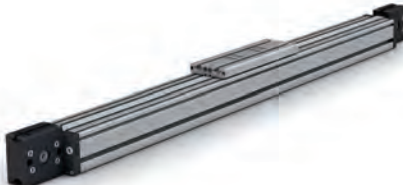
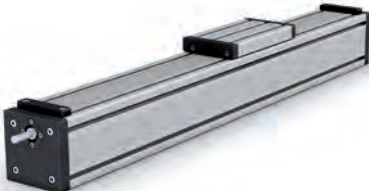
SL5570N



SL5574N



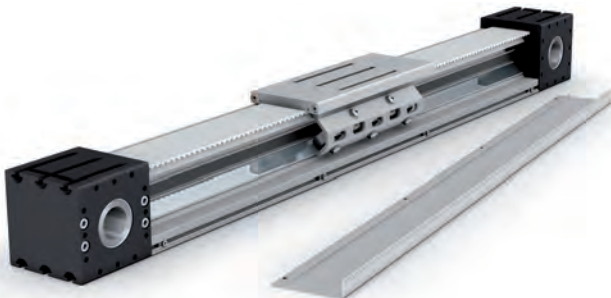
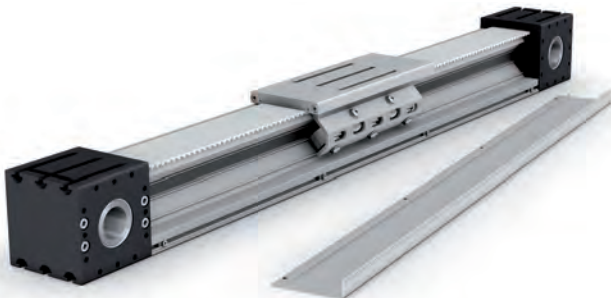
## Internal Drive Systems



## Internal Drive Systems 80/90

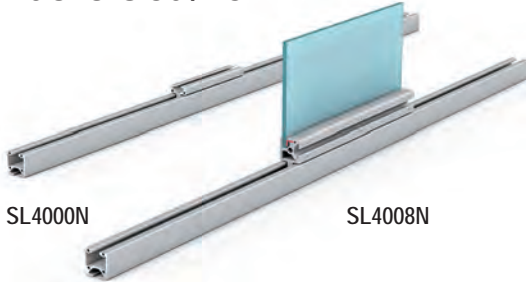


## Internal Drive Systems 120/120





## 30 C-Tracks C 30 / 43



SL4000N

SL4008N

## 40 C-Tracks C 40 / 57



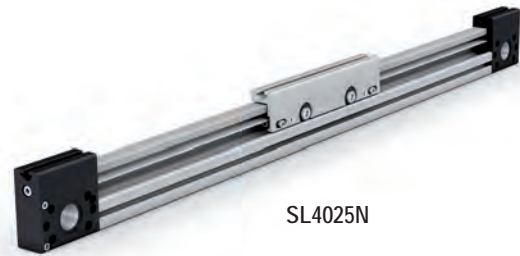
SL4009N

SL4010N

## 40 C-Tracks C 40 / 100



SL4019N



SL4025N

## 40 C-Tracks C 80 / 100



SL4029N

SL4040N



SL4035N

SL4038N

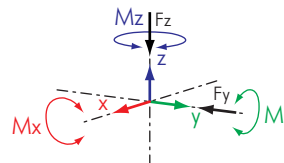
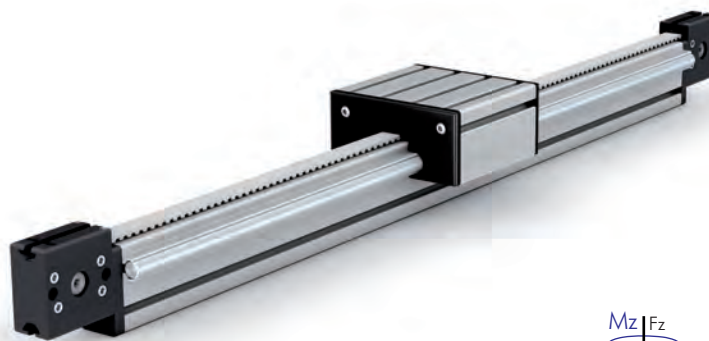
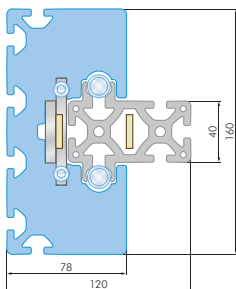
## 40 Recirculating Ball Slide / Glider Slide



SL4084N



SL4094N



Pulley Assembly	without	40 x 40	40 x 80	40 x 40 heavy duty
Tensioner	–	Internal	Internal	Internal
Timing Belt	–	AT 10 / 22	AT 10 / 22	AT 10 / 22
W/L 160 / 140	SL5100N	SL5000N	SL5001N	SL5002N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	155Nm	155Nm	155Nm	155Nm
My	80Nm	80Nm	80Nm	80Nm
Mx	60Nm	60Nm	60Nm	60Nm
W/L 160 / 280	SL5110N	SL5005N	SL5004N	SL5003N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm
Mx	60Nm	60Nm	60Nm	60Nm
Special Length (mm)	SL5115N	SL5008N	SL5006N	SL5007N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length

Carriage 16 / 160 / ...  
 • maximum speed: 8 m/s  
 • use only with wiper and lubrication system  
 • lubrication intervals according to loading

Track Profile F 16 40 x 80 / 40  
 (without guidance rails)

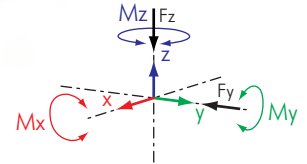
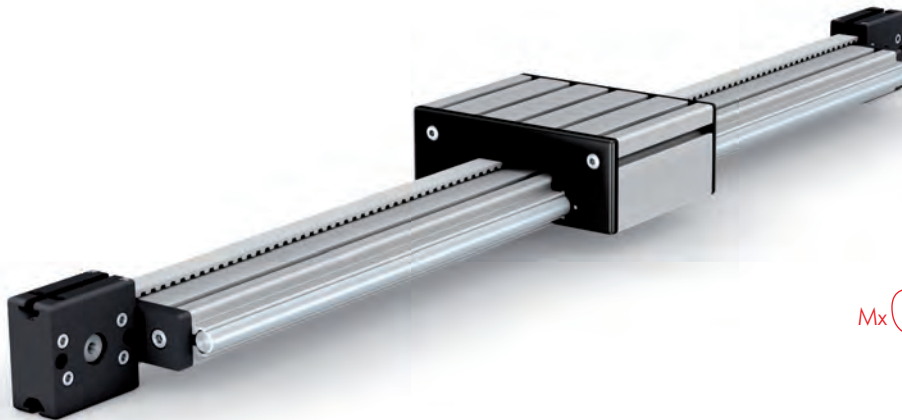
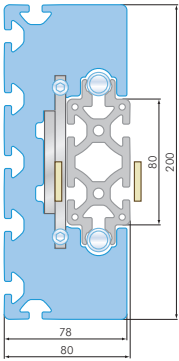
$I_x = 102.09 \text{ cm}^4$   
 $I_y = 37.21 \text{ cm}^4$   
 $W_x = 24.19 \text{ cm}^3$   
 $W_y = 11.45 \text{ cm}^3$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	40 x 40
Tensioner	–	Internal
Timing Belt	–	AT 10/22
W/L 200/140	SL5120N	SL5020N
Fz	2000N	2000N
Fy	3900N	3900N
Mz	155Nm	155Nm
My	80Nm	80Nm
Mx	100Nm	100Nm
W/L 200/200	SL5125N	SL5025N
Fz	2000N	2000N
Fy	3900N	3900N
Mz	270Nm	270Nm
My	140Nm	140Nm
Mx	100Nm	100Nm
W/L 200/280	SL5130N	SL5130N
Fz	2000N	2000N
Fy	3900N	3900N
Mz	425Nm	425Nm
My	220Nm	220Nm
Mx	100Nm	100Nm
Special length	SL5135N	SL5031N
Fz	2000N	2000N
Fy	3900N	3900N
Mz	up to length	up to length
My	up to length	up to length
Mx	100Nm	100Nm

#### Carriage 16/200/ ...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

#### Track Profile F 16 40 x 80 / 40

(without guidance rails)

$$I_x = 132.43 \text{ cm}^4$$

$$I_y = 26.60 \text{ cm}^4$$

$$W_x = 25.22 \text{ cm}^3$$

$$W_y = 13.30 \text{ cm}^3$$

$$G = 4.75 \text{ kg/m}$$

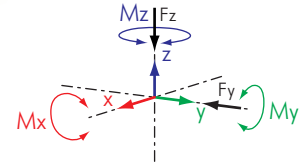
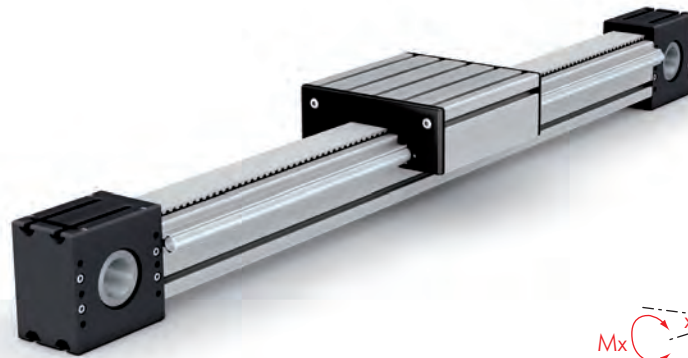
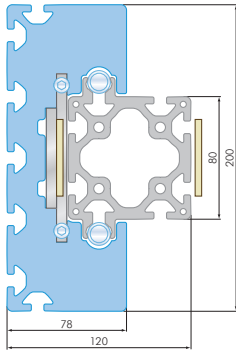
W carriage width

L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	40 x 40	40 x 80	80 x 90	80 x 80	80 x 100	80 x 120
Tensioner	Internal	Internal	Internal	Internal	Internal	Internal
Timing Belt	AT 10/22	AT 10/22	AT 10/50	AT 10/50	AT 10/50	AT 10/50
W/L 200/140	SL5035N	SL5210N	SL5071N	SL5070N	SL5085N	SL5220N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	155Nm	155Nm	155Nm	155Nm	155Nm	155Nm
My	80Nm	80Nm	80Nm	80Nm	80Nm	80Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm
W/L 200/200	SL5040N	SL5212N	SL5076N	SL5075N	SL5090N	SL5222N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm
W/L 200/280	SL5045N	SL5214N	SL5081N	SL5080N	SL5095N	SL5224N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm
W/L 200/200 sl	SL5047N	SL5216N	-	SL5082N	SL5096N	SL5226N
Fz	2000N	2000N	-	2000N	2000N	2000N
Fy	3900N	3900N	-	3900N	3900N	3900N
Mz	210Nm	210Nm	-	210Nm	210Nm	210Nm
My	110Nm	110Nm	-	110Nm	110Nm	110Nm
Mx	80Nm	80Nm	-	80Nm	80Nm	80Nm
Special Length (mm)	SL5048N	SL5218N	-	SL5084N	SL5098N	SL5228N
Fz	2000N	2000N	-	2000N	2000N	2000N
Fy	3900N	3900N	-	3900N	3900N	3900N
Mz	up to length	up to length	-	up to length	up to length	up to length
My	up to length	up to length	-	up to length	up to length	up to length
Mx	100Nm	100Nm	-	100Nm	100Nm	100Nm

### Carriage 16/200/...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

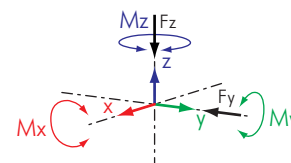
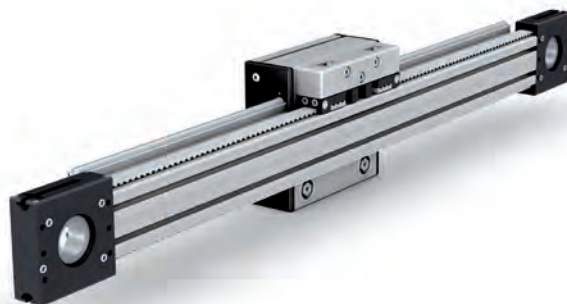
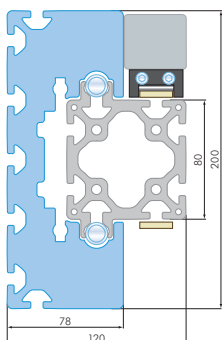
### Track Profile F 16 80 x 80 (without guidance rails)

- $I_x = 212.89 \text{ cm}^4$
- $I_y = 182.47 \text{ cm}^4$
- $W_x = 40.55 \text{ cm}^3$
- $W_y = 43.97 \text{ cm}^3$
- $G = 7.60 \text{ kg/m}$
- W carriage width
- L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

Carriage Options: Carriage lengths of up to 2.3m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	40 x 40	40 x 80
Tensioner	–	External	External
Timing Belt	–	AT 10/22	AT 10/22
W/L 200/140	SL5145N	–	–
Fz	2000N		
Fy	3900N		
Mz	155Nm		
My	80Nm		
Mx	100Nm		
W/L 200/200	SL5150N	SL5202N	SL5050N
Fz	2000N	2000N	2000N
Fy	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm
W/L 200/280	SL5155N	SL5204N	SL5055N
Fz	2000N	2000N	2000N
Fy	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm
W/L 200/200 sl	SL5160N	–	–
Fz	2000N		
Fy	3900N		
Mz	210Nm		
My	110Nm		
Mx	80Nm		
Special Length (mm)	SL5165N	SL5208N	SL5058N
Fz	2000N	2000N	2000N
Fy	3900N	3900N	3900N
Mz	up to length	up to length	up to length
My	up to length	up to length	up to length
Mx	100Nm	100Nm	100Nm

### Carriage 16/200/...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

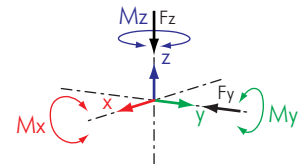
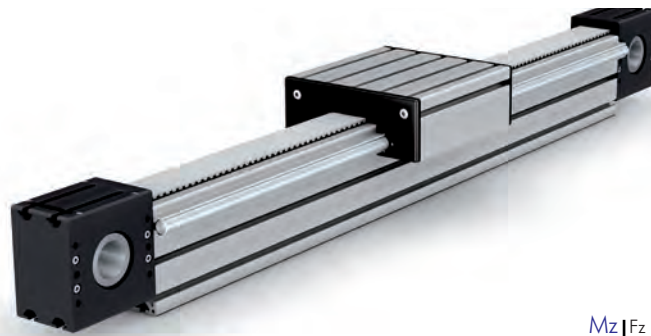
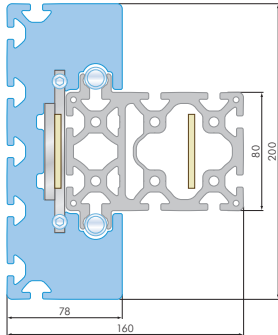
### Track Profile F 16 80 x 80 (without guidance rails)

- $I_x = 212.89 \text{ cm}^4$
- $I_y = 182.47 \text{ cm}^4$
- $W_x = 40.55 \text{ cm}^3$
- $W_y = 43.97 \text{ cm}^3$
- $G = 7.60 \text{ kg/m}$
- W carriage width
- L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	40 x 80	80 x 80	80 x 100	80 x 120
Tensioner		Internal	Internal	Internal	Internal
Timing Belt		AT 10 / 22	AT 10 / 50	AT 10 / 50	AT 10 / 50
W / L 200 / 140	SL5170N	SL5230N	SL6000N	SL5250N	SL6015N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	155Nm	155Nm	155Nm	155Nm	155Nm
My	80Nm	80Nm	80Nm	80Nm	80Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm
W / L 200 / 200	SL5175N	SL5232N	SL6005N	SL5252N	SL6020N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm
W / L 200 / 280	SL5180N	SL5234N	SL6010N	SL5254N	SL6025N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm
W / L 200 / 200 sl	SL5185N	SL5236N	SL6012N	SL5256N	SL6066N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	210Nm	210Nm	210Nm	210Nm	210Nm
My	110Nm	110Nm	110Nm	110Nm	110Nm
Mx	80Nm	80Nm	80Nm	80Nm	80Nm
Special Length (mm)	SL5190N	SL5238N	SL6014N	SL5258N	SL6068N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	up to length	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length	up to length
Mx	100Nm	100Nm	100Nm	100Nm	100Nm

### Carriage 16/200/...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

### Track Profile F 16 80 x 120 8N (without guidance rails)

$$I_x = 311.19 \text{ cm}^4$$

$$I_y = 570.07 \text{ cm}^4$$

$$W_x = 59.27 \text{ cm}^3$$

$$W_y = 59.27 \text{ cm}^3$$

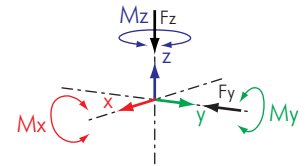
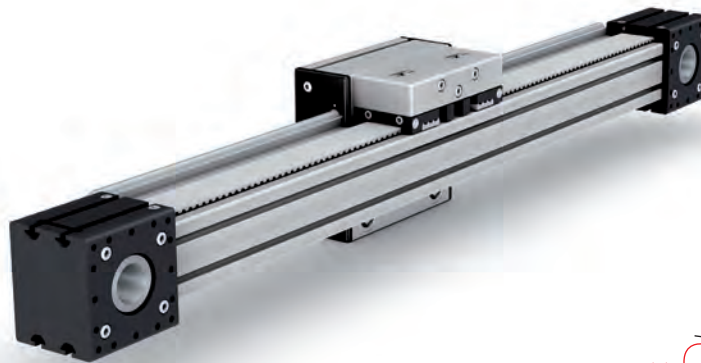
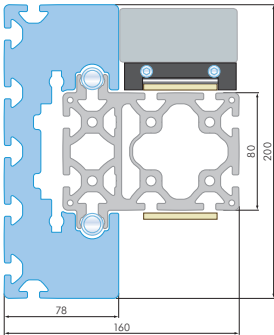
$$G = 11.00 \text{ kg/m}$$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	40 x 80	80 x 80	80 x 100	80 x 120
Tensioner		External	External	External	External
Timing Belt		AT 10/22	AT 10/50	AT 10/50	AT 10/50
W/L 200/140	SL5170N				
Fz	2000N				
Fy	3900N				
Mz	155Nm				
My	80Nm				
Mx	100Nm				
W/L 200/200	SL5175N	SL5242N	SL5060N	SL5262N	SL6072N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm
W/L 200/280	SL5180N	SL5244N	SL5065N	SL5264N	SL6074N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm
W/L 200/200 sl	SL5185N				
Fz	2000N				
Fy	3900N				
Mz	210Nm				
My	110Nm				
Mx	80Nm				
Special Length (mm)	SL5190N	SL5248N	SL5068N	SL5268N	SL6078N
Fz	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N
Mz	up to length	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length	up to length
Mx	100Nm	100Nm	100Nm	100Nm	100Nm

### Carriage 16/200/...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

### Track Profile F 16 80 x 120 8N (without guidance rails)

$I_x = 697.80 \text{ cm}^4$   
 $I_y = 702.80 \text{ cm}^4$   
 $W_x = 111.45 \text{ cm}^3$   
 $W_y = 103.92 \text{ cm}^3$   
 $G = 13.51 \text{ kg/m}$   
 W carriage width  
 L carriage length

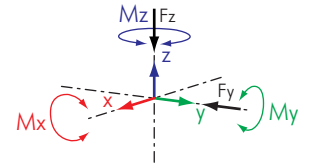
Standard Delivery: complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

Carriage Options: Carriage lengths of up to 2.3m are available. For high load systems it may be advisable to add further rollers.

By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.

For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	40 x 80	80 x 80	80 x 100-15	80 x 100	80 x 120
Tensioner		External	External	External	External	External
Timing Belt		AT 10 / 22	AT 10 / 50	AT 10 / 50	AT 10 / 50	AT 10 / 50
W / L 200 / 140	SL6100N					
Fz	2000N					
Fy	3900N					
Mz	155Nm					
My	80Nm					
Mx	100Nm					
W / L 200 / 200	SL6105N	SL5232N	SL6005N	SL6170N	SL5252N	SL6020N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm
W / L 200 / 280	SL6110N	SL6135N	SL6155N	SL6175N	SL6195N	SL6215N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm
W / L 200 / 200.sl	SL6115N					
Fz	2000N					
Fy	3900N					
Mz	210Nm					
My	110Nm					
Mx	80Nm					
Special Length (mm)	SL6120N	SL6140N	SL6160N	SL6180N	SL6200N	SL6220N
Fz	2000N	2000N	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N	3900N	3900N
Mz	up to length	up to length	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length	up to length	up to length
Mx	100Nm	100Nm	100Nm	100Nm	100Nm	100Nm

### Carriage 16 / 200 / ...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

### Track Profile F 16 80 x 120 8N (without guidance rails)

$$I_x = 697.80 \text{ cm}^4$$

$$I_y = 702.80 \text{ cm}^4$$

$$W_x = 111.45 \text{ cm}^3$$

$$W_y = 103.92 \text{ cm}^3$$

$$G = 13.51 \text{ kg/m}$$

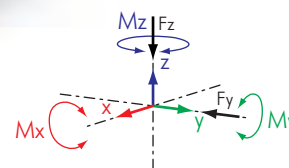
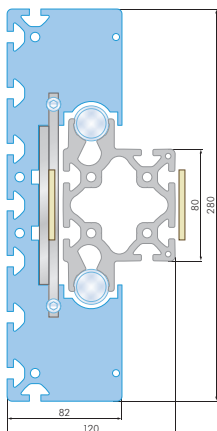
W carriage width  
 L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.





Pulley Assembly	without	80 x 80	80 x100	80 x 120
Tensioner		Internal	Internal	Internal
Timing Belt		AT 10 / 50	AT 10 / 50	AT 10 / 50
W/L 200 / 140	SL5500N	SL5504N	SL5508N	SL5512N
Fz	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N
Mz	710Nm	710Nm	710Nm	710Nm
My	330Nm	330Nm	330Nm	330Nm
Mx	205Nm	205Nm	205Nm	205Nm
Special length (mm)	SL5502N	SL5506N	SL5510N	SL5514N
Fz	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N
Mz	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length
Mx	205Nm	205Nm	205Nm	205Nm

#### Carriage 25 / 280 / ...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

#### Track Profile F 25 80 x 80 (without guidance rails)

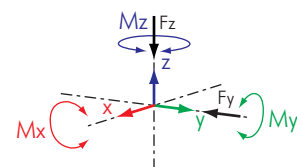
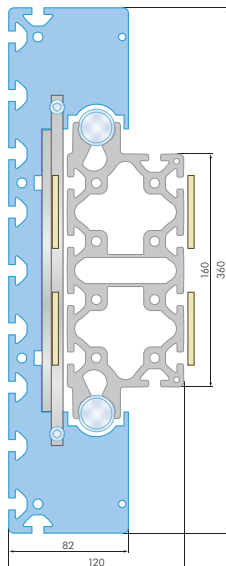
- $I_x = 201.23 \text{ cm}^4$
- $I_y = 318.71 \text{ cm}^4$
- $W_x = 45.65 \text{ cm}^3$
- $W_y = 51.74 \text{ cm}^3$
- $G = 8.30 \text{ kg/m}$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Carriage lengths of up to 700 mm are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	80 x 80	80 x 100	80 x 120	80 x 160
Tensioner	-	Internal	Internal	Internal	Internal
Timing Belt	-	AT 10/50	AT 10/50	AT 10/50	2 x AT 10/50
W/L 360/360	SL5520N	SL5524N	SL5528N	SL5532N	SL5536N
Fz	3700N	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N	7900N
Mz	1030Nm	1030Nm	1030Nm	1030Nm	1030Nm
My	480Nm	480Nm	480Nm	480Nm	480Nm
Mx	355Nm	355Nm	355Nm	355Nm	355Nm
Special Length (mm)	SL5522N	SL5526N	SL5530N	SL5534N	SL5538N
Fz	3700N	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N	7900N
Mz	up to length	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length	up to length
Mx	355Nm	355Nm	355Nm	355Nm	355Nm

Carriage 25/360 / ...  
 • maximum speed: 8 m/s  
 • use only with wiper and lubrication system  
 • lubrication intervals according to loading

Track Profile F 25 80 x 160  
 (without guidance rails)

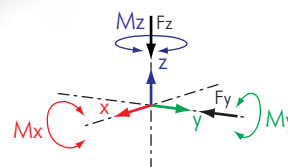
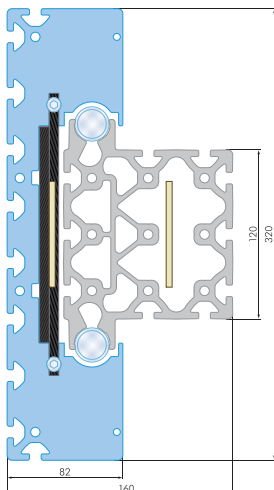
$I_x = 368.46 \text{ cm}^4$   
 $I_y = 1,611.71 \text{ cm}^4$   
 $W_x = 86.49 \text{ cm}^3$   
 $W_y = 158.43 \text{ cm}^3$   
 $G = 13.82 \text{ kg/m}$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 700 mm are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	without	80 x 80	80 x 100	80 x 120	120 x 120 / 75
Tensioner	–	Internal	Internal	Internal	Internal
Timing Belt	–	AT 10 / 50	AT 10 / 50	AT 10 / 50	AT 10 / 75
W/L 320/320	SL5550N	SL5554N	SL5558N	SL5566N	SL5574N
Fz	3700N	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N	7900N
Mz	870Nm	870Nm	870Nm	870Nm	870Nm
My	405Nm	405Nm	405Nm	405Nm	405Nm
Mx	280Nm	280Nm	280Nm	280Nm	280Nm
Special Length (mm)	SL5552N	SL5556N	SL5560N	SL5568N	SL5576N
Fz	3700N	3700N	3700N	3700N	3700N
Fy	7900N	7900N	7900N	7900N	7900N
Mz	up to length	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length	up to length
Mx	280Nm	280Nm	280Nm	280Nm	280Nm

**Carriage 25 / 320 / ...**

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

**Track Profile F 25 120 x 120 (without guidance rails)**

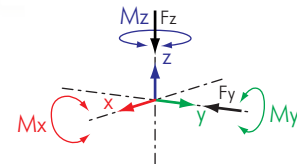
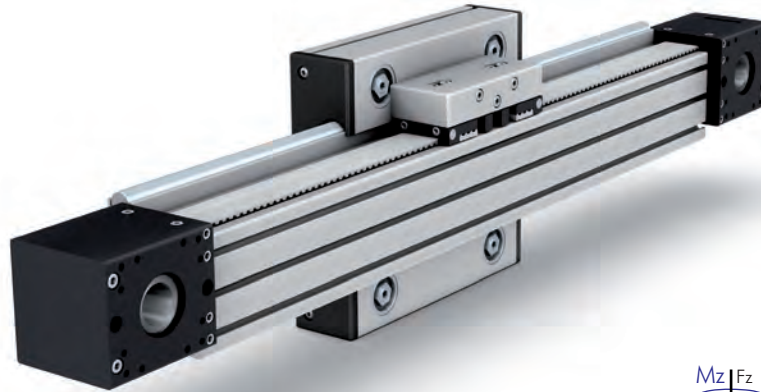
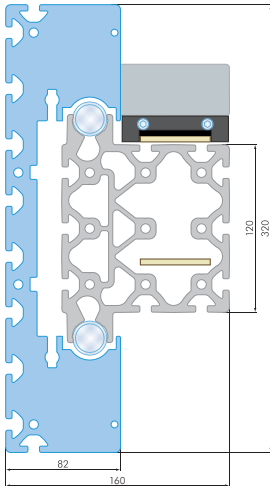
- $I_x = 1,104.23 \text{ cm}^4$
- $I_y = 873.48 \text{ cm}^4$
- $W_x = 130.66 \text{ cm}^3$
- $W_y = 129.12 \text{ cm}^3$
- $G = 15.44 \text{ kg/m}$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 700 mm are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



<b>Pulley Assembly</b>	<b>80 x 120</b>
Tensioner	External
Timing Belt	AT 10 / 50
W / L 320 / 320	SL5570N
Fz	3700N
Fy	7900N
Mz	870Nm
My	405Nm
Mx	280Nm
Special Length (mm)	SL5572N
Fz	3700N
Fy	7900N
Mz	up to length
My	up to length
Mx	280Nm

#### Carriage 25 / 320 / ...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

#### Track Profile F 25 120 x 120 (without guidance rails)

$$I_x = 1104,23 \text{ cm}^4$$

$$I_y = 873,48 \text{ cm}^4$$

$$W_x = 130,66 \text{ cm}^3$$

$$W_y = 129,12 \text{ cm}^3$$

$$G = 15,44 \text{ kg/m}$$

W carriage width

L carriage length

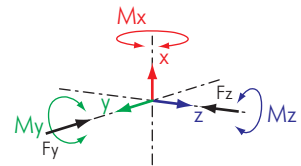
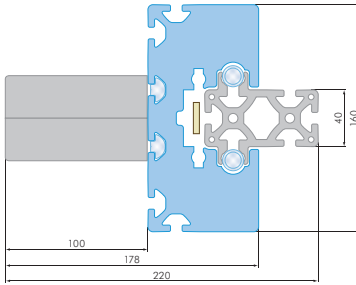
**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, pulley assembly with customer specific motor connection on request

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 700 mm are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.

