ROLLON®

LinearEvolution

Actuator Line

Part 3

General catalogue

English

www.rollon.com

When you move. We move

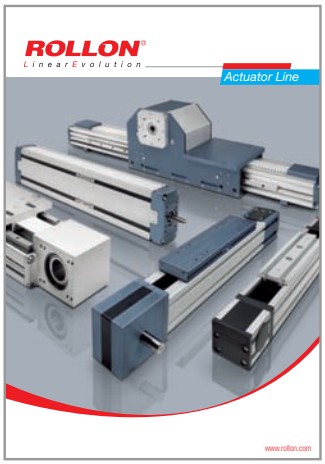
Rollon S.p.A. was founded in 1975 as a manufacturer of linear motion components. Today Rollon group is a leading name in the design, production, and sale of linear rails, telescopic rails, and actuators, with headquarters based in Italy and offices and distributors located throughout the world. Rollon products are used in many industries, providing creative and efficient solutions in a wide variety of applications.

Rollon solutions for linear motion

Linear Line

Telescopic Line

Actuator Line



Actuator System Line

Linear Rails

Rails with roller bearings
Rails with caged ball bearings
Rails with recirculating ball bearing

Telescopic Rails

Rails with partial/total extension
Heavy duty rails
Rails for automated and manual applications

Actuators

Belt driven actuators
Ball screw driven actuators
Rack and pinion actuators

Solutions for industrial automation

Multi-axis for pick and place
Telescopic actuators
Seventh axis for robots
Solutions for metal sheet handling

Core Competencies

- Full range of linear rails, telescopic rails and actuators
- Worldwide presence with branches and distributors
- Fast delivery all over the world
- Large technical know-how for applications

Standard solutions

Wide range of products and sizes
Linear rails with roller and caged ball bearings
Heavy duty telescopic rails
Belt or ball screw driven linear actuators
Multi-axis systems

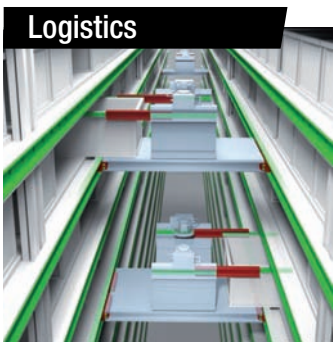
Collaboration

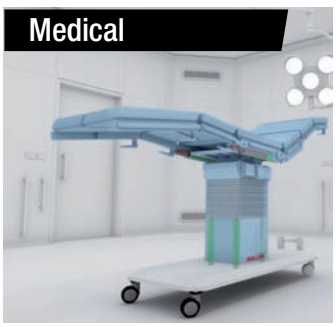
International know-how in several industries
Project consultancy
Maximizing performance and cost optimization

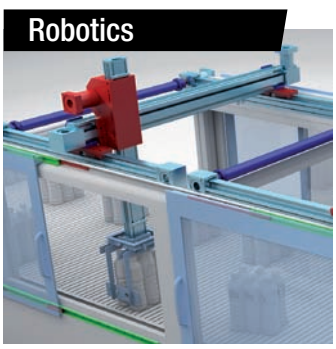
Customization

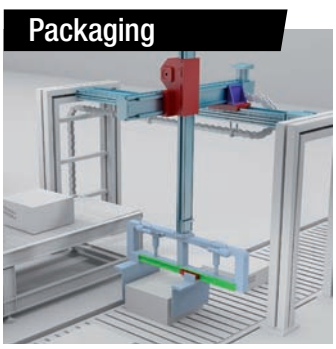
Special products
Research and development of new solutions
Technologies dedicated to different sectors
Optimal surface treatment

