

## **Linear Guidance Systems**

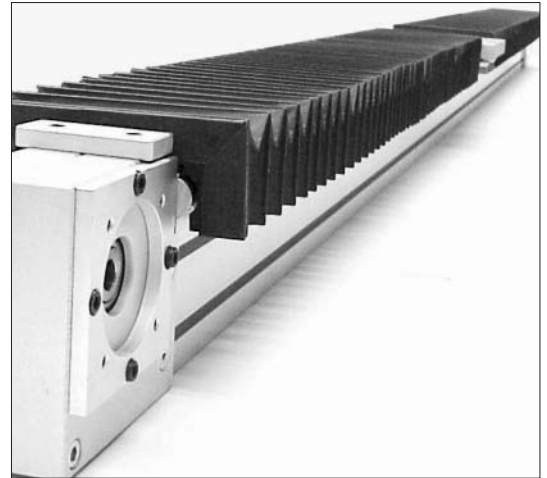


<b>GD - GS</b>	Track Roller Linear guidance system (Track rollers positioned outside the guideway).	<b>4</b>
<b>GDM</b>	Driven Track Roller guidance system.	<b>11</b>
<b>IL</b>	Track Roller Linear guidance system (Track rollers positioned inside the guideway).	<b>15</b>
<b>ILM</b>	Driven Track Roller guidance system.	<b>19</b>
<b>TLM</b>	Driven Linear modules.	<b>24</b>
<b>SLTL</b>	Linear Tables.	<b>32</b>

## **GD - GS Series. Linear guidance system**

The track roller systems **GD** and **GS** are easy to install and offer economical solutions to most linear motion problems. The clearance between the track rollers and the rail is adjustable to achieve either very smooth movement, under light loads, or increased rigidity under heavier loads. This is achieved by using eccentric bolts to adjust the track rollers. An additional benefit of this system is its relative insensitivity to contamination, such as dust, metal chips, etc. The track rollers are protected by integral seals. The main characteristics of these systems are:

- High positioning accuracy
- Long life
- High linear speed
- Low noise operation
- Possibility to operate without lubrication
- Maintenance free
- High resistance to contaminants
- Interchangeability and ease of installation
- Versatility in different applications



### GD Series Linear guidance system

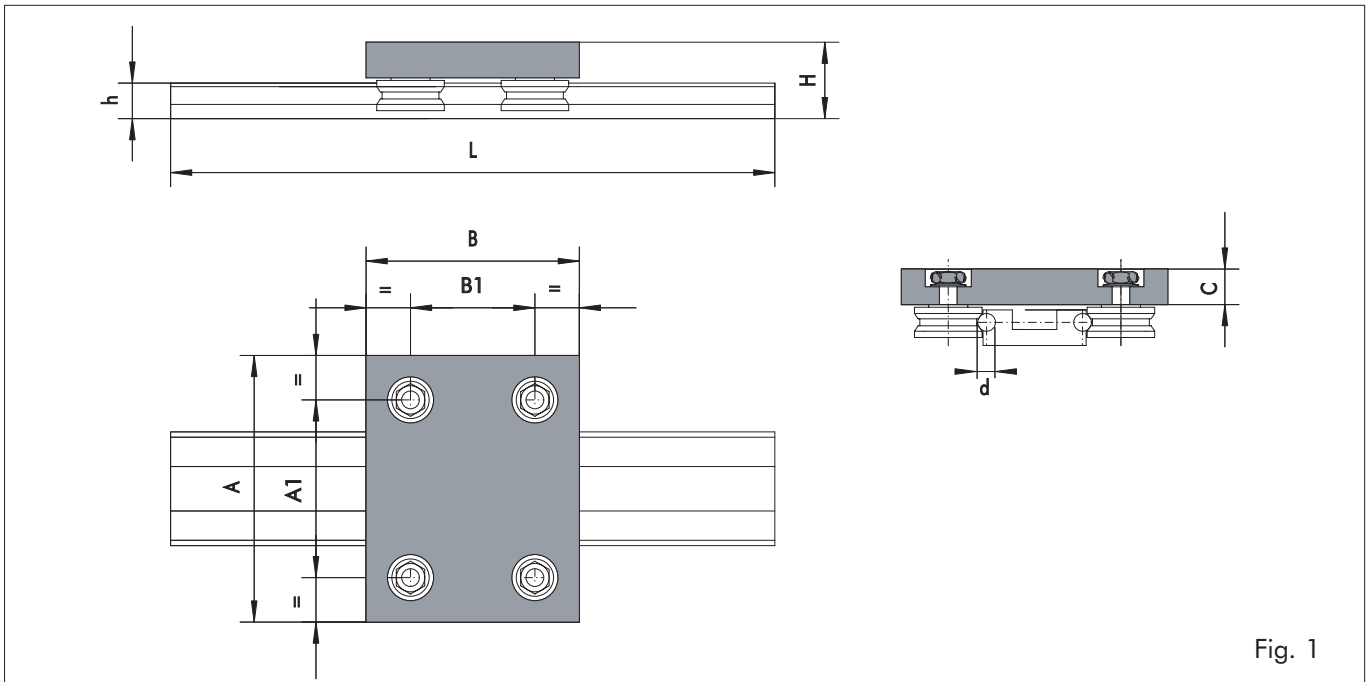


Fig. 1

### GD Series Linear guidance system

The system **GD** is composed of a rail and a carriage.

The rails is made from an extruded aluminium profile, clear anodized as standard, in which two hardened chrome plated precision ground shafts, with h7 tolerance are inserted via a rolling process.

The maximum rail length is 6000 mm.

The carriage is made from anodized aluminium ( steel can be had upon request ), and four track rollers **NIKO**® with “V” groove profile on outer ring (120°), two mounted with eccentric studs and two with concentric studs.

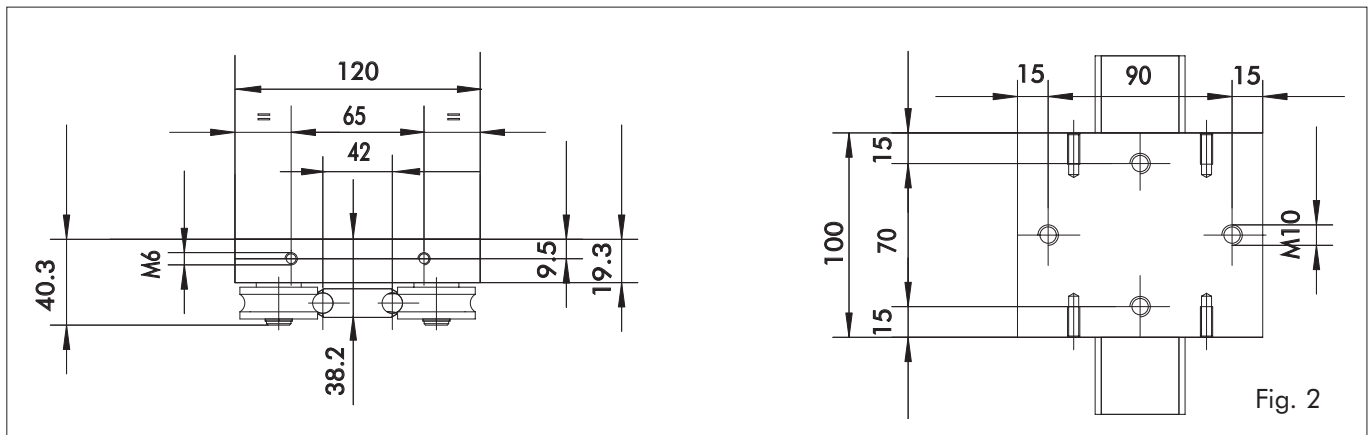
Table n° 1 shows the designations and the dimensions of the standard systems.

For any questions regarding special types or calculations, please contact our engineering department.

Table n°1

Series	Dimensions								Components		
	A	A1	B	B1	C	H	dH7	h	Rails	Carriage	Track Roller
<b>GD 6</b>	80	51	60	31	8	21	6	12	GD6	C6	17E+17C
<b>GD10A</b>	120	83	80	41	10	31	10	20	GD10	C10A	22E+22C
<b>GD10B</b>	140	90.5	120	70	15	37	10	20	GD10	C10B	30E+30C
<b>GD10C</b>	150	98.5	120	70	20	44	10	20	GD10	C10C	38E+38C
<b>GD20A</b>	180	126	150	90	20	51	20	30	GD20	C20A	41E+41C
<b>GD20B</b>	200	142	180	100	25	61.5	20	30	GD20	C20B	58E+58C
<b>GDX20</b>	300	195	200	120	30	66.5	20	30	GDX20	C20X	58E+58C

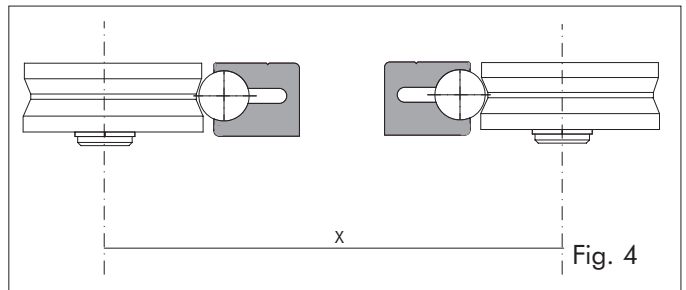
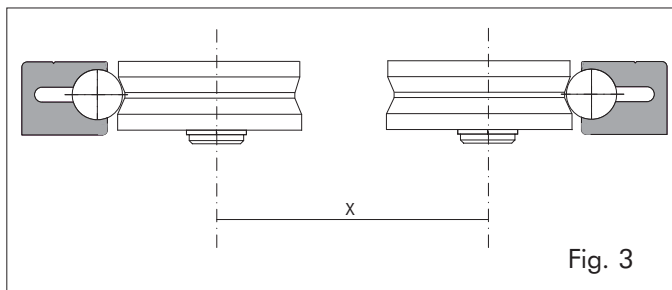
## GDS 10 Series Linear guidance systems



### GDS 10 Series Linear guidance systems

The system **GDS** differs from the system **GD** for its compact design, reduced dimensions and for rolling under light loads conditions. The system is composed of a rail and a carriage. The rail is made from extruded aluminium profile, clear anodized as standard in which two hardened chrome plated precision ground shafts with h7 tolerance are inserted via a rolling process. The maximum rail length is 6000 mm. The carriage is made from anodized aluminium (steel can be had upon request), and four track rollers **NIKO**® "V" groove profile on outer ring with an angle of 120 degrees, two mounted with eccentric studs and two with concentric studs types RPC35 and RPE35 (see page 23, fig. 32).

## GS Series Linear guidance systems



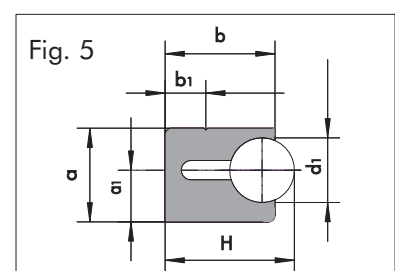
### GS Series Linear guidance systems

The system **GS** differs from the **GD** system in that the shaft is clamped into the extrusion, rather than inserted via a rolling process. The system **GS** can be used with the shafts mounted externally (fig.3) or internally (fig. 4) offering the customer more flexibility with their design. Guideways must be mounted parallel to each other for optimum performance. Table nr.2 shows the dimensions of the rail. The track rollers used for these systems are the same as in the system **GD**. The maximum rail length is 6000 mm.

Table n°2

Series	Dimensions					
	a	b	d <sub>1</sub>	H	a <sub>1</sub>	b <sub>1</sub>
<b>GS 10</b>	14.5	17	10	20.5	8	6,3
<b>GS 20</b>	27	27	20	34.2	15	10

### GS Profile shape



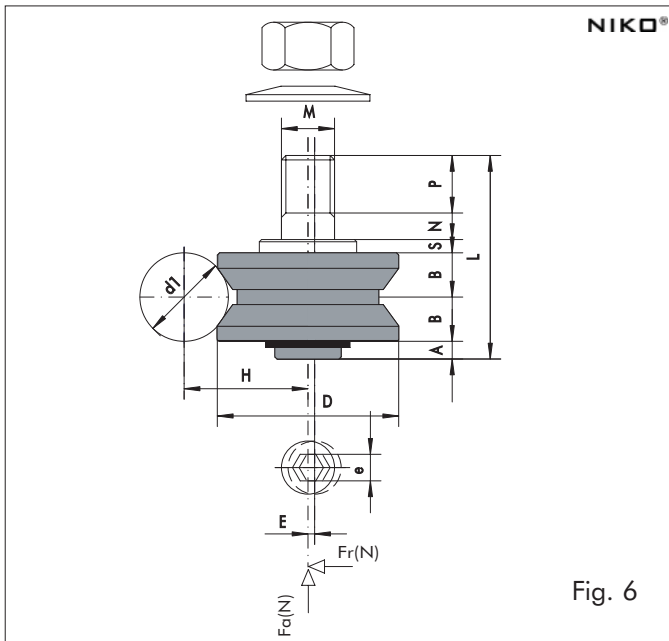


Fig. 6

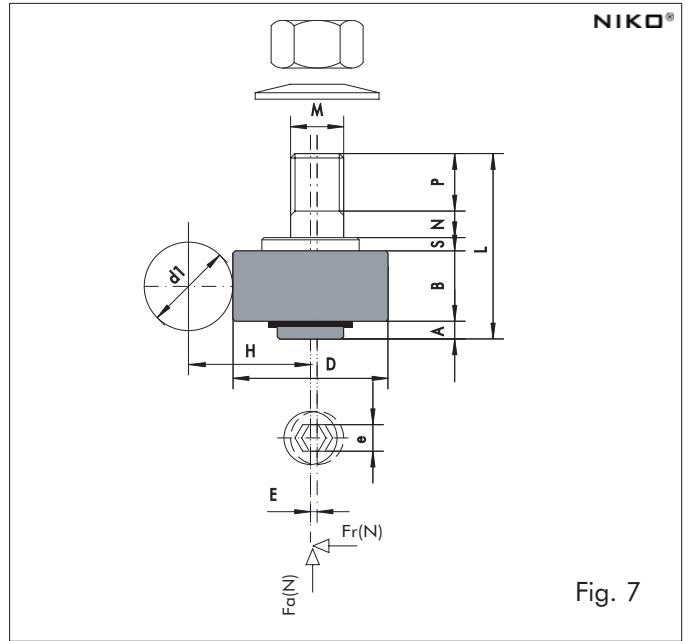


Fig. 7

### GD/GS 10-20 Series Track roller for Linear guidance systems

The track rollers **NIKO**® used for **Tecnoline** systems are produced in bearing steel 100Cr 6 with “V” groove profile on outer ring with an angle of 120 degrees.

This guarantees a smooth, low friction movement and a good distribution of the radial load.

The structure of the “V” groove track roller with two rows of steel balls corresponds to the structure of the angular contact bearings.

The track roller can bear axial loads from both directions. Each size is available with either the concentric or the eccentric stud.

During installation the concentric bolts must be secured first, to guarantee the parallelism between carriage and rail.

The eccentric one are then set to the proper clearance/ preload. (see fig.6).

Table n°3

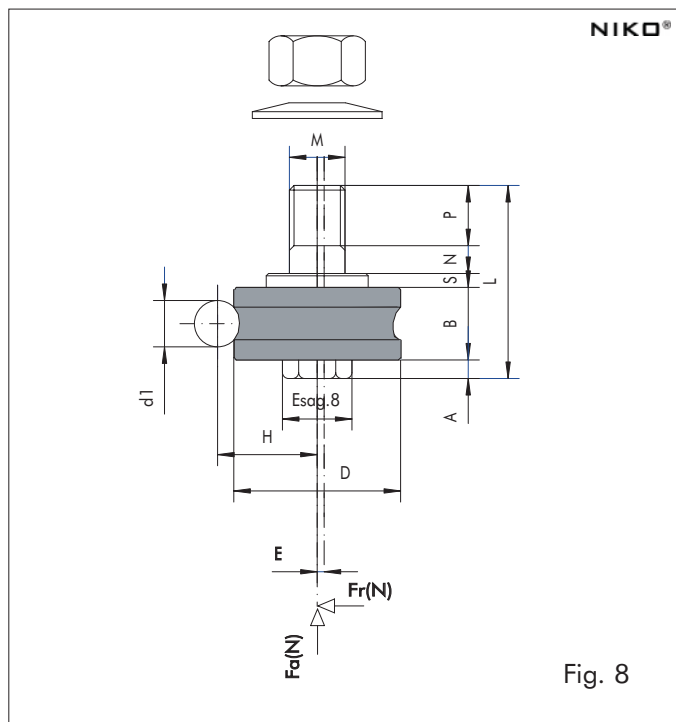
Track Roller	Rail	Dimensions												Axial Load Fa (N)	Radial Load Fr (N)
		A	B	S	N	P	L	M	H	D	E	e	d <sub>1</sub>		
22C	GD10A	2.5	5.5	2.5	4	5.5	25.5	6	14.5	22	-	2	10	292	292
22E	GD10A	2.5	5.5	2.5	4	5.5	25.5	6	14.5	22	1.5	2	10	292	292
30C	GD10B	3	7	2	5	9	33	8	18.3	30	-	3	10	387	960
30E	GD10B	3	7	2	5	9	33	8	18.3	30	1.5	3	10	387	960
38C	GD10C	3.5	8.5	2.5	8	12	43	10	22.3	38	-	5	10	552	1225
38E	GD10C	3.5	8.5	2.5	8	12	43	10	22.3	38	2	5	10	552	1225
41C	GD20A	4	10	3	6	13	46	12	28	41	-	5	20	836	1680
41E	GD20A	4	10	3	6	13	46	12	28	41	2	5	20	836	1680
58C	GD20B	4	12.5	6	11	13	59	16	35	58	-	6	20	4238	4238
58E	GD20B	4	12.5	6	11	13	59	16	35	58	2.5	6	20	4238	4238

### Stud Type Track Rollers

In some applications track rollers **NIKO**® with cylindrical ring are used to compensate for misalignment or lack of rigidity of the supporting structure. Table n.4 shows the dimensions of the track rollers including their max loads. (see fig. 7)

Table n°4

Track Roller	Rail	Dimensions												Axial load Fa (N)	Radial load Fr (N)
		A	B	S	N	P	L	M	H	D	E	e	d <sub>1</sub>		
34A	GD10	2	17	3	4	15	41	10	22	34	1	5	10	-	1300
36A	GD20	0,5	20	3	4	15	42.5	12	28	36	1	5	20	-	1600
50A	GD20	2,5	25	6.5	10	14	58	16	35	50	1.5	8	20	-	3500



### Track rollers for GD6 Linear guidance systems

The track rollers type 17E and/or 17C used for the system GD6 are double row of balls track rollers with gothic arch profile on outer ring. Table n.5 shows their dimensions and their max allowable loads.