**F** Linear Motion Systems

**28** Linear Actuator 16 40 x 80 / 40 G 22



Pulley Assembly	Omega Drive G 22
Timing Belt	AT 10 / 50
W / L 160 / 400	SL5018N
Fz	2000N
Fy	3900N
Mz	655Nm
My	355Nm
Mx	60Nm
Special Length (mm)	SL5019N
Fz	2000N
Fy	3900N
Mz	up to length
My	up to length
Mx	60Nm

**Carriage 16 / 160 / ...**

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

**Track Profile F 16 40 x 80 (without guidance rails)**

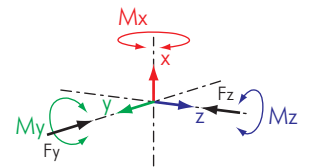
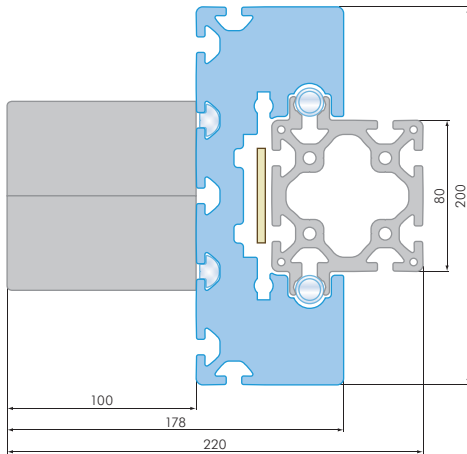
- $I_x = 102,09 \text{ cm}^4$
- $I_y = 37,21 \text{ cm}^4$
- $W_x = 24,19 \text{ cm}^3$
- $W_y = 11,45 \text{ cm}^3$
- $G = 4,75 \text{ kg/m}$

W carriage width  
L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, Omega Drive with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	Omega Drive G 50
Timing Belt	AT 10/50
W / L 200 / 400	SL5229N
Fz	2000N
Fy	3900N
Mz	655Nm
My	355Nm
Mx	100Nm
Special Length (mm)	SL5231N
Fz	2000N
Fy	3900N
Mz	up to length
My	up to length
Mx	100Nm

#### Carriage 16/200/...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

#### Track Profile F 16 80 x 80 (without guidance rails)

- $I_x = 215.75 \text{ cm}^4$
- $I_y = 185.32 \text{ cm}^4$
- $W_x = 41.10 \text{ cm}^3$
- $W_y = 44.76 \text{ cm}^3$
- $G = 7.31 \text{ kg/m}$

W carriage width  
 L carriage length

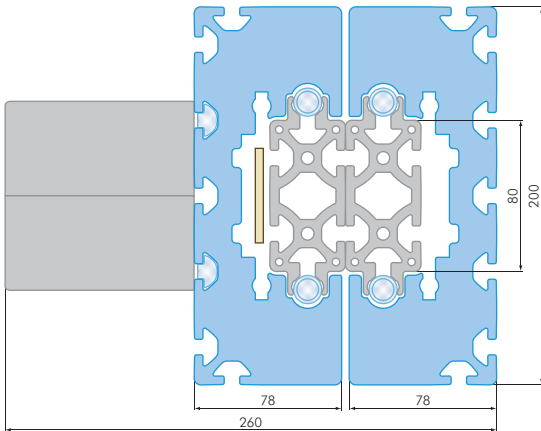
**Standard Delivery:** complete linear actuator inclusive of track profile, carriage, wiper and lubrication system, Omega Drive with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.

**F** Linear Motion Systems

**30** Linear Actuator 16 40 x 80 / 80 + 40 x 80 / 80 G 50



Pulley Assembly	Omega Drive G 50
Timing Belt	AT 10 / 50
W / L 200 / 400	SL5290N
Fz	2000N
Fy	3900N
Mz	655Nm
My	355Nm
Mx	100Nm
Special Length (mm)	SL5291N
Fz	2000N
Fy	3900N
Mz	up to length
My	up to length
Mx	100Nm

**Carriage 16/200 / ...**

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

**Track Profile (without guidance rails)**

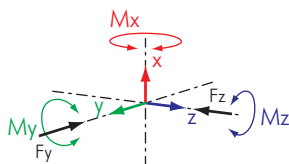
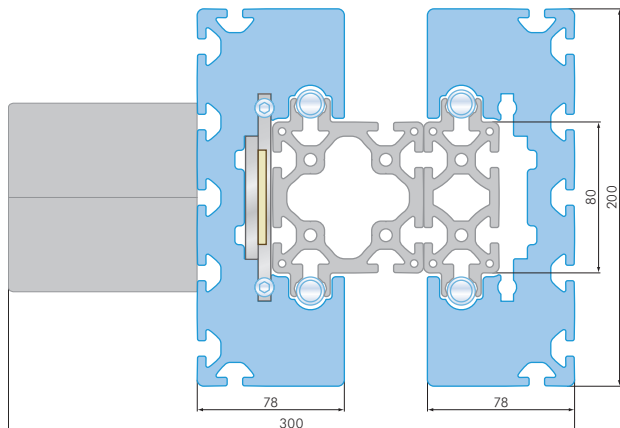
F 16 40 x 80	F 16 40 x 80
$I_x = 132.43 \text{ cm}^4$	$I_x = 132.43 \text{ cm}^4$
$I_y = 26.60 \text{ cm}^4$	$I_y = 26.60 \text{ cm}^4$
$W_x = 25.22 \text{ cm}^3$	$W_x = 25.22 \text{ cm}^3$
$W_y = 13.30 \text{ cm}^3$	$W_y = 13.30 \text{ cm}^3$
$G = 4.75 \text{ kg/m}$	$G = 4.75 \text{ kg/m}$

W carriage width  
L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, two carriages, wiper and lubrication system, Omega Drive with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Pulley Assembly	Omega Drive G 50
Timing Belt	AT 10 / 50
W / L 200 / 400	SL5227N
Fz	2000N
Fy	3900N
Mz	655Nm
My	355Nm
Mx	100Nm
Special Length (mm)	SL5233N
Fz	2000N
Fy	3900N
Mz	up to length
My	up to length
Mx	100Nm

**Carriage 16 / 200 / ...**

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

**Track Profile (without guidance rails)**

F 16 40 x 80	F 16 80 x 80
$I_x = 132.43 \text{ cm}^4$	$I_x = 212.89 \text{ cm}^4$
$I_y = 26.60 \text{ cm}^4$	$I_y = 182.47 \text{ cm}^4$
$W_x = 25.22 \text{ cm}^3$	$W_x = 40.55 \text{ cm}^3$
$W_y = 13.30 \text{ cm}^3$	$W_y = 43.97 \text{ cm}^3$
$G = 4.75 \text{ kg/m}$	$G = 7.60 \text{ kg/m}$

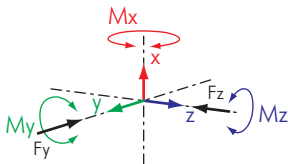
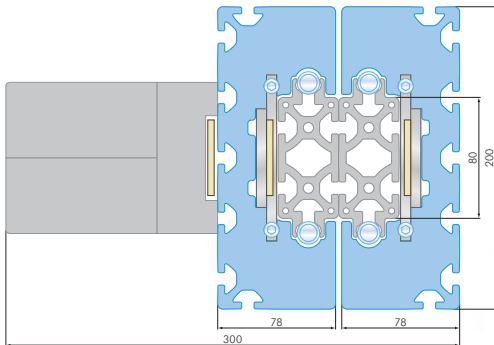
W carriage width  
L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, two carriages, wiper and lubrication system, Omega Drive with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.





Pulley Assembly	Omega Drive G 50 / 80 x 80
Timing Belt	AT 10 / 50
W/L 200/400	SL5400N
Fz	2000N
Fy	3900N
Mz	655Nm
My	355Nm
Mx	100Nm

W carriage width  
L carriage length



#### Carriage 16 / 200 / ...

- maximum speed: 8 m/s
- use only with wiper and lubrication system
- lubrication intervals according to loading

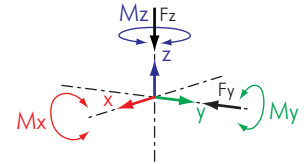
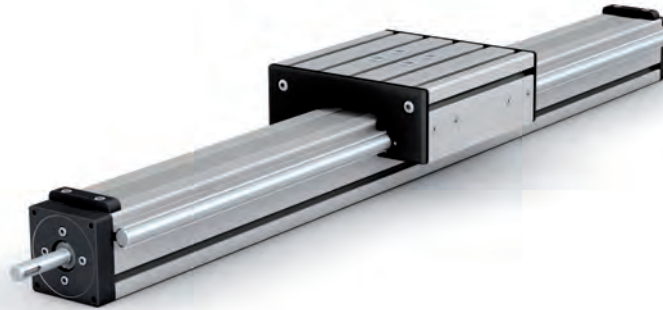
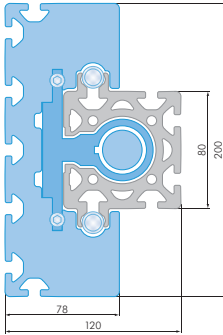
#### Track Profile (without guidance rails)

F 16 40 x 80	F 16 40 x 80
$I_x = 132.43 \text{ cm}^4$	$I_x = 132.43 \text{ cm}^4$
$I_y = 26.60 \text{ cm}^4$	$I_y = 26.60 \text{ cm}^4$
$W_x = 25.22 \text{ cm}^3$	$W_x = 25.22 \text{ cm}^3$
$W_y = 13.30 \text{ cm}^3$	$W_y = 13.30 \text{ cm}^3$
$G = 4.75 \text{ kg/m}$	$G = 4.75 \text{ kg/m}$

**Standard Delivery:** complete linear actuator inclusive of track profile, two carriages, wiper and lubrication system, Omega Drive with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E.



Shaft	Ball Screw	Ball Screw	Ball Screw	Trapezoidal
	Actuator 20 x 5	Actuator 20 x 20	Actuator 20 x 10	Screw Actuator
W / L 200 / 140	SL7000N	SL7002N	SL7001N	SL7003N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	155Nm	155Nm	155Nm	155Nm
My	80Nm	80Nm	80Nm	80Nm
Mx	100Nm	100Nm	100Nm	100Nm
W / L 200 / 200	SL7005N	SL7007N	SL7006N	SL7008N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	270Nm	270Nm	270Nm	270Nm
My	140Nm	140Nm	140Nm	140Nm
Mx	100Nm	100Nm	100Nm	100Nm
W / L 200 / 280	SL7010N	SL7012N	SL7011N	SL7013N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	425Nm	425Nm	425Nm	425Nm
My	220Nm	220Nm	220Nm	220Nm
Mx	100Nm	100Nm	100Nm	100Nm
W / L 200 / 200 sl	SL7015N	SL7017N	SL7016N	SL7018N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	210Nm	210Nm	210Nm	210Nm
My	110Nm	110Nm	110Nm	110Nm
Mx	80Nm	80Nm	80Nm	80Nm
Special Length (mm)	SL7020N	SL7022N	SL7021N	SL7023N
Fz	2000N	2000N	2000N	2000N
Fy	3900N	3900N	3900N	3900N
Mz	up to length	up to length	up to length	up to length
My	up to length	up to length	up to length	up to length
Mx	100Nm	100Nm	100Nm	100Nm

### Carriage 16/200/...

- drive end on customer request maximum permissible  $\varnothing$  14 mm
- use only with wiper and lubrication system
- lubrication intervals according to loading
- critical rotation speed and bending on page F-37

### Track Profile F 16 80 x 80 open (without guidance rails)

$$I_x = 240.32 \text{ cm}^4$$

$$I_y = 189.65 \text{ cm}^4$$

$$W_x = 45.77 \text{ cm}^3$$

$$W_y = 46.71 \text{ cm}^3$$

$$G = 8.06 \text{ kg/m}$$

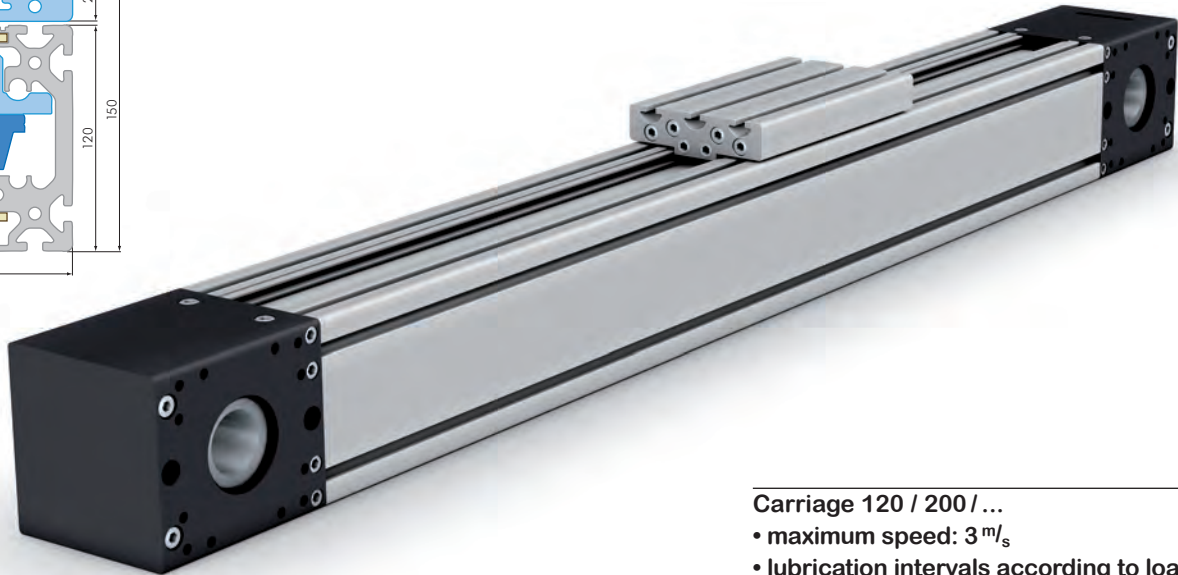
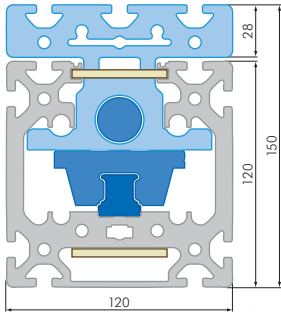
Standard Delivery: complete linear actuator inclusive of track profile, carriage and wiper and lubrication system.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

### Carriage Options:

Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased. For long periods of continuous operation it is advisable to use our external lubrication system type E. Strengthened bearings on request.

W carriage width  
 L carriage length



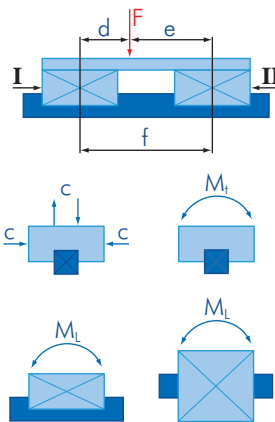
**Carriage 120 / 200 / ...**

- maximum speed: 3 m/s
- lubrication intervals according to loading

Specifications below refer to one carriage of two that are situated below each upper carriage (dark blue element in the illustration on the left).

$$P_I = F \cdot \frac{e}{f} \quad P_{\max} = \frac{C}{S}$$

$$P_{II} = F \cdot \frac{d}{f}$$



C	[N]	load rating dyn.	22800 N
C <sub>0</sub>	[N]	load rating stat.	30400 N
M <sub>t</sub>	[Nm]	torque dyn.	320 Nm
M <sub>t0</sub>	[Nm]	torque stat.	430 Nm
M <sub>L</sub>	[Nm]	torque dyn.	180 Nm
M <sub>L0</sub>	[Nm]	torque stat.	240 Nm
S		factor of safety	2
P	[N]	corresponding load	

**Track Profile 120 x 120**  
(without recirculating ball slide)

I <sub>x</sub>	= 644.60 cm <sup>4</sup>
I <sub>y</sub>	= 1,002.94 cm <sup>4</sup>
W <sub>x</sub>	= 96.21 cm <sup>3</sup>
W <sub>y</sub>	= 167.16 cm <sup>3</sup>
G	= 14.76 kg/m

Pulley Assembly	80 x 120
Timing Belt	AT 10 / 50
W/L 120/200	SL4050N
Special Length (mm)	SL4055N
std. Bore Diameter	Ø 40 H 7

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile, carriage and internal steel recirculating ball slide.

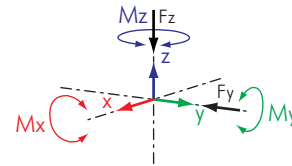
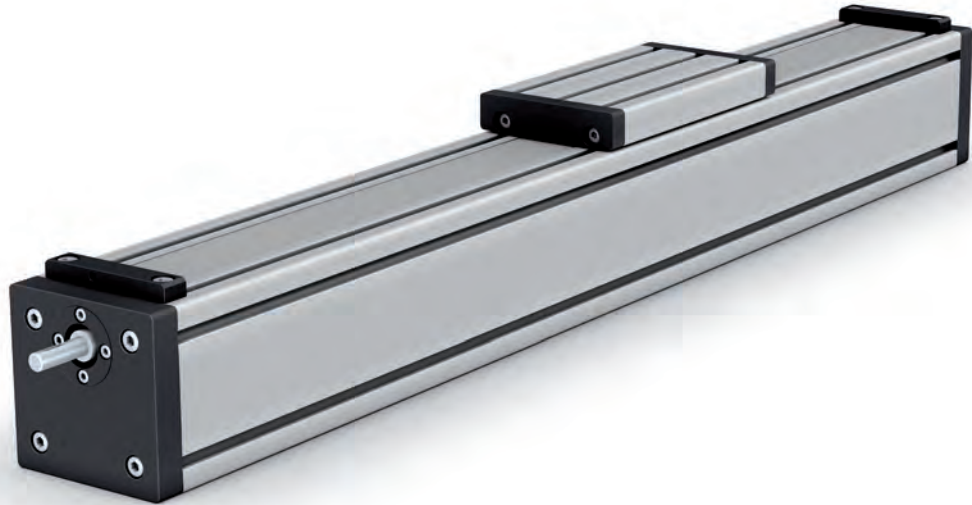
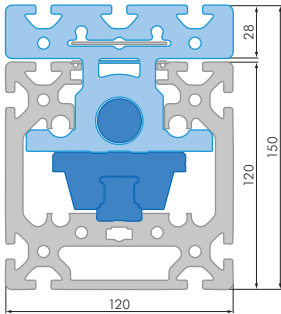
**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further recirculating ball carriages to the steel guidance rail.

**Standard Delivery:** • carriage length 200 mm  
 • recirculating ball slide 25 with two internal carriages

**On Request:** custom lengths and number of carriages.

The calculations shown are relative to the internal recirculating ball slide. When designing the overall system please note the permitted loading value for the open profile 120 x 120 and for the carriage design.



Shaft	Ball Screw Actuator	Ball Screw Actuator
	20 x 5	20 x 20
W/L 120/140	SL4063N	SL4060N
Special Length (mm)	SL4064N	SL4061N

W carriage width  
 L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage, wiper and lubrication system

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

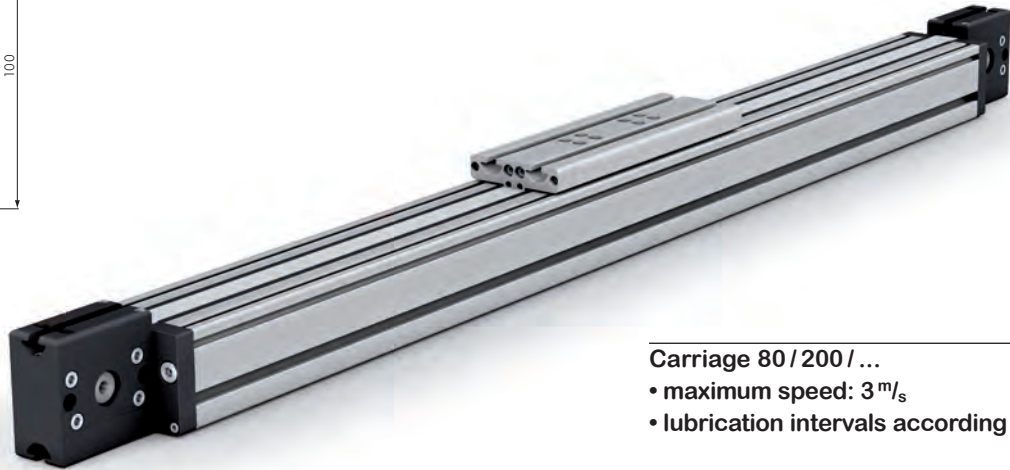
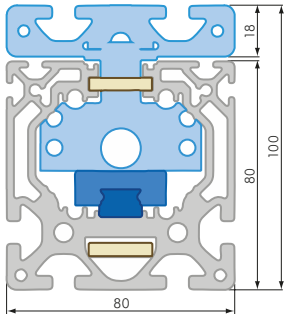
Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further recirculating ball carriages to the steel guidance rail.

Carriage 120/200/...

- drive end on customer request
- maximum permissible  $\varnothing 14$  mm
- lubrication intervals according to loading
- critical rotation speed and bending on page and F-37

Track Profile F 16 120 x 120  
 (without guidance rails)

- $I_x = 644.60 \text{ cm}^4$
- $I_y = 1002.94 \text{ cm}^4$
- $W_x = 96.21 \text{ cm}^3$
- $W_y = 167.16 \text{ cm}^3$
- $G = 16.76 \text{ kg/m}$



### Carriage 80 / 200 / ...

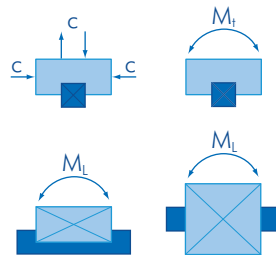
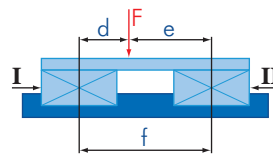
- maximum speed: 3 m/s
- lubrication intervals according to loading

Specifications below refer to one carriage of two that are situated below each upper carriage

(dark blue element in the illustration on the left).

$$P_I = F \cdot \frac{e}{f} \quad P_{\max} = \frac{C}{S}$$

$$P_{II} = F \cdot \frac{d}{f}$$



C	[N]	load rating dyn.	7800 N
C <sub>0</sub>	[N]	load rating stat.	13500 N
M <sub>t</sub>	[Nm]	torque dyn.	74 Nm
M <sub>t0</sub>	[Nm]	torque stat.	130 Nm
M <sub>L</sub>	[Nm]	torque dyn.	40 Nm
M <sub>L0</sub>	[Nm]	torque stat.	71 Nm
S		factor of safety	2
P	[N]	corresponding load	

Pulley Assembly	40 x 40
Timing Belt	AT 10 / 22
W / L 80 / 200	SL4070N
Special Length (mm)	SL4075N
std. Bore Diameter	Ø 14 H 7

W carriage width  
 L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage and internal steel recirculating ball slide

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further recirculating ball slide carriages to the steel guidance rail.

### Track Profile 80 x 85

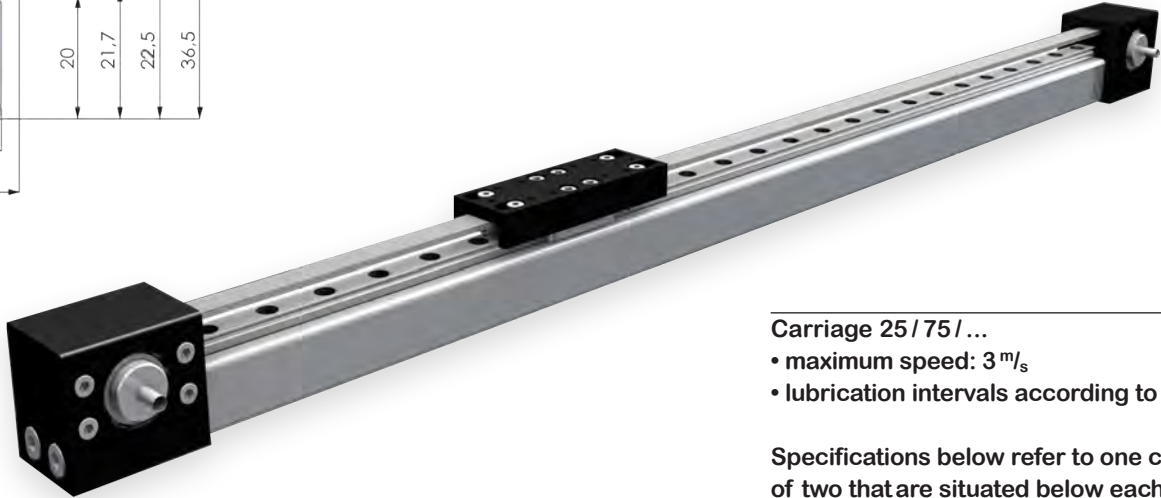
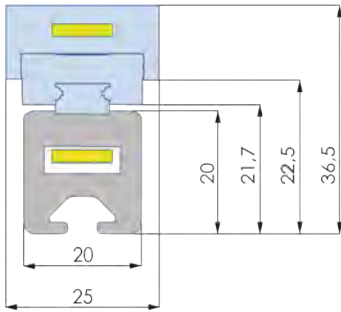
(without recirculating ball slide)

I <sub>x</sub>	= 68.93 cm <sup>4</sup>
I <sub>y</sub>	= 154.74 cm <sup>4</sup>
W <sub>x</sub>	= 18.83 cm <sup>3</sup>
W <sub>y</sub>	= 38.69 cm <sup>3</sup>
G	= 5.35 kg/m

Standard Delivery: • carriage length 200 mm  
 • recirculating ball slide 25 with two internal carriages

On Request: special lengths with custom number of carriages

The calculations shown are relative to the internal recirculating ball slide. When designing the overall system please note the permitted loading value for the open profile 120 x 120 and for the carriage design.