Applications









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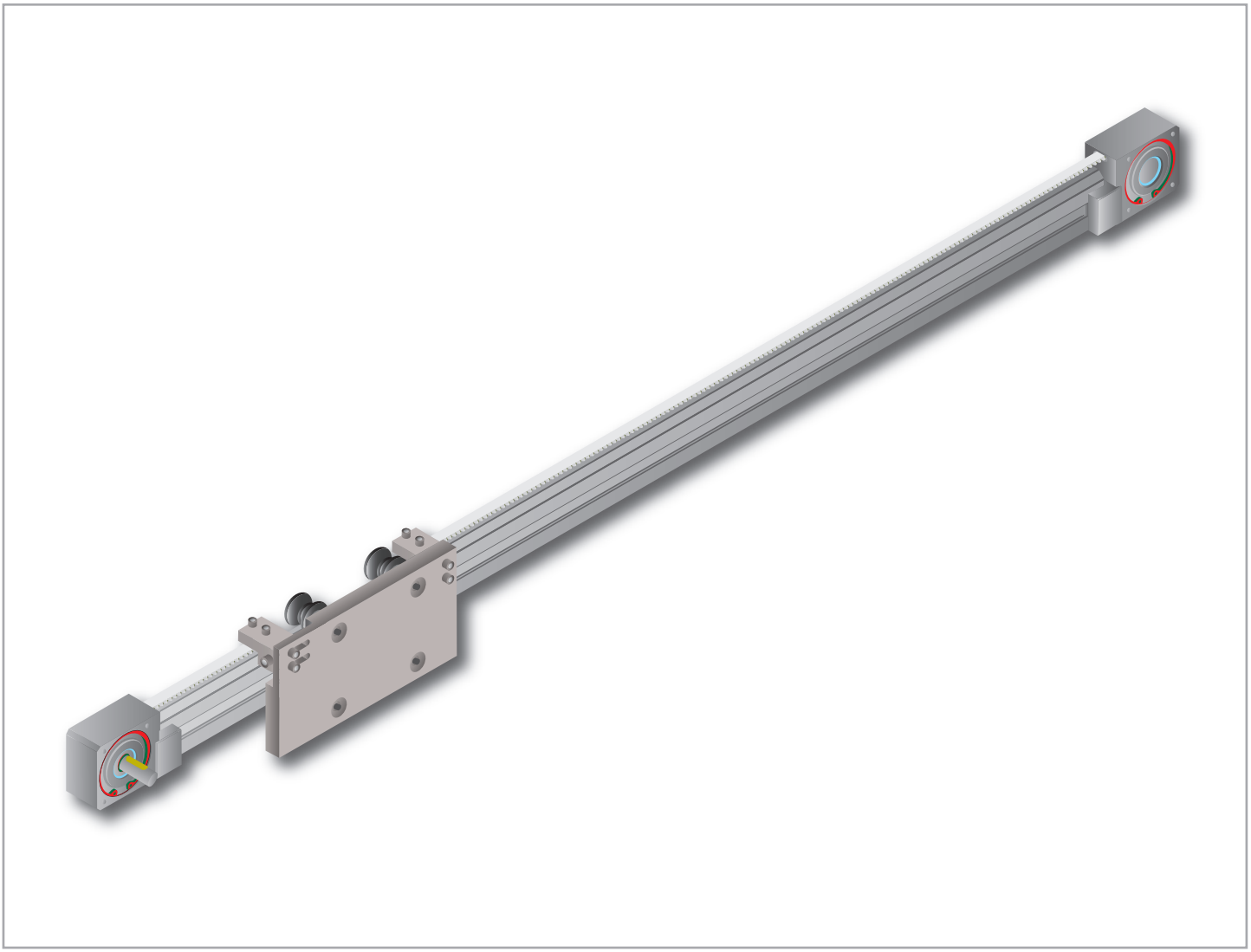
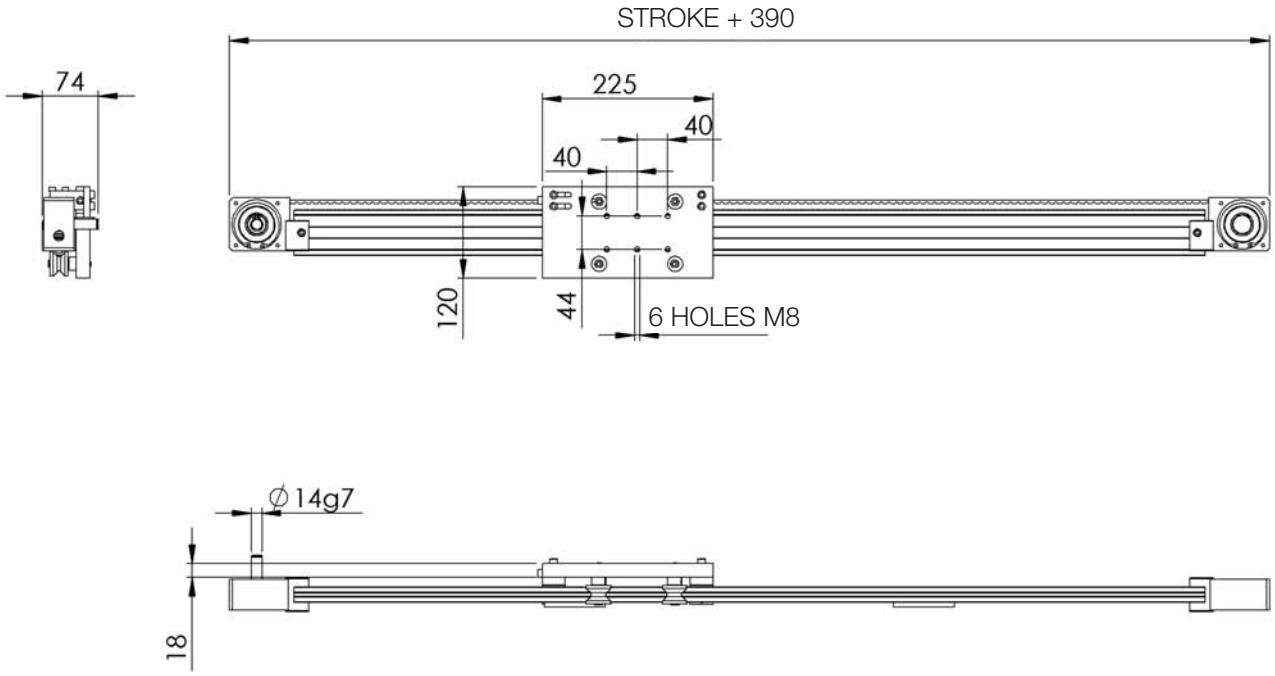
Modello MLT110



DESCRIPTION

The linear module MLT110 is consisting of a self-supporting profile Speedy Rail SR60 (section 60x20 mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined.
The power transmission is activated by a timing belt AT10 10 mm width.