Table n°5

Track roller	Rail	Dimensions											Axial load Fa (N)	Radial load Fr (N)	
		A	B	S	N	P	L	M	H	D	E	e			d <sub>1</sub>
17C	GD6-GD6M	2	8	1.5	2.5	4.5	18.5	4	10.5	17	-	-	6	256	520
17E	GD6-GD6M	2	8	1.5	2.5	4.5	18.5	4	10.5	17	0.5	-	6	256	520



## GD10-GD20-GDS-GD6 Series Track roller Linear guidance systems

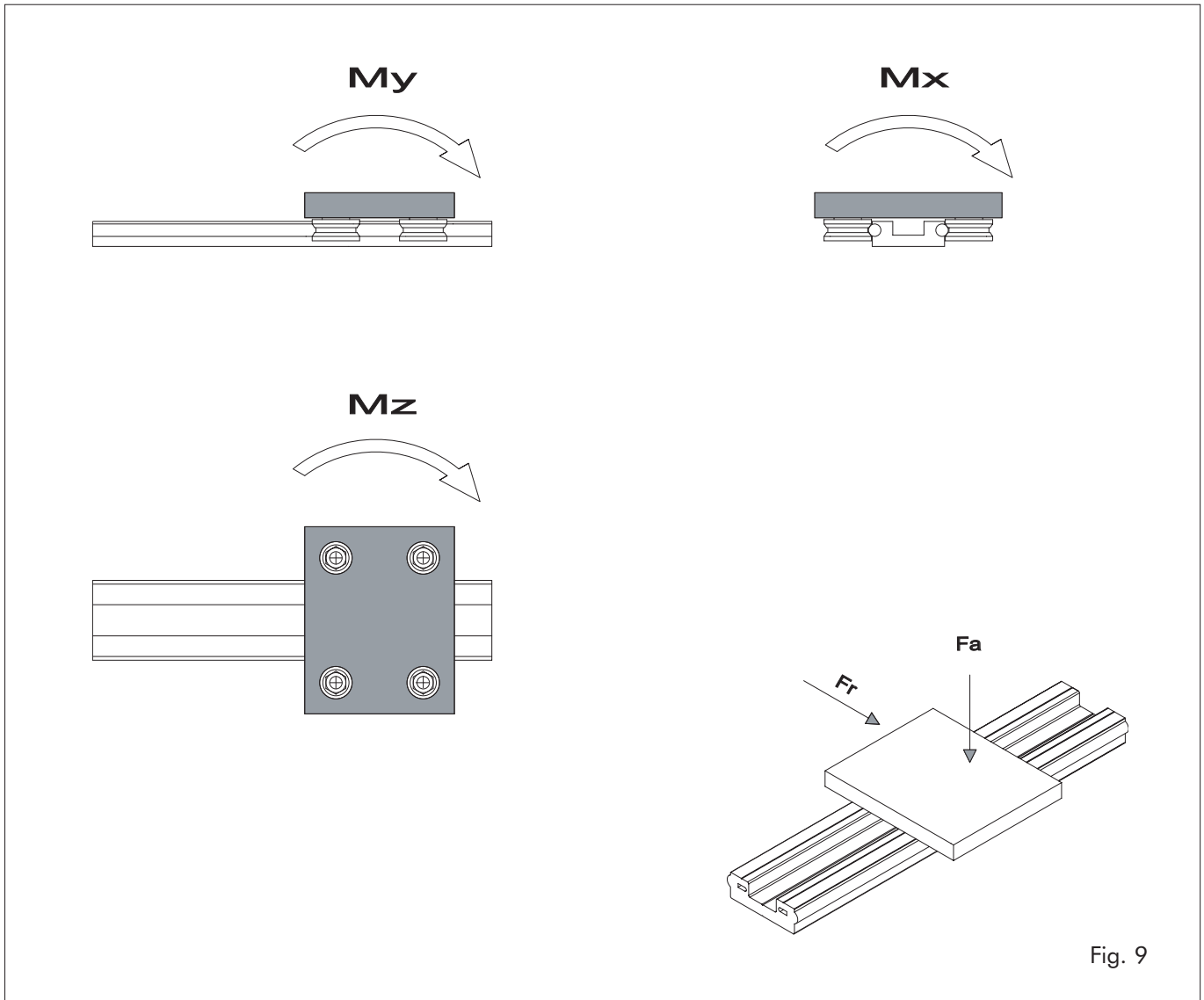


Fig. 9

## GD10-GD20-GDS-GD6 Series Track roller Linear guidance systems

Systems **GD** and **GS** can support loads and moments on each axis.

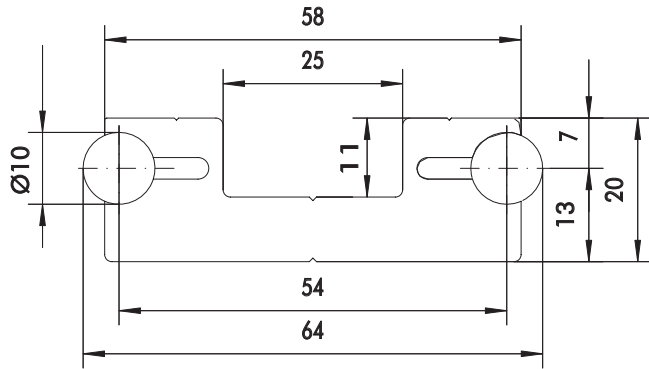
Table n.6 shows the allowable values for each system.

Table n°6

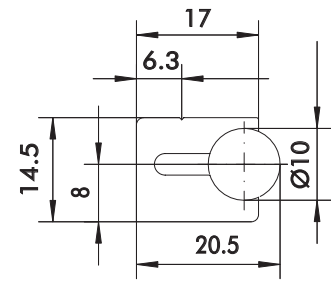
Components			Limit load (N)		Static moment (Nm)			Carriage mass (Kg)
Rail	Carriage	Track rollers	Fr	Fa	My	Mz	Mx	
<b>GD10</b>	<b>C10A</b>	<b>22C - 22E</b>	410	812	44	89	58	0.26
<b>GD10</b>	<b>C10B</b>	<b>30C - 30E</b>	1900	1600	166	332	128	0.62
<b>GD10</b>	<b>C10C</b>	<b>38C - 38E</b>	2650	2400	184	368	142	0.92
<b>GD20</b>	<b>C20A</b>	<b>41C - 41E</b>	3215	3200	343	633	267	1.34
<b>GD20</b>	<b>C20B</b>	<b>58C - 58E</b>	6980	6400	499	872	349	2.64
<b>GDX20</b>	<b>C20X</b>	<b>58C - 58E</b>	6980	6400	635	1046	550	7.54
<b>GD6</b>	<b>C6</b>	<b>17C - 17E</b>	1280	520	14	20	13	0.18
<b>GDS10</b>	<b>C10S</b>	<b>RPC35 - RPE35</b>	2320	1150	144	300	106	0.96

### Profile Dimensions Table

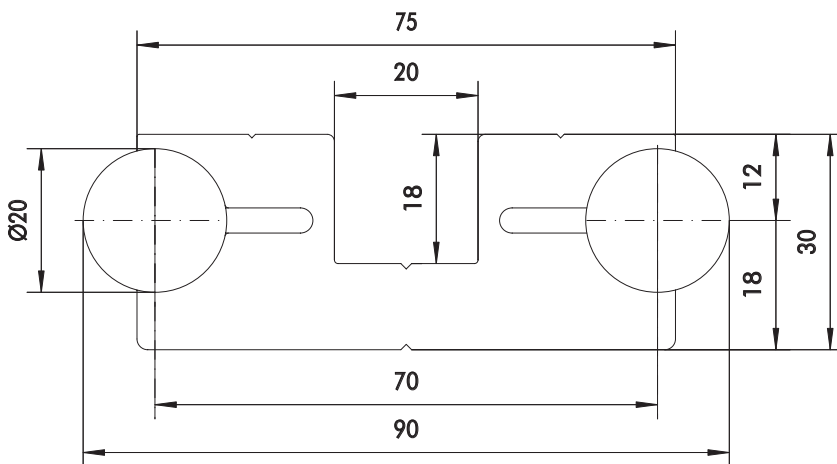
**GD10**



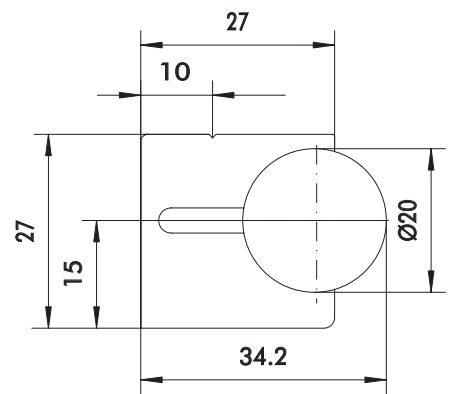
**GS10**



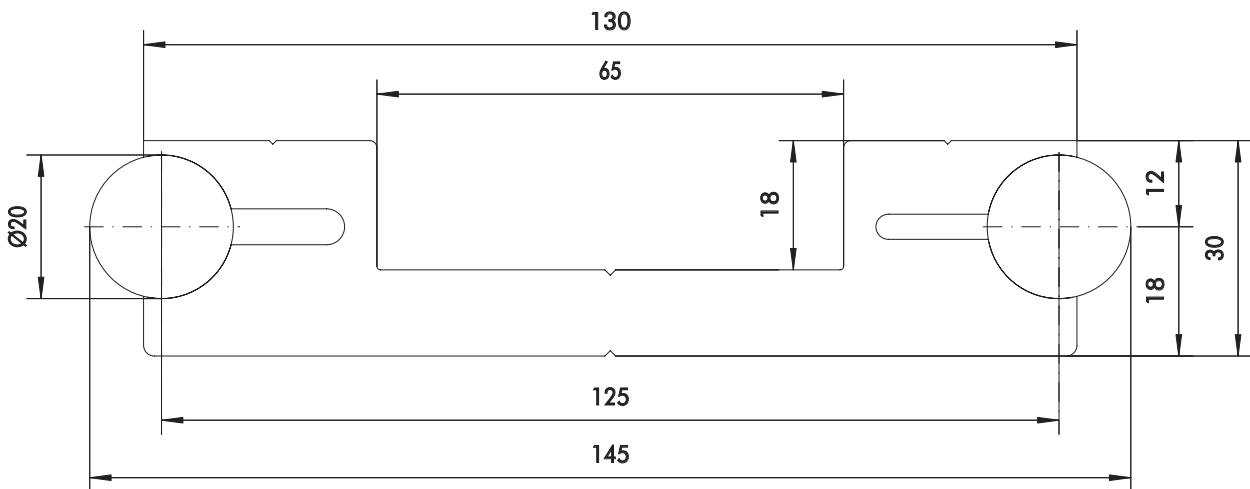
**GD20**



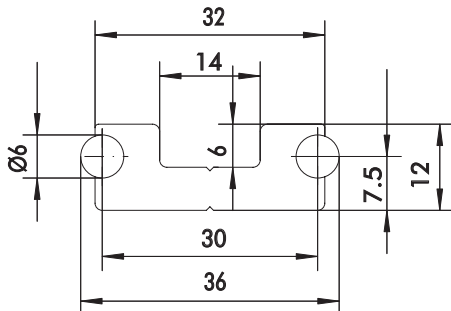
**GS20**



**GDX20**



**GD6**



**GDS10**

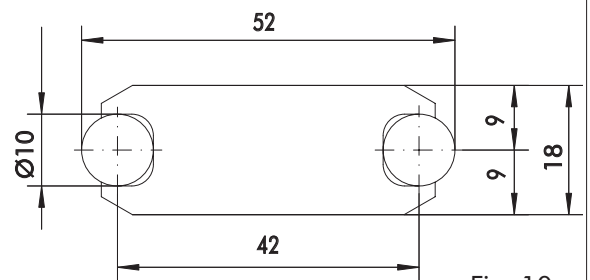


Fig. 10

## Driven Track roller guidance systems

The driven track roller systems **GDM** are economical, easy to install and reliable in the automation of productive cycles in the linear motion. The vast range of driven track roller systems with their standard accessories or special accessories upon request offer solutions in speeds, loads and stroke requirements.

The track rollers systems **GDM** are composed of:

- **Driving head**

Clear anodized aluminium housing for the driving pulley, with standard or special drill/tapping on both ends for the application of the gearmotor.

- **Idle head**

Clear anodised aluminium housing for the mule pulley equipped with bearings and eccentric bolt for the adjustment of the tension of the transmission belt.

- **Supporting structure**

Special aluminium extrusion with beading braces, internal area for the running of the belt and crossing grooves on three sides of structure for the assembling with sensing devices, clamping brackets, stroke stop devices or for junctions to get a length >6000. The rail GD equipped with its carriage and belt fixing plate is placed on the upper side of the aluminium profile.

- **Carriage**

Clear anodised with standard dimensions aluminium plate complete with bolts and track rollers **NIKO**® and a plate for the fixing of the belt.

- **Drive belt**

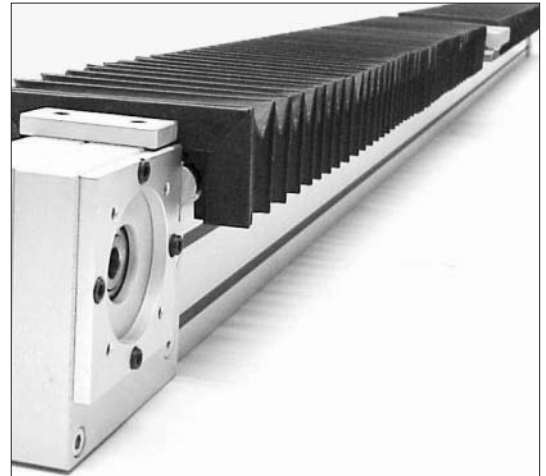
Type AT pitch 10mm (belt type AT pitch 5mm for GD6), is a steel reinforced polyurethane toothed belt.

For special application chain or rack and pinion drive can be considered.

- **Special equipments**

Driven track rollers system GDM can be equipped with:

- Stainless steel shafts
- Steel carriages and/or non-standard dimensions
- Non-standard shafts for gear motor applications
- Adapter for gear motor
- Protection Bellows
- Customized engineering



## GD10M-GD20M driven Track roller guidance systems

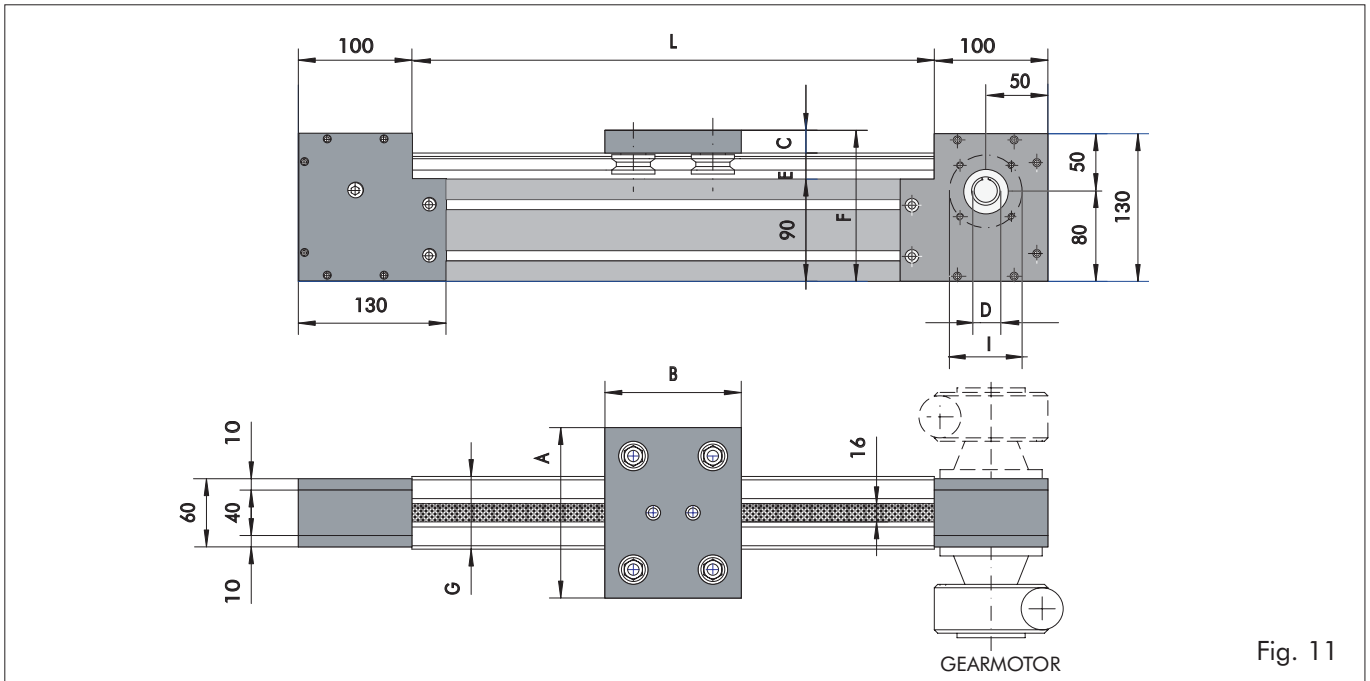


Fig. 11

## GD10M-GD20M driven Track roller guidance systems

The belt driven track roller system **GDM** can be supplied from the factory with a gearmotor. Fig. n.11 and table n.7 show the dimensions and the types. Table n.8 shows the specifications for the standard gearmotors, diameters, number of holes, tapping type and locations and the specifications for the driving devices.