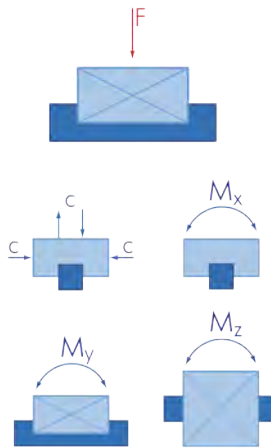


### Carriage 25 / 75 / ...

- maximum speed: 3 m/s
- lubrication intervals according to loading

Specifications below refer to one carriage of two that are situated below each upper carriage (dark blue element in the illustration on the left).

	statisch	dynamisch		Cdyn = 1860 N	Co = 2550 N
M <sub>x</sub>	11,8	8	Nm		
M <sub>y</sub>	7,4	5	Nm		
M <sub>z</sub>	7,4	5	Nm		



Pulley Assembly	20 x 20
Timing Belt	AT 3 / 10
Lw. 25 / 75	SL4500N

### Track Profile 80 x 85

(without recirculating ball slide)

I <sub>x</sub>	= 0,971 cm <sup>4</sup>
I <sub>y</sub>	= 1,184 cm <sup>4</sup>
W <sub>x</sub>	= 0,971 cm <sup>3</sup>
W <sub>y</sub>	= 1,26 cm <sup>3</sup>
M	= 0,766 kg/m

Standard Delivery: • carriage length  
75 mm

- recirculating ball slide  
9 with two internal carriages

On Request: special lengths with custom number of carriages.

The calculations shown are relative to the internal recirculating ball slide. When designing the overall system please note the permitted loading value for the open profile 120 x 120 and for the carriage design.

W carriage width  
L carriage length

Standard Delivery: complete linear actuator inclusive of track profile, carriage and internal steel recirculating ball slide.

Optional: proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

### Timing Belts

Timing belt guides are used to transmit rotary movement into linear movement. Transmission is via a range of tooth belts AT3 up to AT10. Customer specified belts can also be supplied upon ordering.

### Timing Belt Technical Data

The abrasive resistant polyurethane compound is also resistant against most oils, cutting fluids and wet conditions. It is also UV and ozone resistant with a permissible working temperature range of -30° C (-22° F) to 85° C (185° F). The timing belt has been carefully chosen to meet the demands of most linear actuator working conditions.

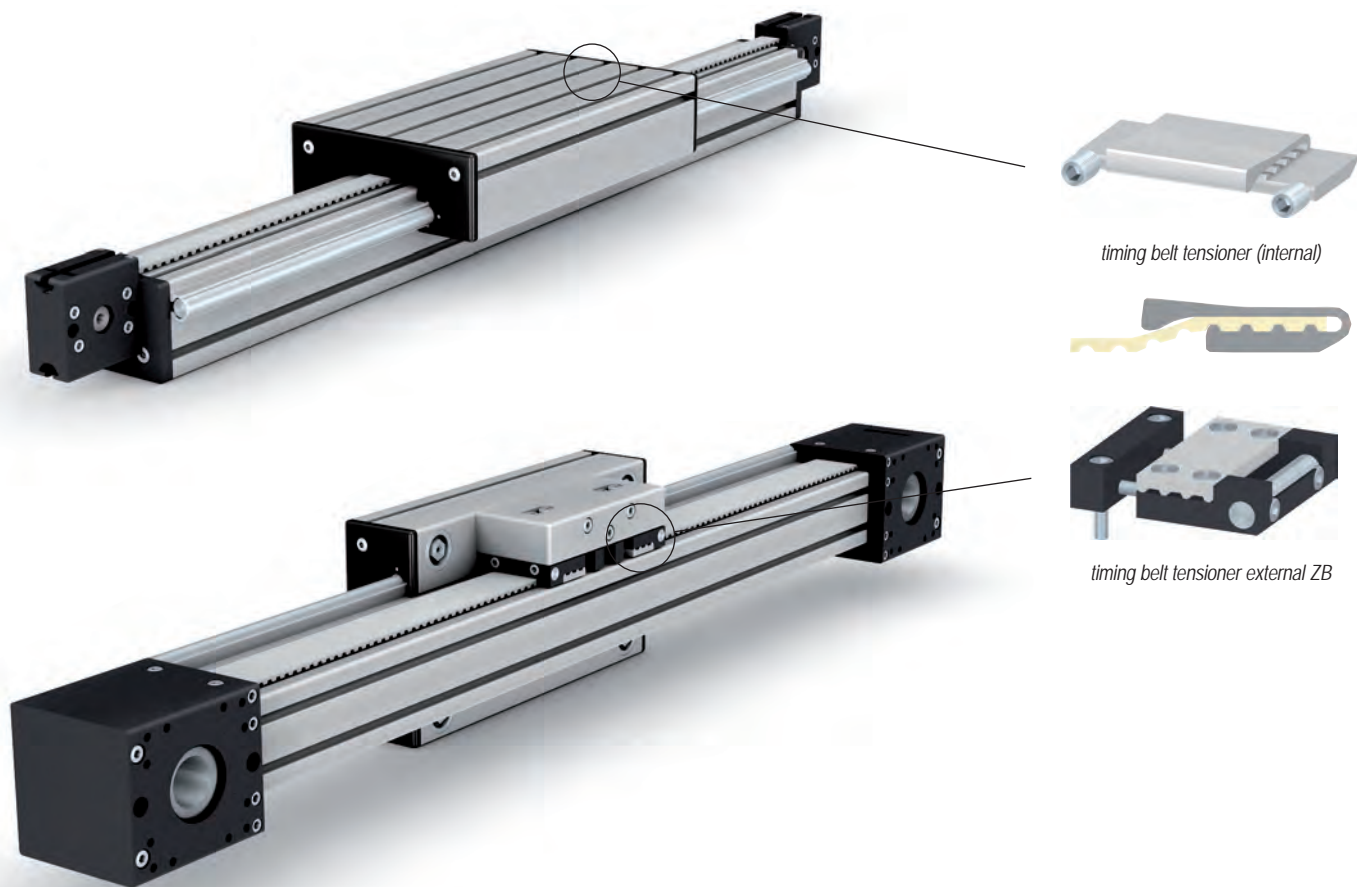
Timing Belt	Tensile Strength	Elongation
AT 3/10	410 N	0.1 % at 102 N
AT 5/16	1,260 N	0.1 % at 315 N
AT 10/22	3,200 N	0.1 % at 800 N
AT 10/50	8,050 N	0.1 % at 2,012 N
AT 10/75	12,220 N	0.1 % at 3,055 N

### Timing Belt Tensioners

The timing belt is tensioned and held in the carriage by two belt tensioners as shown in the illustrations below. The timing belt is inserted sideways into the tensioners profile and then pushed into the guideway located in the carriage. Two M12 grub screws push the tensioner into the center of the carriage. By loosening or tightening these grub screws on each of the tensioners, the carriage can be accurately positioned relative to the linear actuator position. In high speed and arduous conditions the M12 pressure screws can be secured by means of a second M12 grub screw.

### Fixing Blocks

If the timing belt is to be connected to the side of the carriage, a fixing block is attached to the carriage between the rollers as shown on the illustration below. The tooth belt is tensioned via two external tooth belt tensioners.



## Critical Rotation Speed

The critical rotation speed is dependent upon screw diameter, length  $L_n$  and how it is fitted. The drive nut axial play must not be taken into consideration. The maximum operating rotation speed is 80% of the critical rotation speed.

## Calculation Of The Critical Rotation Speed

**Example:** pitch diameter = 20 mm  
core diameter = 16.9 mm  
length = 2400 mm  
bearing configuration = fixed – supported

$$n_k = f_{nk} \cdot d_2 / L_n^2 \cdot 107 \text{ [min}^{-1}\text{]}$$

$$n_{kzul} = 0,8 \cdot n_k \text{ [min}^{-1}\text{]}$$

- $n_k$  critical rotation speed [min<sup>-1</sup>]
- $n_{kzul}$  permissible rotation speed [min<sup>-1</sup>]
- $f_{nk}$  value determined by bearing fitting
- $d_2$  spindle core diameter [mm]
- $L_n$  critical length [mm] for pretensioned nut systems
- $L_1$  screw length [mm]

## Permissible Axial Spindle Loading (Bending)

The axial spindle loading is independent of screw diameter, bearing configuration and unsupported length  $L_k$ . For axial loading, a safety factor of  $\geq 2$  should be taken.

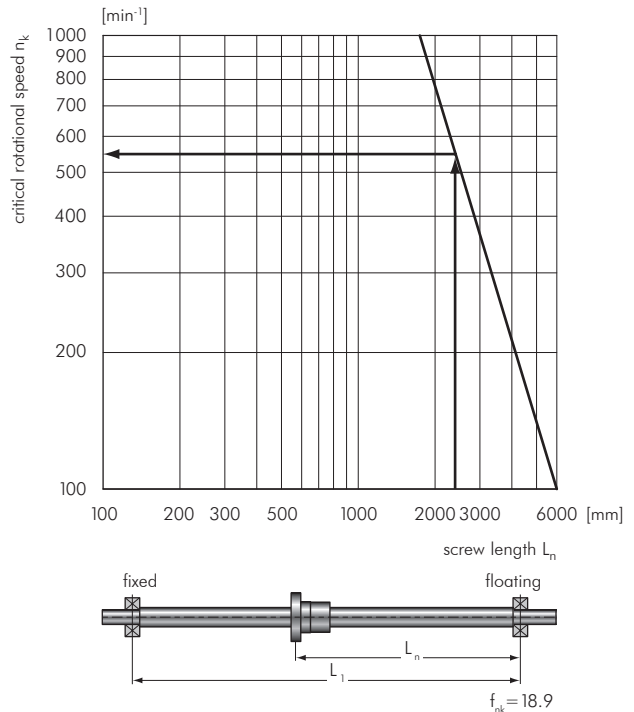
## Calculation Of The Bending

**Example:** spindle diameter = 20 mm  
core diameter = 16.9 mm  
pitch = 5 mm  
length = 2400 mm  
bearing configuration = fixed – supported

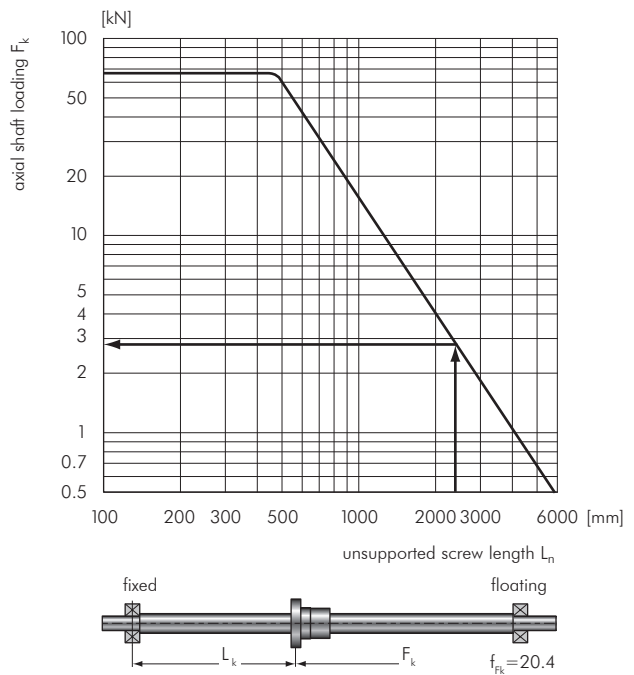
$$n_k = f_{Fk} \cdot d_2^4 / L_k^2 \cdot 10^4 \text{ [N]}$$

$$n_{kzul} = F_k / 2 \text{ [N]}$$

- $F_k$  theoretically permissible axial loading
- $F_{kzul}$  spindle loading permissible in operation
- $f_{Fk}$  value determined by bearing fitting
- $d_2$  spindle core diameter [mm]
- $L_k$  unsupported screw length [mm]



In the illustration above the critical rotation speed of 550 min<sup>-1</sup> is achieved.  
The permissible operation rotation speed equals 550 min<sup>-1</sup> · 80 % = 440 min<sup>-1</sup>.



The illustration shows that the theoretically axial loading is 2.9 kN.  
With a safety factor of 2, this results in a permissible spindle loading of



**Critical Rotation Speed**

With small diameter, rotational components such as spindles, there is a danger of resonating frequency which vibrates the screw. The following calculation allows for the estimation of this resonating frequency, under the prerequisite of a robust installation. Speed approaching the critical rotational speed can significantly increase the chance of lateral buckling. The critical rotational speed must also be considered in relation with the permissible axial spindle loading.

**Calculation Of The Critical Rotation Speed**

$$n_{zul} = 0.8 \cdot n_{kr} \cdot f_{kr}$$

- $n_{zul}$  maximum permissible rotational speed (RPM) [min<sup>-1</sup>]
- $n_{kr}$  theoretical critical rotation speed [min<sup>-1</sup>], that leads to resonating frequency
- $f_{kr}$  bearing constant determined by bearing manufacturer

The working rotational speed may not exceed 80% of the maximum permissible rotational speed!

**Permissible Axial Spindle Loading (Bending)**

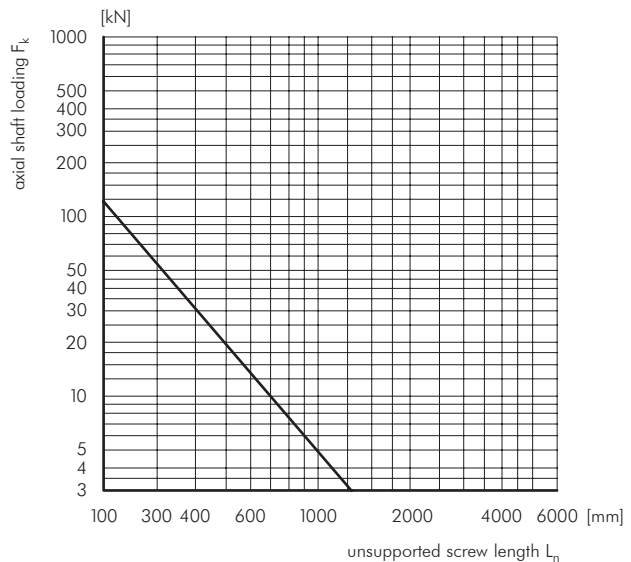
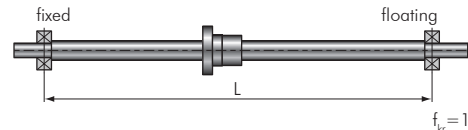
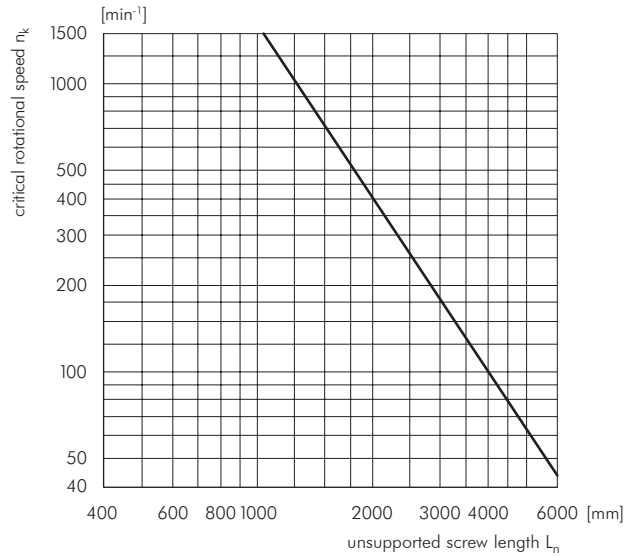
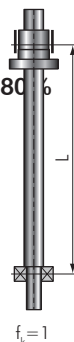
With small diameter rotational components such as spindles, the possible failure due to axial overloading must be taken into account. The following calculation assists with the determination of the permissible axial spindle load.

**Calculation Of The Bending**

$$F_{kzul} = 0.8 \cdot F_k \cdot f_k$$

- $F_{zul}$  maximum allowable axial load [kN]
- $F_k$  theoretically permissible axial loading [kN]
- $f_k$  bearing constant determined by bearing manufacturer

The working rotational speed may not exceed 80% of the maximum permissible rotational speed!

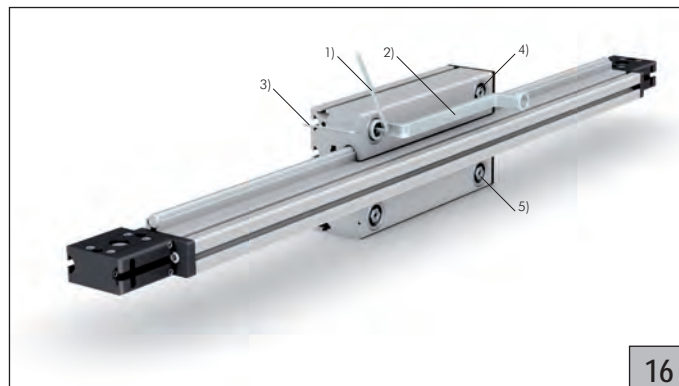


## Rollers

The carriage rollers are designed for speeds of up to 8 m/s. The total permissible loading allowed depends on many factors and has to be calculated for each case. A minimum stroke length of 60 mm is required to ensure that the roller is lubricated during operation.

## Carriage Assembly

The rollers are assembled in the carriage with the concentric roller axle to the top and the excentric axle to the bottom. Excentric adjustment of  $\pm 0.9$  mm is provided. The roller is pressed firmly into the carriage against a steel disc and locked into position by a  $\varnothing 38$  mm lock nut. The lock nut is also locked into position by a M 6 grub screw.

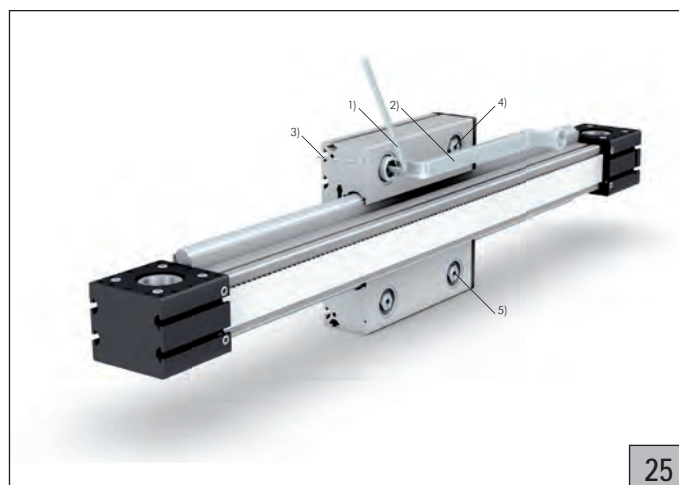


16

- 1) hexagon key A/F 5 to secure excentric adjustment (5).
- 2) ring wrench A/F 17 to attach the lock nut.
- 3) hexagon key A/F 3 to secure the lock nut grub screw.
- 4) concentric roller axle (SL0152S).
- 5) excentric roller axle (SL0153S).

## Wiper And Lubrication System

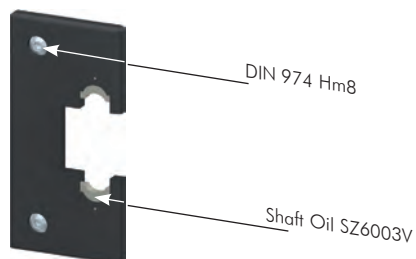
The wiper and lubrication system is attached to the front and rear faces of the carriage. The spring tensioned felt pad forms the oil reservoir to lubricate the contact face of the roller and guide rail. Lubrication is via a small hole on the front face of the lubrication system and we recommend our oil reference (SZ6003V). The lubrication intervals will vary according to individual circumstances and can be from two months up to one year. This is recognized by red discoloration of the rails or rollers. The new felt must be infused with oil and re-infused at the recommended lubrication intervals.



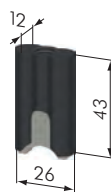
25

- 1) hexagon key A/F 8 to secure excentric adjustment (5).
- 2) ring wrench A/F 24 to attach the lock nut.
- 3) hexagon key A/F 3 to secure the lock nut grub screw.
- 4) concentric roller axle (SL0154Z).
- 5) excentric roller axle (SL0154E).

## Service Pockets



external wiper and lubrication system



wiper and lubrication system

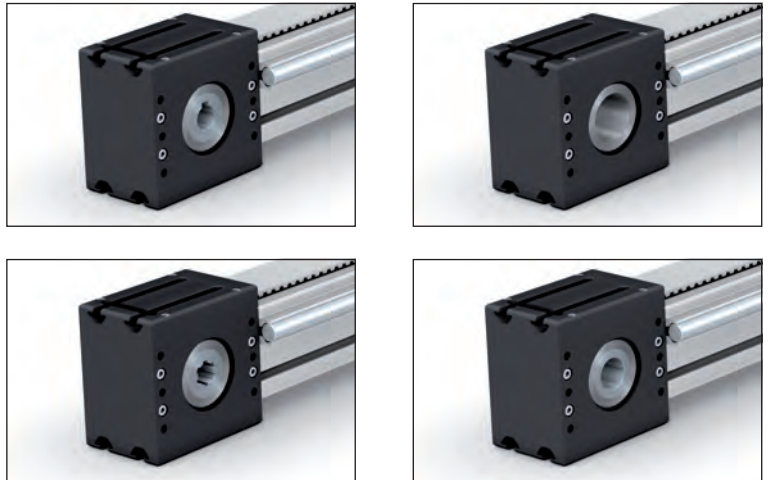


## Motor Coupling

Maximum bore diameter is  $\varnothing 40\text{ H7}$  (standard delivery), complete with steel drive coupling shrunk fit to customer request (included in price).

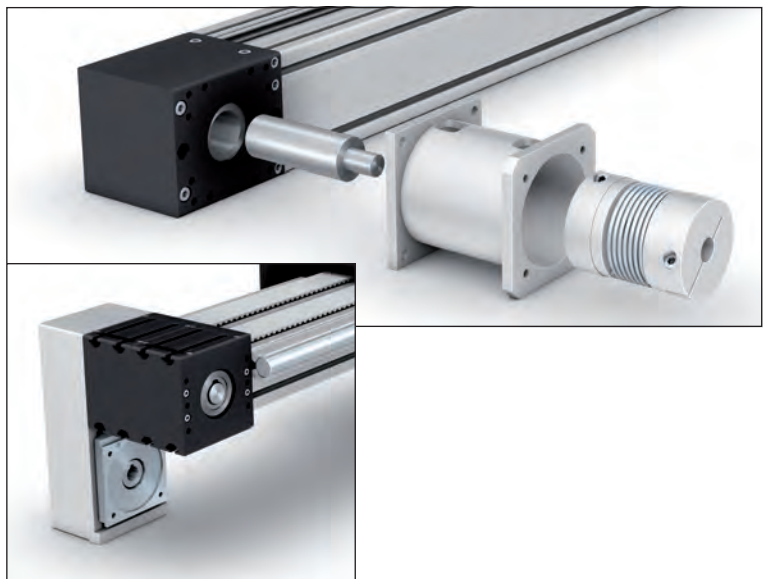
- max. bore diameter for motor with keyway:  $\varnothing 30\text{ H7}$
- max. bore diameter for motor with taper lock coupling:  $\varnothing 34\text{ H7}$

Motor couplings with flange plates at customer request.



## Coupling And Timing Belt Gearbox

The coupling housing makes the mechanical connection between the motor and the pulley assembly. It also acts as a protection to the flexible coupling.



## Omega Drive Operation

Omega Drives are manufactured in five basic variants. Their purpose is to replace the drive unit on the



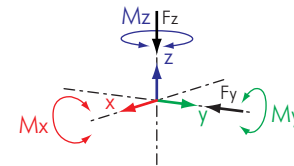
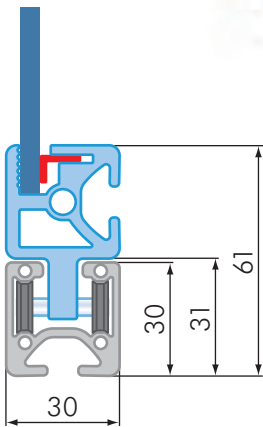
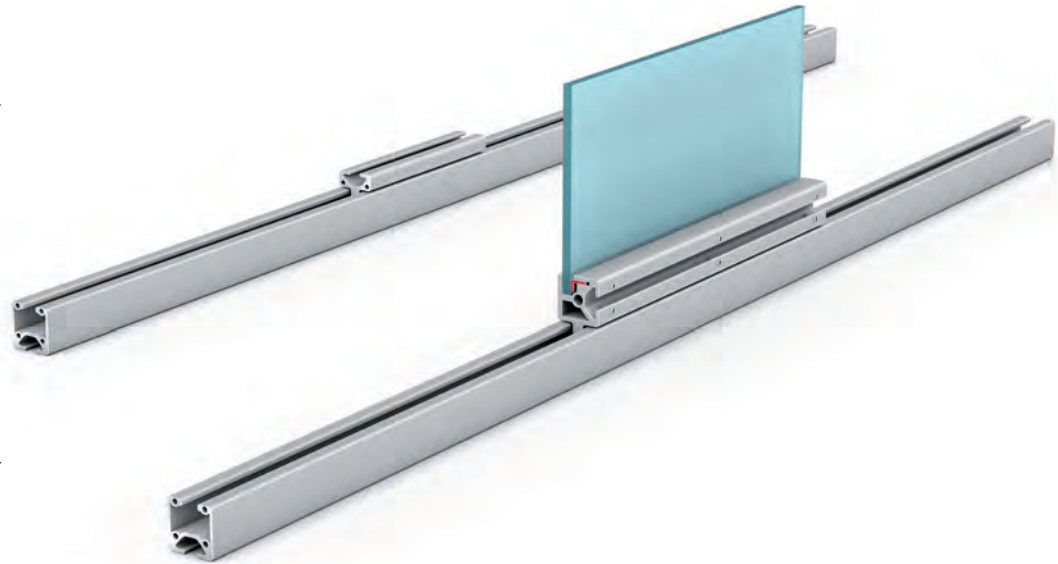
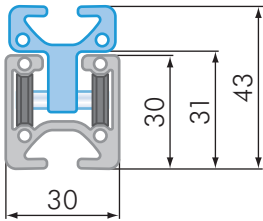
Omega Drive 22



Omega Drive 50



Omega Drive 50 closed



Pulley Assembly	without
L / N 140 / 8	SL4000N
L / N 280 / 8	SL4005N
Special Length (mm)	SL4006N
w/ Clamp Profile	SL4008N

L carriage length  
N number of rollers

- C-Track Double Carriage C 30 / 43**
- maximum speed:  $2 \text{ m/s}$
  - rollers can only be loaded radially
  - $F_{\text{max}} = 25 \text{ N}$  per supporting roller

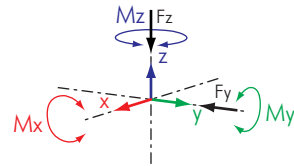
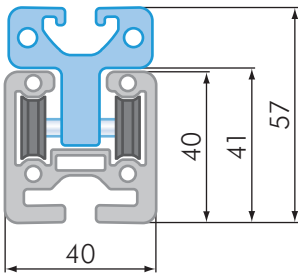
- C-Track Profile C 30 / 43**
- $I_x = 2.83 \text{ cm}^4$
  - $I_y = 3.75 \text{ cm}^4$
  - $W_x = 1.66 \text{ cm}^3$
  - $W_y = 2.50 \text{ cm}^3$
  - $G = 0.82 \text{ kg/m}$

C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage

**Optional:** proximity and end of stroke switches, end stops

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.