DIMENSIONS

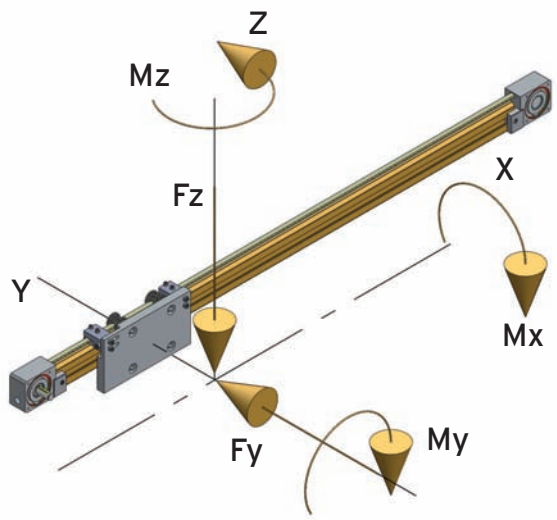


TECHNICAL DATA

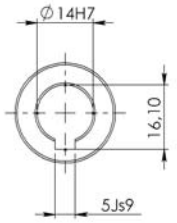
Features	Measurement unit	Value
Max. stroke	mm	6700
Linear stroke for one drive shaft turn	mm/giro	190
Power drive:		AT10/10timingbelt
Accuracy of repeatability \	+/-mm	+/- 0,15 up to stroke of 3000 +/- 0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic momenton Z-Z axis **	cm^4	13,86
Surface quadratic momenton Y-Y axis **	cm^4	1,8
Linear system,:	SR60 Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke.	Nm	17,6
Maximum working torque to the drive pulley for vertical stroke.	Nm	14,1
Dynamic rated moment Mx *	Nm	8
Dynamic rated moment MY *	Nm	27
Dynamic rated moment Mz *	Nm	20
Dynamic rated load Fy	N	540
Dynamic rated load Fz	N	400
Mass of drive and idler heads (nr 2)	kg	1,8
Trolley mass	kg	1,7
Linear Mass	kg/mt	1,27

(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000 km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2

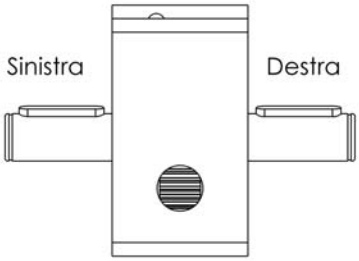
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



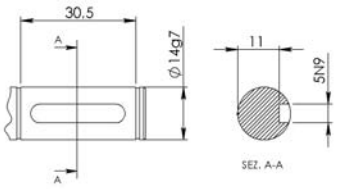
OPTIONALS



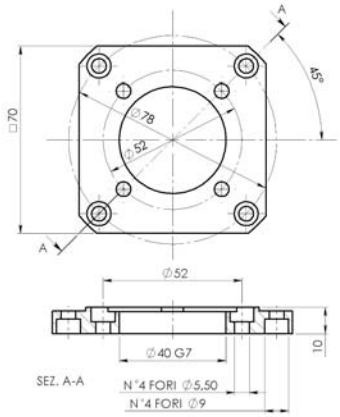
Standard hollow shaft dimensions



Single side shaft 1,2
Double side shaft



Shaft dimensions



Gearbox mounting flange

REFERENCE CODE

MLT 110	1R	2.200	N	Z	4	2	N	Txx-xxx

TMT MODULE TYPE

NUMBER OF TROLLEYS

LINEAR STROKE mm

PROTECTIONS:
N = without protections

POWER TRANSMISSION:
timing belt AT10 width 10

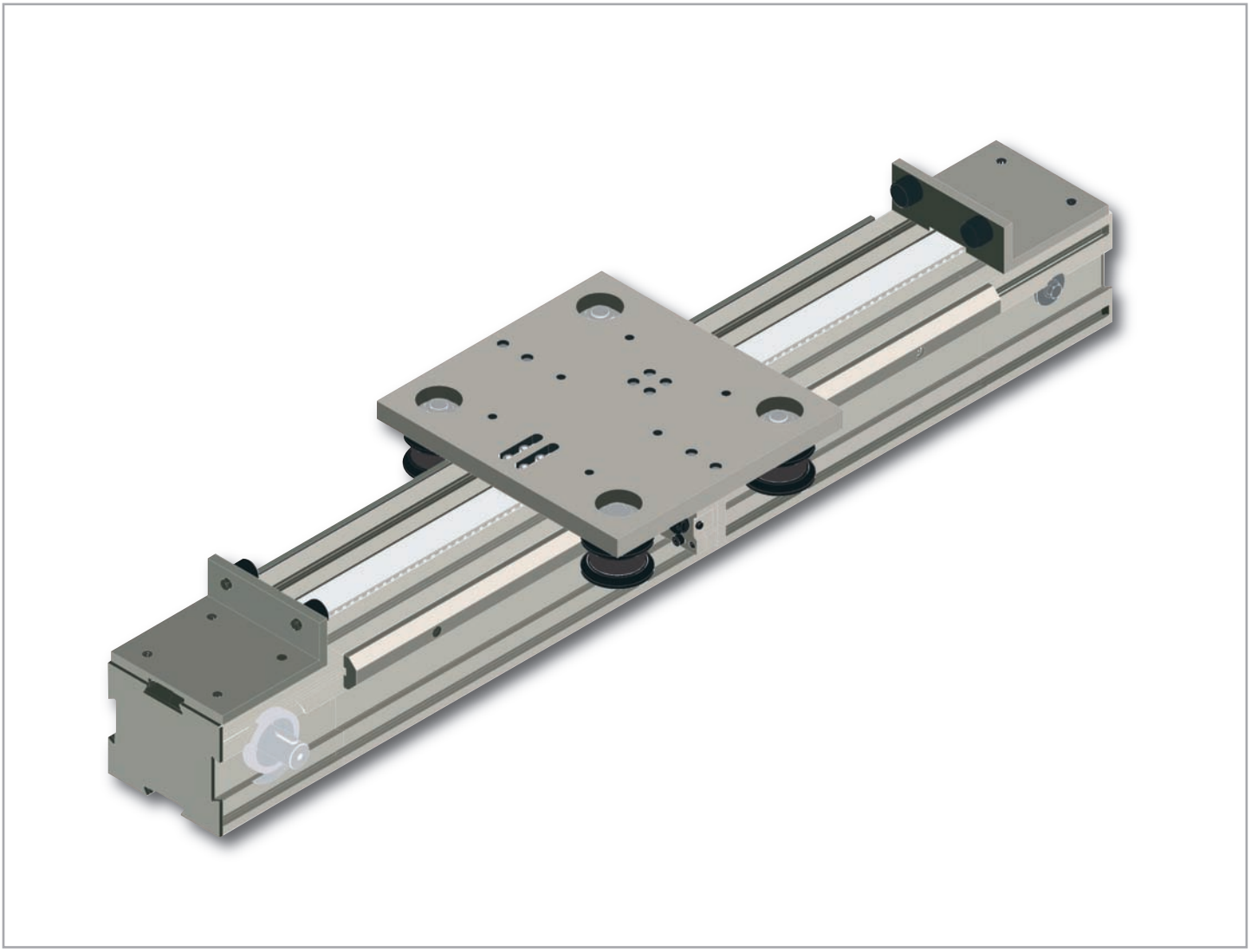
POWER TRANSMISSION FEATURES:
1 = right shaft end
2 = left shaft end
3 = both shaft end
4 = hollow shaft 14H7 (also over hanging)
NB: module seen from the activation extremity