Fig. n.12 shows the dimensions of the fixing points on the main structure.

Table n°7

Type	Dimensions					
	A	B	C	E	F	G
<b>GD 10AM</b>	120	80	10	21	121	64
<b>GD 10BM</b>	140	120	15	22	127	64
<b>GD 10CM</b>	150	120	20	24	134	64
<b>GD 20AM</b>	180	150	20	31	141	90
<b>GD 20BM</b>	200	180	25	36.5	151.5	90

Table n°8

Gearmotor Type	Brand	Diameter $\varnothing l$	Nr° of holes	Tapping	Position
<b>RMI-28F1</b>	<b>(STM)</b>	62	4	M6	90°
<b>RMI-40F1</b>	<b>(STM)</b>	87	4	M8	90°
$\varnothing D_{H7}$	14-19				
<b>Belt type</b>	AT10/16				
<b>Max force trans. by belt</b>	2190 N				
<b>Limit of belt elasticity</b>	7480 N				
<b>Motor pulley</b>	Z20AT10-16				
<b>1 rev. of motor shaft</b>	200mm				

Belt adjustment range 14 mm

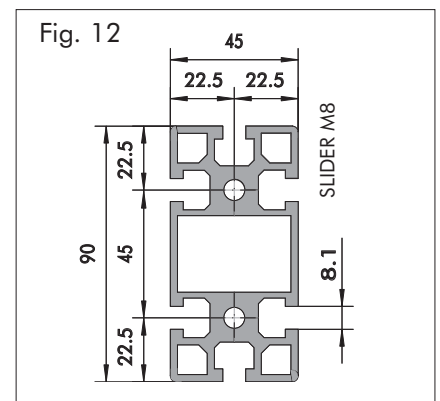


Fig. 12

## GD10MLT-GD20MLT driven Track roller guidance systems

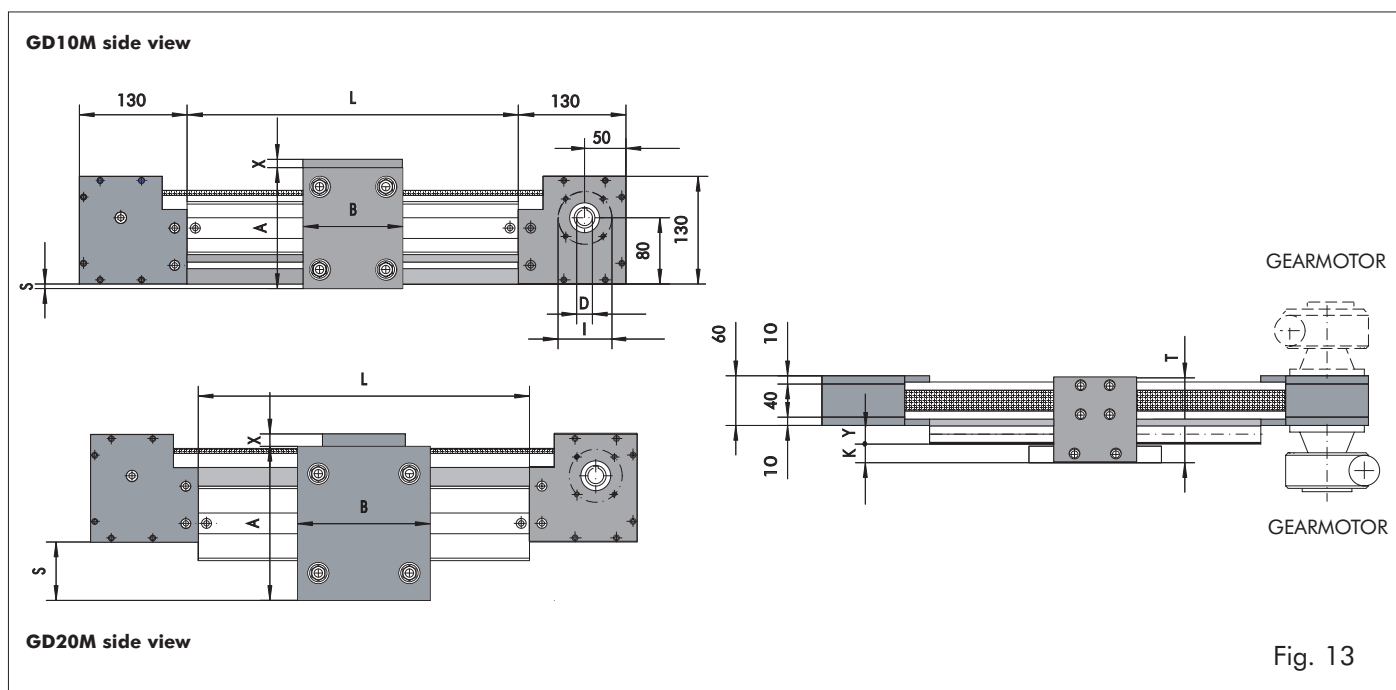


Fig. 13

## GD10MLT-GD20MLT driven Track roller guidance systems

The belt driven track roller systems **GDMLT** can be supplied from the factory with a gearmotor. Fig. n.13 and table n.9 show the side dimensions of the driven systems. Table n.10 shows the type of the gearmotor, shafts diameters, number of holes, tapping type, and the specifications for the driving devices. Fig. n.14 shows the mounting dimensions of the extrusion.

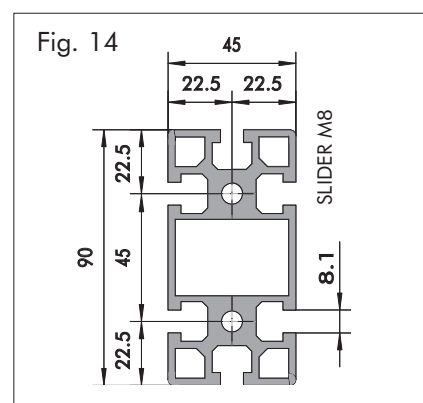
Table n°9

Type	Dimensions						
	A	B	K	S	T	X	Y
GD 10AML	120	80	11	-	80	10	12.5
GD 10BML	140	120	17	2.5	80	10	12.5
GD 10CML	150	120	24	7.5	92	15	12.5
GD 20AML	180	150	21	67.5	100	15	22.5
GD 20BML	200	180	31.5	77.5	110	14	22.5

Table n°10

Gearmotor Type	Brand	Diameter $\varnothing$	Nr° of holes	Tapping	Position
RMI-28F1	(STM)	62	4	M6	90°
RMI-40F1	(STM)	87	4	M8	90°
$\varnothing D_{H7}$	14-19 (25)				
Belt type	AT10/16		AT10/25		
Max force trans. by belt	2190 N		3600 N		
Limit of belt elasticity	7480 N		12400 N		
Motor pulley	Z20AT10-16/25				
1 rev. of motor shaft	200mm				

Belt adjustment range 14 mm



## GD6M driven Track roller guidance systems

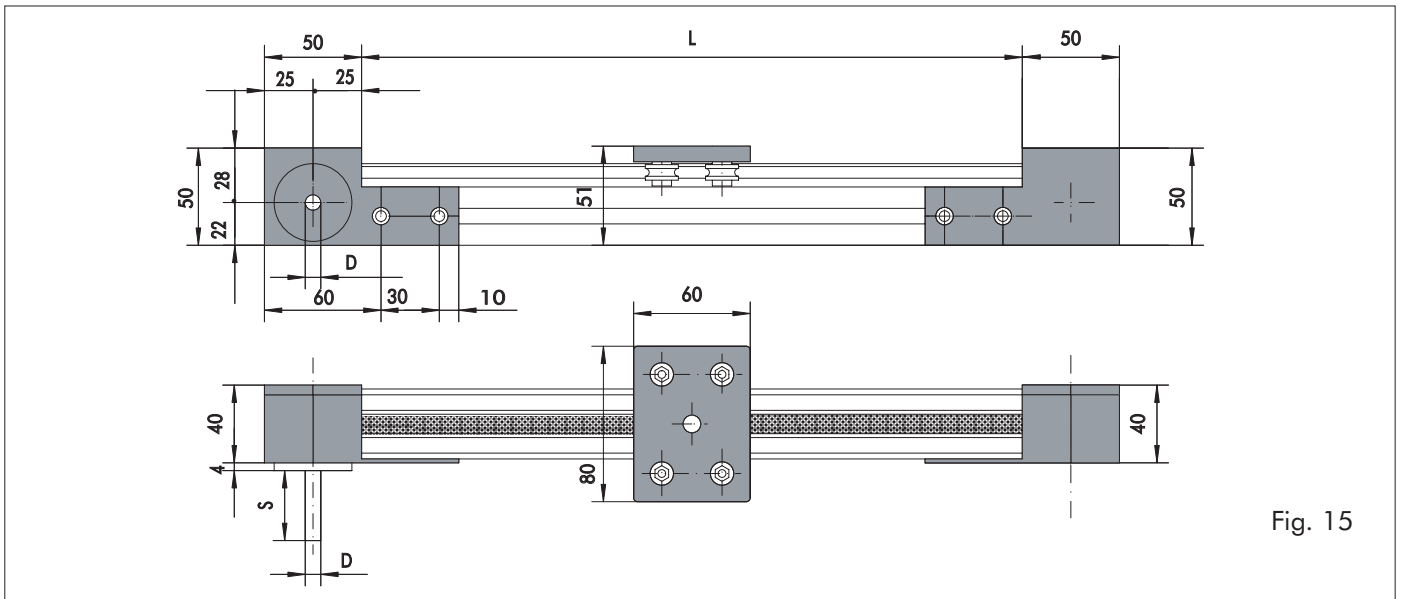


Fig. 15

## GD6M driven Track roller guidance systems

Fig n.15 shows the dimensions of the driven track roller system **GD6M**. Table n.11 shows transmission belt allowed loads, belt adjustment range, pulley circumference and the standard dimensions of the motor shaft. Fig. n.16 and table n.12 show static moments and limit loads of the carriage and the track roller.

Table n°11

Drive belt			Belt Adjustment range	Motor pulley		Motor shaft		
Type	Max force trans. by belt	Limit of belt elasticity		type	1 rev. of motor shaft	Standard S	Dh7	Special S Dh7
10AT5	630 N	1960 N	5mm	Z22AT5	110mm	40mm	ø8	specify

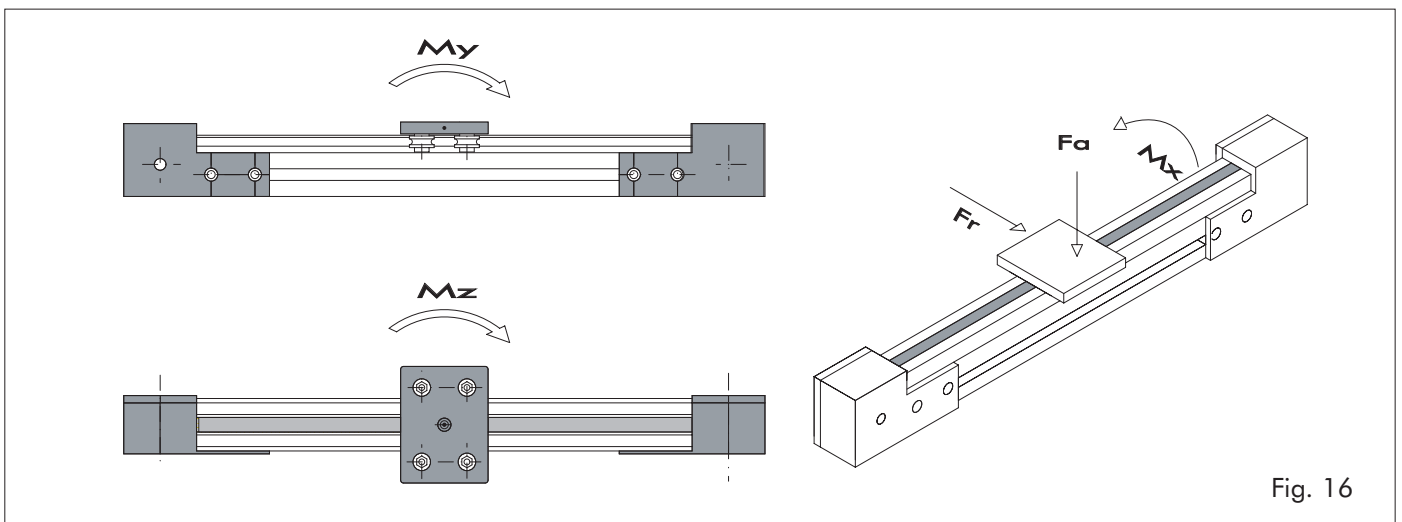


Fig. 16

Table n°12

Carriage	Track rollers	Limit load (N)		Static moment (Nm)		
		Fr	Fa	My	Mz	Mx
C6	17C - 17E	1300	888	13	20	14

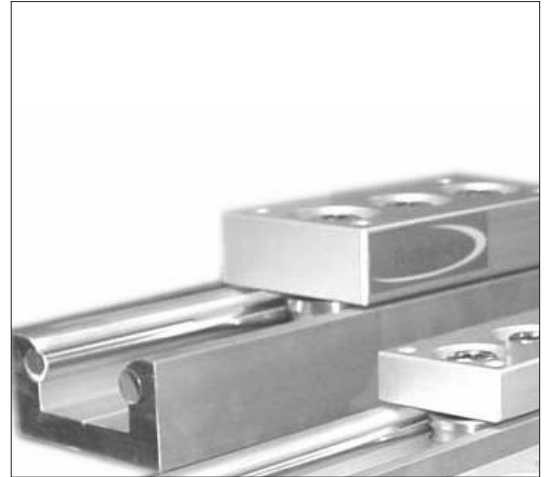
## IL Series Track roller Linear guidance systems

The systems **IL** offer compact design and good smooth rolling under heavy loads. The rail is made from an extruded aluminium profile, clear anodized as standard, in which two precision shafts are inserted via a rolling process.

The carriage and the rail have the same width. The carriage is equipped with three aligned gothic arc profile track rollers **NIKO**®. The central track roller is mounted with an eccentric stud to allow the pre-load operation of the carriage.

The main characteristics of these systems are:

- Compact design
- High translation speed
- Maintenance free
- Low noise operation
- Interchangeability
- Ease of installation
- Compact applications



## IL32 Series Track roller Linear guidance systems

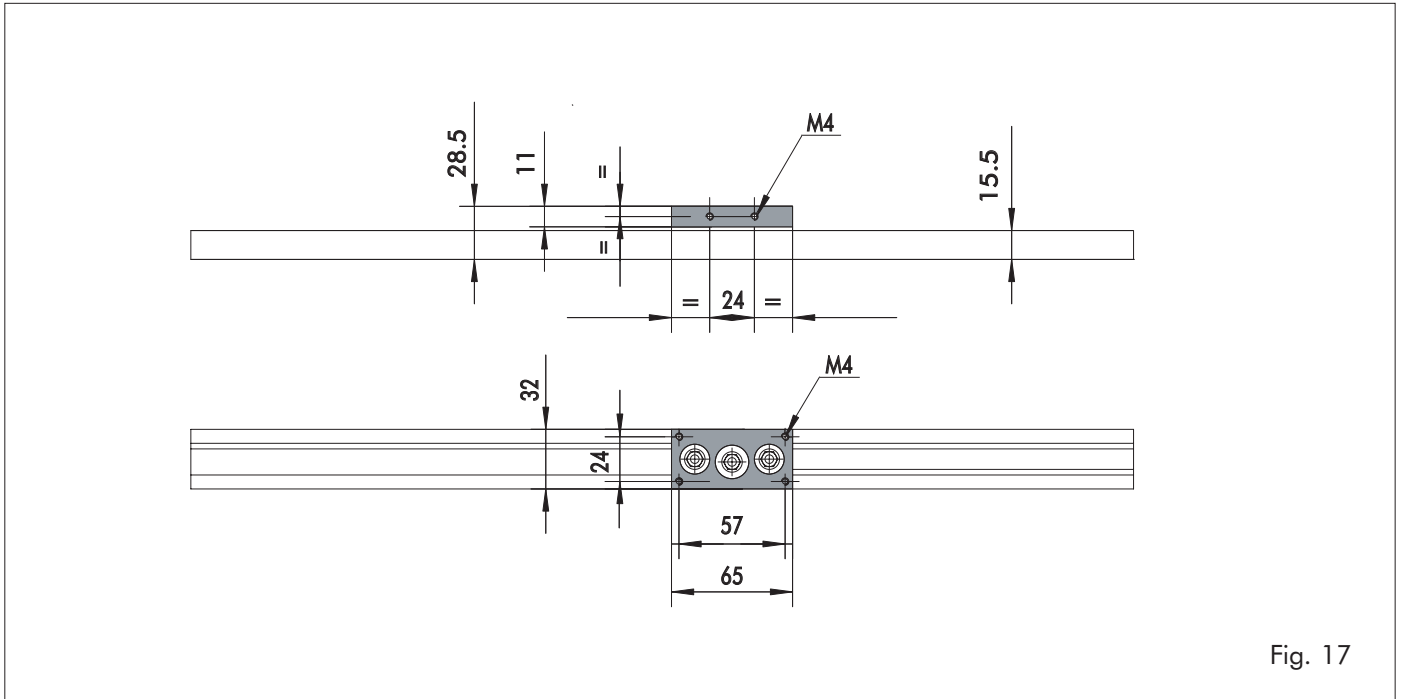


Fig. 17

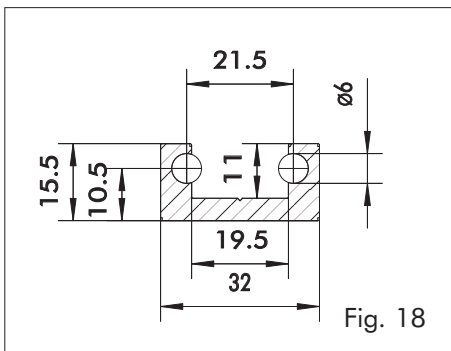


Fig. 18

### Rail shape

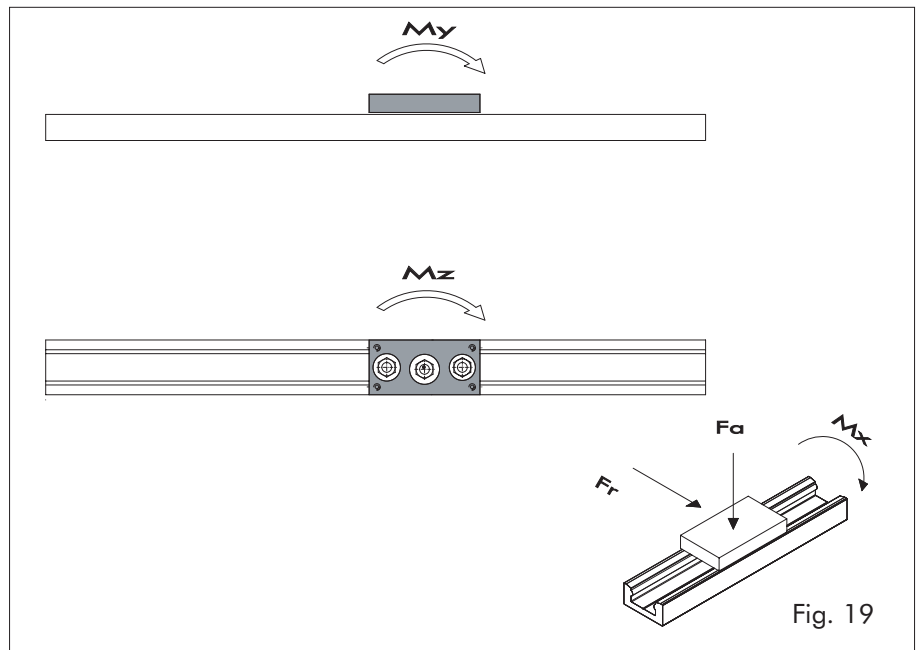


Fig. 19

### Static moments and limit loads

Table n° 12

Components		Limit load (N)		Static moment (Nm)			Carriage mass (Kg)
Carriage	Track rollers	Fr	Fa	My	Mz	Mx	
C32	RPC 17-RPE17	980	330	4	7	11	0.15