Pulley Assembly	without	C 40 / 57
Timing Belt	-	AT 3 / 10
L / N 140 / 8	SL4009N	SL4010N
L / N 280 / 8	SL4014N	SL4015N
Special Length (mm)	SL4016N	SL4017N
std. Bore Diameter	-	Ø 14 H 7

L carriage length  
N number of rollers

C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

Standard Delivery: complete linear actuator inclusive of track profile and carriage

Optional: proximity and end of stroke switches, end stops

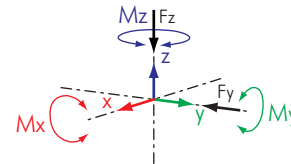
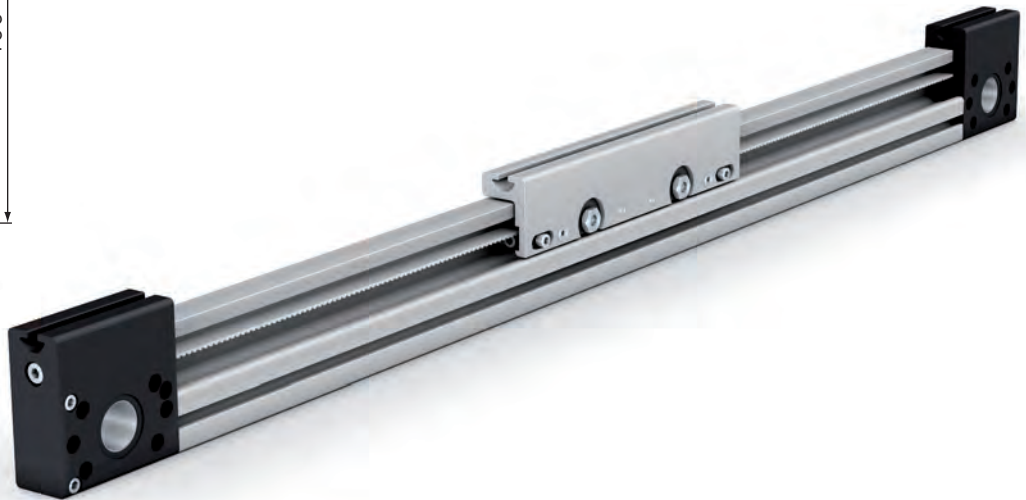
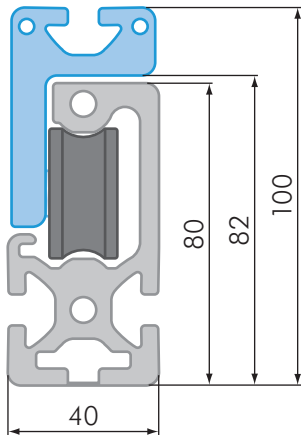
Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.

**C-Track Carriage C 40 / 57**

- maximum speed: 2 m/s
- rollers can only be loaded radially
- $F_{max} = 40 \text{ N}$  per supporting roller

**C-Track Profile C 40 / 57**

$I_x = 2.83 \text{ cm}^4$   
 $I_y = 3.75 \text{ cm}^4$   
 $W_x = 1.66 \text{ cm}^3$   
 $W_y = 2.50 \text{ cm}^3$   
 $G = 0.82 \text{ kg/m}$



Pulley Assembly	without	C 40 / 100
Timing Belt	-	AT 5 / 16
W / L 140 / 3	SL4019N	—
W / L 280 / 4	SL4024N	SL4025N
Special Length (mm)	SL4026N	SL4027N
std. Bore Diameter	-	Ø 40 H 7

**C-Track Single Carriage C 40 / 100**  
 • maximum speed: 2 m/s  
 • rollers can only be loaded radially  
 •  $F_{max} = 100$  N per supporting roller

**C-Track Profile C 40 / 100**

$I_x = 79.52$  cm<sup>4</sup>  
 $I_y = 11.04$  cm<sup>4</sup>  
 $W_x = 17.46$  cm<sup>3</sup>  
 $W_y = 4.73$  cm<sup>3</sup>  
 $G = 3.32$  kg/m

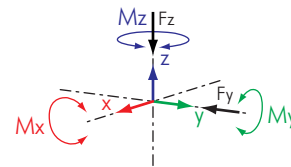
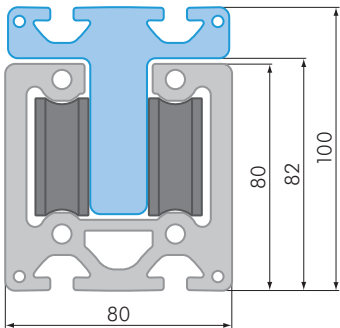
W carriage width  
 L carriage length

C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.



Pulley Assembly	without	C 80 / 100
Timing Belt	-	AT 10 / 22
W/L 140 / 6	SL4029N	SL4030N
W/L 280 / 8	SL4034N	SL4035N
Special Length (mm)	SL4036N	SL4037N
std. Bore Diameter	-	Ø 40 H 7

W carriage width  
L carriage length

### C-Track Double Carriage C 80 / 100

- maximum speed: 4 m/s
- rollers can only be loaded radially
- $F_{max} = 100$  N per supporting roller

### C-Track Profile C 80 / 100

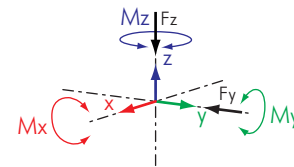
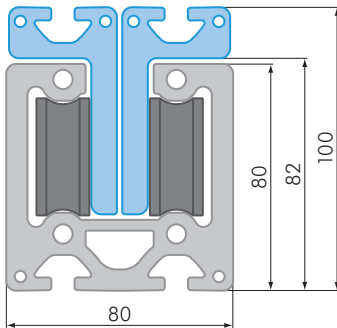
- $I_x = 174.65$  cm<sup>4</sup>
- $I_y = 213.08$  cm<sup>4</sup>
- $W_x = 38.98$  cm<sup>3</sup>
- $W_y = 53.27$  cm<sup>3</sup>
- $G = 6.88$  kg/m

C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage, pulley assembly with customer specific motor connection.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.



Pulley Assembly	without
L / N 140 / 3	SL4040N
L / N 280 / 4	
Special Length (mm)	SL4046N

L carriage length  
N number of rollers

#### C-Track Single Carriage C 80 / 100

- maximum speed: 4 m/s
- rollers can only be loaded radially
- $F_{max} = 100 \text{ N}$  per supporting roller

#### C-Track Profile C 80 / 100

$I_x = 174.65 \text{ cm}^4$   
 $I_y = 213.08 \text{ cm}^4$   
 $W_x = 38.98 \text{ cm}^3$   
 $W_y = 53.27 \text{ cm}^3$   
 $G = 6.88 \text{ kg/m}$

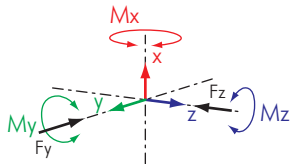
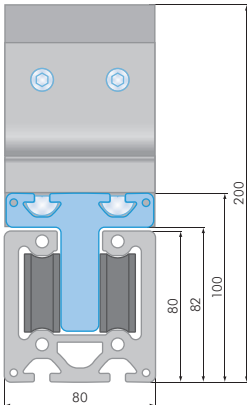
C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

Standard Delivery: complete linear actuator inclusive of track profile and carriage

Optional: proximity and end of stroke switches, end stops, energy cable

Carriage Options: Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.





Pulley Assembly	Omega Drive C-Type
Timing Belt	AT 5 / 16
Special Length (mm)	SL4038N
std. Bore Diameter	Ø 40 H 7

#### C-Track Double Carriage C 80 / 100

- maximum speed: 4 m/s
- rollers can only be loaded radially
- $F_{max} = 100$  N per supporting roller

#### C-Track Profile C 80 / 100

$$I_x = 174.65 \text{ cm}^4$$

$$I_y = 213.08 \text{ cm}^4$$

$$W_x = 38.98 \text{ cm}^3$$

$$W_y = 53.27 \text{ cm}^3$$

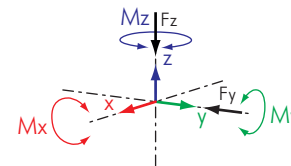
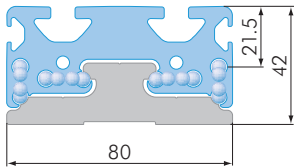
$$G = 6.88 \text{ kg/m}$$

C-tracks with plastic rollers. C-tracks require no lubrication and are a low cost alternative to the linear actuators series 16.

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage, pulley assembly with customer specific motor connection

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** Carriage lengths of up to 2.3 m are available. For high load systems it may be advisable to add further rollers. By having a combination of guidance and flat faced rollers the permissible actuator loading values may be increased.



Pulley Assembly	without
L 80	SL4080N
L 120	SL4082N
L 160	SL4084N
Special Length (mm)	SL4086N

L carriage length

#### Roller Bearing Carriage

- maximum speed: 1 m/s
- $F_y = 20\text{ N}$  per 10 mm carriage length
- $F_z = 20\text{ N}$  per 10 mm carriage length

#### Recirculating Ball Slide Guidance Rail

$$I_x = 3.34\text{ cm}^4$$

$$I_y = 35.73\text{ cm}^4$$

$$W_x = 2.37\text{ cm}^3$$

$$W_y = 8.93\text{ cm}^3$$

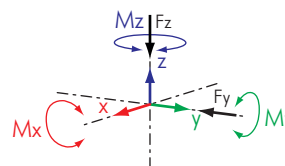
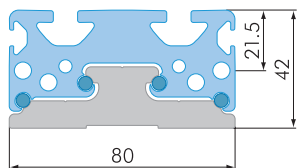
$$G = 2.63\text{ kg/m}$$

The recirculating ball slide system uses an aluminum guidance rail and a recirculating ball carriage that houses plastic ball bearings. The ball bearings go around and through four guidance bores and are returned back through the carriage by plastic end caps attached to each end of the carriage.

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage

**Optional:** proximity and end of stroke switches, end stops

**Carriage Options:** Carriage lengths of up to 0.30 m are available.



Pulley Assembly	without
L 80	SL4090N
L 120	SL4092N
L 160	SL4094N
Special Length (mm)	SL4096N

L carriage length

#### Glider Slide Carriage

- maximum speed: 1 m/s
- $F_y = 30$  N per 10 mm carriage length
- $F_z = 30$  N per 10 mm carriage length

#### Glider Slide Guidance Rail

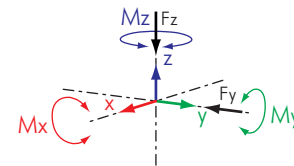
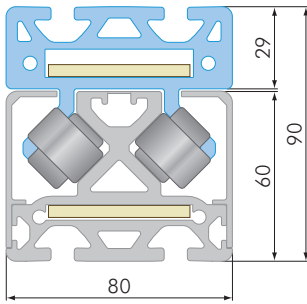
- $I_x = 3.34$  cm<sup>4</sup>
- $I_y = 35.73$  cm<sup>4</sup>
- $W_x = 2.37$  cm<sup>3</sup>
- $W_y = 8.93$  cm<sup>3</sup>
- $G = 2.63$  kg/m

The slide guidance system uses an aluminum guidance rail and carriage that has four round, open channels. Each channel holds up to four small plastic rods. These rods are retained by plastic end caps attached to each end of the carriage.

**Standard Delivery:** complete linear actuator inclusive of track profile carriage.

**Optional:** proximity and end of stroke switches, end stops.

**Carriage Options:** Carriage lengths of up to 0.30 m are available.



<b>Pulley Assembly</b>	<b>80/90</b>
<b>Timing Belt</b>	<b>AT 10/50</b>
<b>W/L 80/90 160/8</b>	<b>SL5310N</b>
<b>W/L 80/90 200/10</b>	<b>SL5300N</b>
<b>W/L 80/90 280/10</b>	<b>SL5320N</b>
<b>std. Bore Diameter</b>	<b>Ø 40 H 7</b>

#### Carriage 80/90

- maximum speed: 8 m/s
- maintenance free

#### Track Profile 60 x 80

$$I_x = 41.64 \text{ cm}^4$$

$$I_y = 47.92 \text{ cm}^4$$

$$W_x = 10.98 \text{ cm}^3$$

$$W_y = 11.98 \text{ cm}^3$$

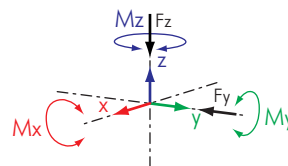
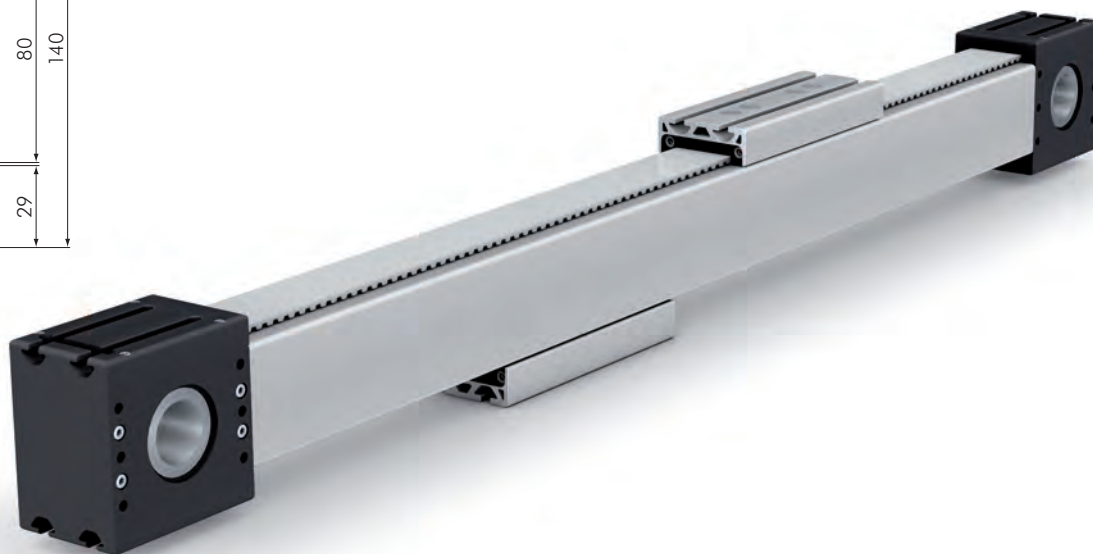
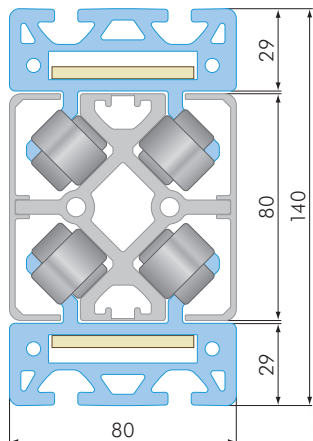
$$G = 3.70 \text{ kg/m}$$

W carriage width  
 L carriage length

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** The carriages are manufactured in three different lengths. Carriages with special lengths are only available on request.



<b>Pulley Assembly</b>	<b>80 x 80</b>
<b>Timing Belt</b>	<b>AT 10 / 50</b>
<b>W/L 80/90 200/10</b>	<b>SL5350N</b>
<b>std. Bore Diameter</b>	<b>Ø 40 H 7</b>

W carriage width  
 L carriage length

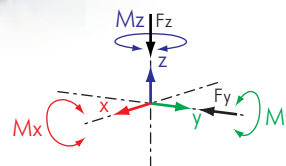
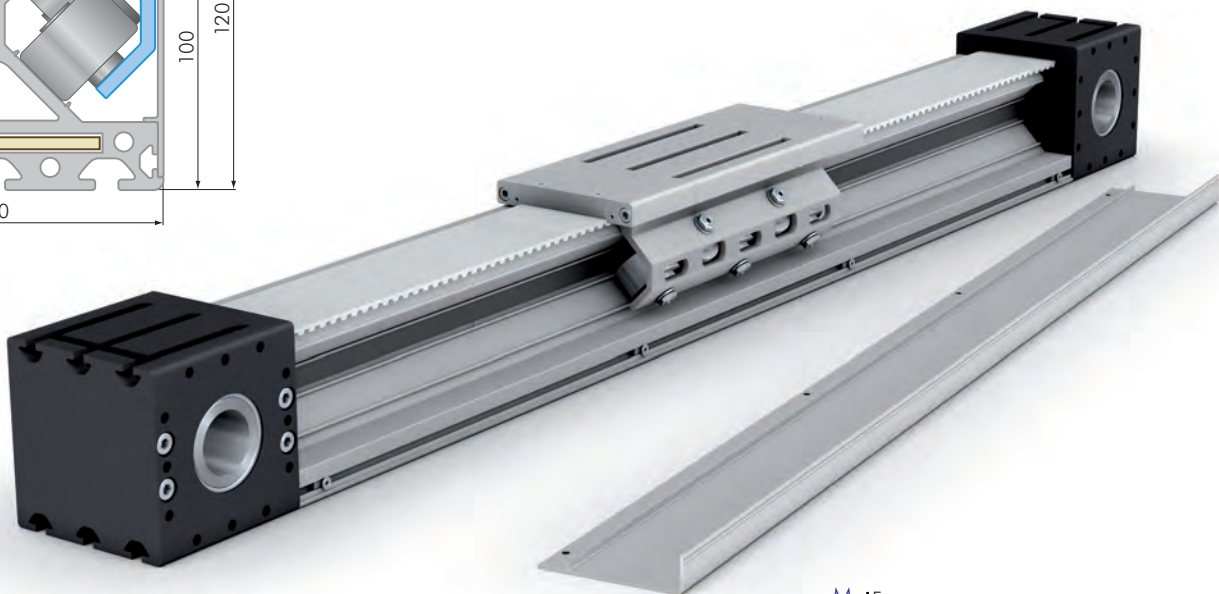
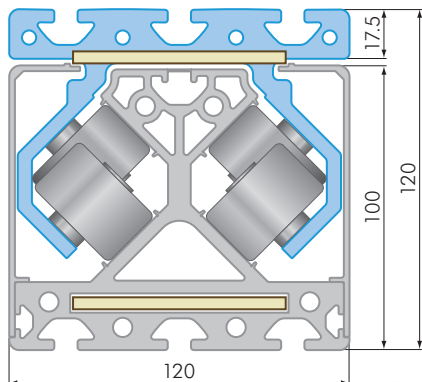
**Carriage 80 / 90**  
 • maximum speed: 8 m/s  
 • maintenance free

**Double Guidance Track Profile 80 x 80**  
 $I_x = 68.93 \text{ cm}^4$   
 $I_y = 154.80 \text{ cm}^4$   
 $W_x = 18.83 \text{ cm}^3$   
 $W_y = 38.70 \text{ cm}^3$   
 $G = 5.35 \text{ kg/m}$

**Standard Delivery:** complete linear actuator inclusive of track profile and two carriages, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** Both carriages are manufactured with a length of 200 mm and ten track rollers. Carriages with special lengths are only available on request.



<b>Pulley Assembly</b>	<b>120 x 120 - 75</b>
<b>Timing Belt</b>	<b>AT 10 / 75</b>
<b>W / L 100 / 120 200 / 10</b>	<b>SL5360N</b>
<b>std. Bore Diameter</b>	<b>Ø 40 H 7</b>

W carriage width  
 L carriage length

#### Carriage 120

- maximum speed: 8 m/s
- maintenance free

#### Track Profile 100 x 120

$$I_x = 267.57 \text{ cm}^4$$

$$I_y = 217.21 \text{ cm}^4$$

$$W_x = 41.73 \text{ cm}^3$$

$$W_y = 36.20 \text{ cm}^3$$

$$G = 7.40 \text{ kg/m}$$

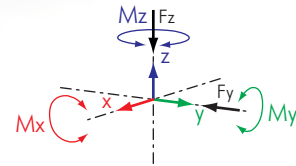
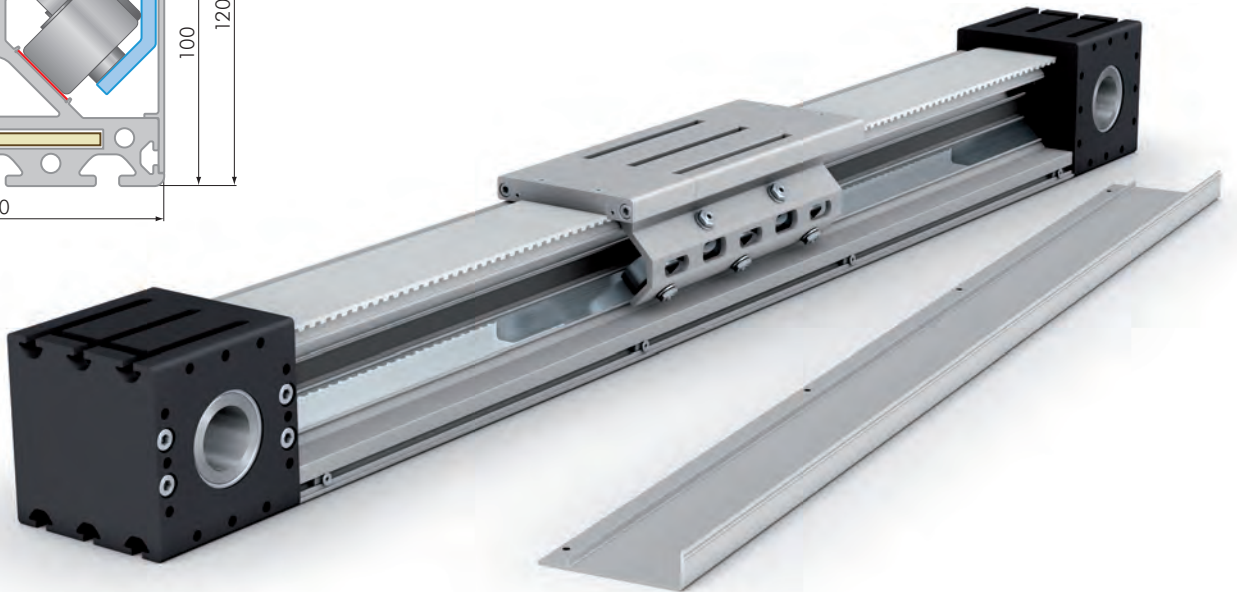
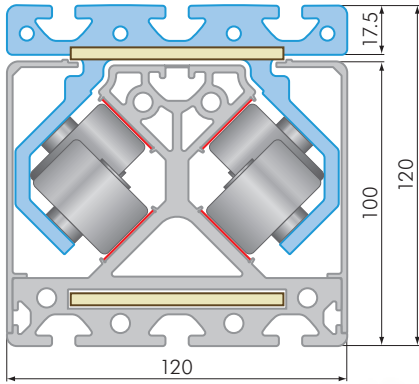
**Standard Delivery:** complete linear actuator inclusive of track profile and carriage, pulley assembly with customer specific motor connection on request.

**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable.

**Carriage Options:** The carriage is manufactured with a length of 250 mm and ten plastic track rollers. Carriages with special lengths are only available on request.

F Linear Motion Systems

54 Linear Actuator 120 x 120 AT 10 / 75 Steel Rollers



Pulley Assembly	120 x 120 - 75
Timing Belt	AT 10 / 75
W/L 100/120 200 / 10	SL5370N
std. Bore Diameter	Ø 40 H 7

W carriage width  
L carriage length

**Carriage 120**  
 • maximum speed: 8 m/s  
 • maintenance free

**Track Profile 100 x 120**  
 $I_x = 267.57 \text{ cm}^4$   
 $I_y = 217.21 \text{ cm}^4$   
 $W_x = 41.73 \text{ cm}^3$   
 $W_y = 36.20 \text{ cm}^3$   
 $G = 7.40 \text{ kg/m}$

**Standard Delivery:** complete linear actuator inclusive of track profile and carriage, pulley assembly with customer specific motor connection on request

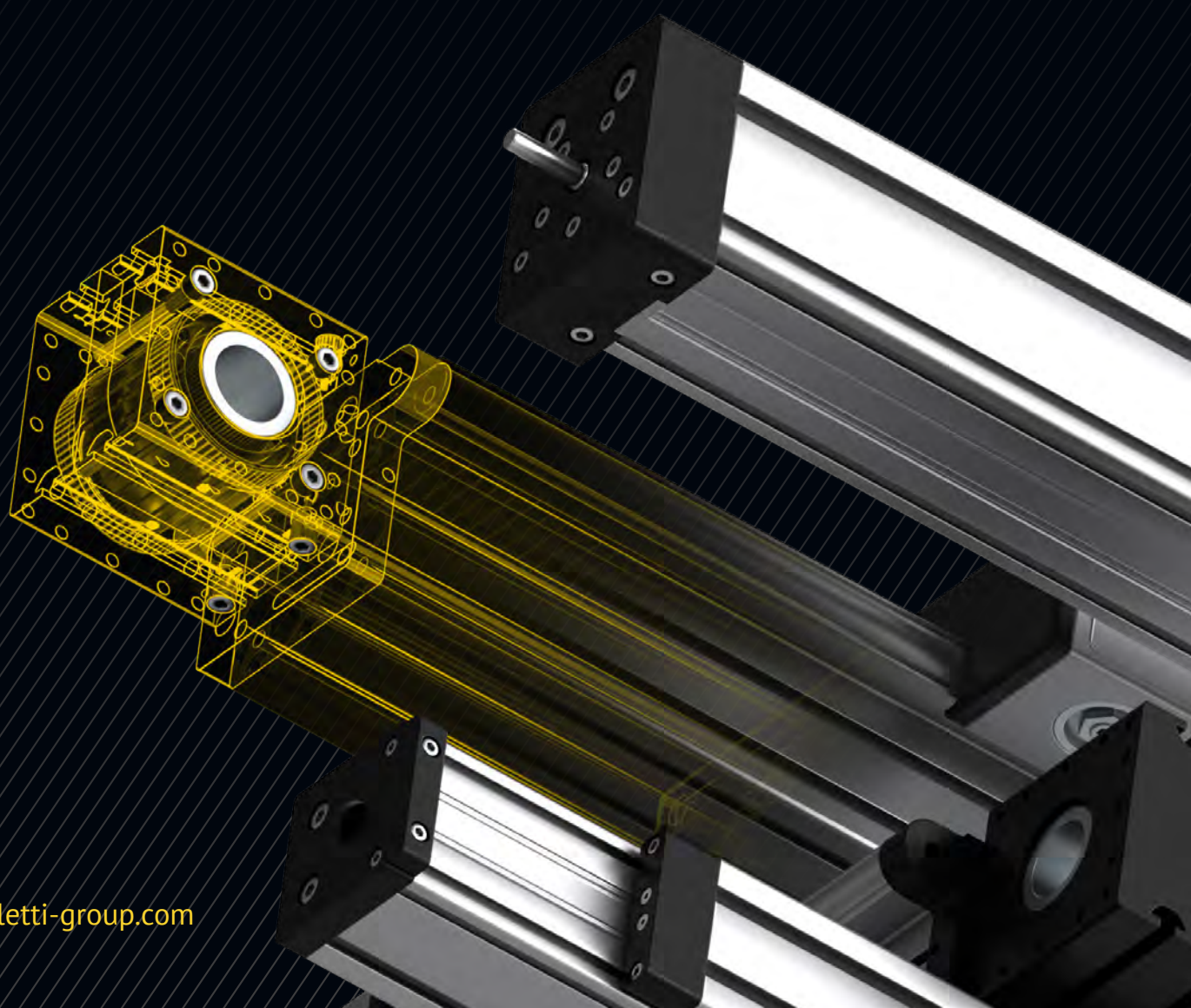
**Optional:** proximity and end of stroke switches, end stops, motor coupling, motors, energy cable

**Carriage Options:** The carriage is manufactured with a length of 250 mm and ten steel track rollers. The track profile is assembled with steel base plates. Carriages with special lengths are only available on request.