SHAFT OPTIONS:
1 = without key (only for over hanging shafts)
2 = with key groove

MOTOR CONNECTION:
N = none
G = flange
R = coupling, flange and gear box

TMT DRAWING NR only for special types.

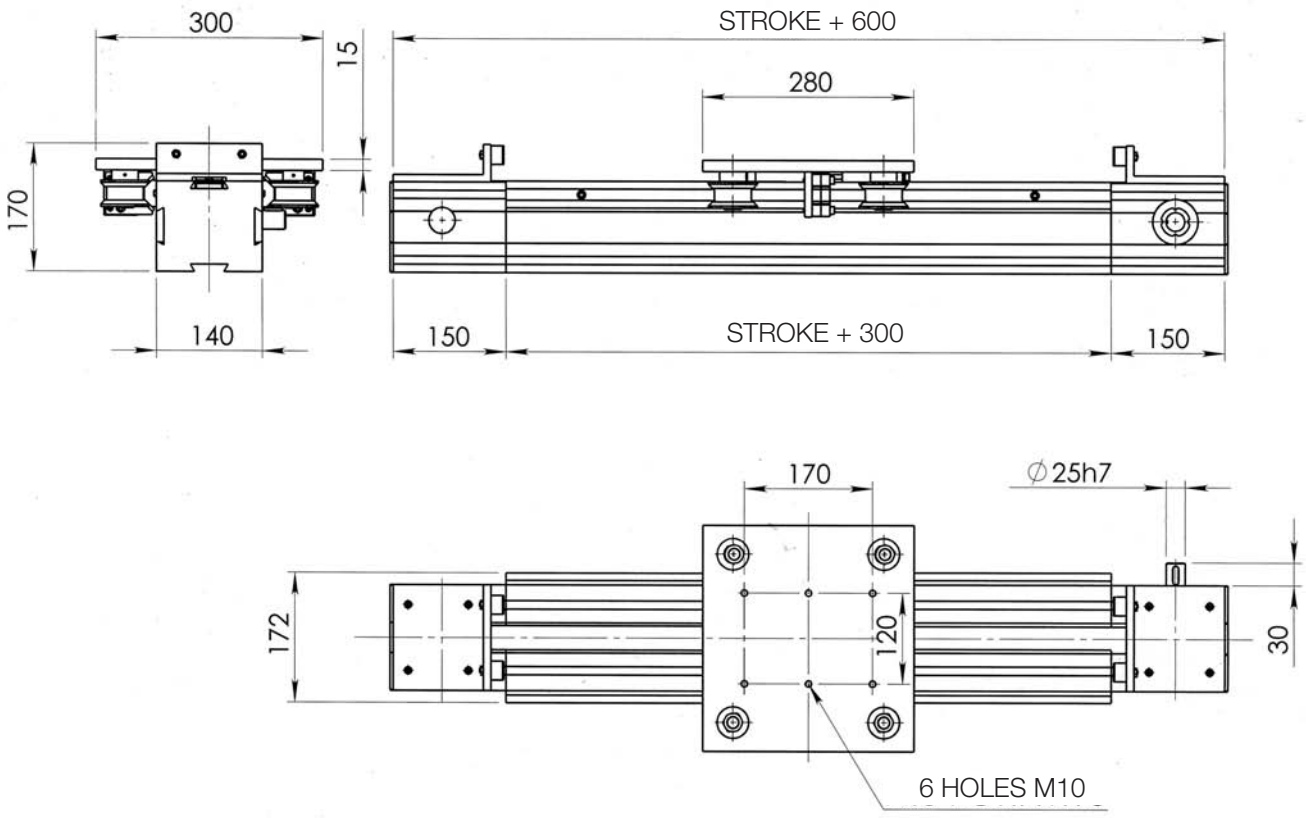
Modello MLT240



DESCRIPTION

The linear module MLT240 is consisting of a self-supporting profile New Unibeam (section 140x120 mm) light alloy with hard deep anodizing treatment assembled with 2 rails of the profile Steel Rail (section 35x16) steel made hardened and brushed.
The linear movement is obtained by V shaped rollers steel made hardened and ground.
The power transmission is activated by a timing belt AT10 32 mm width.