## IL42 Series Track roller Linear guidance systems

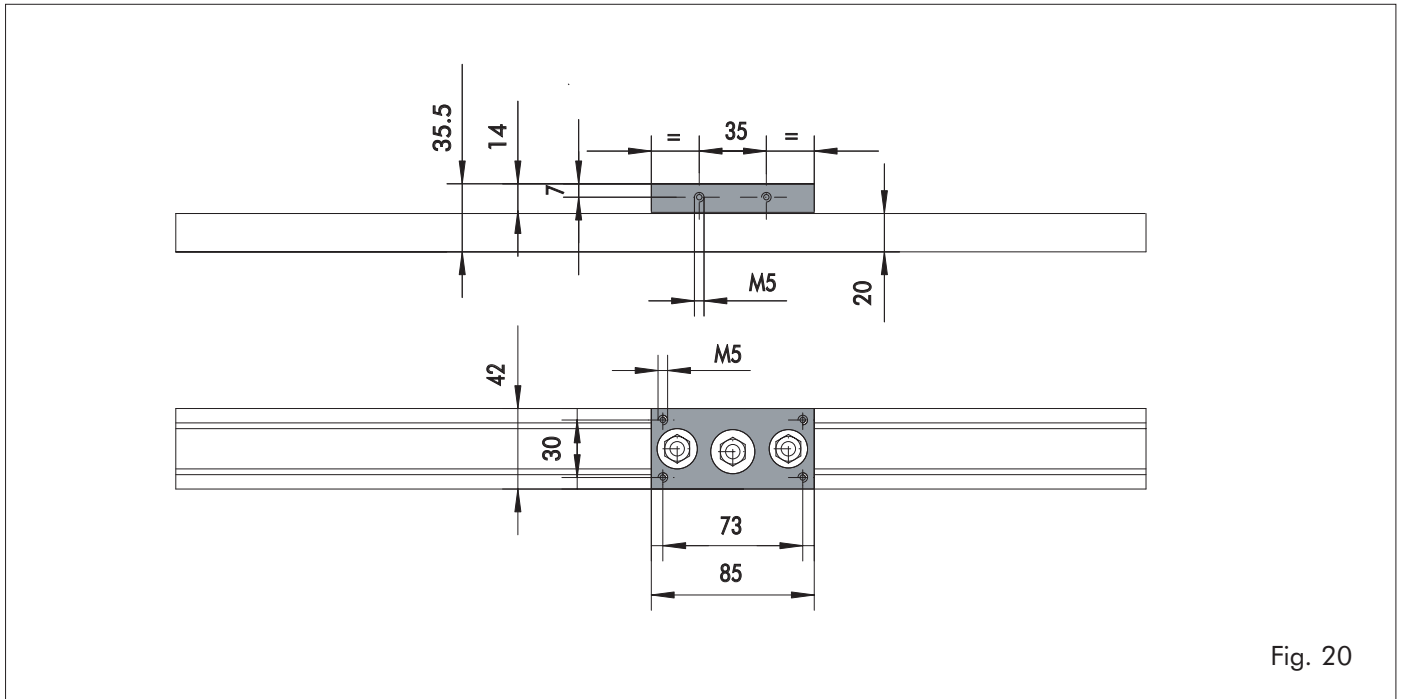


Fig. 20

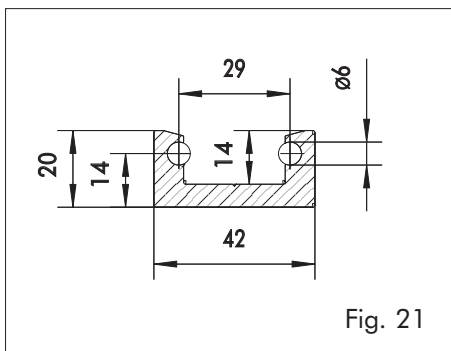


Fig. 21

### Rail shape

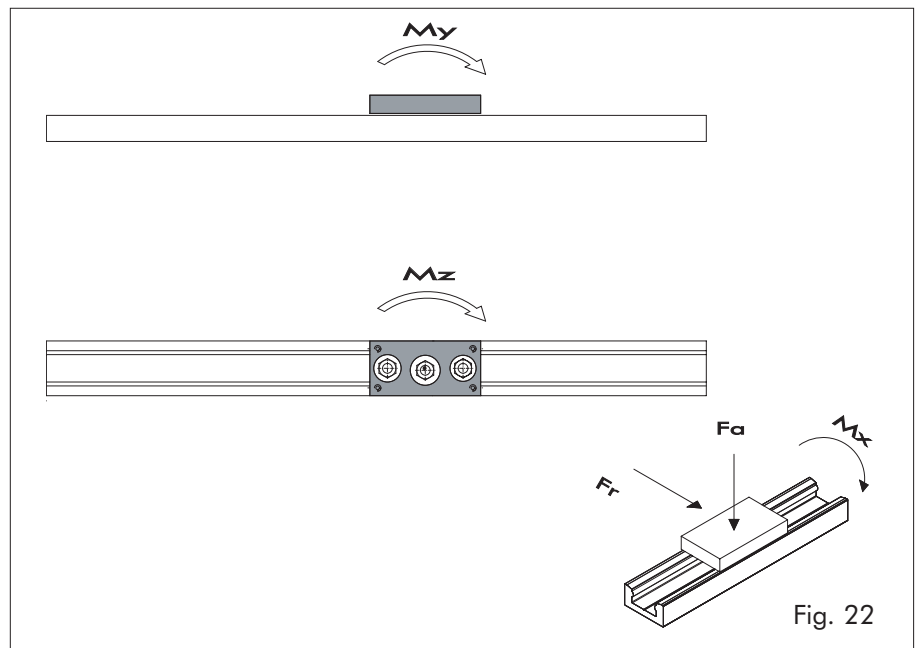


Fig. 22

### Static moments and limit loads

Table n° 13

Components		Limit load (N)		Static moment (Nm)			Carriage mass (Kg)
Carriage	Track rollers	Fr	Fa	My	Mz	Mx	
C42	RPC24-RPE24	1680	500	7,2	14,3	25	0.30

## IL65 Series Track roller Linear guidance systems

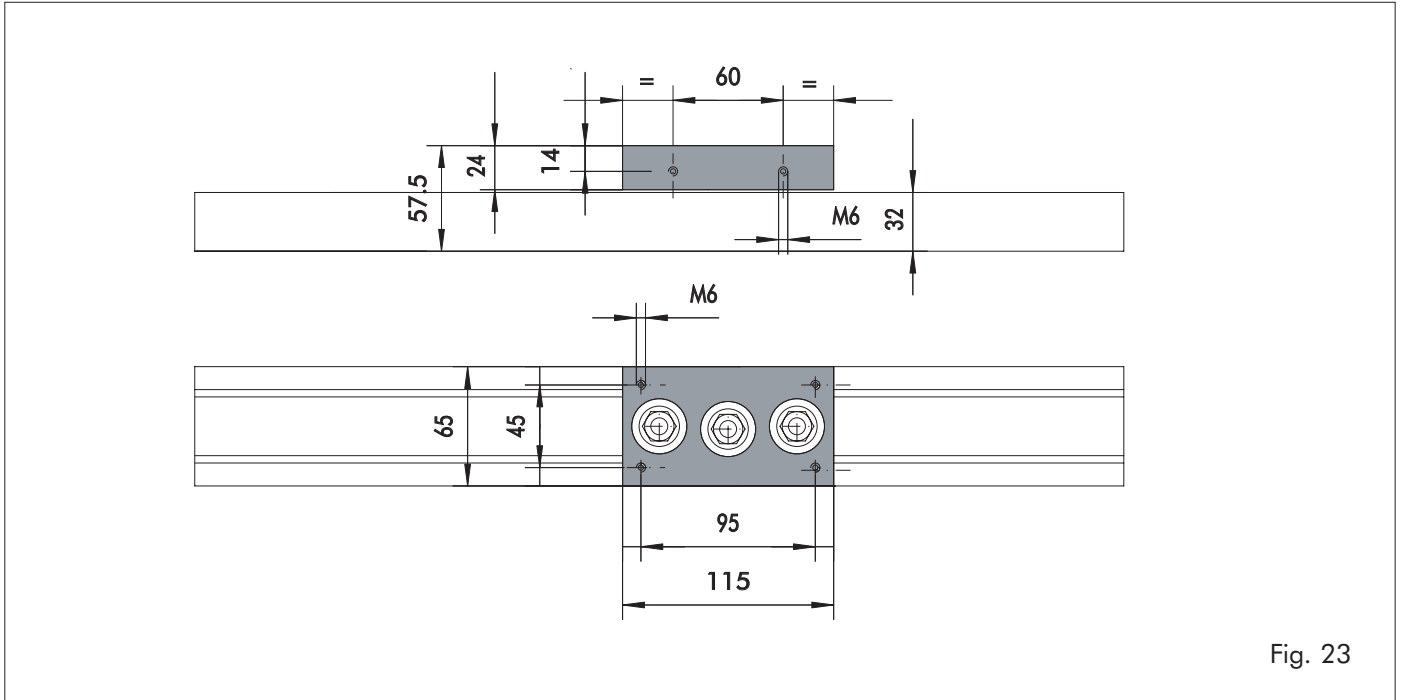


Fig. 23

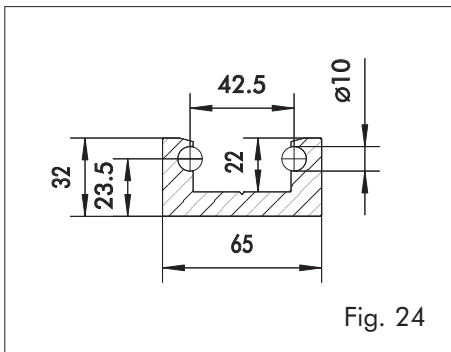


Fig. 24

### Rail shape

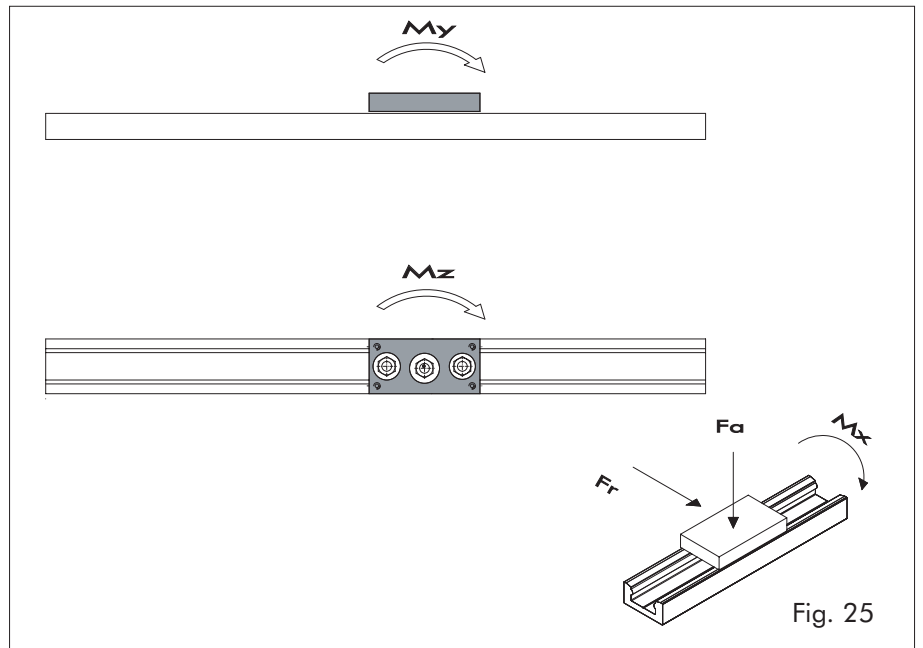


Fig. 25

### Static moments and limit loads

Table n° 14

Components		Limit load (N)		Static moment (Nm)			Carriage mass (Kg)
Carriage	Track rollers	Fr	Fa	My	Mz	Mx	
C65	RPC35-RPE35	3930	1160	26,5	47,5	81	0.80

## ILM Series driven Track roller guidance systems

The driven linear systems **ILM** offer a solution to compact and accurate motion problems. The systems **ILM** are composed of:

### Driving head

Clear anodized aluminium housing for the driving pulley.

### Idle head

Clear anodized aluminium housing for the mule pulley equipped with bearings and eccentric bolts for the adjustment of the transmission belt.

### Supporting structure

Special aluminium extrusion with beading braces, internal groove for belt and "T" slots on three sides (two sides for ILM32) for mounting. The rail IL equipped with its carriage and belt fixing plates is placed on the upper side of the aluminium profile.

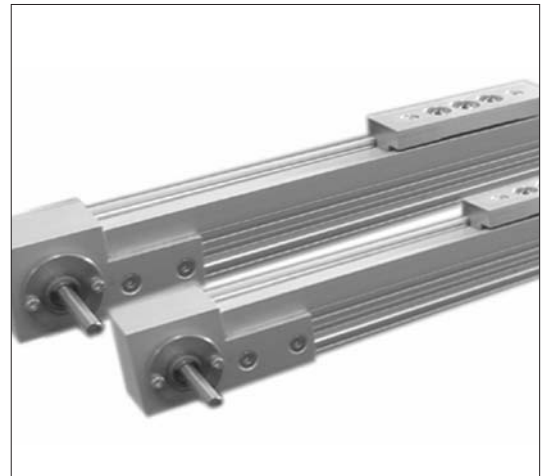
### Drive belt

Type AT pitch 5 mm. (AT pitch 10 mm. for ILM65) is a steel reinforced polyurethane toothed belt.