# PALETTI

PRECISE, LONG-LASTING, INDIVIDUALLY

## LINEAR MOTION SYSTEMS ACCESSORIES

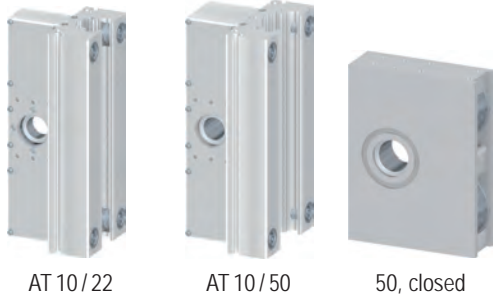


[www.paletti-group.com](http://www.paletti-group.com)

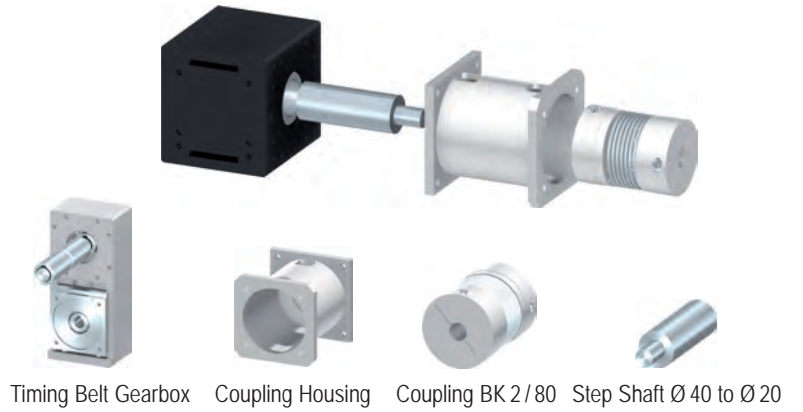




### Pulley Assemblies



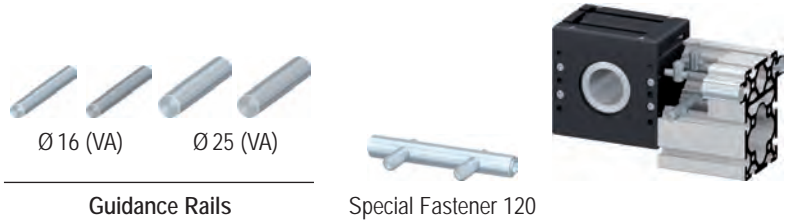
### Omega Drives



### Motor Connection Components



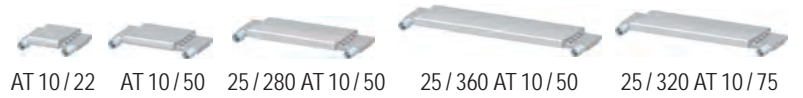
### Timing Belts



### Guidance Rails



### Rollers, Roller Axles 16



### Timing Belt Tensioners



### Rollers, Roller Axles 25

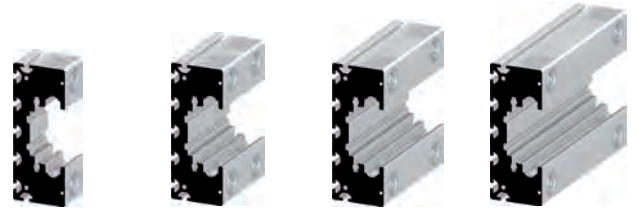


### Timing Belt Tensioners, external



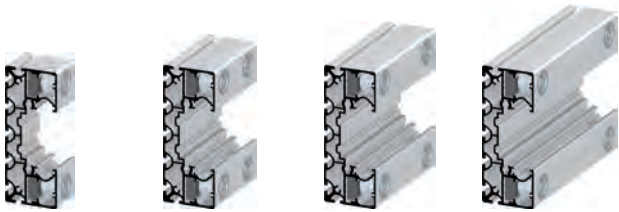
16/160/60/2/S    16/160/140/4/S    16/160/200/4/S

Carriages 16/160 with service pockets



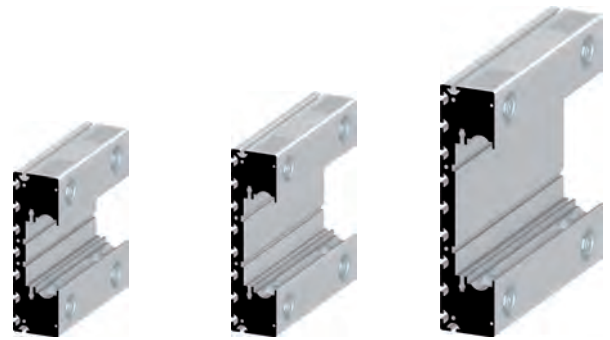
16/200/60/2/S    16/200/140/4/S    16/200/200/4/S    16/200/280/4/S

Carriages 16/200 with service pockets



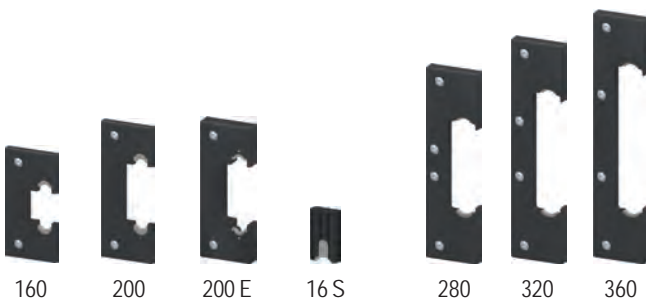
16/200/60/4 sl    16/200/140/4 sl    16/200/200/4 sl    16/200/280/4 sl

Carriages 16/200 superlight



25/280/280/4/S    25/320/320/4/S    25/360/360/4/S

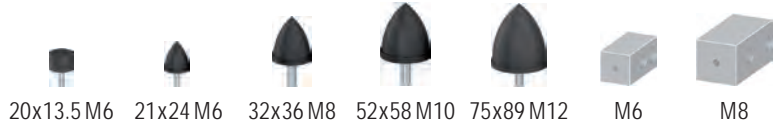
Carriages 25



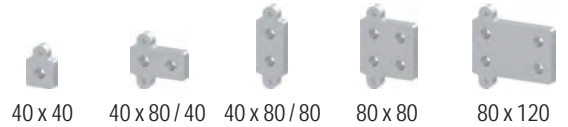
160    200    200 E    16 S    280    320    360

Wiper And Lubrication Systems





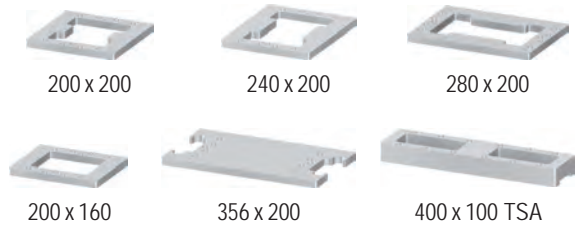
End Stops



Guidance Rail Stop Plates 16



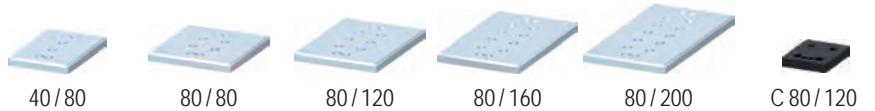
End Of Stroke Set 8



Carriage Joining Plates



Limit Switch Cam (100, 120)



Fastener Attachment Plates



Adapter Plates for Pulley Assembly 40 / 40



Clamp Elements



Linear Flange Plates



Guidance Rails



C 40/57



C 40/100

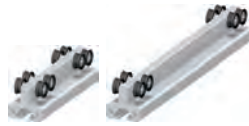


C 80/100



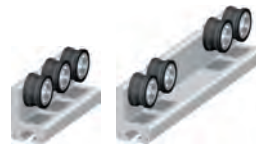
140/8 280/8

Double Carriages  
C 30/43



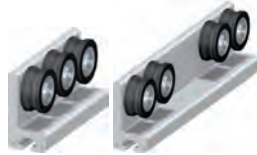
140/8 280/8

Double Carriages  
C 40/57



140/3 280/4

Single Carriages C 40/100



140/3 280/4

Single Carriages C 80/100



140/6 280/8

Double Carriages C 80/100



Omega Drive C-Type AT 5/16

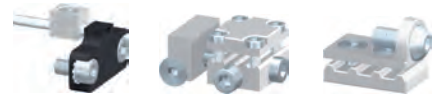
C-Pulley Assemblies



C 30/43 C 40/57 C 40/100 C 80/100 (straight)

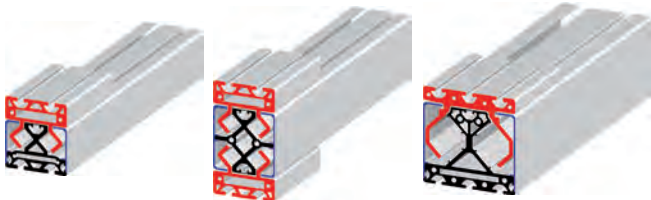


Roller Axles

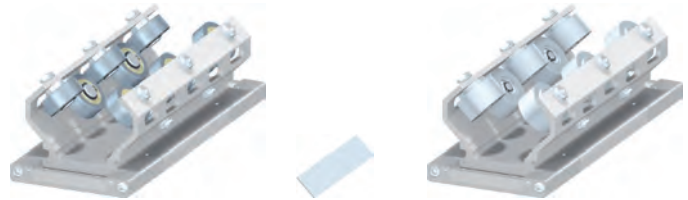


C 40/57 C 40/100 C 80/100

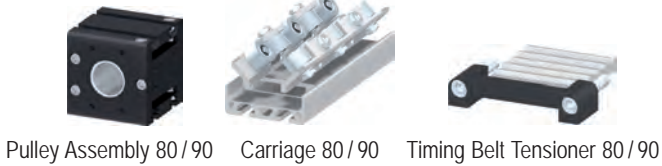
C-Rollers



C-Timing Belt Tensioners



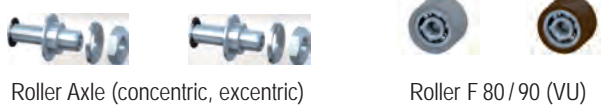
Carriage 120, steel rollers Steel Strap Carriage 120, plastic rollers



Pulley Assembly 80/90 Carriage 80/90 Timing Belt Tensioner 80/90



Roller 100/120 steel Timing Belt Tensioner 120 45° Roller 100/120



Roller Axle (concentric, excentric) Roller F 80/90 (VU)



Roller Axle 100/120 steel (concentric, excentric) Roller Axle 100/120 (concentric, excentric)

Linear Actuator 80/90 Components

Linear Actuator 120/120 Components

## Pulley Assembly

Part No	Description	Weight
SL0640S	Pulley Assembly 20/20	0.2 kg

40

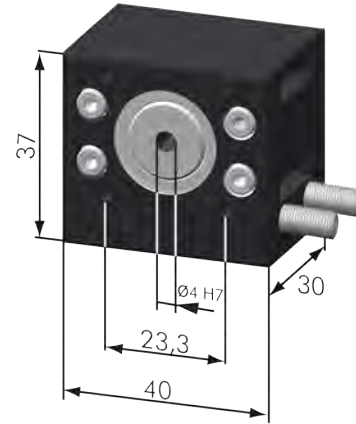
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized  
covers: aluminum, black anodized

### Technical Data:

- timing belt AT 3 / 10: maximum loading MD = 3 Nm
- timing belt pulley: steel, tooth pitch AT 3  
    Ne of teeth 20
- pitch circle diameter: 19.1 mm
- bearing type: 61802 - 2RSR
- max. bore for motor with keyway:  $\varnothing 8 H7$
- drive shaft connection:  $\varnothing 4 H7$ , max.  $\varnothing 10 H7$
- timing belt length  $180^\circ$ : 70 mm

Connected to profile with 2 Screws M5 x M5. Motor connection via flange plates to customer request.



SL0700S

## Pulley Assembly

Part No	Description	Weight
SL0700S	Pulley Assembly 40/40	0.95 kg

40

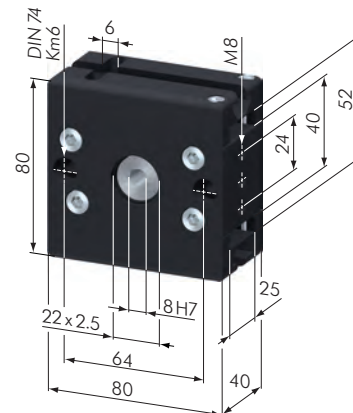
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized  
covers: aluminum, black anodized

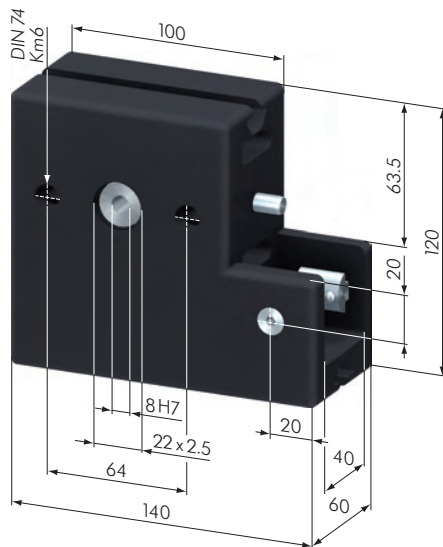
### Technical Data:

- timing belt AT 10 / 22: maximum loading MD = 20 Nm
- timing belt pulley: steel, tooth pitch AT 10  
    Ne of teeth 15
- pitch circle diameter: 47.75 mm
- bearing type: 61805-2RS
- max. bore for motor with keyway:  $\varnothing 14 H7$
- drive shaft connection:  $\varnothing 8 H7$ , max.  $\varnothing 15 H7$
- timing belt length  $180^\circ$ : 155.0 mm
- timing belt length  $90^\circ$ : 117.5 mm

Connected to profile via one central fastener 40 G (SV1071V) or one adapter plate. Motor connection via flange plates to customer request.



SL0700S



SL0720S



## Pulley Assembly

Part N°	Description	Weight
SL0720S	Pulley Assembly 40 / 40 heavy duty	

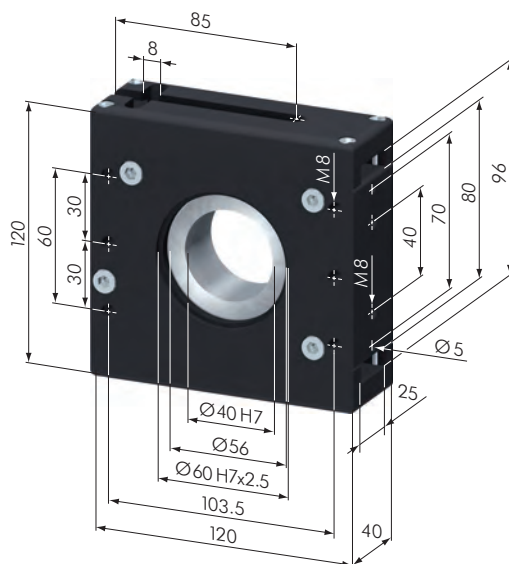
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: steel, black  
cover: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 22: maximum loading MD = 20 Nm
- timing belt pulley: steel, tooth pitch AT 10  
No of teeth 15
- pitch circle diameter: 47.75 mm
- bearing type: 61805-2RS
- max. bore for motor with keyway: Ø 14 H7
- drive shaft connection: Ø 8 H7, max. Ø 15 H7
- timing belt length 180°: 175.0 mm

Connected to profile via two t-nuts and doweling.  
Motor connection via flange plates per customer request.



SL0690S



## Pulley Assembly

Part N°	Description	Weight
SL0690S	Pulley Assembly 40 / 80	1.94 kg

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: steel, black  
cover: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 22: maximum loading MD = 70 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
No of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (standard)
- bearing type: 61811-2RS
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7
- timing belt length 180°: 260.0 mm
- timing belt length 90°: 190.0 mm

Connected to profile via two central fasteners 40 G (SV1071V).  
Motor connection via flange plates per customer request.

## Pulley Assembly

Part N <sup>o</sup>	Description	Weight
SL0680S	Pulley Assembly 80 / 80	2.27 kg

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

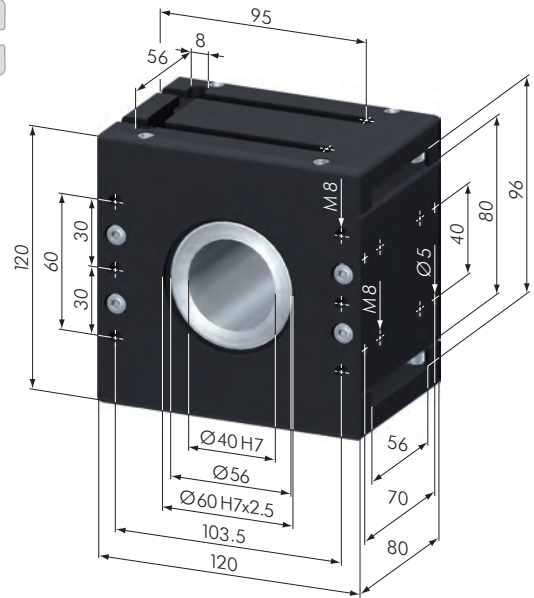
**Material:** casing und cover: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 50: maximum loading MD = 100 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
Ne of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter:  $\varnothing 40$  H7 (Standard)
- bearing type: 61811-2RS
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway:  $\varnothing 30$ H7
- max. bore for motor with taper lock coupling:  $\varnothing 34$ H7
- timing belt length 180°: 260.0 mm
- timing belt length 90°: 190.0 mm

Connected to profile via four central fasteners 40 G (SV1071V).

Motor connection via flange plates per customer request.



SL0680S

## Pulley Assembly

Part N <sup>o</sup>	Description	Weight
SL0682S	Pulley Assembly 80 / 100	2.73 kg

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators. This guide has larger bearings to absorb greater lateral forces.

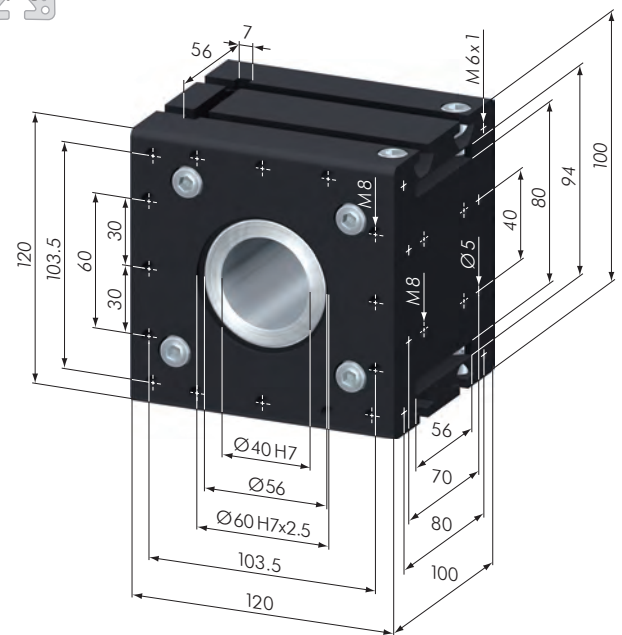
**Material:** casing: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 50: maximum loading MD = 120 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
Ne of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter:  $\varnothing 40$  H7 (standard)
- bearing type: 6011-2Z
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway:  $\varnothing 30$ H7
- max. bore for motor with taper lock coupling:  $\varnothing 34$ H7
- timing belt length 180°: 260.0 mm
- timing belt length 90°: 190.0 mm

Connected to profile via four central fasteners 40 G (SV1071V).

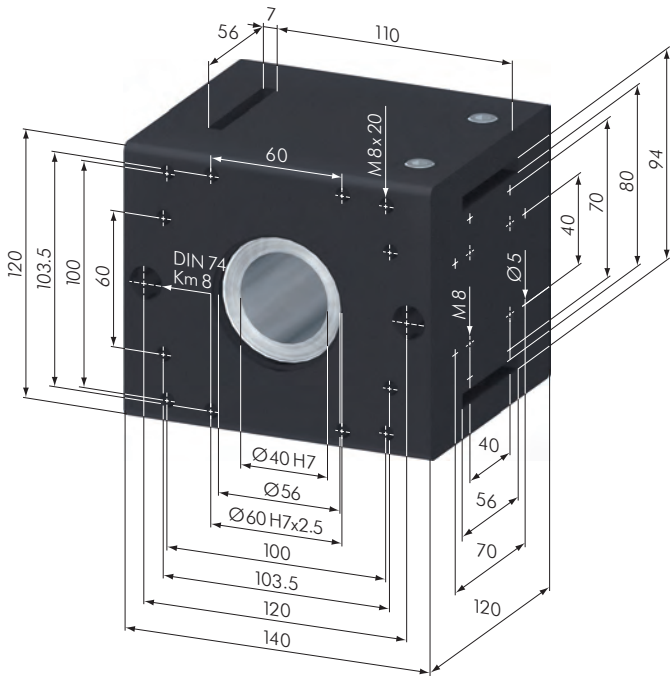
Motor connection via flange plates per customer request.



SL0682S

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Pulley Assembly		
Part N°	Description	Weight
SL0684S	Pulley Assembly 80 / 120	3.35 kg



SL0684S

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators. This guide has larger bearings to absorb greater lateral forces.

**Material:** casing: aluminum, black anodized

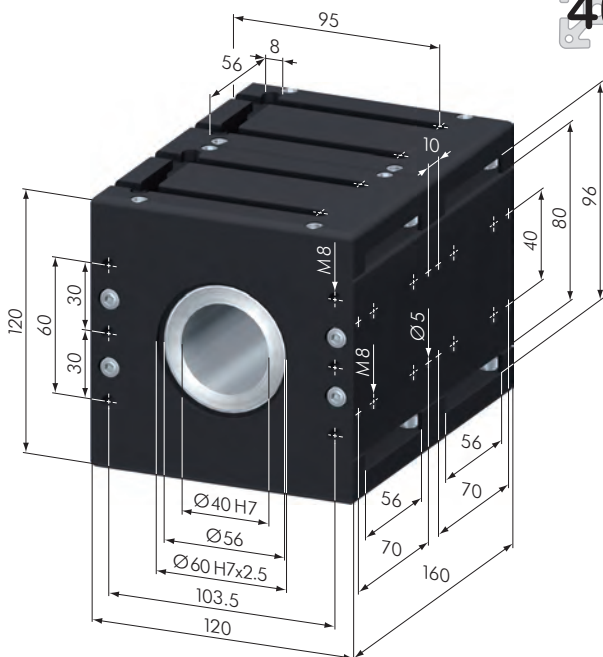
**Technical Data:**

- timing belt AT 10 / 50: maximum loading MD = 140 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
    No of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- bearing type: 62211-2RS
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7
- timing belt length 180°: 280.0 mm
- timing belt length 90°: 200.0 mm

Connected to profile via four central fasteners 40 G (SV1071V).  
Motor connection via flange plates per customer request.

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Pulley Assembly		
Part N°	Description	Weight
SL0686S	Pulley Assembly 80 / 160	4.54 kg



SL0686S

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

**Technical Data:**

- 2x timing belt AT 10 / 50 side by side: maximum loading MD = 200 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
    No of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- bearing type: 61811-2RS
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7
- timing belt length 180°: 260.0 mm
- timing belt length 90°: 190.0 mm

Connected to profile via eight central fasteners 40 G (SV1071V).  
Motor connection via flange plates per customer request.



## Pulley Assembly

Part N°	Description	Weight
SL0710S	Pulley Assembly 120 / 120 - 50	



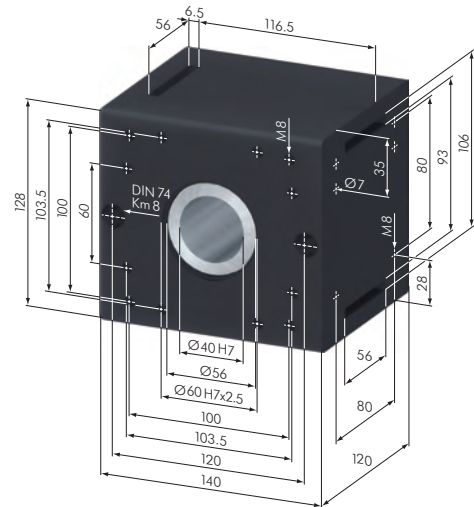
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

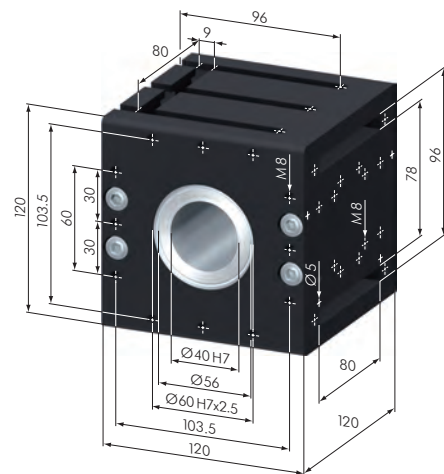
### Technical Data:

- timing belt AT 10 / 50: maximum loading MD = 120 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
Ne of teeth 32
- pitch circle diameter: 101.86 mm
- max. bore diameter: Ø 40 H7 (Standard)
- bearing type: 62211-2RS
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7
- timing belt length 180°: 300.0 mm
- timing belt length 90°: 214.0 mm

Connected to profile via four central fasteners 40 G (SV1071V).  
Motor connection via flange plates per customer request.



SL0710S



SL0688S

## Pulley Assembly

Part N°	Description	Weight
SL0688S	Pulley Assembly 120 / 120 - 75	3.82 kg



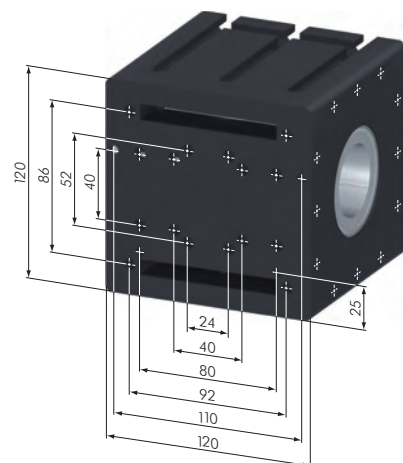
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

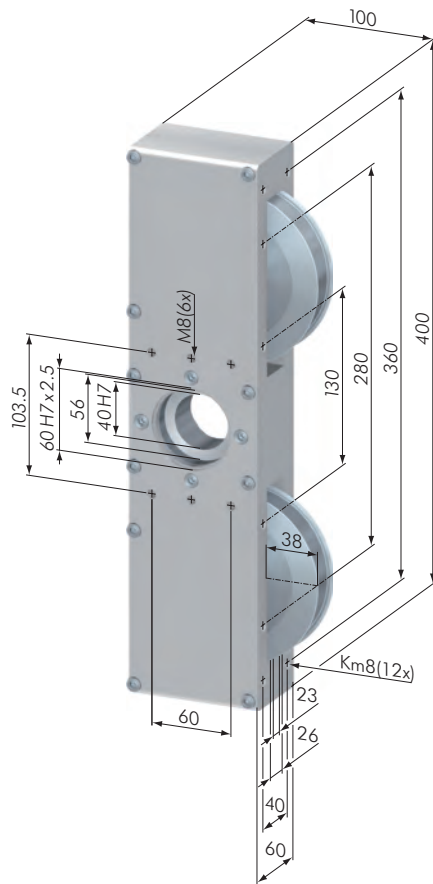
**Material:** casing: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 75: maximum loading MD = 120 Nm
- timing belt pulley: aluminum, Ne of teeth AT 10  
Ne of teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- bearing type: 6011-2Z
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7
- timing belt length 180°: 260.0 mm
- timing belt length 90°: 190.0 mm

Connected to profile via four central fasteners 40 G (SV1071V).  
Motor connection via flange plates per customer request.





SL0600N



Omega Drive		
Part No	Description	Weight
SL0600N	Omega Drive AT 10 / 22	5.94 kg

**Application:** This pulley assembly is used in conjunction with Paletti linear guidance components.

**Material:** casing: aluminum, natural anodized

**Technical Data:**

- timing belt AT 10 / 22: maximum loading MD = 70 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
 No of Teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7



SL0602N



Omega Drive		
Part No	Description	Weight
SL0602N	Omega Drive 22, Carriage	15.5 kg

**Application:** This pulley assembly is used in conjunction with *Paletti* linear guidance components. Mated with carriage 16 / 160 / 400 / 4.