DIMENSIONS

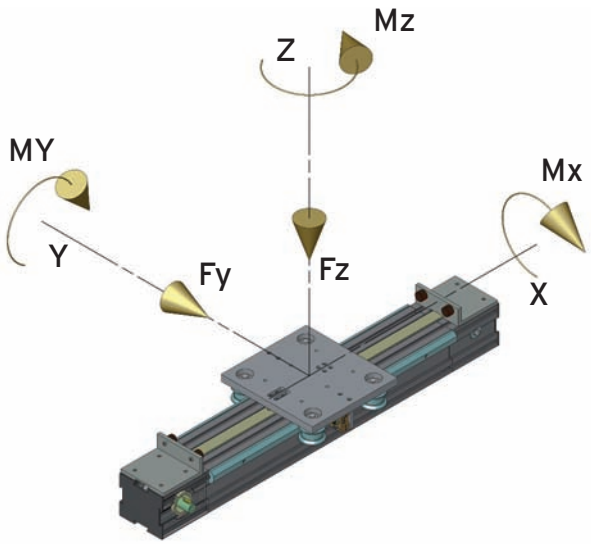


TECHNICAL DATA

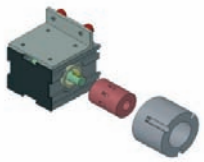
Features	Measurement unit	Value
Max. stroke	mm	7200
	Longer strokes on request	
Linear stroke for one drive shaft turn	mm/giro	320
Power drive:	AT10/32 timing belt	
Accuracy of repeatability\	+/-mm+/-0,1 up to stroke of 3000	+/- 0.2 beyond 3000
max speed	m/sec	6
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis**	cm^4	2708
Surface quadratic moment on Y-Y axis**	cm^4	1246
Torsional quadratic moment ***	cm^4	1100
Linear system:	hardened steel rails and "V" rollers	
Maximum working torque to the drive pulley for horizontal stroke.	Nm	95
Maximum working torque to the drive pulley for vertical stroke.	Nm	76
Dynamic rated moment Mx *	Nm	450
Dynamic rated moment MY *	Nm	400
Dynamic rated moment Mz *	Nm	600
Dynamic rated load Fy	N	6000
Dynamic rated load Fz	N	4000
Mass of drive and idler heads (nr 2)	kg	9
Trolley mass	kg	6,0
Linear Mass	kg/m	21,5

(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000 km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm✣
(***) Tangential elasticity modulus: G=26000N/mm^2

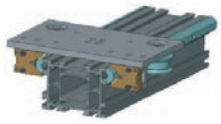
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



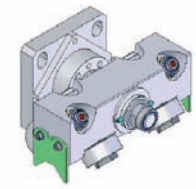
OPTIONALS



Coupling complete with flange with 3 M8 holes at 120° on Ø 105 (flange internal Ø 70; external 120) to fix the motor plate. The diameter of the key groove for the motor shaft or the gear box can be from 14 up to 32 mm.
Ref. code: G + Ø coupling shaft



Oil distributor: developed to achieve the constant lubrication of the sliding guides. It is equipped with two felt piece swhich distribute the-oil uniformly along the steel profile. The distributor content is 25cc oil with 460 cSt viscosity at 40°C (ASTM445) enough to lubricate a 1000 km distance.
Ref.code:DB



Cylindric roller boxes. As option on the basis of a drawing for the linear movement are available roller boxes with two cylindric rollers for a higher load capacity or floating roller boxes with four rollers for a very heavy load.

Accessories: To select the fixing elements, centralized lubrication and optional bumpers refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT240-1R	3000	N	Z	N	2	2	G(25)	DB	Txxx

MLT240-1R — TMT MODULE TYPE

3000 — LINEAR STROKE mm

N — PROTECTIONS:
N=without protections

Z — POWER TRANSMISSION:
Z=timing belt

N — ROLLERS:
N=standard rollers

2 — POWER TRANSMISSION FEATURES:
1 = right shaft end
2 = left shaft end
3 = both shaft end
NB: module seen from the activation extremity