### Other components

Driven track rollers system ILM can be equipped with:

- Stainless steel shafts
- Steel carriages and/or non-standard dimensions
- Non standard shafts for gearmotor applications
- Adapting plates for gearmotor
- Customized engineering



## ILM32 Series driven Track roller guidance systems

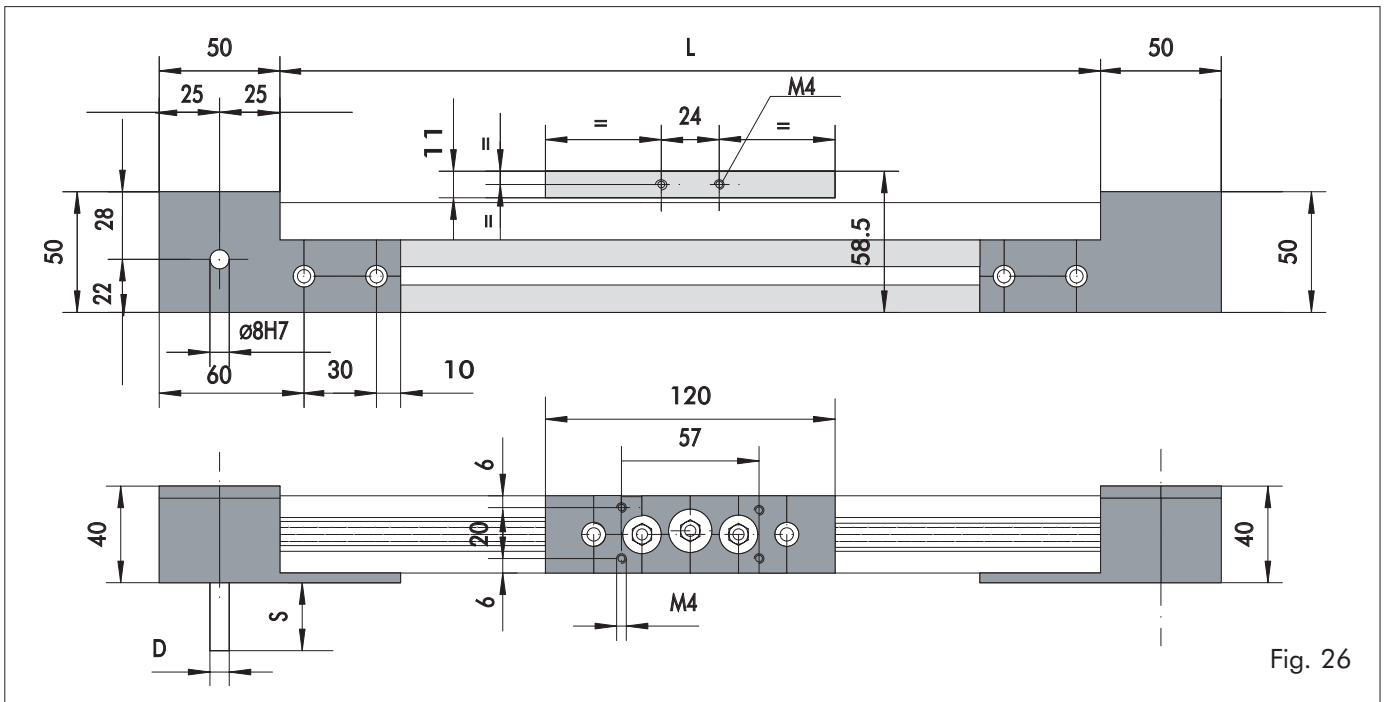


Fig. 26

Table n° 15

type	Drive belt		Belt adjustment range	Motor pulley		Motor shaft			
	Max force trans. by belt	Limit of belt elasticity		Type	1 rev. of motor shaft	Standard S	D	Special S	D
10AT5	630N	1960 N	5mm	Z 22AT5	110mm	40mm	Ø8	specify	

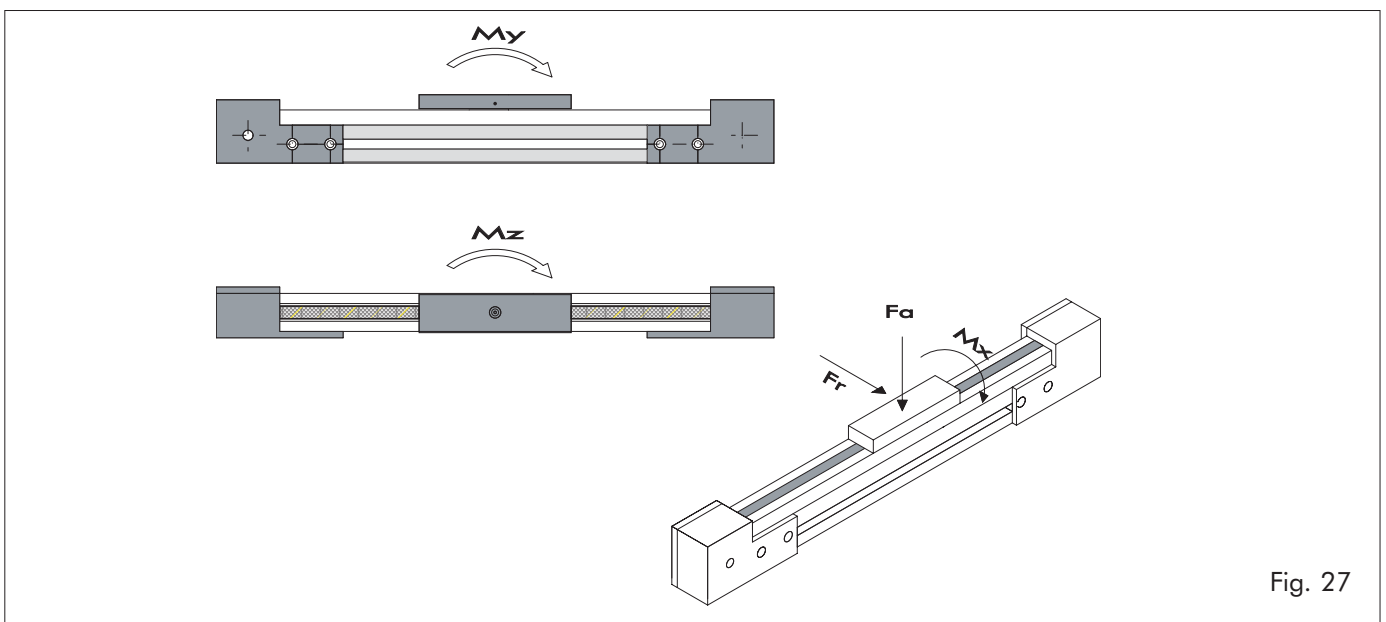


Fig. 27

### Static moments and limit loads

Table n° 16

Components		Limit load (N)		Static moment (Nm)		
Carriage	Track rollers	Fr	Fa	My	Mz	Mx
C32M	RPC 17-RPE17	1270	330	7	21	4

### ILM42 Series driven Track roller guidance systems

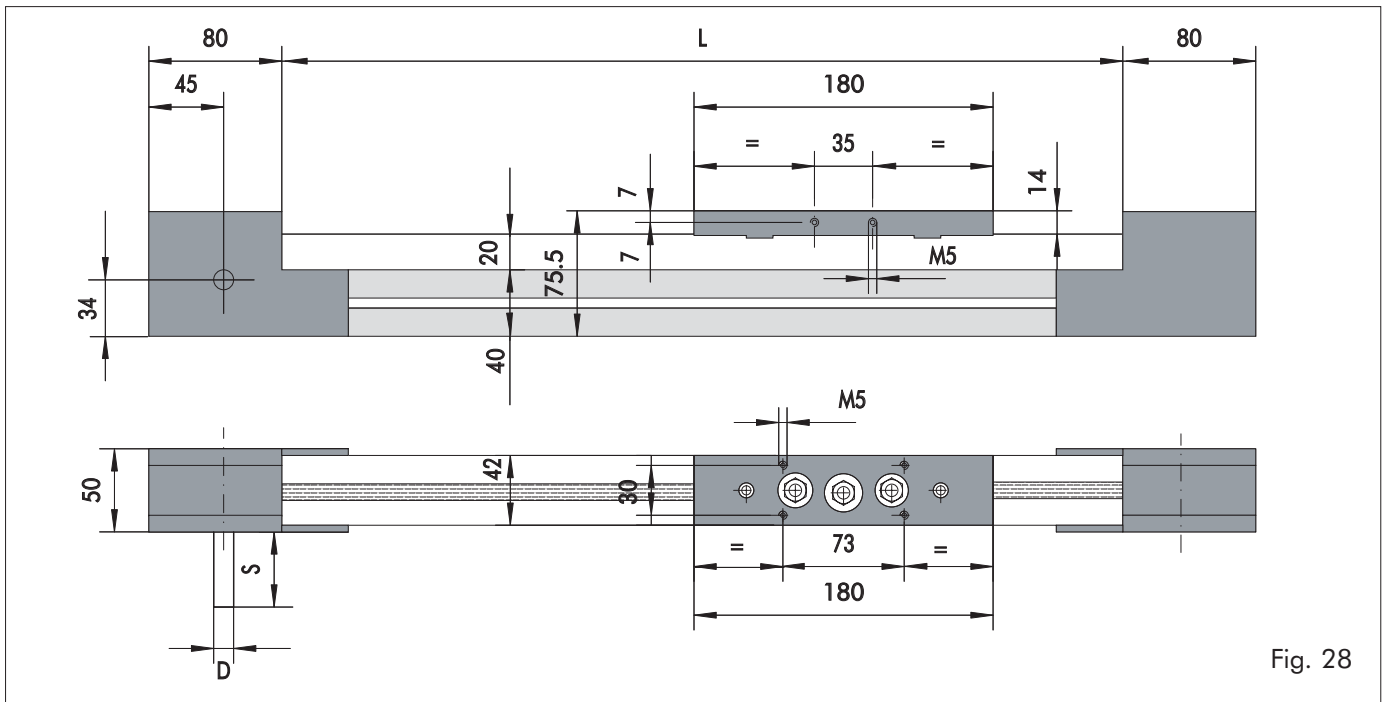


Fig. 28

Table n° 17

Type	Drive belt		Belt adjustment range	Motor pulley		Motor shaft			
	Max force transm. by belt	Limit of belt elasticity		Type	1 rev. of motor shaft	Standard S	D	Special S	D
10AT5	630N	1960 N	5mm	Z 32AT5	160mm/rev	50mm	Ø12	Specify	

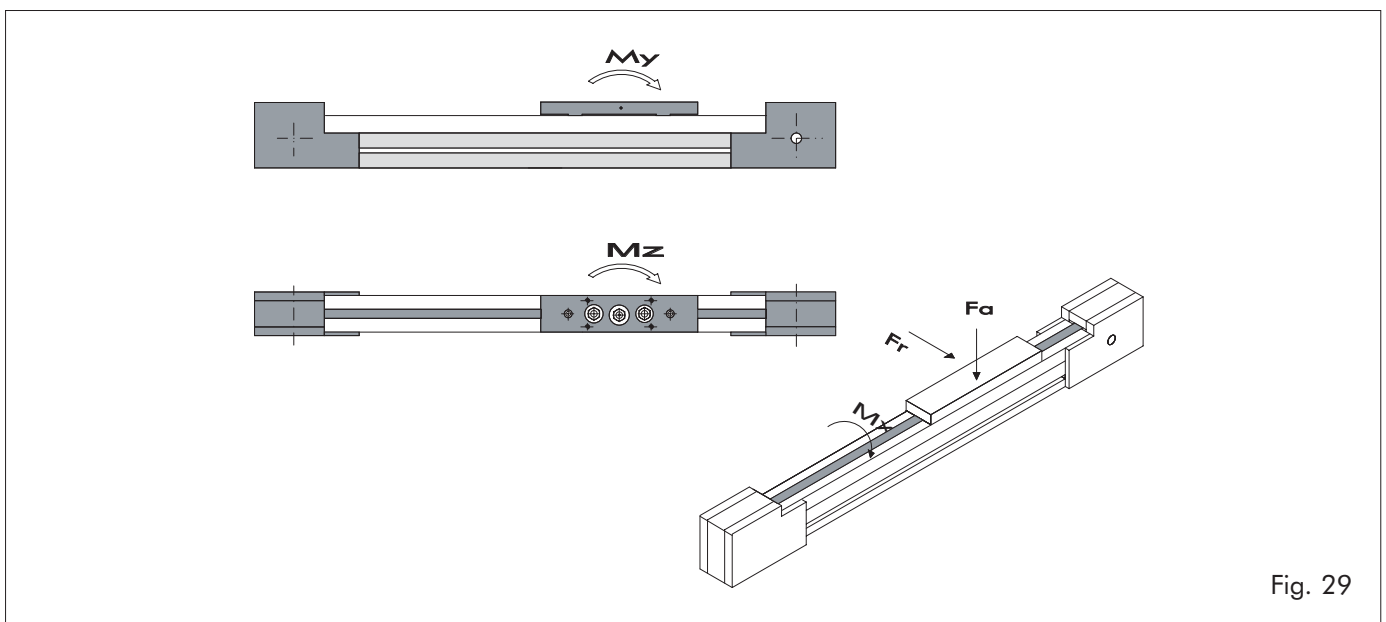


Fig. 29

### Static moments and limit loads

Table n° 18

Components		Limit load (N)		Static moment (Nm)		
Carriage	Track rollers	Fr	Fa	My	Mz	Mx
C42M	RPC24-RPE24	3600	710	32	82	14

## ILM65 Series driven Track roller guidance systems

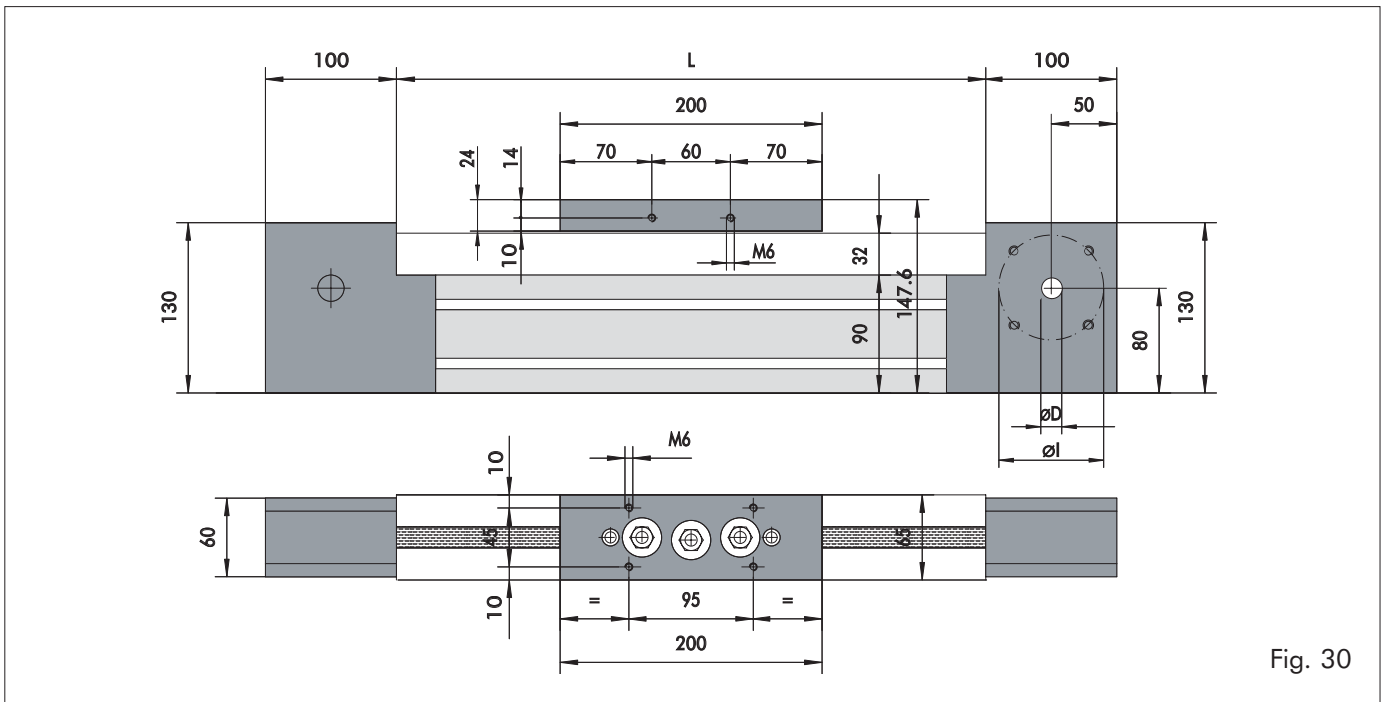


Fig. 30

Table n° 19

Type	Drive belt		Belt Adjustment range	Motor pulley		Gearmotor mounting	
	Max force trans. by belt	Limit of belt elasticity		Type	1 rev. of motor shaft	ØI	62 n°4 holes M6 90° RMI 28 F1 (STM) 87 n°4 holes M8 90° RMI 40 F1 (STM)
16AT10	2190N	7480 N	14mm	Z 20AT10	200mm	ØD H7	14-19

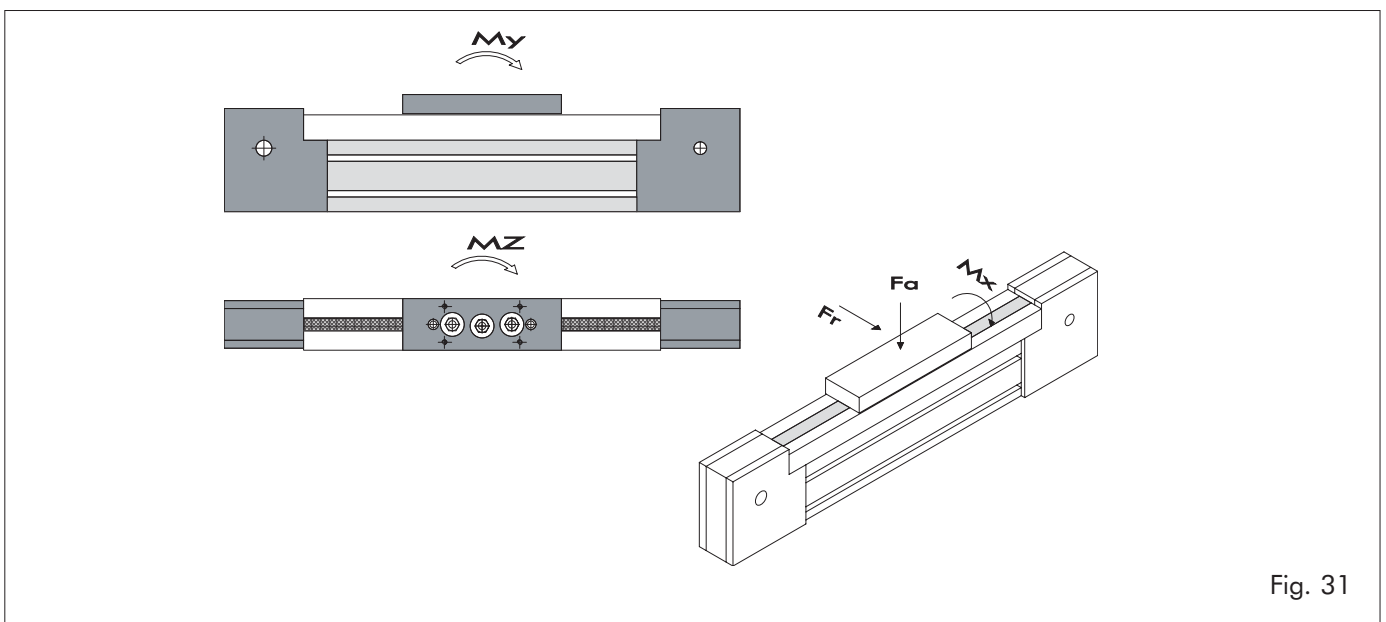
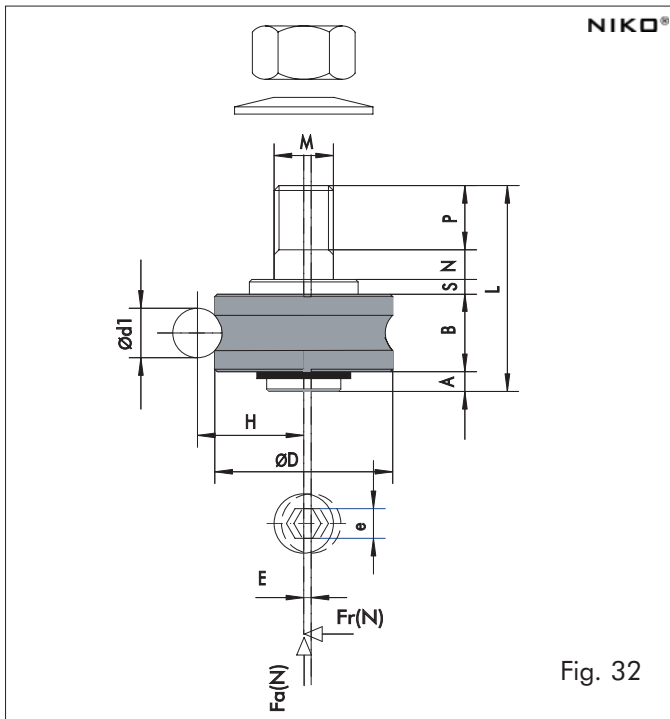


Fig. 31

## Static moments and limit loads

Table n° 20

Components		Limit load (N)		Static moment (Nm)		
Carriage	Track rollers	Fa	Fr	My	Mx	Mz
C42M	RPC35-RPE35	6240	930	105	275	93



### Track rollers for Linear guidance systems IL-ILM

The track rollers for linear system IL-ILM type RPC and RPE have a gothic arc profile. Table n.21 shows the dimensions and max allowable loads. (see fig.32)

**Table n°21**

Track roller	Rail	Dimensions											Axial load Fa (N)	Radial load Fr (N)	
		A	B	S	N	P	L	M	H	D	E	e			d <sub>1</sub>
<b>RPC17</b>	<b>IL-ILM32</b>	1.5	8	3	5	5.5	23	5	10.5	17	-	2.5	6	1700	1250
<b>RPE17</b>	<b>IL-ILM32</b>	1.5	8	3	5	5.5	23	5	10.5	17	0.5	2.5	6		
<b>RPC24</b>	<b>IL-ILM42</b>	3	11	2	6	7	29	8	14.5	24	-	4	6	4350	1250
<b>RPE24</b>	<b>IL-ILM42</b>	3	11	2	6	7	29	8	14.5	24	0.5	4	6		
<b>RPC35</b>	<b>IL-ILM65</b>	3.2	7.95	2	12	11	44	10	20.6	35	-	5	10	9700	4900
<b>RPE35</b>	<b>IL-ILM65</b>	3.2	7.95	2	12	11	44	10	20.6	35	0.75	5	10		

## Driven linear modules series TLM

The driven linear modules series **TLM** are designed for high accuracy and high speed applications.