**Material:** casing: aluminum, natural anodized

Omega Drive		
Part No	Description	Weight
SL0610N	Omega Drive AT 10/50	9.5 kg

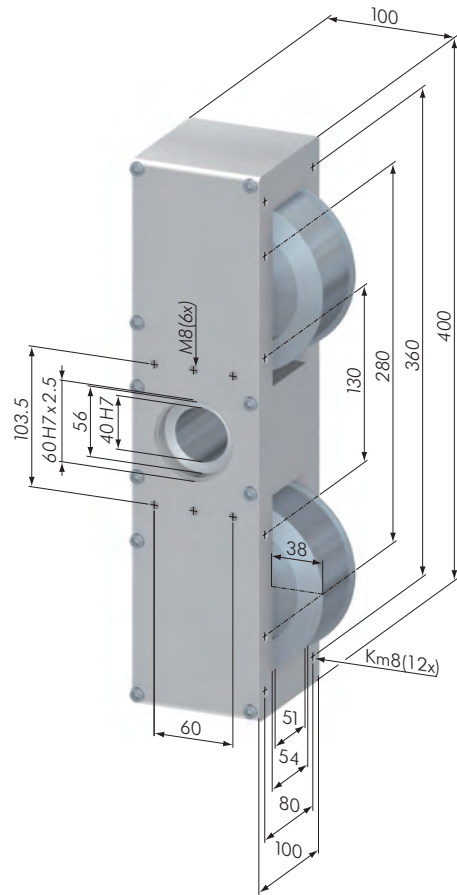


**Application:** This pulley assembly is used in conjunction with *Paletti* linear guidance components.

**Material:** casing: aluminum, natural anodized

**Technical Data:**

- timing belt AT 10/50: maximum loading MD = 100 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
    Ne of Teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30H7
- max. bore for motor with taper lock coupling: Ø 34H7



SL0610N

Omega Drive		
Part No	Description	Weight
SL0612N	Omega Drive 50, Carriage	19.0 kg

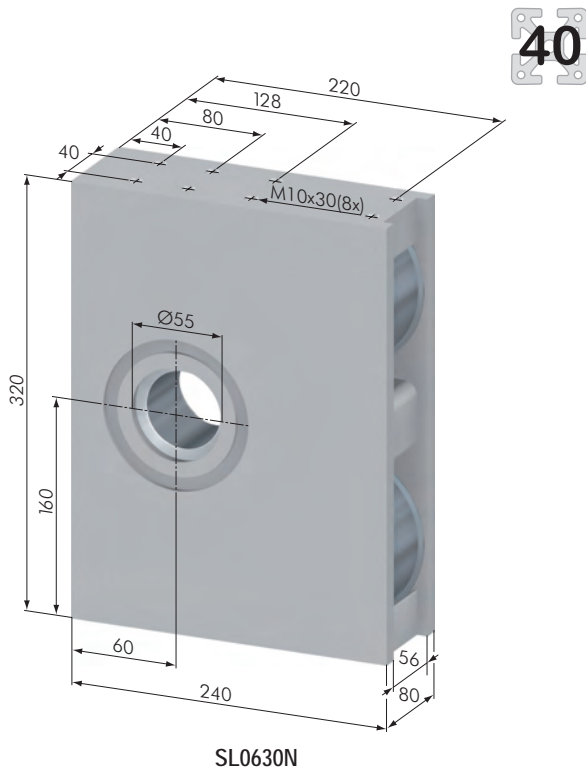


**Application:** This pulley assembly is used in conjunction with *Paletti* linear guidance components.  
Mated with carriage 16/200/400/4.

**Material:** casing: aluminum, natural anodized



SL0612N



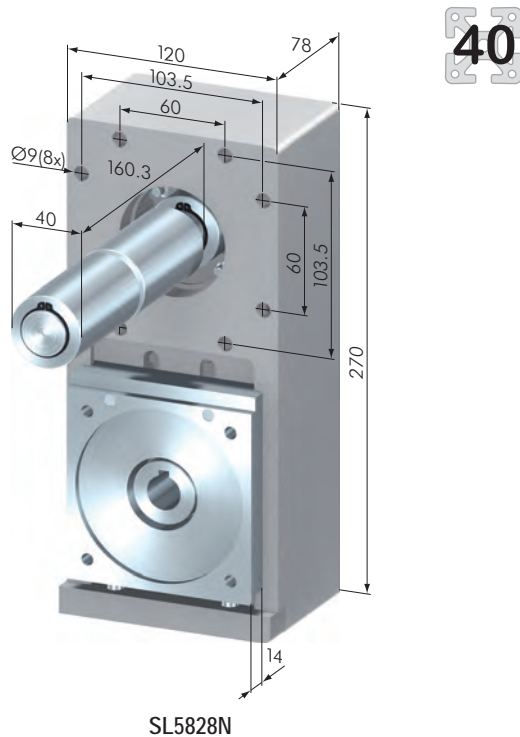
Omega Drive		
Part No	Description	Weight
SL0630N	Omega Drive 50, closed	9.5 kg

**Application:** Pulley assembly used in conjunction with *Paletti* linear guidance components.

**Material:** casing: aluminum, natural anodized

**Technical Data:**

- timing belt AT 10 / 50: maximum loading MD = 100 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
 No of Teeth 28
- pitch circle diameter: 89.13 mm
- max. bore diameter: Ø 40 H7 (Standard)
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 30 H7
- max. bore for motor with taper lock coupling: Ø 34 H7



Timing Belt Gearbox		
Part No	Description	
SL5828N	Timing Belt Gearbox AT 10 / 50	

**Application:** Attaches to the pulley assembly and allows for the linear actuator to be powered by a belt driven system, as opposed to a direct coupled motor connection.

**Material:** casing: aluminum, natural anodized

**Technical Data:** Ratio = 1 : 1  
 No of teeth 28 to 28 AT 10 / 50

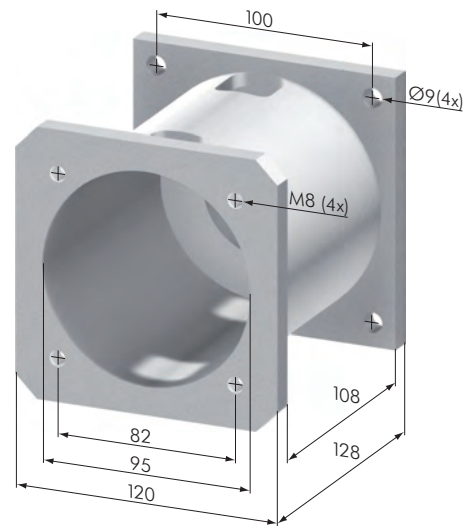
## Coupling Housing

Part No	Description	Weight
SL8100N	Coupling Housing	1.09 kg

**Application:** The coupling housing provides the support between motor and linear actuator.

Other types are available on request.

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SL8100N

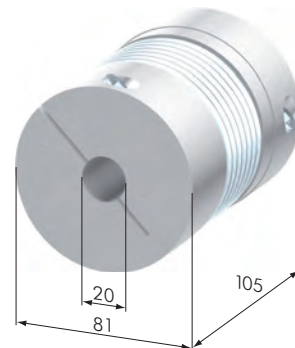
## Coupling BK 2 / 80

Part No	Description	Weight
SL8200N	Coupling BK 2 / 80	1.02 kg

**Application:** The coupling provides high torsional stiffness and smooths out misalignment between motor and linear actuator.

Other types are available on request.

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SL8200N

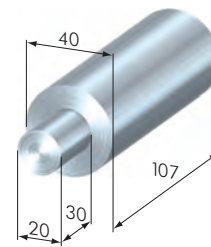
## Step Shaft Ø 40 to Ø 20

Part No	Description	Weight
SL8250N	Step Shaft Ø 40 to Ø 20	1.12 kg

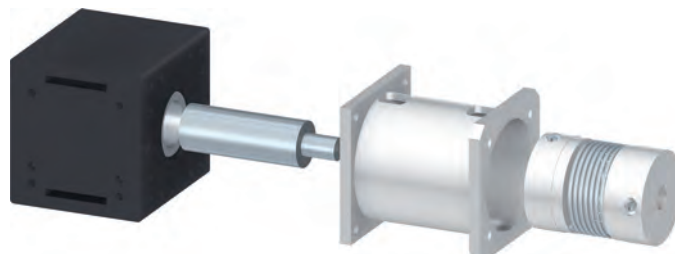
**Application:** The step shaft couples the pulley assembly with a coupling.

Other types are available on request.

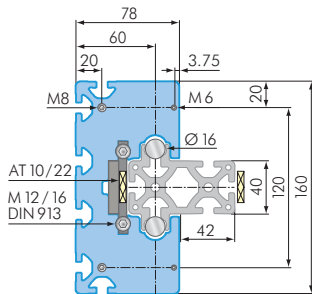
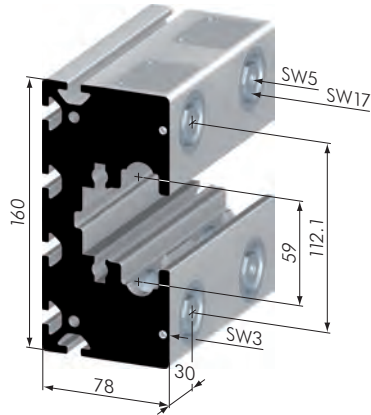
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SL8250N



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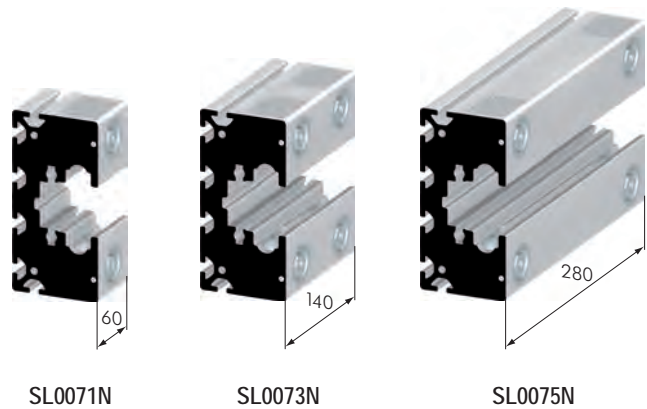
Carriage 16 / 160		
Part No	Description	Weight
SL0071N	Carriage 16/160/60/2/S	1.38 kg
SL0073N	Carriage 16/160/140/4/S	3.33 kg
SL0075N	Carriage 16/160/280/4/S	6.40 kg

**Application:** For free running, high-load linear guidance systems.  
 On request, the carriage is also available in different lengths and with varying numbers of rollers. Operate only with a wiper and lubrication system. Optional service pockets for easier maintenance.

**Material:** aluminum, natural anodized

**Technical Data:**

- loadings:
  - dyn. 12500 N per roller in radial direction
  - stat. 6900 N per roller in radial direction
  - stat. 1300 N per roller in axial direction
- operational speed: 8 m/s
- excentric adjustment: ± 0.9 mm
- minimum stroke length: 60 mm



SL0071N

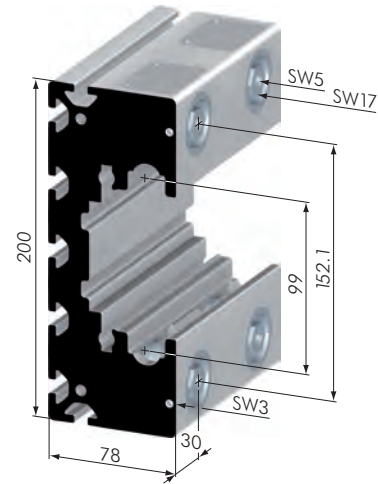
SL0073N

SL0075N

## Carriage 16/200

Part No	Description	Weight
SL0081N	Carriage 16/200/60/2/S	1.52 kg
SL0083N	Carriage 16/200/140/4/S	3.64 kg
SL0087N	Carriage 16/200/200/4/S	5.10 kg
SL0085N	Carriage 16/200/280/4/S	7.10 kg

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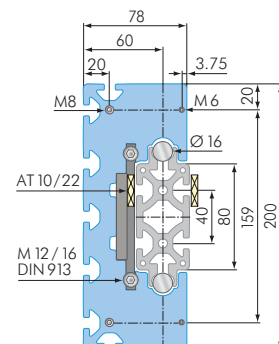
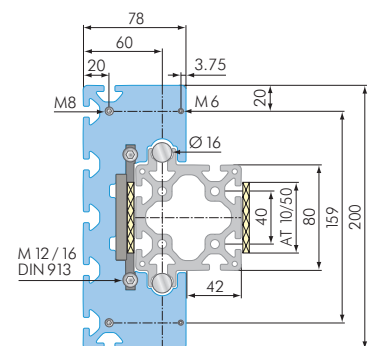
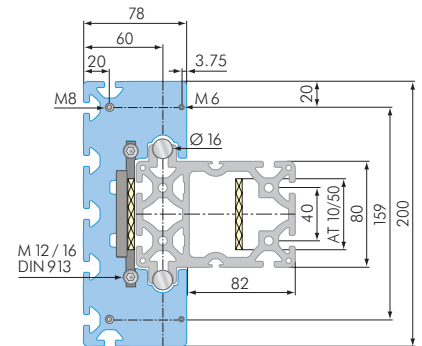
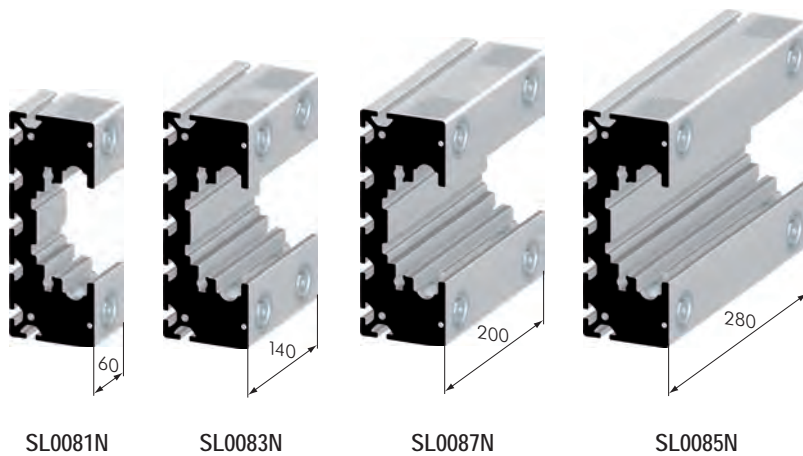


**Application:** For free running, high-load linear guidance systems.  
On request, the carriage is also available in different lengths and with varying numbers of rollers. Operate only with a wiper and lubrication system. Optional service pockets for easier maintenance.

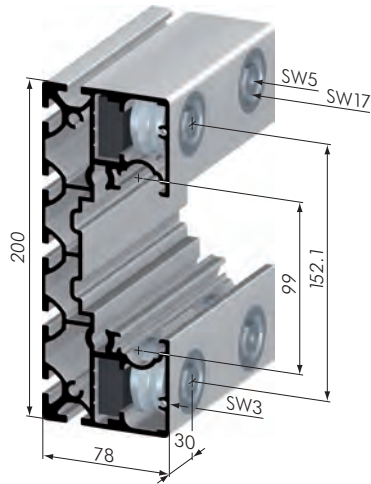
**Material:** aluminum, natural anodized

### Technical Data:

- loadings: dyn. 12500 N per roller in radial direction  
stat. 6900 N per roller in radial direction  
stat. 1300 N per roller in axial direction
- operational speed: 8 m/s
- eccentric adjustment:  $\pm 0.9$  mm
- minimum stroke length: 60 mm



**40**



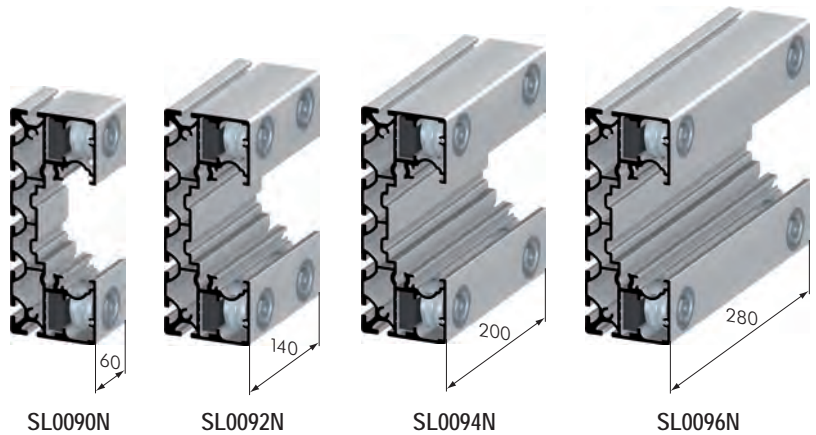
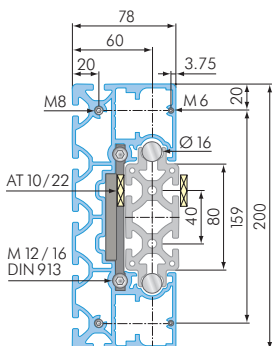
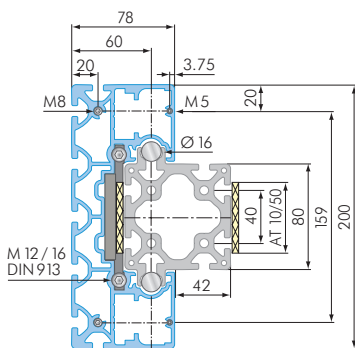
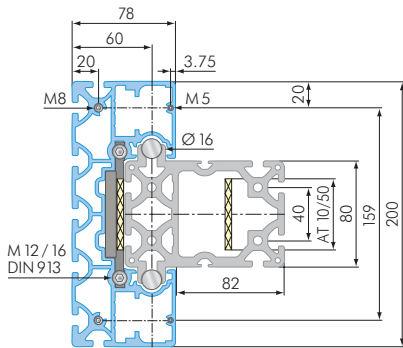
Carriage 16/200 sl		
Part No	Description	Weight
SL0090N	Carriage 16/200/60/2 sl	0.51 kg
SL0092N	Carriage 16/200/140/2 sl	1.21 kg
SL0094N	Carriage 16/200/200/4 sl	1.75 kg
SL0096N	Carriage 16/200/280/4 sl	2.49 kg

**Application:** For free running, high-load linear guidance systems.  
 On request, the carriage is also available in different lengths and with varying numbers of rollers.  
 Operate only with a wiper and lubrication system.

**Material:** aluminum, natural anodized

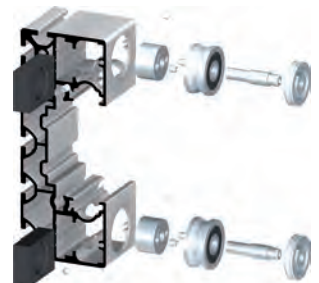
**Technical Data:**

- loadings: dyn. 12500 N per roller in radial direction  
 stat. 6900 N per roller in radial direction  
 stat. 1300 N per roller in axial direction
- operational speed: 8 m/s
- excentric adjustment: ± 0.9 mm
- minimum stroke length: 60 mm



**Special Features of Carriage 16/200 superlight:**

The rollers are fixed into position by a steel plate and reducer bushing, as shown in the illustration to the right. The bushing is held in position by two grub screws and the roller is then assembled with the bearing axle.





Carriage 25		
	Description	Weight
SL0050N	Carriage 25 / 280 / 280 / 2 / S	19.0 kg
SL0051N	Carriage 25 / 320 / 320 / 2 / S	21.0 kg
SL0053N	Carriage 25 / 360 / 360 / 4 / S	23.0 kg

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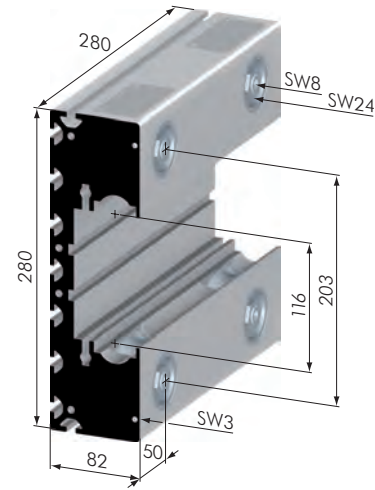
**Application:** For free running, high-load linear guidance systems.  
On request, the carriage is also available in different lengths and with varying numbers of rollers.  
Operate only with a wiper and lubrication system.

**Material:** aluminum, natural anodized

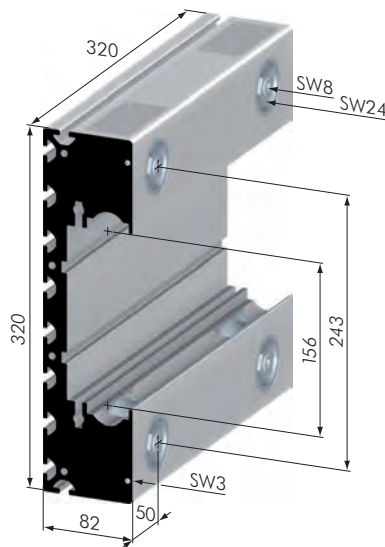
**Technical Data:**

- loadings: dyn. 29200 N per roller in radial direction  
stat. 16400 N per roller in radial direction  
stat. 12250 N per roller in axial direction

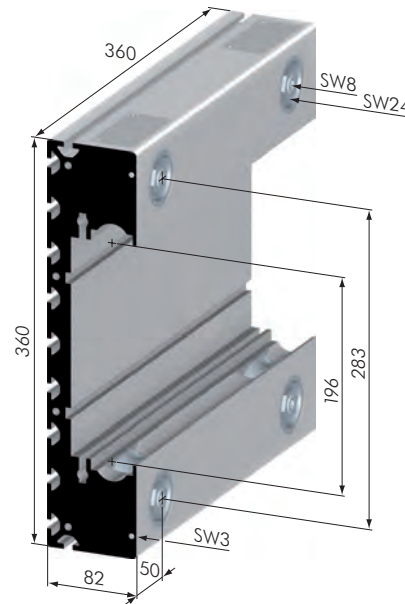
- operational speed: 8 m/s
- excentric adjustment: ± 0.9 mm
- minimum stroke length: 280 mm



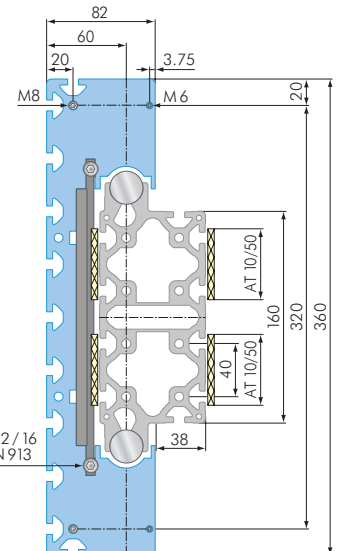
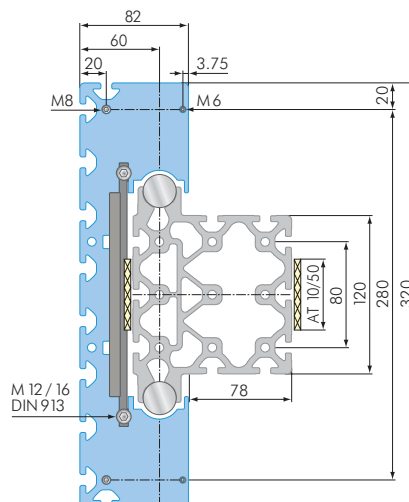
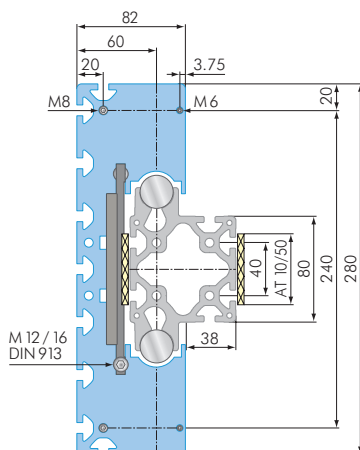
SL0050N



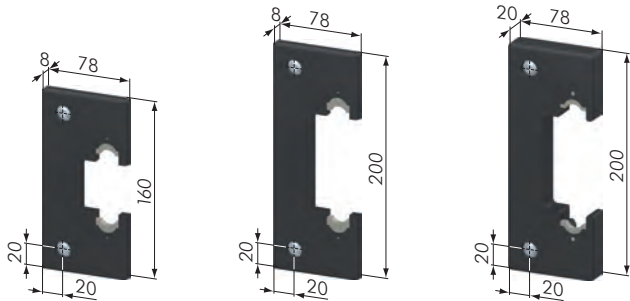
SL0051N



SL0053N



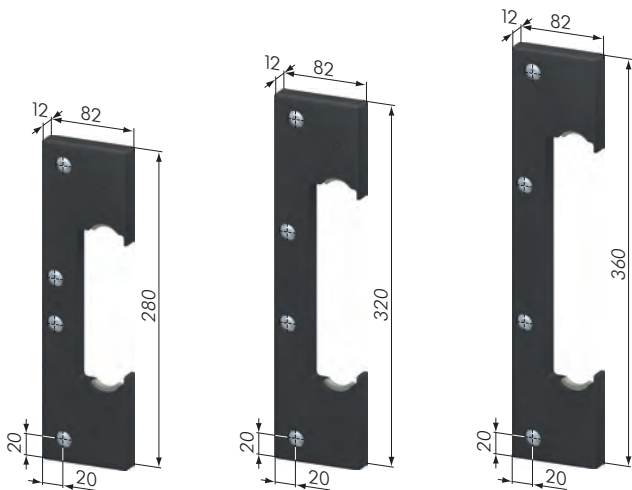
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Wiper And Lubrication Systems		
Part N <sup>o</sup>	Description	Weight
SL0162S	Wiper and lubrication system 160	111 g
SL0164S	Wiper and lubrication system 200	131 g
SL0165S	Wiper and lubrication system 200 E	385 g
SL0166S	Wiper and lubrication system 16 S	13 g
SL0167S	Wiper and lubrication system 280	
SL0168S	Wiper and lubrication system 320	268 g
SL0169S	Wiper and lubrication system 360	

**Application:** SL0165S: End cover with felt lubrication pad for linear actuators. Two pairs are required for each carriage.

**Material:** aluminum, black anodized



**Application:** SL0166S: Wiper and lubrication system for long carriages. The system is situated in a pocket of the carriage to protect the center rollers.

**Material:** PA 6, black

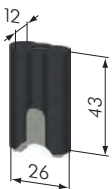
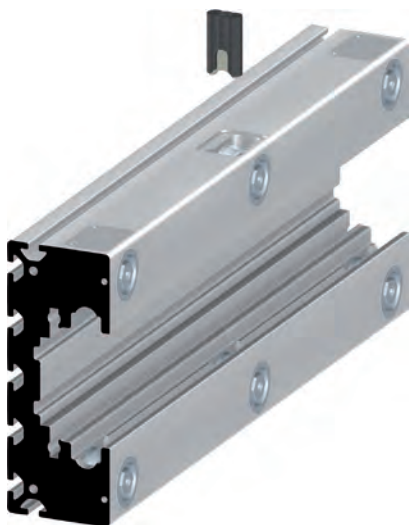
**Supply:** • 2x/4x cap head screw M 8 x 10 or M 8 x 16, DIN 7380, zinc-plated

**Accessories:** • lubrication lub MK5900020 for SL0162S, SL0164S and SL0165S  
 • lubrication lub MK5900022 for SL0166S  
 • lubrication lub MK5900024 for SL0167S, SL0168S and SL0169S  
 • shaft oil SZ6003V

SL0167S

SL0168S

SL0169S



SL0166S

## Timing Belt Tensioners

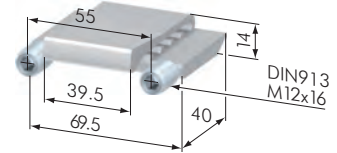
Part No	Description	Weight
SL0174N	Timing Belt Tensioner AT 10/22	125 g
SL0175N	Timing Belt Tensioner AT 10/50	250 g
SL0230N	Timing Belt Tensioner 25/280 AT 10/50	
SL0232N	Timing Belt Tensioner 25/360 AT 10/50	
SL0234N	Timing Belt Tensioner 25/320 AT 10/75	350 g

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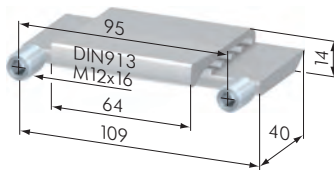
**Application:** Standard timing belt tensioner for timing belts AT 10/22 (for carriages 160), AT 10/50 (for carriages 200, 280, 360) and AT 10/75 (for carriages ... / 320).