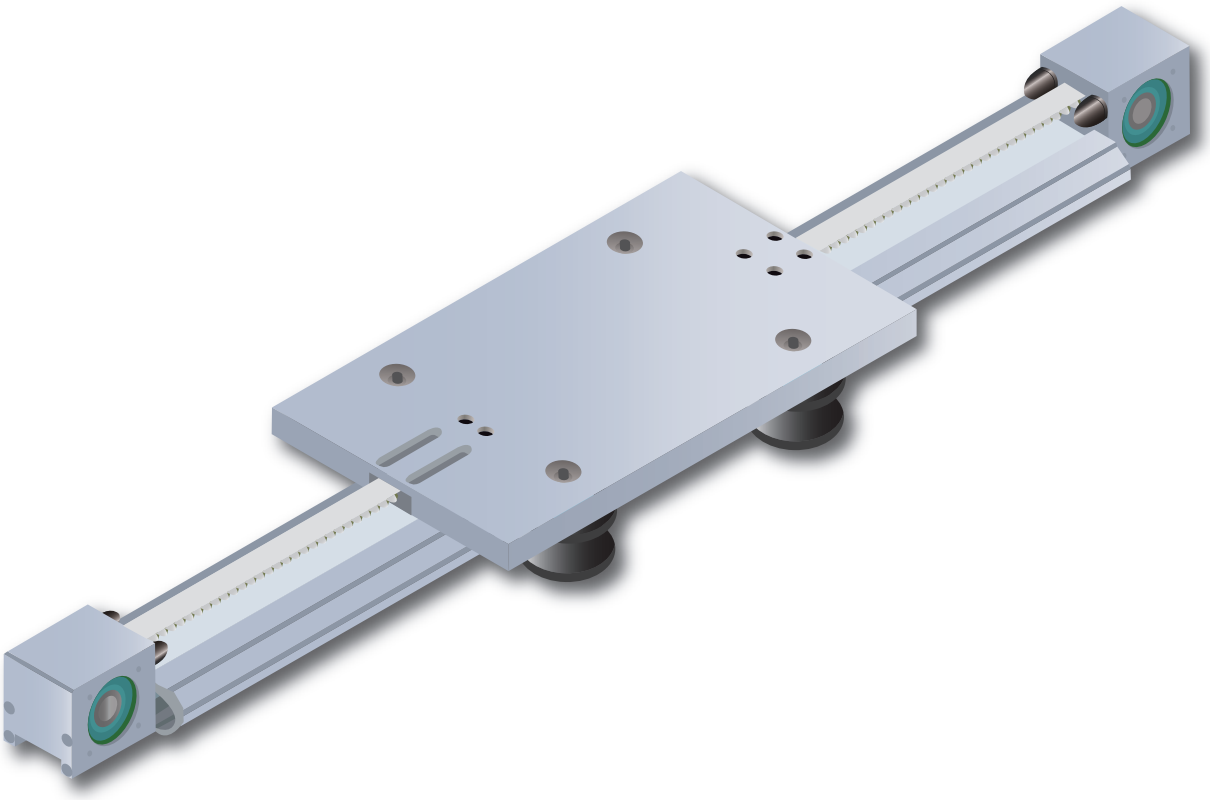
2 — SHAFT OPTIONS:
1 = without key / 2 = with key groove

G(25) — MOTOR CONNECTION:
N= none
G= flange and coupling
R= coupling, flange and gearbox

DB — LUBRICATION:
N= no lubrication
DB= trolley equipped with nr. 2 oil distributors

Txxx — TMT DRAWING NR only for special types.

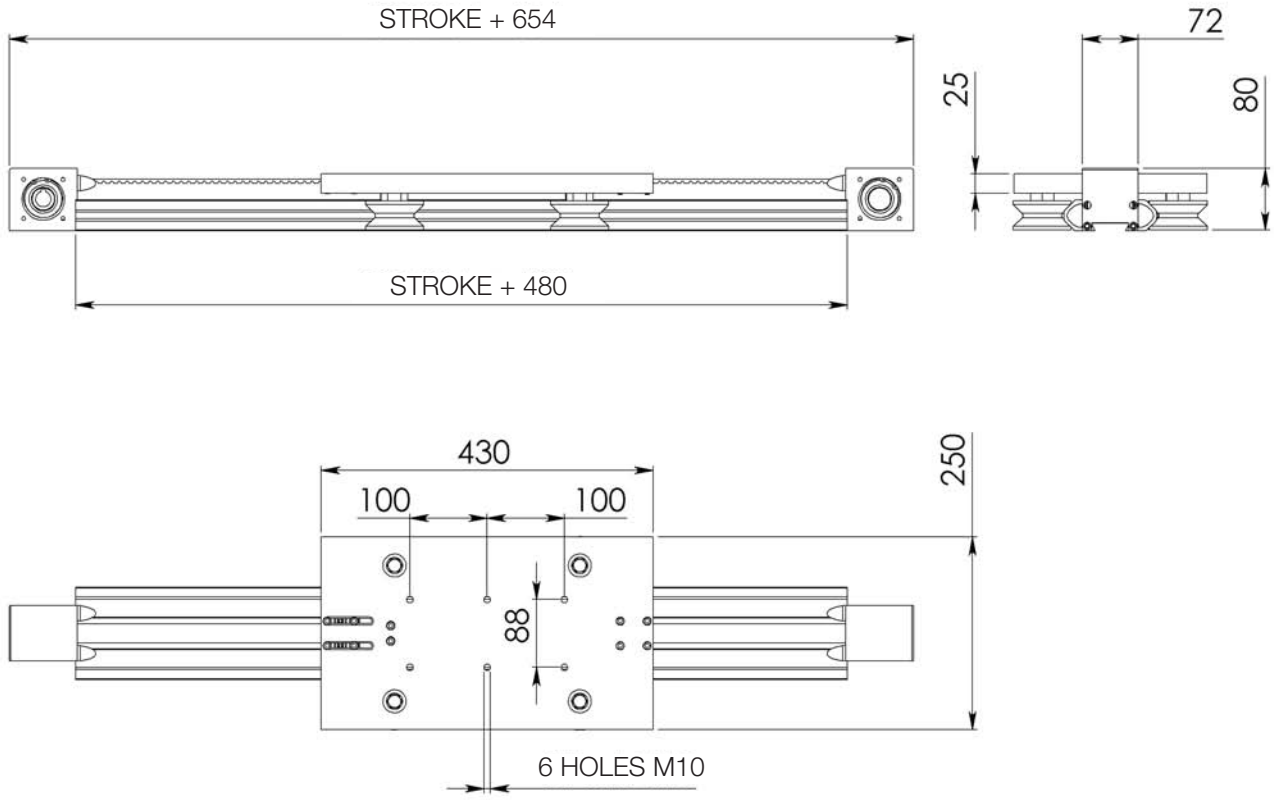
Modello MLT405



DESCRIPTION

The linear module MLT405 is consisting of a self-supporting profile SpeedyRail SR120M (section 120x40mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined.
The power transmission is activated by a timing belt AT10 25mm width.