The linear modules **TLM** are composed of:

- Self-supporting structure
- Carriage
- Transmission belt
- Protection strip
- Guiding system
- Driving head
- Idle head

### • Self-supporting structure

It is a special aluminium profile engineering to contain the components of the entire module and to obtain an high stability to flexion and torsion. The structure is provided with "T" slots grooves for mounting.

### • Carriage

Aluminium moving block containing the motion components (track rollers, blocks, ballscrews)

### • Drive belt

Type **AT** pitch 5, is a steel reinforced polyurethane toothed belt. This belt guarantees:

- High motion speed
- Low wearing
- Low noise
- Positioning accuracy
- High efficiency

### • Protection strip

Plastic strip fixed to the driving heads crossing the carriage for protecting the rail from contaminants such as dust, metal chips etc.

### • Guidance systems

According to the different requirements the following models are available:

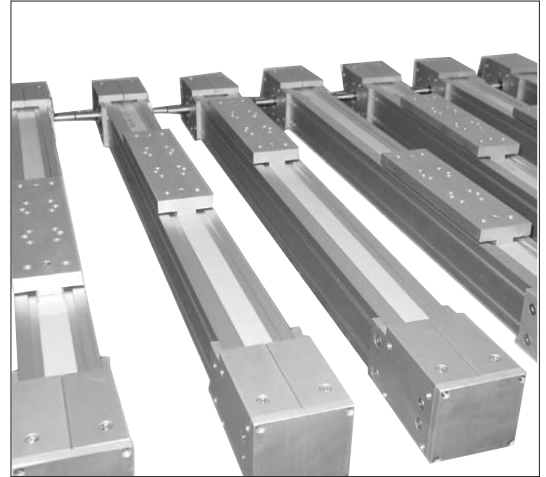
- **TLM R** - Gothic arc profile track rollers **NIKO®** rolling on hardened and chrome plated steel shafts
- **TLM G** - Ball bearing guideway + blocks
- **TLM V** - Ball bearing guideway + blocks + ballscrew

### • Driving head

Clear anodized aluminium block housing the driving pulley and the transmission shaft

### • Idle head

Clear anodized aluminium block housing the mule pulley and the belt tension adjustment device.





## Series TLM 65-80 - Driven linear modules

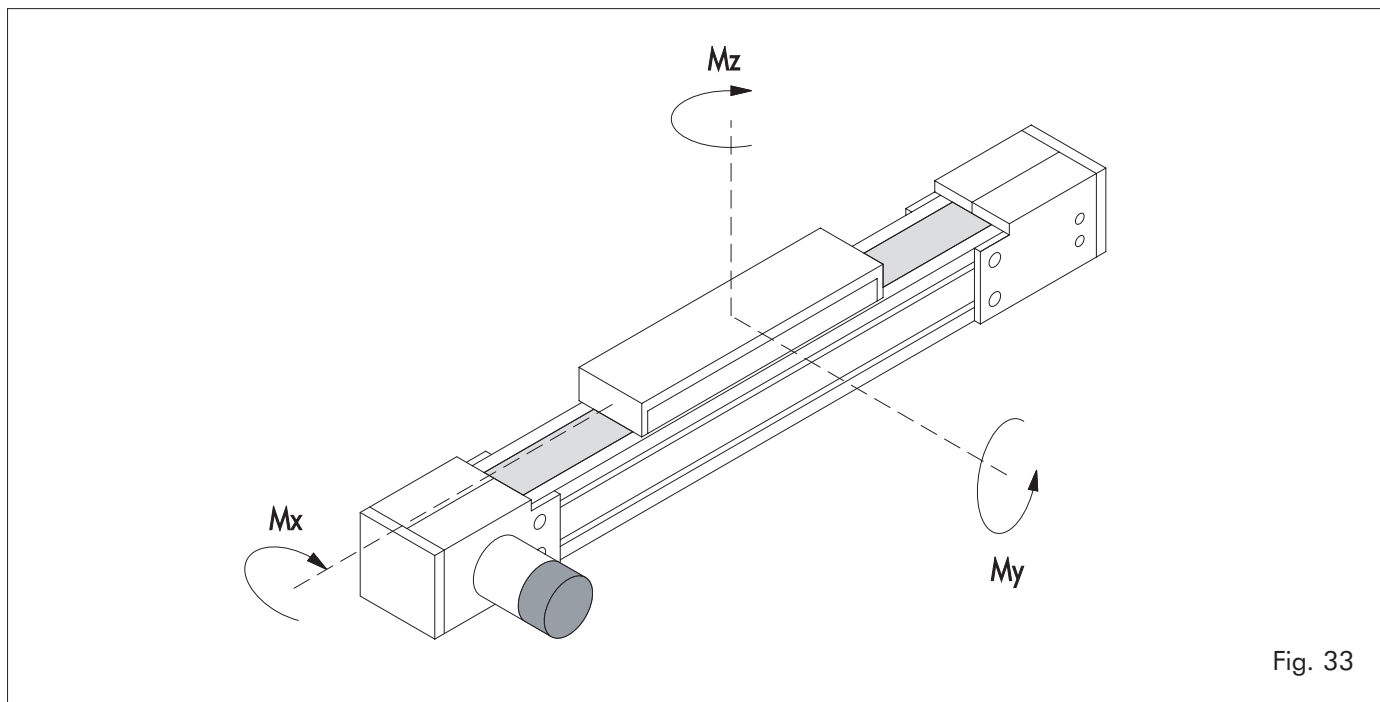


Fig. 33

Table n° 22

Informations		TLM65R	TLM65G	TLM65V	TLM80R	TLM80G	TLM80V
Working stroke min.	mm	105	105	105	105	105	105
Working stroke max.	mm	5730	5730	5800	5670	5670	5700
Max traverse speed	m/s	2.5	4.5	-	2.5	4.5	-
Recirculating ballscrew (standard)				16P5			16P5
Drive belt		AT5x35	AT5x35		AT5x50	AT5x50	
Motor pulley		34AT5	34AT5		37AT5	37AT5	
1 rev. of motor shaft	mm	170	170		185	185	
Carriage mass	Kg.	1.1	1.2	1.2	2.4	2.5	2.5
Zero stroke	Kg.	3.4	3.6	2.8	6.2	6.4	3.6
100 mm. stroke	Kg.	0.6	0.7	0.9	1.1	1.3	1.4

Table n° 23

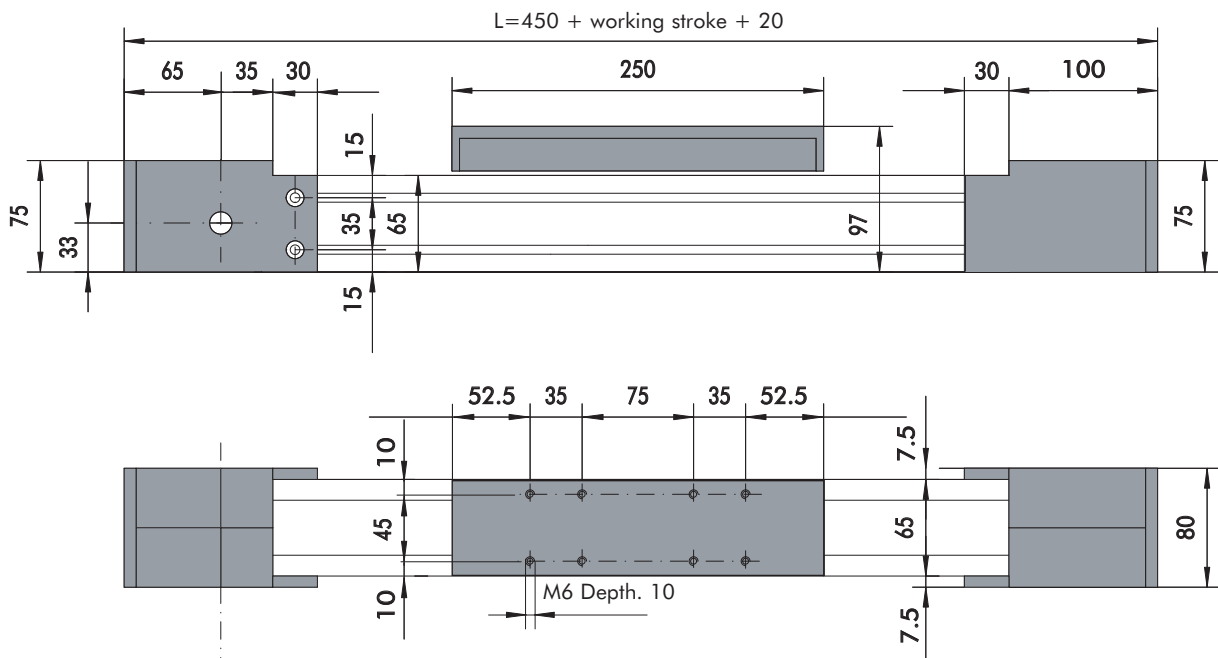
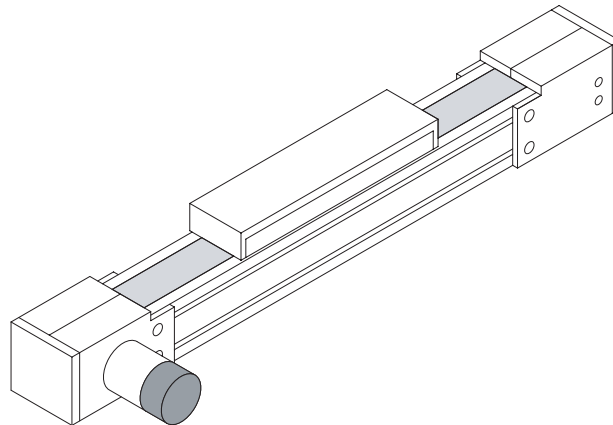
Loads (N)	TLM65R		TLM65G		TLM65V		TLM80R		TLM80G		TLM80V	
	static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic
	635	530	16500	3400	16500	3400	635	530	23400	4600	23400	4600

Table n° 24

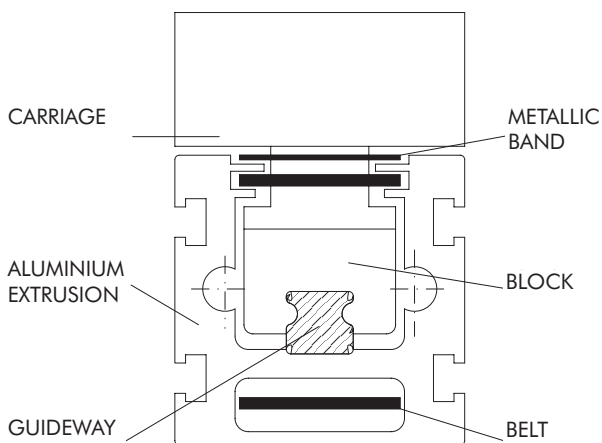
Moments (Nm)	TLM65R		TLM65G		TLM65V		TLM80R		TLM80G		TLM80V	
	static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic
Mz	16	13	68	15	68	15	38	35	118	25	118	25
My	26	24	445	92	445	92	98	92	860	178	860	178
Mx	42	42	380	82	380	82	176	176	740	160	740	160

### TLM65G - Driven linear modules dimensions

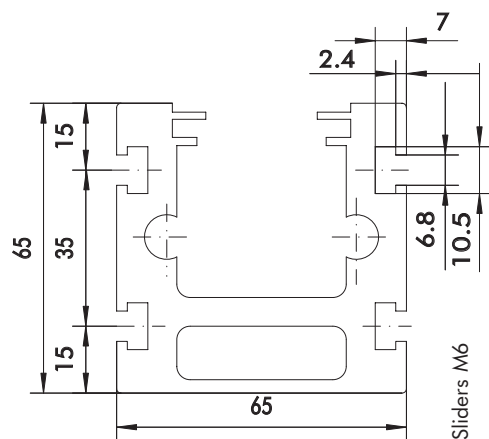
Fig. 36



TLM65G  
COMPONENTS

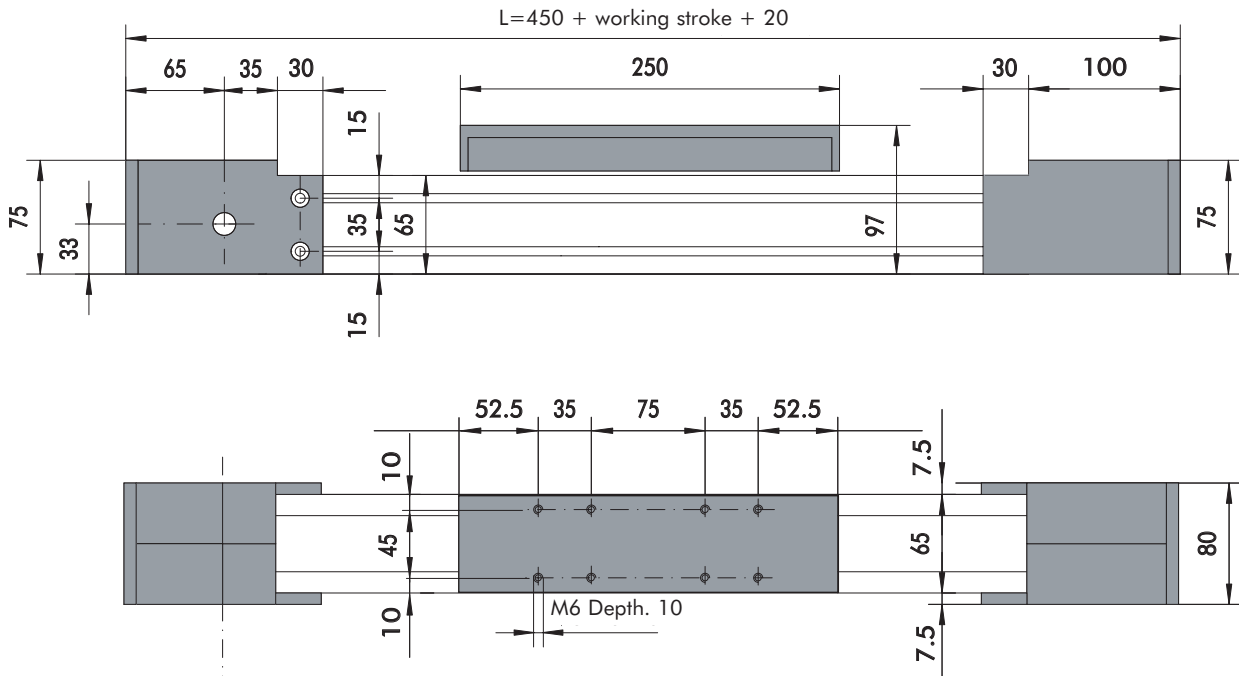
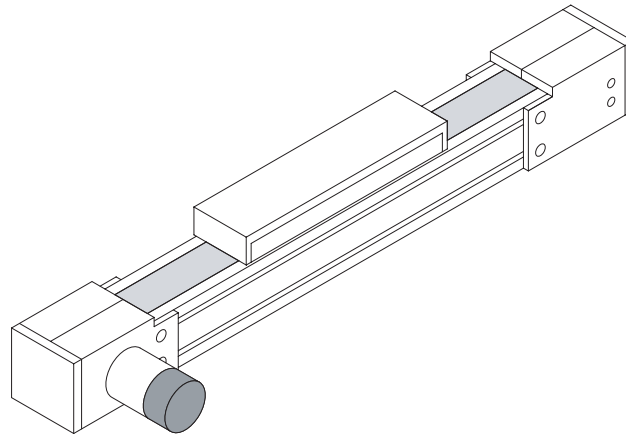