**Material:** aluminum, natural anodized

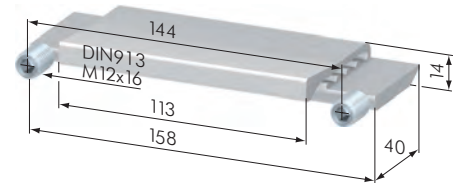
**Supply:** • 2x grub screw M 12 x 16, DIN 913



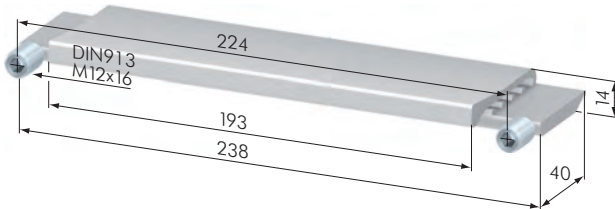
SL0174N



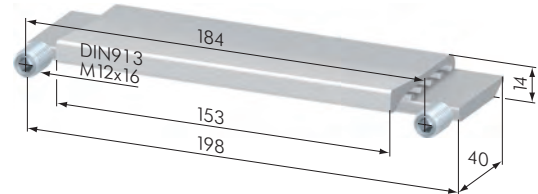
SL0175N



SL0230N



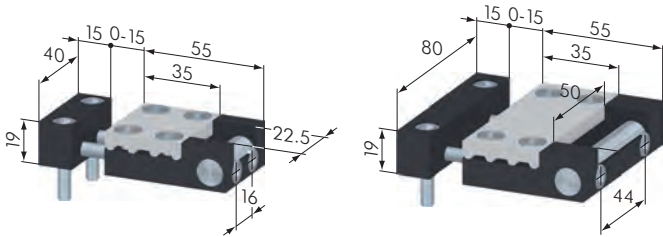
SL0232N



SL0234N

**G** Linear Motion System Asseccories  
**20** Timing Belt Tensioners, external

40



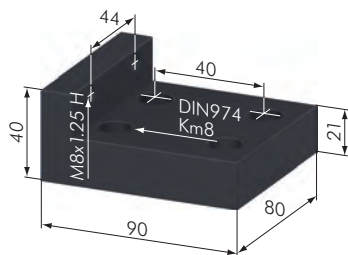
Timing Belt Tensioners, external		
Part N°	Description	Weight
SL0190S	Timing Belt Tensioner 22, external	293 g
SL0191S	Timing Belt Tensioner 50, external	603 g

**Application:** For external tensioning of timing belts.

**Material:** steel, black

**Supply:** Complete as illustrated for the timing belt AT 10/22 and AT 10/50.

40



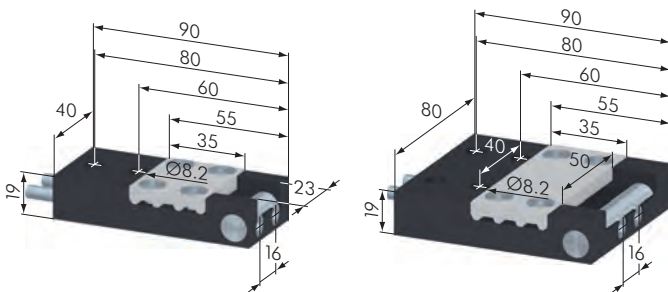
SL0209S

Tensioning Plate Telescope Axis		
Part N°	Description	Weight
SL0209S	Tensioning Plate Telescope Axis	

**Application:** For tensioning of timing belt AT 10/50 via timing belt tensioner 50 external at the end of the profile.

**Material:** steel, black

40



SL0198S

SL0199S

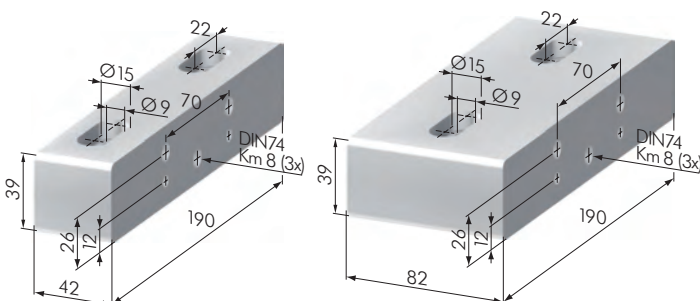
Timing Belt Tensioner, external ZB		
Part N°	Description	Weight
SL0198S	Timing Belt Tensioner 22, external ZB	285 g
SL0199S	Timing Belt Tensioner 50, external ZB	771 g

**Application:** For external tensioning of timing belts.

**Material:** steel, black

**Supply:** Complete as illustrated for the timing belt AT 10/22 and AT 10/50.

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Fixing Blocks		
Part N°	Description	Weight
SL0195N	Fixing Block 22	785 g
SL0196N	Fixing Block 50	1546 g

**Application:** For attaching external tensioners to the carriage.

**Material:** aluminum, natural anodized

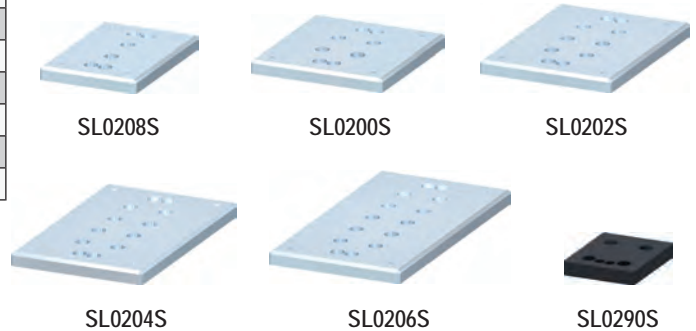
**Supply:** No screws, fixing block only.

## Attachment Plates Tensioner

Part No	Description	Weight
SL0208S	Attachment Plate Tensioner 40 / 80	1.85 kg
SL0200S	Attachment Plate Tensioner 80 / 80	2.63 kg
SL0202S	Attachment Plate Tensioner 80 / 120	3.35 kg
SL0204S	Attachment Plate Tensioner 80 / 160	4.02 kg
SL0206S	Attachment Plate Tensioner 80 / 200	4.70 kg
SL0290S	Attachment Plate Tensioner C 80 / 100	

**Application:** For attaching of the external tensioners 22 ZB and 50 ZB respectively to the end of the track profile.

**Material:** steel, zinc-plated

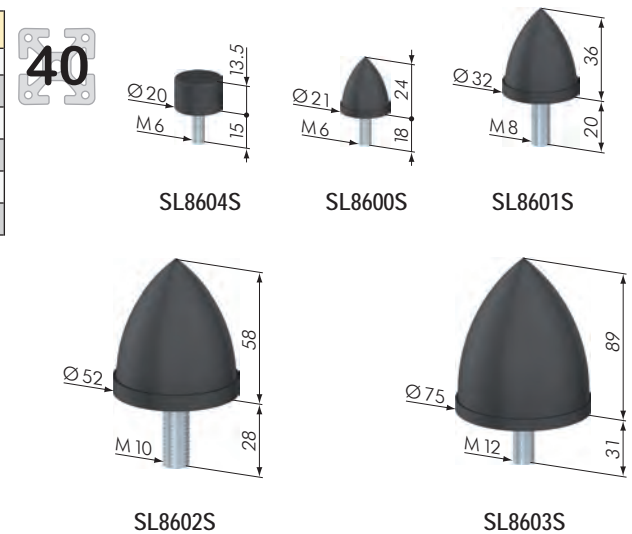


## End Stops

Part No	Description	Weight
SL8604S	End Stop 20 / 13.5 M 6	
SL8600S	End Stop 21 / 24 M 6	11 g
SL8601S	End Stop 32 / 36 M 8	34 g
SL8602S	End Stop 52 / 58 M 10	109 g
SL8603S	End Stop 75 / 89 M 12	331 g

**Application:** For absorbing impact at the end of stroke positions.

**Material:** rubber, black

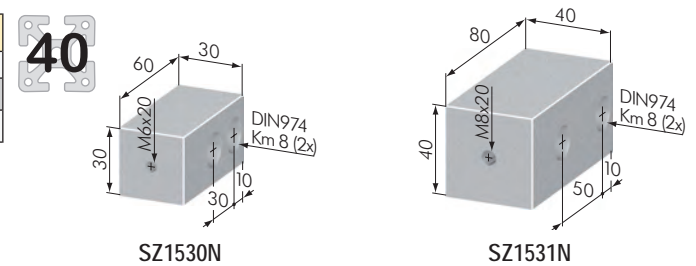


## Fixing Blocks For End Stops

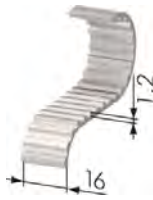
Part No	Description	Weight
SZ1530N	Fixing Block For End Stops M 6	132 g
SZ1531N	Fixing Block For End Stops M 8	331 g

**Application:** For attaching end stops.

**Material:** aluminum, natural anodized



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SL8500



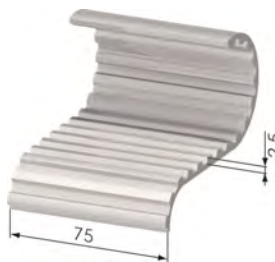
SL8560

Timing Belts		
Part N <sup>o</sup>	Description	Weight
SL8550	Timing Belt AT 3/10	22 <sup>g</sup> /m
SL8560	Timing Belt AT 5/16	57 <sup>g</sup> /m
SL8500	Timing Belt AT 10/22	250 <sup>g</sup> /m
SL8510	Timing Belt AT 10/50	308 <sup>g</sup> /m
SL8520	Timing Belt AT 10/75	563 <sup>g</sup> /m

- Application:**
- AT 3/10 for pulley assembly C-40/57
  - AT 5/16 for pulley assembly C-40/100
  - AT 10/22 for pulley assemblies 40/40, 40/80, C-80/100
  - AT 10/50 for pulley assemblies 80/80, 80/100, 80/120, 120/120 – 50
  - AT 10/75 for pulley assembly 120/120 – 75

**Material:** abrasion resistant polyurethane with steel cording

**Technical Data:** operating temperature max. 80° C (176° F)



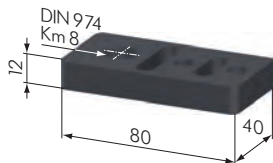
SL8520



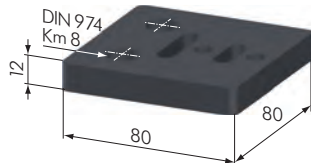
SL8510

Timing Belt	Tensile Strength	Elongation
AT 3/10	410 N	0.1% with 102 N
AT 5/16	1260 N	0.1% with 315 N
AT 10/22	3200 N	0.1% with 800 N
AT 10/50	8050 N	0.1% with 2012 N
AT 10/75	12220 N	0.1% with 3055 N

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SL0250S

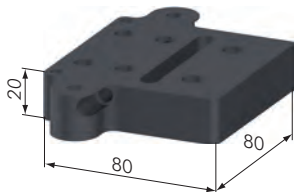


SL0255S

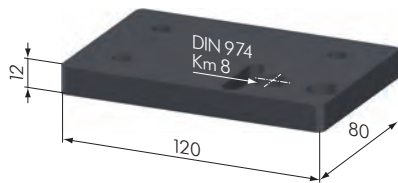
Adapter Plates		
Part N <sup>o</sup>	Description	Weight
SL0250S	Adapter Plate 40 x 80	75 g
SL0255S	Adapter Plate 80 x 80	176 g
SL0257S	Adapter Plate U 80 x 90	
SL0260S	Adapter Plate 80 x 120	

**Application:** To connect pulley assemblies 40 x 40 to the corresponding track profiles.

**Material:** aluminum, black anodized



SL0257S



SL0260S

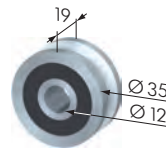
## Rollers, Roller Axles 16

Part No	Description	Weight
SL0155G	Roller 16	125 g
SL0155N	Roller 16, corrosion-resistant	125 g
SL0152S	Roller Axle 16, concentric	78 g
SL0153S	Roller Axle 16, excentric	77 g

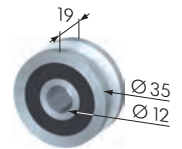
**Application:** For free running linear actuator systems in conjunction with a guidance rail  $\varnothing 16$ .

**Material:**  
 SL0155G: steel, hardened and ground  
 SL0155N: stainless-steel, corrosion-resistant  
 SL0152S: stainless-steel  
 SL0153S: stainless-steel

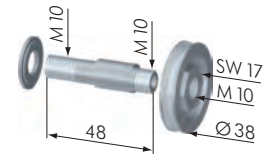
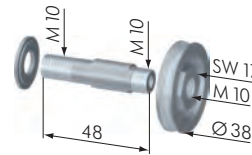
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SL0155G



SL0155N



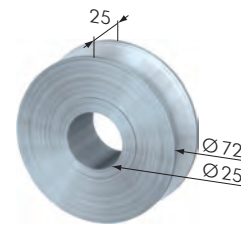
## Rollers, Roller Axles 25

Part No	Description	Weight
SL0157G	Roller 25	409 g
SL0154Z	Roller Axle 25, concentric	284 g
SL0154E	Roller Axle 25, excentric	284 g

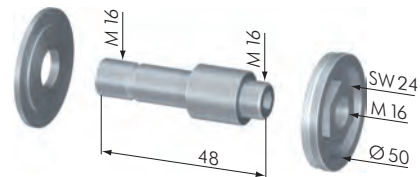
**Application:** For free running linear actuator systems in conjunction with a guidance rail  $\varnothing 25$ .

**Material:**  
 SL0157G: steel, hardened and ground  
 SL0154Z: stainless-steel  
 SL0154E: stainless-steel

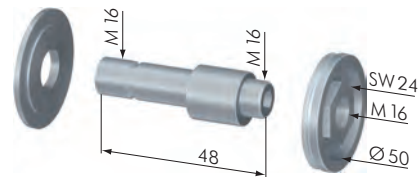
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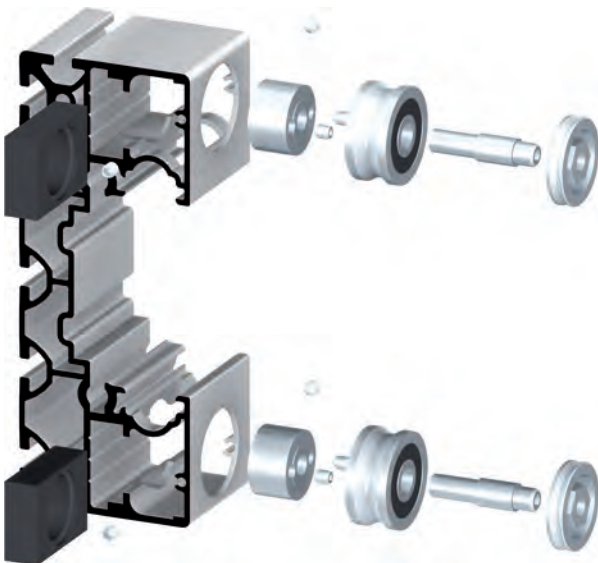
SL0157G



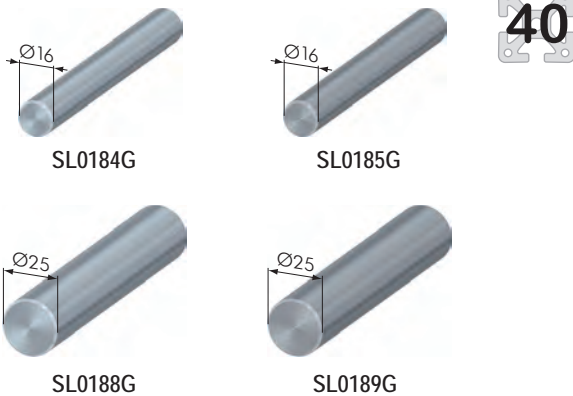
SL0154Z



SL0154E



**G** Linear Motion System Asseccories  
**24** Guidance Rails, Rail Stop Plates

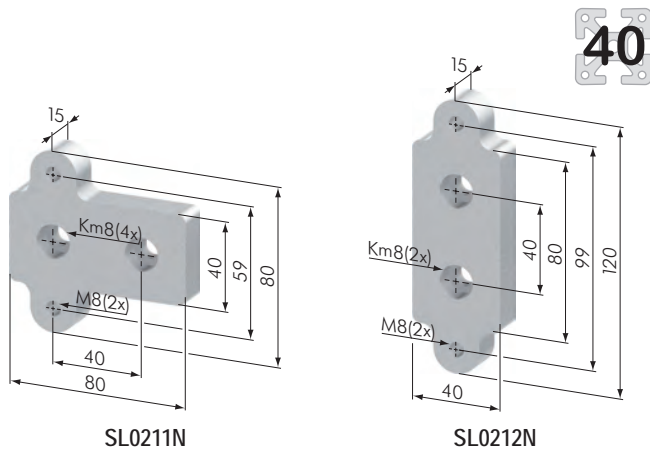


Guidance Rails		
Part N°	Description	Weight
SL0184G	Ø 16 mm	1.58 kg / m
SL0184G3000	Ø 16 mm, L = 3000 mm	4.74 kg
SL0185G	Ø 16 mm, corrosion-resistant	1.58 kg / m
SL0185G3000	Ø 16 mm, SS, L = 3000 mm	4.75 kg
SL0188G	Ø 25 mm	3.85 kg / m
SL0188G3000	Ø 25 mm, L = 3000 mm	11.55 kg
SL0189G	Ø 25 mm, corrosion-resistant	3.86 kg / m
SL0189G3000	Ø 25 mm, L = 3000 mm, corr.-res.	11.57 kg
SB1500	Doweling Of Guidance Rail	

**Application:** Guidance rail for rollers Ø 16 and Ø 25.

**Material:** guidance rail Ø 16 h6 / Ø 25 h6:  
steel, hardened and ground

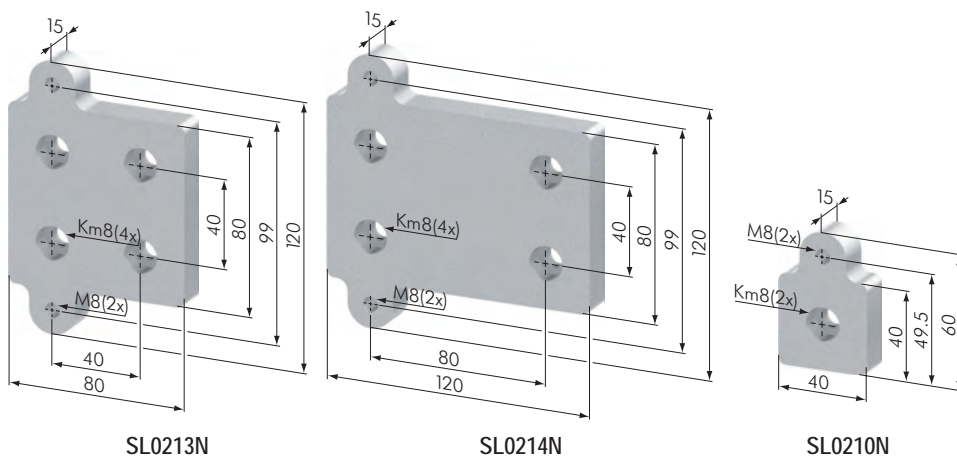
**Technical Data:** min. hardness depth: 1.6 mm  
 HRc: 62 ± 2 mm  
 RZ: 1.6 µm



Rail Stop Plates For Guidance Rails Ø 16		
Part N°	Description	Weight
SL0210N	Rail Stop Plate 16 40 x 40	70 g
SL0211N	Rail Stop Plate 16 40 x 80 / 40	83 g
SL0212N	Rail Stop Plate 16 40 x 80 / 40	144 g
SL0213N	Rail Stop Plate 16 80 x 80	214 g
SL0214N	Rail Stop Plate 16 80 x 120	294 g

**Application:** End fixing of guidance rail.

**Material:** aluminum, natural anodized





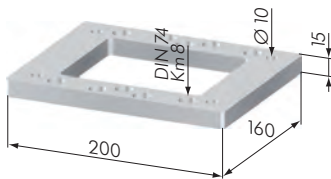
## Carriage Joining Plates

Part No	Description	Weight
SL0512N	Carriage Joining Plate 200 x 200	780 g
SL0514N	Carriage Joining Plate 240 x 200	890 g
SL0516N	Carriage Joining Plate 280 x 200	1000 g
SL0510N	Carriage Joining Plate 160 x 200	700 g
SL0502N	Carriage Joining Plate 356 x 200	2300 g

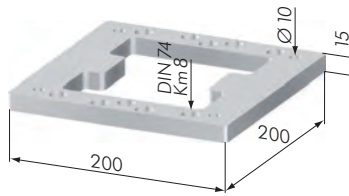


**Application:** For a strong connection of two carriages.

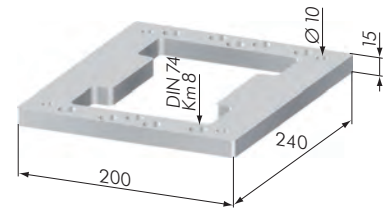
**Material:** aluminum, natural anodized



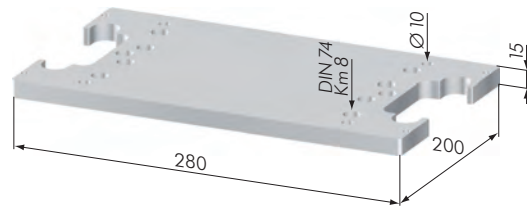
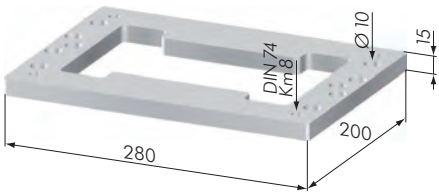
SL0510N



SL0512N



SL0514N



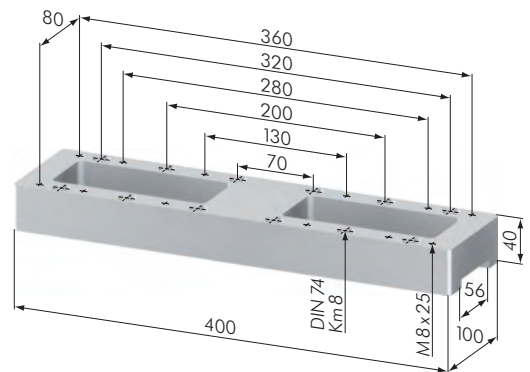
## Attachment Plate TSA

Part No	Description	Weight
SL0550N	Attachment Plate Plate 400 x 100, for TSA	



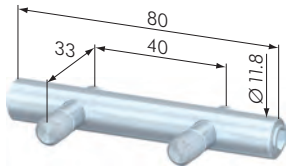
**Application:** Joining plate for Omega drive 50 for assembling of the drive unit of telescope axis SL5400N.

**Material:** aluminum, natural anodized

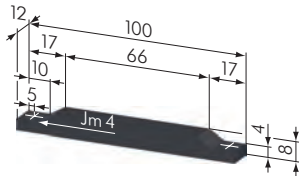
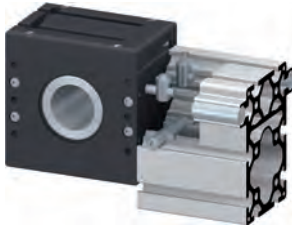


SL0550N

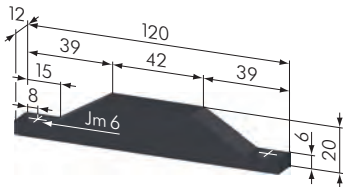
**G** Linear Motion System Asseccories  
**26** Special Fastener, Limit Switch Cams, End of Stroke Set



SV3100V



SL1500S



SL1502S



**40**

### Special Fastener 120

Part N°	Description	Weight
SV3100V	Special Fastener 120	67 g

**Application:** To affix pulley assembly only to track profile 80 x 120.

**Material:** steel, zinc-plated

**40**

### Limit Switch Cams

Part N°	Description	Weight
SL1500S	Limit Switch Cam 100	60 g
SL1502S	Limit Switch Cam 120	145 g

**Application:** Cams for mechanical limit switches.

**Material:** steel, zinc-plated; black

**40**

### End Of Stroke Set 8

Part N°	Description	Weight
SL8610V	End Of Stroke Set 8	100 g

**Application:** To absorb impact at the ends of the stroke positions. An M8 cap head screw is screwed into the underside of the carriage, the screw head protrudes into the profile groove. A PUR cord buffer is situated between the t-nuts. The outer t-nut is fixed into position. The inner t-nut moves freely in the profile t-slot. One complete set is required for each position.

**Material:** stainless-steel, rubber

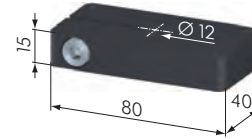
## Clamping Plates

Part No	Description	Weight
SL0222S	Clamping Plate 40 x 80	322 g
SL0227S	Clamping Plate 80 x 80	624 g

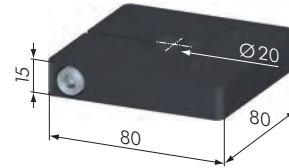
**Application:** For clamping guidance rail  $\varnothing$  12 mm (SL0222S) or guidance rail  $\varnothing$  20 mm (SL0227S).

**Material:** steel, zinc-plated

**Supply:** SL0222S: clamp screw M 8 x 20  
SL0227S: clamp screw M 8 x 30



SL0222S



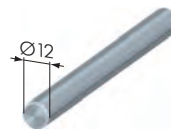
SL0227S

## Guidance Rails

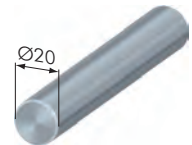
Part No	Description	Weight
SL0181G	$\varnothing$ 10 mm	612 <sup>g</sup> /m
SL0181G3000	$\varnothing$ 10 mm, L = 3000 mm	1.84 kg
SL0182G	$\varnothing$ 12 mm	880 <sup>g</sup> /m
SL0182G3000	$\varnothing$ 12 mm, L = 3000 mm	2.64 kg
SL0186G	$\varnothing$ 20 mm	2.45 <sup>kg</sup> /m
SL0186G3000	$\varnothing$ 20 mm, L = 3000 mm	7.35 kg
SB1008	Cutting Charge For Guidance Rail	

**Application:** For linear guidance systems in conjunction with the linear flange plates 40 x 80 and 80 x 80.

**Material:** steel, hardened and ground



SL0182G



SL0186G

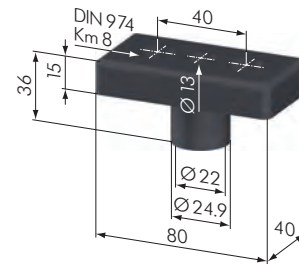
## Linear Flange Plates

Part No	Description	Weight
SL0300S	Linear Flange Plate 40 x 80	130 g
SL0400S	Linear Flange Plate 80 x 80	239 g

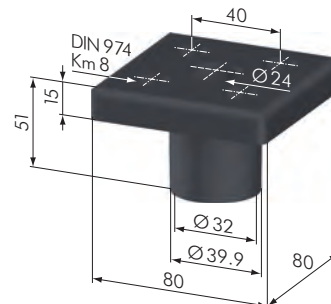
**Application:** For building linear guidance systems in conjunction with profile size / guidance rail.  
40 x 80 /  $\varnothing$  12 mm  
80 x 80 /  $\varnothing$  20 mm

**Material:** steel, hardened and ground

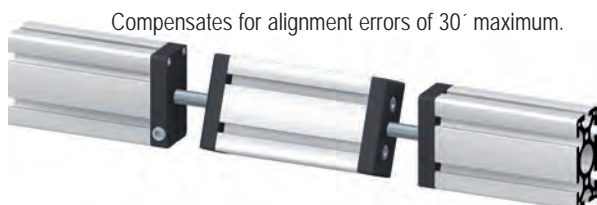
**Supply:** with internal ball bushing: 0670-212-40 for 40 x 80  
0670-220-40 for 80 x 80



SL0300S

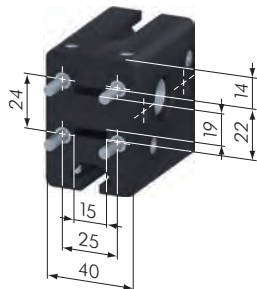
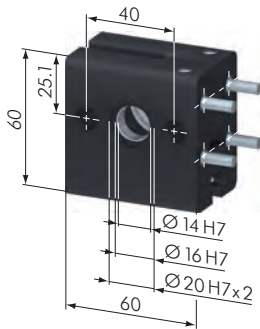


SL0400S



Compensates for alignment errors of 30' maximum.