DIMENSIONS

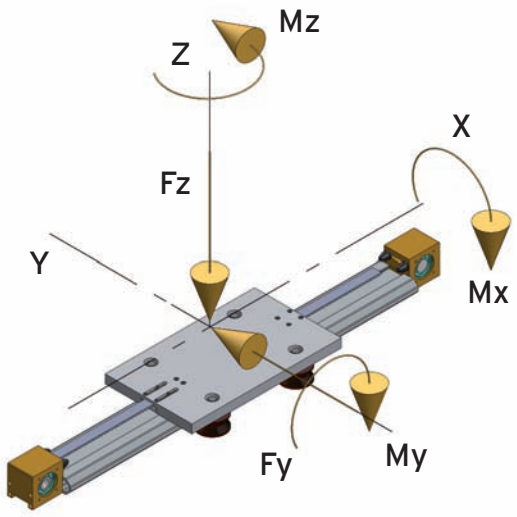


TECHNICAL DATA

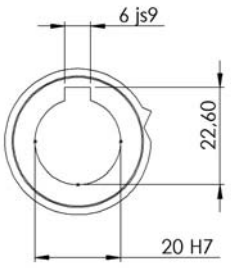
Features	Measurementunit	Value
Max. stroke	mm	7020
Linear stroke for one drive shaft turn	mm/giro	150
Power drive:		AT10/25 timing belt
Accuracy of repeatability\	+/-mm	+/-0,15 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis**	cm^4	213,8
Surface quadratic moment on Y-Y axis**	cm^4	26
Linear system,:	SR120M Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke.	Nm	34,8
Maximum working torque to the drive pulley for vertical stroke.	Nm	27,85
Dynamic rated moment Mx*	Nm	32
Dynamic rated moment MY*	Nm	96
Dynamic rated moment Mz*	Nm	168
Dynamic rated load Fy	N	1400
Dynamic rated load Fz	N	800
Mass of drive and idler heads (nr 2)	kg	2,2
Trolley mass	kg	7,6
Linear Mass	kg/m	4,6

(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000km systemsatisfying average lifetime.
(**) Modulus ofelasticity: E=70000N/mm^2

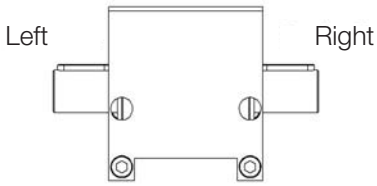
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to setthe stroke end avoiding the direct contact between the moving and the static parts.