TLM65G  
"T" SLOTS

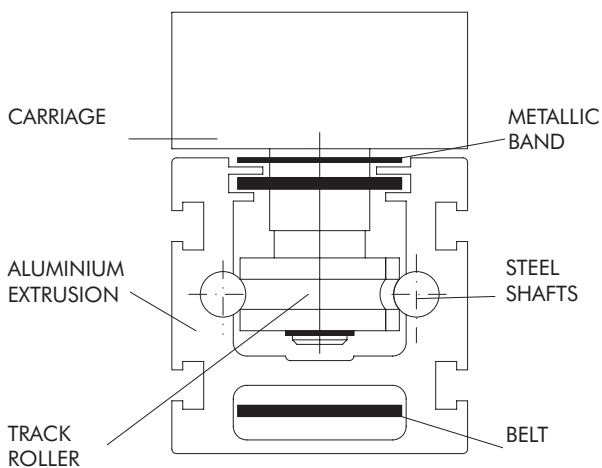


### TLM65R - Driven linear modules dimensions

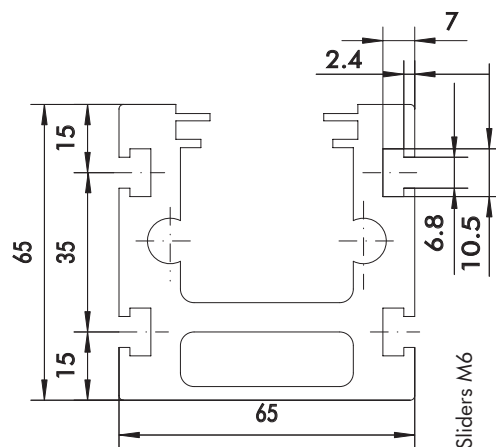
Fig. 37



TLM65R  
COMPONENTS

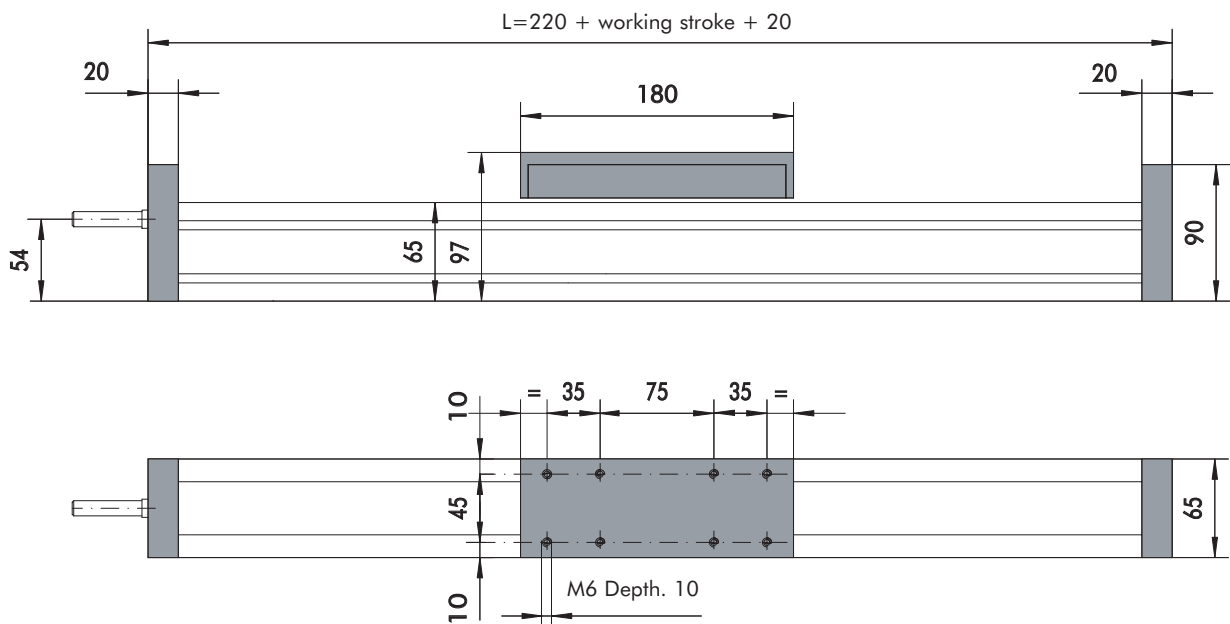
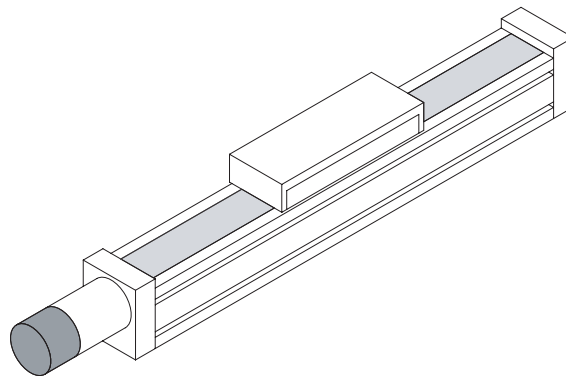


TLM65R  
"T" SLOTS



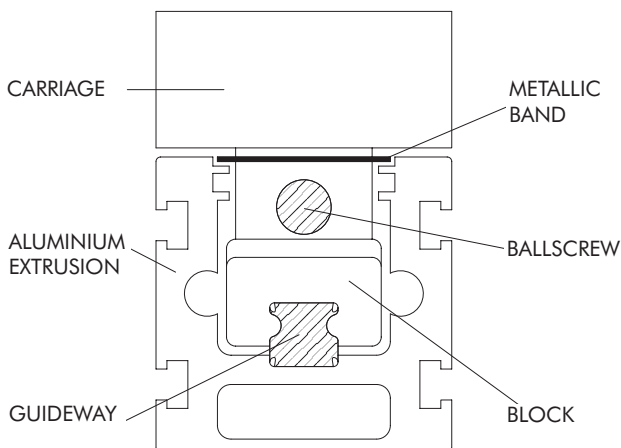
TLM65V - Driven linear modules dimensions

Fig. 38



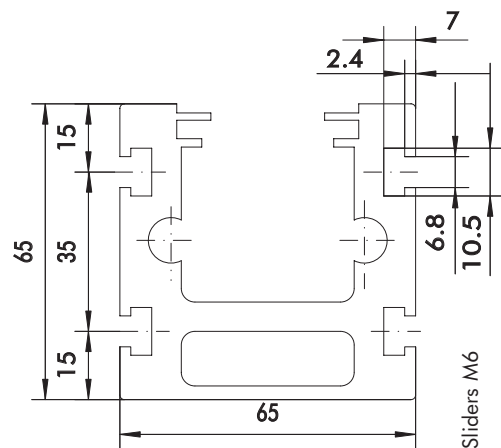
TLM65V

COMPONENTS



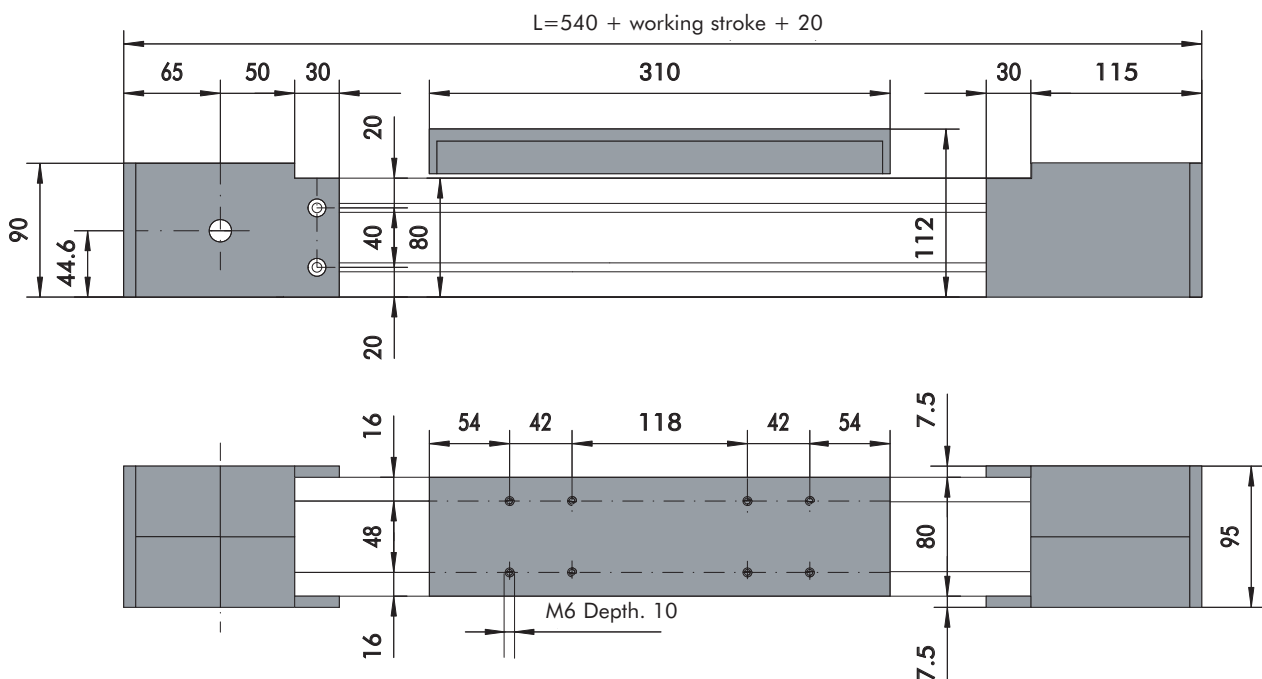
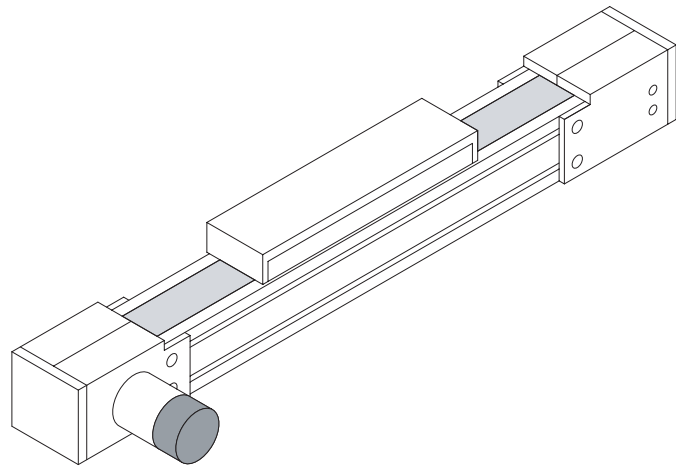
TLM65V

"T" SLOTS

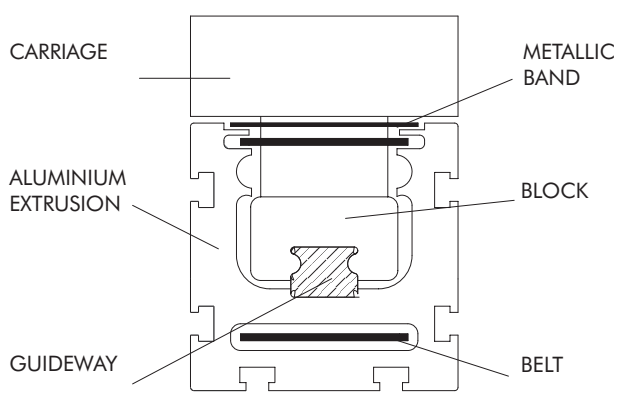


### TLM80G - Driven linear modules dimensions

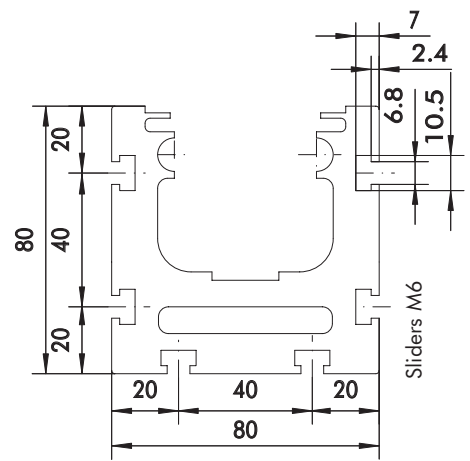
Fig. 39



TLM80G COMPONENTS

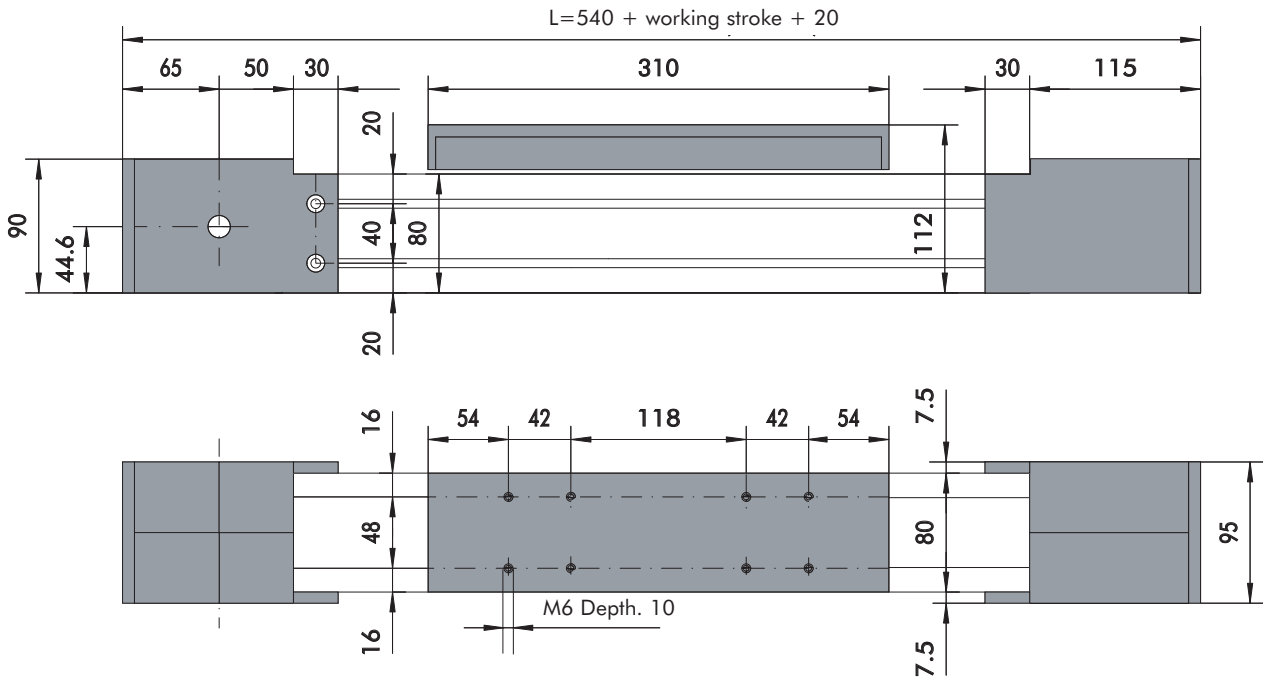
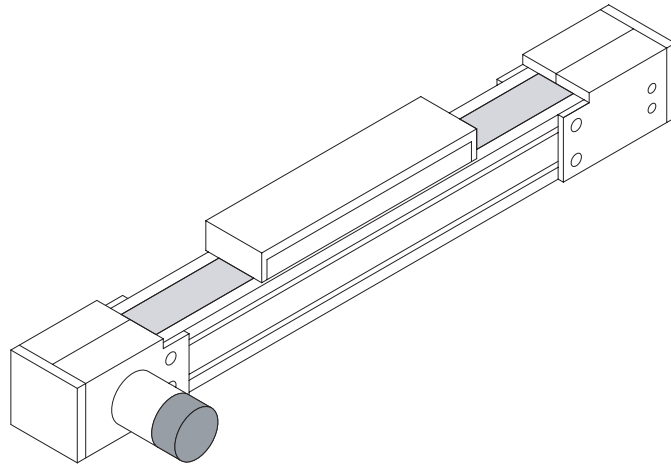


TLM80G "T" SLOTS



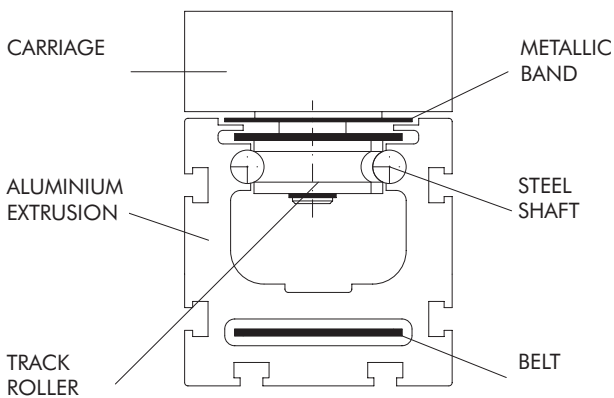
**TLM80R - Driven linear modules dimensions**