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SL9800S

Pulley Assembly		
Part No	Description	Weight
SL9800S	Pulley Assembly C 40 / 57	

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

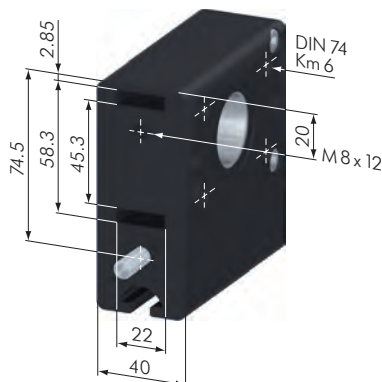
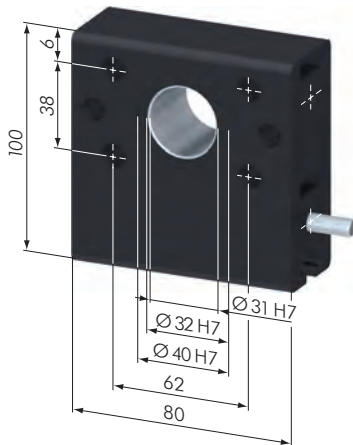
**Material:** casing: aluminum, black anodized

**Technical Data:**

- timing belt AT 3 / 10: maximum loading MD = 5 Nm
- timing belt pulley: aluminum, tooth pitch AT 3  
No of teeth 20
- pitch circle diameter: 19.10 mm
- bearing type: 61902-2Z
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 14H7
- timing belt length 180°: 90.0 mm

Connected to profile via four special fasteners type G (SV1071V).  
Motor connection via flange plates per customer request.

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SL9805S

Pulley Assembly		
Part No	Description	Weight
SL9805S	Pulley Assembly C 40 / 100	

**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

**Technical Data:**

- timing belt AT 5 / 16: maximum loading MD = 15 Nm
- timing belt pulley: aluminum, tooth pitch AT 5  
No of teeth 32
- pitch circle diameter: 50.93 mm
- bearing type: 61808-2Z
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway: Ø 18H7
- timing belt length 180°: 180.0 mm

Connected to profile via one central fastener type G (SV1071V) and one cap head screw DIN 912. Motor connection via flange plates per customer request.

## Pulley Assembly

Part N°	Description	Weight
SL9810S	Pulley Assembly C 80 / 100	1.56 kg

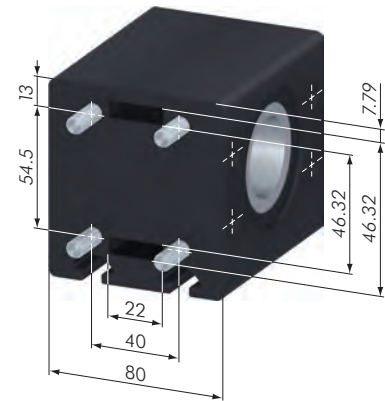
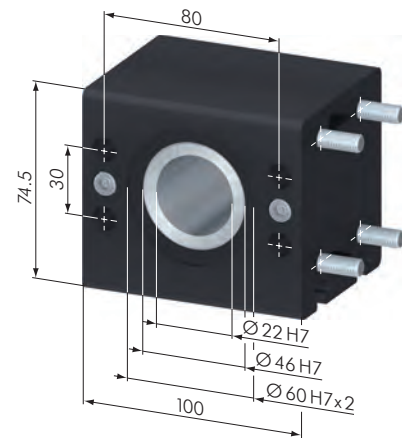
**Application:** This pulley assembly is used in conjunction with *Paletti* linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 22: maximum loading MD = 70 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
Ne of teeth 19
- bearing type: 61909-RS
- pitch circle diameter: 60.48 mm
- With shrunken fit drive (steel) upon customer request (included in the price).
- max. bore for motor with keyway:  $\varnothing 22H7$
- timing belt length 180°: 195.0 mm

Connected to profile via four cap head screws DIN 912.  
Motor connection via flange plates per customer request.



SL9810S

## Omega Drive

Part N°	Description	Weight
SL9820S	Omega Drive AT 5 / 16	

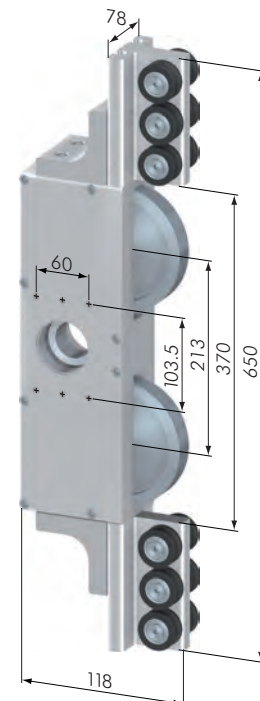
**Application:** This Omega drive is used in conjunction with the *Paletti* C-Track 80 x 100 to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

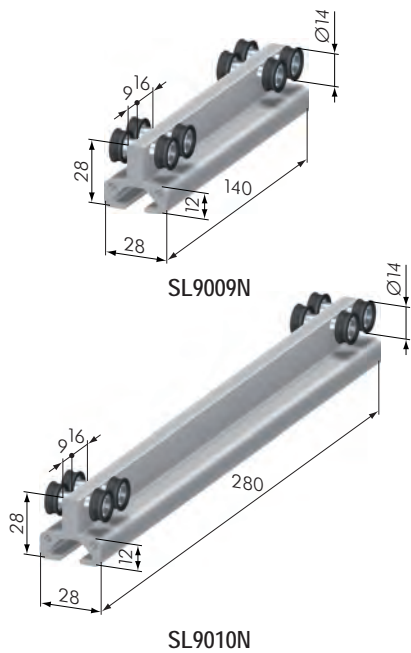
### Technical Data:

- timing belt AT 5 / 16: maximum loading MD = 70 Nm
- timing belt pulley: aluminum, tooth pitch AT 5  
Ne of teeth 56
- pitch circle diameter: 89.13 mm
- With shrunken fit drive (steel)
- per customer request (included in the price).
- max. bore for motor with keyway:  $\varnothing 30H7$
- max. bore for motor with taper lock coupling:  $\varnothing 34H7$
- timing belt length 180°: 195.0 mm

Motor connection via flange plates per customer request.



SL9820S



**30**

### Double Carriage C 30/43

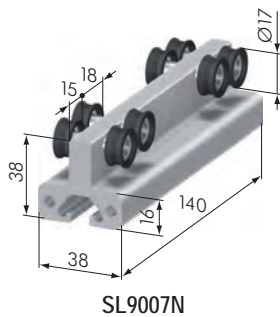
Part No	Description	Weight
SL9009N	Double Carriage 30 / 43 140 / 8	
SL9010N	Double Carriage 30 / 43 280 / 8	

**Application:** For creating sliding doors and other linear applications.

**Material:** profile: aluminum, natural anodized  
roller: POM

**Technical Data:**

The carriage rollers have no excentric adjustment. The rollers are preset to suit the internal guidance form of the track profile.



**40**

### Double Carriage C 40/57

Part No	Description	Weight
SL9007N	Double Carriage 40 / 57 140 / 8	
SL9008N	Double Carriage 40 / 57 280 / 8	

**Application:** For creating sliding doors and other linear applications.

**Material:** profile: aluminum, natural anodized  
roller: POM

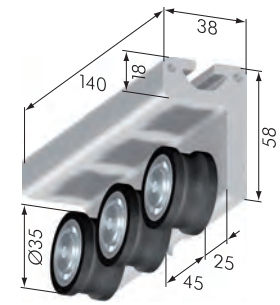
**Technical Data:**

The carriage rollers have no excentric adjustment. The rollers are preset to suit the internal guidance form of the track profile.

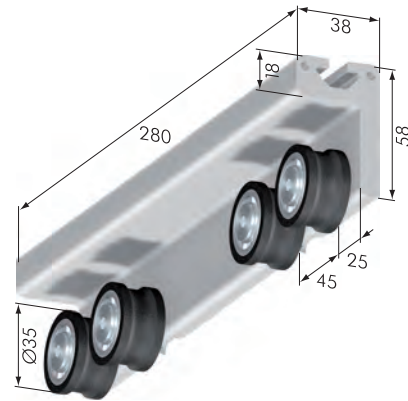
## Single Carriage C 40 / 100

Part No	Description	Weight
SL9005N	Single Carriage 40 / 100 140 / 3 pressure version	
SL9006N	Single Carriage 40 / 100 280 / 4 pressure version	
SL9011N	Single Carriage 40 / 100 140 / 3, pull version	
SL9012N	Single Carriage 40 / 100 280 / 4, pull version	

40



SL9005N



SL9006N

**Application:** For creating sliding doors and other linear applications.

**Material:** profile: aluminum, natural anodized  
roller: POM

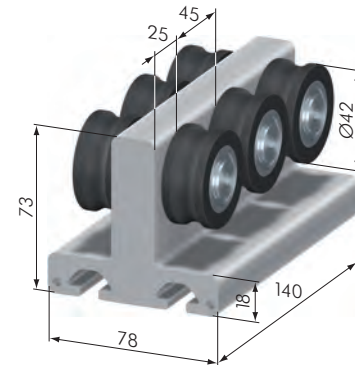
**Technical Data:**

- excentric adjustment:  $\pm 0.9$  mm

## Single / Double Carriage C 80 / 100

Part No	Description	Weight
SL9000N	Double Carriage C 80 / 100 140 / 6	625 g
SL9001N	Double Carriage C 80 / 100 280 / 8	1000 g
SL9002N	Single Carriage C 80 / 100 140 / 3	508 g
SL9003N	Single Carriage C 80 / 100 280 / 4	348 g

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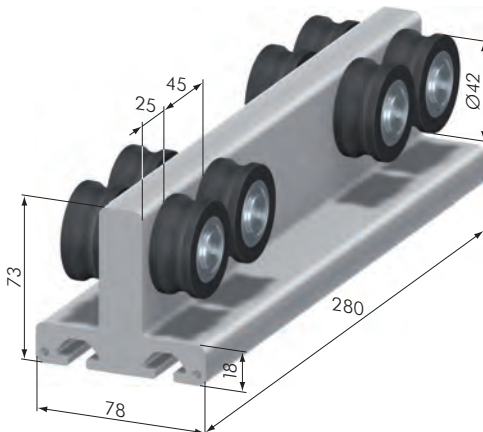
SL9000N

**Application:** For creating sliding doors and other linear applications.

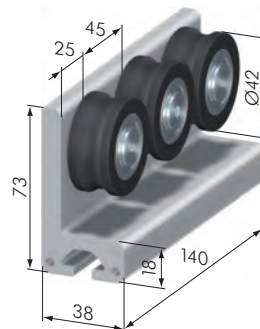
**Material:** profile: aluminum, natural anodized  
roller: POM

**Technical Data:**

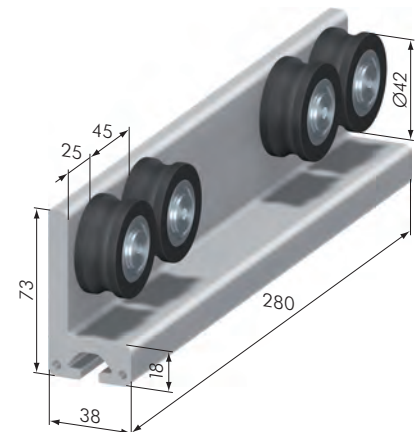
- excentric adjustment:  $\pm 0.9$  mm



SL9001N

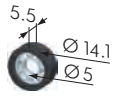


SL9002N

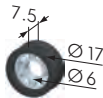


SL9003N

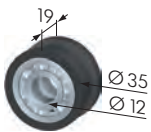
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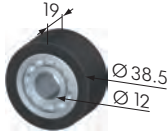
SL0161S



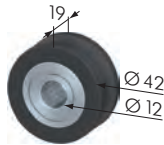
SL0160S



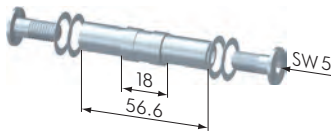
SL0159S



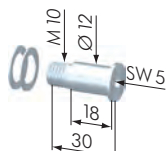
SL0156S



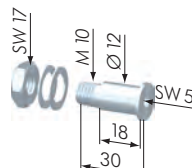
SL0158S



SL0150E



SL0150Z

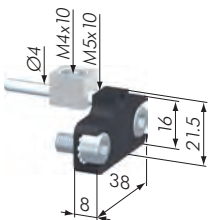


SL0151E

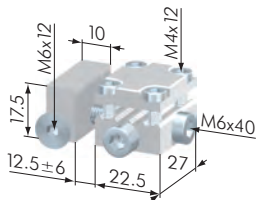
Rollers / Roller Axles		
Part No	Description	Weight
SL0161S	Roller C 30 / 43 POM	
SL0160S	Roller C 40 / 57 POM	
SL0159S	Roller C 40 / 100 POM	
SL0156S	Roller C 80 / 100 POM, straight	
SL0158S	Roller C 80 / 100 POM	
SL0150E	Roller Axle Double C-Carriage 80 E	
SL0150Z	Roller Axle C-Carriage 80 Z	
SL0151E	Roller Axle Single C-Carriage E	

**Application:** Rollers used when constructing custom C-carriages. The roller C 80/100 POM, straight, can be used in conjunction with the roller C 80/100 POM in order to withstand higher loads. The concentric roller axle is used for both single and double sided C-carriages.

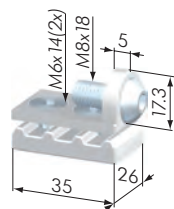
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SL0240N



SL0241N



SL0242N

Timing Belt Tensioners		
Part No	Description	Weight
SL0240N	Timing Belt Tensioner C 40 / 57	
SL0241N	Timing Belt Tensioner C 40 / 100	
SL0242N	Timing Belt Tensioner C 80 / 100	

**Application:** For attaching and tensioning of the timing belt to the C-carriages. Manufactures free running and long-living linear actuator systems, that do not need any lubrication of the roller guidance.



## Pulley Assembly 80 / 90

Part No	Description	Weight
SL9850S	Pulley Assembly 80 / 90	

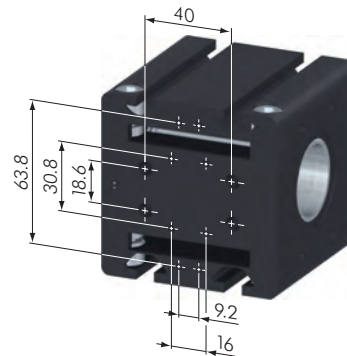
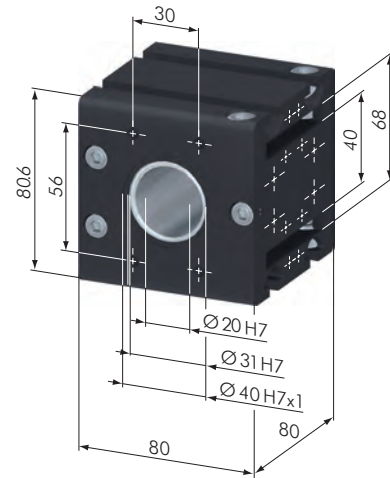
**Application:** This pulley assembly is used in conjunction with Paletti linear components to manufacture linear actuators.

**Material:** casing: aluminum, black anodized

### Technical Data:

- timing belt AT 10 / 50: maximum loading MD = 60 Nm
- timing belt pulley: aluminum, tooth pitch AT 10  
 Ne of teeth 15
- pitch circle diameter: 47.75 mm
- bearing type: 619079-2RSR
- With shrunk fit drive (steel) on customer request (included in the price).
- max. bore for motor with keyway:  $\varnothing 30H7$
- max. bore for motor with taper lock coupling:  $\varnothing 34H7$
- timing belt length 180°: 151.0 mm

Connected to profile via four special central fasteners type G, four grub screws M 4 x 30 and two T-nuts M 5 mini (SV2193V). Motor connection via flange plates per customer request.



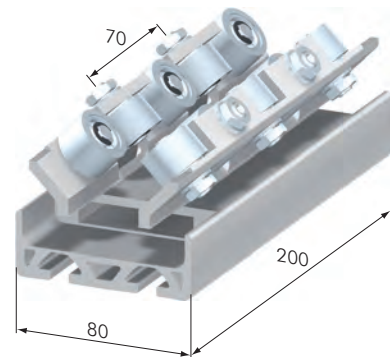
SL9850S

## Carriage 80 / 90

Part No	Description	Weight
SL8310N	Carriage 80 / 90 160 / 8	
SL8320N	Carriage 80 / 90 200 / 10	1,15 kg
SL8330N	Carriage 80 / 90 280 / 10	

**Application:** For free running, high-load linear guidance systems. Upon request, the carriage is also available in different lengths and with varying numbers of rollers.

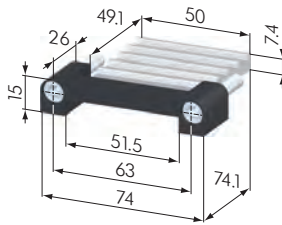
**Material:** carriage: aluminum, natural anodized  
 timing belt tensioner: aluminum, natural anodized  
 roller axles, bearings: stainless-steel  
 roller shell: plastic



SL8320N

### Technical Data:

- operational speed: 8 m/s
- maintenance-free



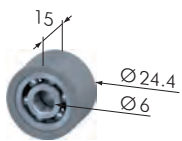
SL0180S



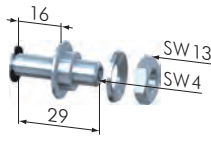
Timing Belt Tensioner 80/90		
Part No	Description	Weight
SL0180S	Timing Belt Tensioner 80/90	101 g

**Application:** For attaching and tensioning of the timing belt to the carriage 80/90.

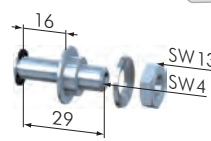
**Material:** timing belt tensioner: steel, black  
 clamping plate: aluminum, natural anodized



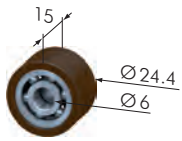
SL0130S



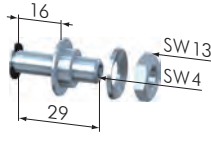
SL0110V



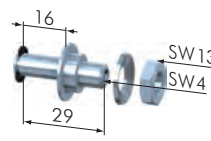
SL0120V



SL0135V



SL0115V



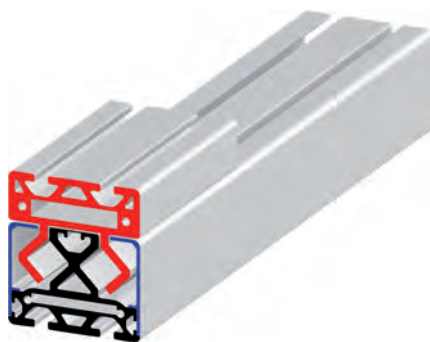
SL0125V



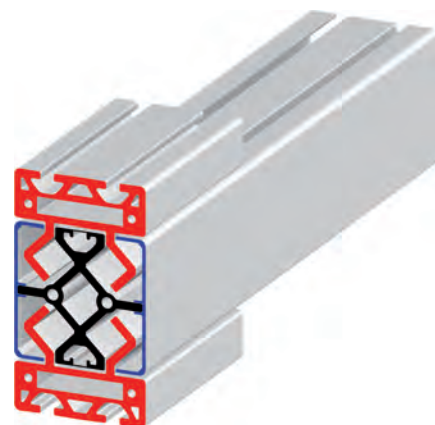
Roller / Roller Axle 80/90		
Part No	Description	Weight
SL0130S	Roller F 80/90	18.4 g
SL0110V	Roller Axle 80/90, concentric	16.8 g
SL0120V	Roller Axle 80/90, excentric	16.8 g
SL0135V	Roller F 80/90 VU	
SL0115V	Roller Axle 80/90 VU, concentric	16.8 g
SL0125V	Roller Axle 80/90 VU, excentric	16.8 g

**Application:** Rollers and roller axles for the assembly of free running and resilient single and double guidances, that do not need any lubrication of the roller guidance.

**Material:** roller shell: plastic or Vulkollan (rubber)  
 roller axles: stainless-steel



single guidance 80 / 90



double guidance 80 / 90

## Carriage 120

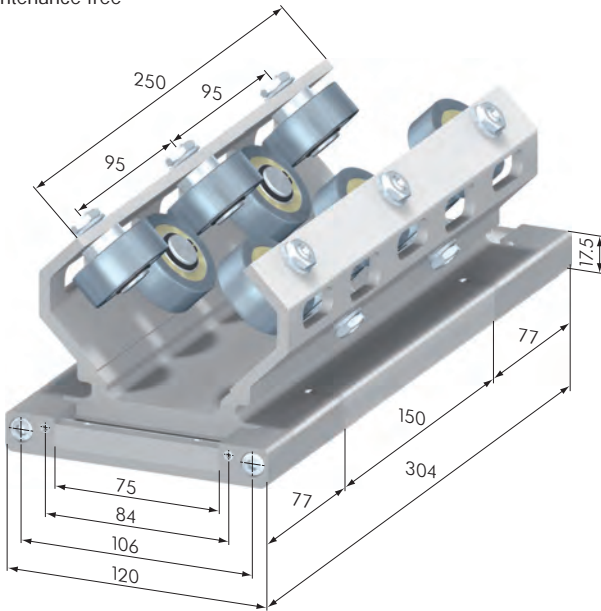
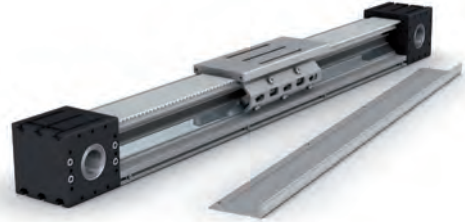
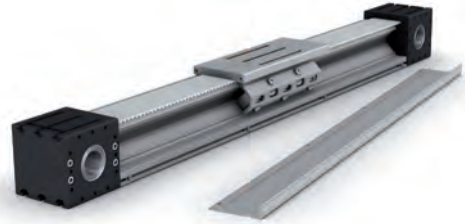
Part No	Description	Weight
SL8340N	Carriage 120, steel rollers	
SL8345N	Carriage 120, plastic rollers	

**Application:** For free running, high-load linear guidance systems. Upon request, the carriage is also available in different lengths and with varying numbers of rollers.

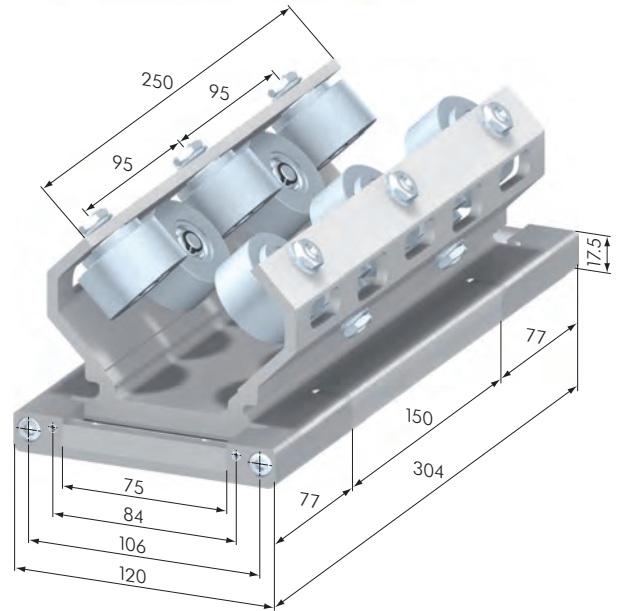
**Material:** carriage: aluminum, natural anodized  
 timing belt tensioner: aluminum, natural anodized  
 roller axles, bearings: steel, zinc-plated  
 roller shell: steel, zinc-plated (SL8340N)  
 plastic (SL8345N)

### Technical Data:

- operational speed: 8 m/s
- maintenance-free



SL8340N



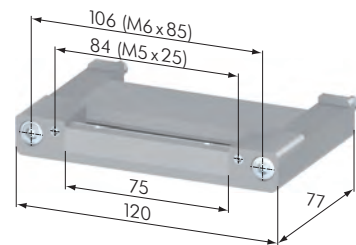
SL8345N

## Timing Belt Tensioner 120 x 120 45°

Part No	Description	Weight
SL0185S	Timing Belt Tensioner 120 x 120 45°	

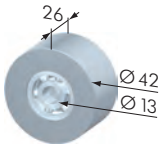
**Application:** For attaching and tensioning of the timing belt AT 10 / 75 to the carriage 120 to manufacture free running and long-living linear actuator systems, that do not need any lubrication of the roller guidance.

**Material:** aluminum, natural anodized

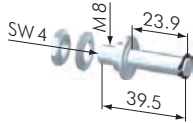


SL0185S

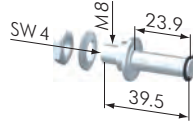
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SL0140S



SL0132V



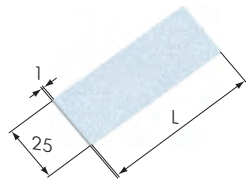
SL0133V

Roller / Roller Axles 100 / 120		
Part N°	Description	Weight
SL0140S	Roller 100 / 120	
SL0133V	Roller Axle 100 / 120, concentric	
SL0132V	Roller Axle 100 / 120, excentric	

**Application:** Rollers and roller axles for the assembly of free running and resilient linear actuators, that do not need any lubrication of the roller guidance.

**Material:** roller shell: plastic  
roller axles: stainless-stell

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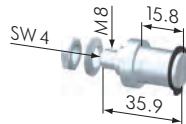
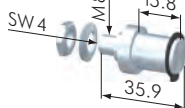
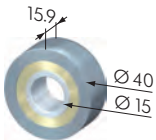
SL0187G

Steel Strap		
Part N°	Description	Weight
SL0187G	Steel Strap	
SL0187G3000	Steel Strap, L = 3000 mm	

**Application:** Roller guide of linear actuator 120 x 120 AT 10 / 75 with steel rollers.

**Material:** cold-rolled steel strap

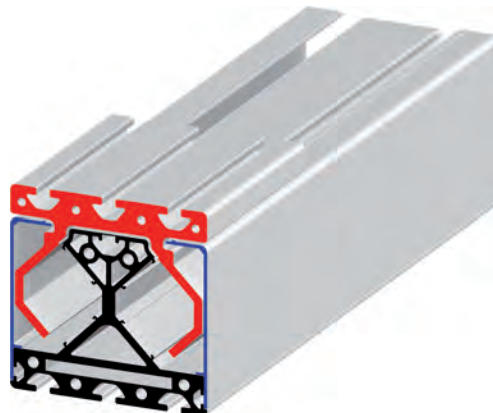
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Roller / Roller Axles 100 / 120 Steel		
Part N°	Description	Weight
SL0141G	Roller 100 / 120 Steel	
SL0130V	Roller Axle 100 / 120 Steel, concentric	
SL0131V	Roller Axle 100 / 120 Steel, excentric	

**Application:** Rollers and roller axles for the assembly of free running and resilient linear actuators, that do not need any lubrication of the roller guidance.

**Material:** roller shell: stainless-steel  
roller axles: stainless-steel



Paletti catalogs available on <https://paletti-group.com/media-center/>



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