Fig. 40



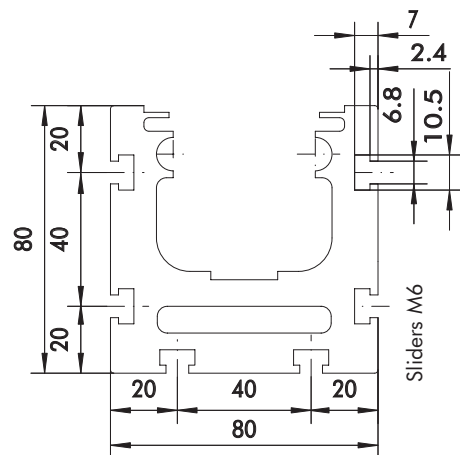
**TLM80R**

**COMPONENTS**



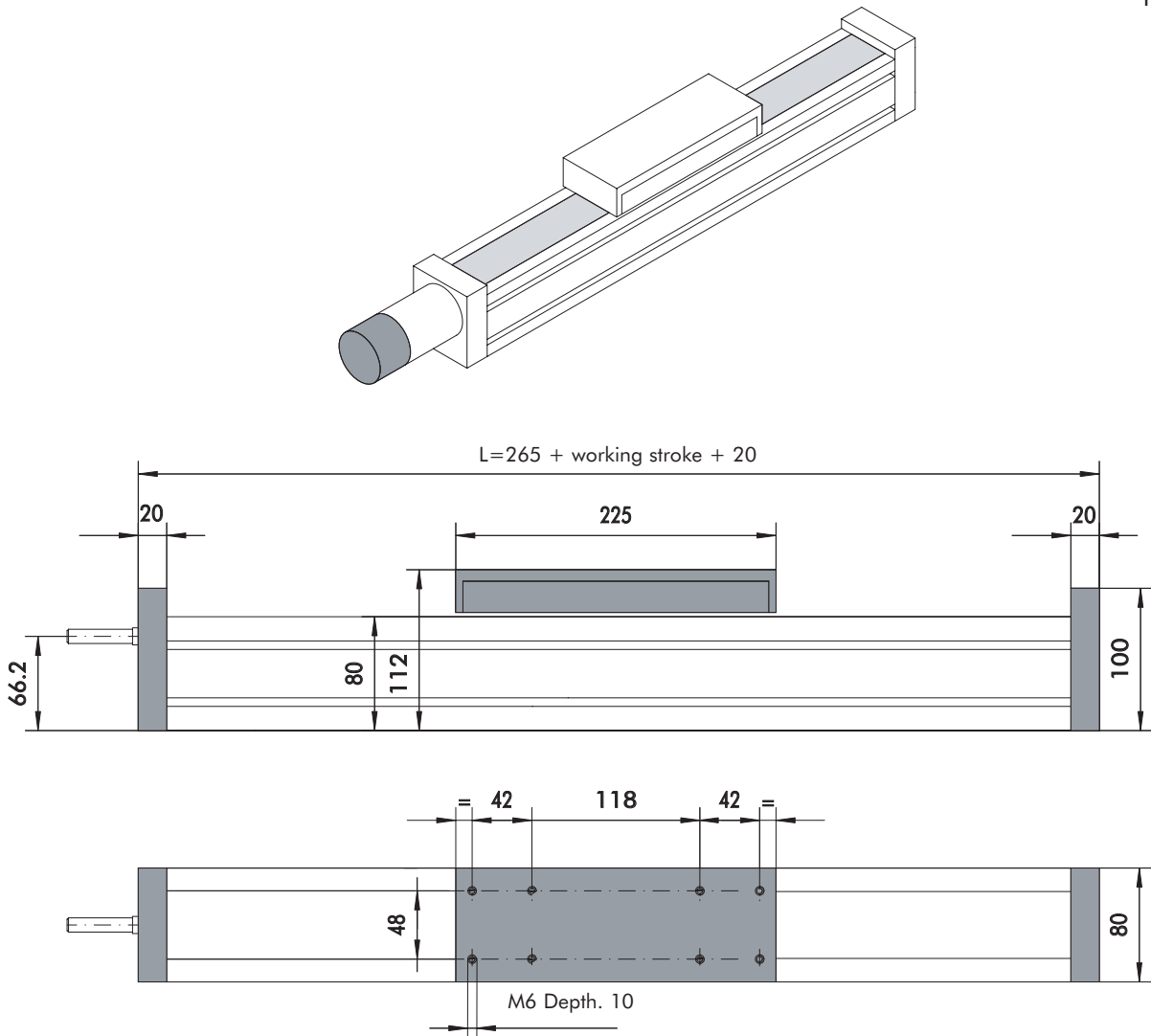
**TLM80R**

**"T" SLOTS**



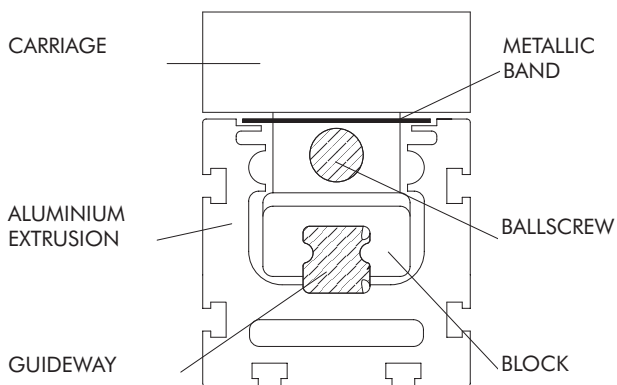
### TLM80V - Driven linear modules dimensions

Fig. 41



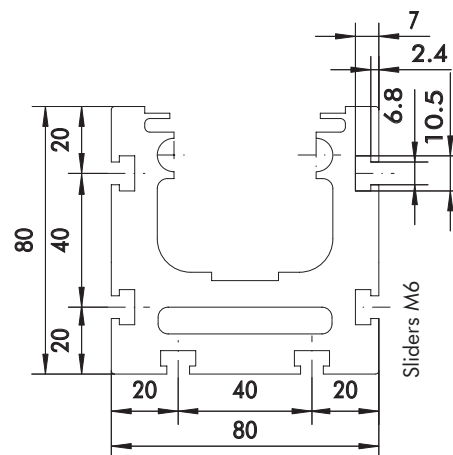
#### TLM80V

#### COMPONENTS



#### TLM80V

#### "T" SLOTS



## SLTL Series Linear Tables

The linear table series **SLTL** are precision systems designed for applications that require high accuracy and repeatability. These systems are composed of:

- Driving head
- Support end
- Motion carriage
- Supporting shafts and guideway

### Driving head

Clear anodized aluminium plate equipped with angular ball bearings and clamping units for the guiding shafts.

### Support end

Clear anodized aluminium plate equipped with ball bearings and clamping units for the guiding shafts.

### Motion carriage

Clear anodized aluminium moving block equipped with ball-screw nut and ball bushings for axial motion.

### Supporting shafts and guideway

Standard **FTSN** extruded aluminium support + hardened and chrome plated shafts.





## SLTL Series Linear Tables

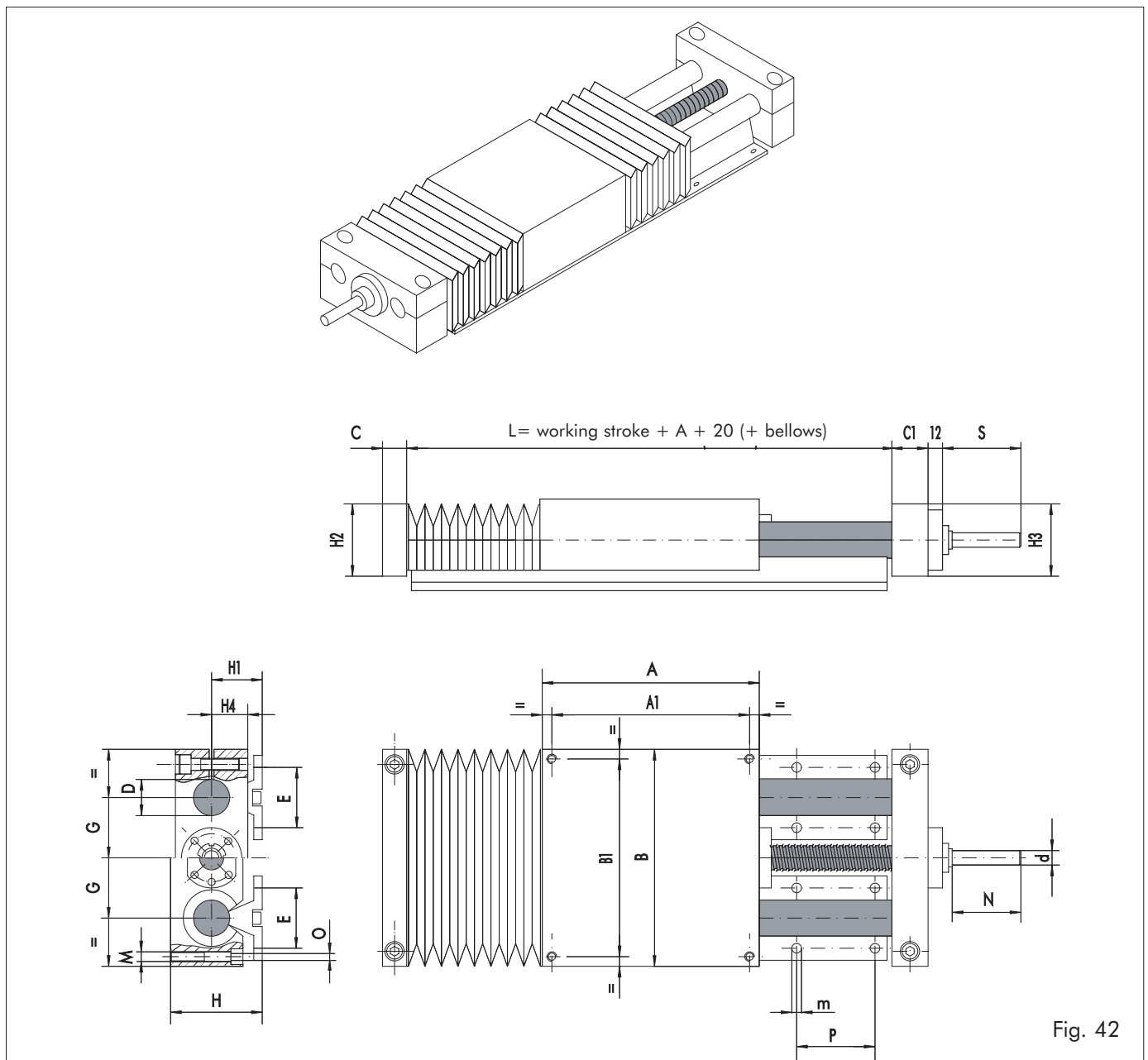


Fig. 42

Table n° 25

Type	A	A1	B	B1	C	C1	D	d	E	G	H	H1	H2	H3	H4	M	m
<b>STL16-124</b>	100	88	100	88	18	24	16	5	33	27	48	26	32	32	16	M6	5.5
<b>STL20-165</b>	130	115	130	115	20	29	20	9	37	36	57	32	42	42	21	M8	6.6
<b>STL25-165</b>	160	140	160	140	25	33	25	9	42	44	66	36	52	52	26	M10	6.6
<b>STL30-205</b>	180	158	180	158	25	38	30	10	51	48	77	42	58	58	29	M12	9

Table n° 26

Type	N	O	P	S	Ball screw type	Code	Dynamic load (Kgf)	Static load(Kgf)
<b>STL16-124</b>	12	5.3	75	16.5	Dia.12 pitch 4	RSB12-04B1	344	574
<b>STL20-165</b>	18	6.7	100	25	Dia.16 pitch 5	FSI16-05T3	664	1196
<b>STL25-165</b>	18	8.5	120	22.5	Dia.16 pitch 5	FSI16-05T3	664	1196
<b>STL30-205</b>	18	10.3	150	24.5	Dia.20 pitch 5	FSI20-05T4	939	1993

## SLTL Series Linear Tables. Static moments and limit loads

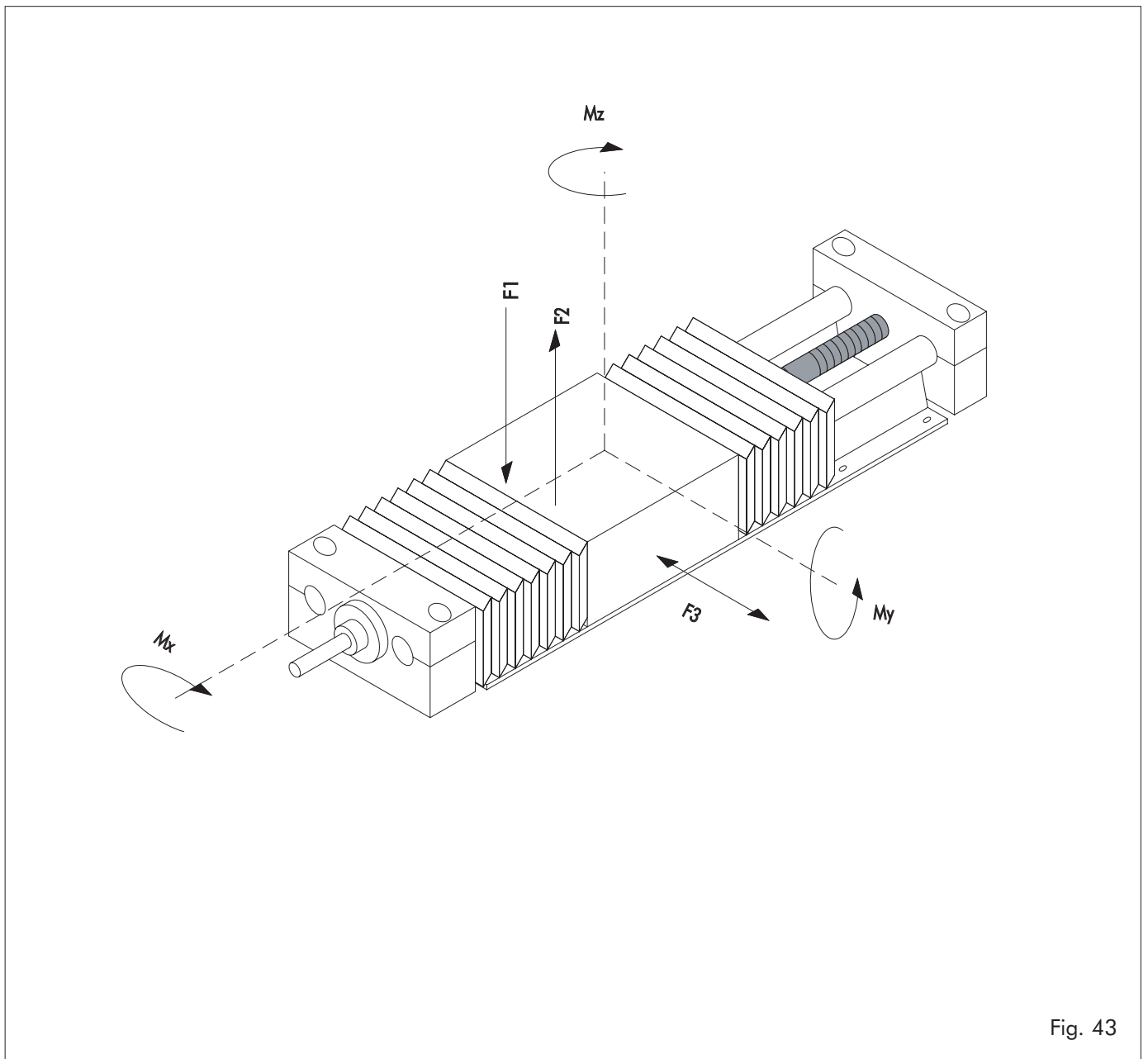


Fig. 43

**Table n° 27**

Loads (N)	SLTL16 - 124		SLTL20 - 165		SLTL25 - 165		SLTL30 - 205	
	Dynamic	Static	Dynamic	Static	Dynamic	Static	Dynamic	Static
<b>F1</b>	1800	2450	3600	5000	6585	9260	8340	12160
<b>F2</b>	820	980	2000	2800	3670	5135	4600	6650
<b>F3</b>	1500	2100	3680	5220	6585	9260	8340	12160

**Table n° 28**

Loads (Nm)	SLTL16 - 124	SLTL20 - 165	SLTL25 - 165	SLTL30 - 205
	Static	Static	Static	Static
<b>Mx</b>	28	104	230	320
<b>My</b>	34	125	265	378
<b>Mz</b>	68	223	480	675

## Italy

### **fait international spa**

Headquarters and Warehouse  
Via Scarpettini, 354-3

**59013 Oste Montemurlo (PO)**

Tel: +39 (0574) 68121 s.p.

Fax: +39 (0574) 681262

e-mail: [info@faitinternational.com](mailto:info@faitinternational.com)

web: [www.faitinternational.com](http://www.faitinternational.com)

### **fait international spa**

Via Marche, 12

**36015 Schio (VI)**

Tel: +39 (0445) 575945

Fax: +39 (0445) 575997

e-mail: [info@faitinternational.com](mailto:info@faitinternational.com)

web: [www.faitinternational.com](http://www.faitinternational.com)

### **fait international spa**

Via Danimarca, 21

**20093 Cologno Monzese (MI)**

Tel: +39 (02) 26708477

Fax: + 39 (02) 26708887

e-mail: [info@faitinternational.com](mailto:info@faitinternational.com)

web: [www.faitinternational.com](http://www.faitinternational.com)

## France

### **France Lineaire Industrie SARL**

25, Rue André Chénier

**69120 Vaulx en Velin**

Tel: +33 (0) 472 149313

Fax: +33 (0) 472 149314

e-mail: [fli@fli-industrie.fr](mailto:fli@fli-industrie.fr)

web: [www.faitinternational.com](http://www.faitinternational.com)

## USA

### **fait USA inc.**

1901 Gehman Road

**Kulpsville, Pa 19443**

Mailing address: fait Usa, inc

P.O. box 5067 - New Britain , PA 18901 USA

Tel: +1 (215) 513-4200

Fax: +1 (215) 513-4294

e-mail: [arunk@snip.net](mailto:arunk@snip.net)

web: [www.faitinternational.com](http://www.faitinternational.com)

## Germany

### **fait Deutschland GmbH**

Neue Industriestr. 28

**66424 Homburg, (Saar)**

Tel. +49 (0) 6841 9930190

Fax. -49 (0) 6841 99301929

e-mail: [info@fait-deutschland.com](mailto:info@fait-deutschland.com)

web: [www.faitinternational.com](http://www.faitinternational.com)

## Romania

### **SC Cromsteel Industries SA**

Str. Laminorului, 16

**130089 Targoviste - Romania**

Tel: +40 (245) 213261; (245) 213925; (245) 635730

Fax: +40 (245) 213360

e-mail: [cromsteel@romwest.ro](mailto:cromsteel@romwest.ro)

web: [www.cromsteel.ro](http://www.cromsteel.ro)



**fait international spa**

Headquarters and warehouse

Via Scarpellini, 354-3

**59013 Oste Montemurlo (PO) - Italia**

Tel: +39 (0574) 68121 s.p.

Fax. +39 (0574) 681262

e-mail: [info@faitinternational.com](mailto:info@faitinternational.com)

web: [www.faitinternational.com](http://www.faitinternational.com)