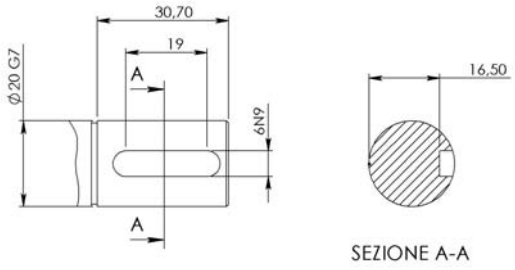
OPTIONALS



Standard hollow shaft dimensions



Single side shaft 1,2
Double side shaft



Shaft dimensions

REFERENCE CODE

MLT 405	1R	2.200	N	Z	4	2	N	Txx-xxx

TMT MODULE TYPE

NUMBER OF TROLLEYS

LINEAR STROKE mm

PROTECTIONS:
N=with out protections

POWER TRANSMISSION:
Timing belt AT10 25 width

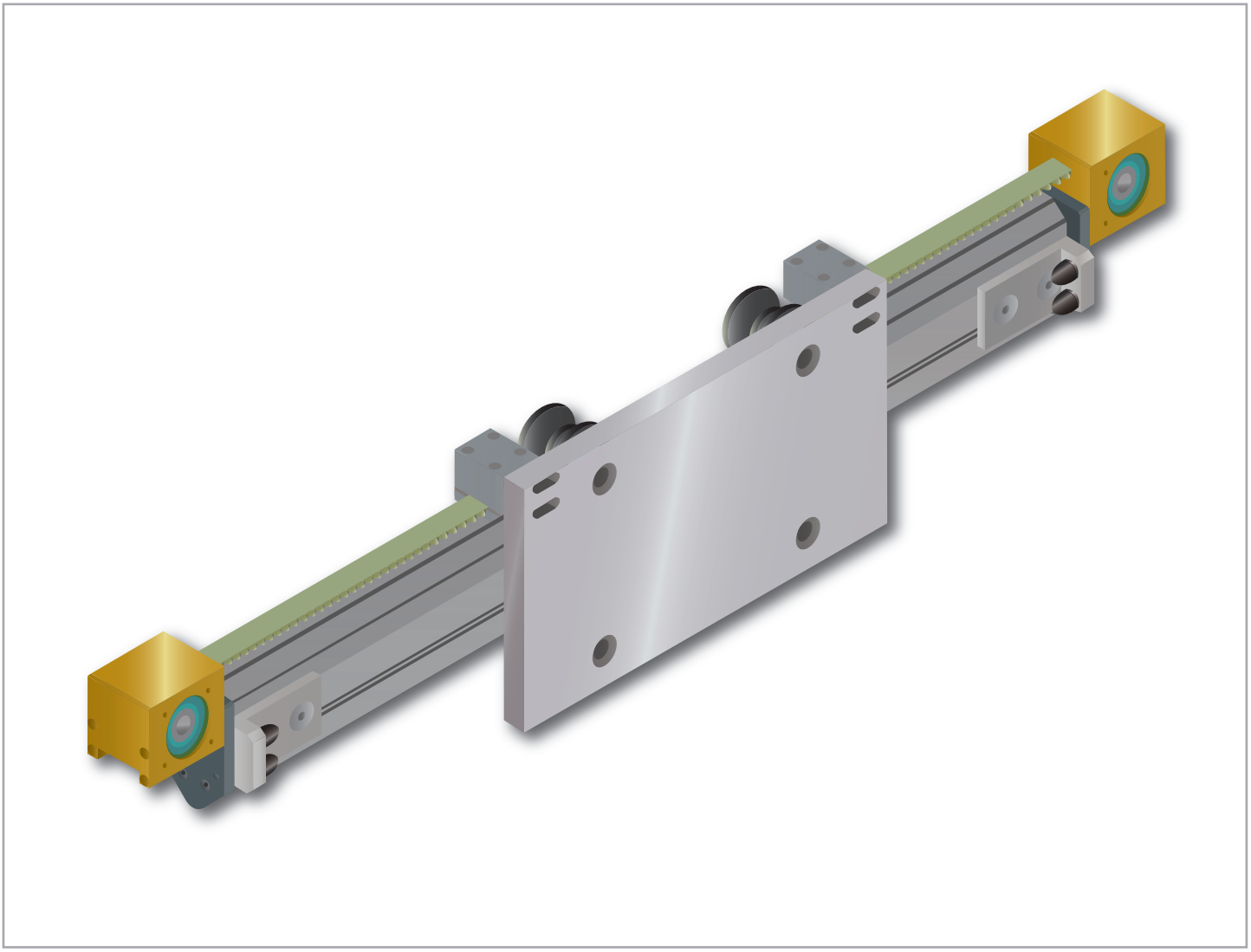
POWER TRANSMISSION FEATURES:
1 = right shaft end
2 = leftshaftend
3 = both shaft end
4 = hollow shaft 20H7
NB: module seen from the activation extremity

SHAFT OPTIONS:
1=with out key (only for over hanging shafts)
2=with key groove

MOTOR CONNECTION:
N=none
G=flange
R=coupling, flange and gear box

TMT DRAWING NR only for special types.

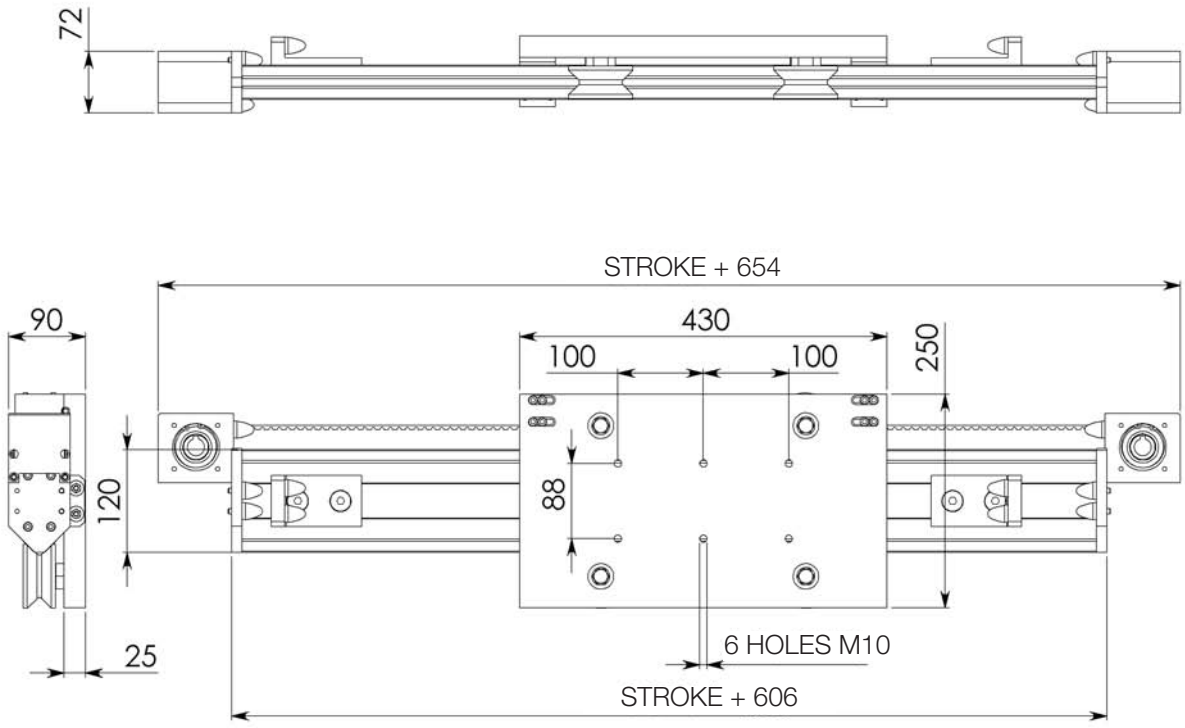
Modello MLT408



DESCRIPTION

The linear module MLT408 is consisting of a self-supporting profile SpeedyRail SR120M (section 120x40mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined.
The power transmission is activated by a timing belt AT10 25mm width.

DIMENSIONS

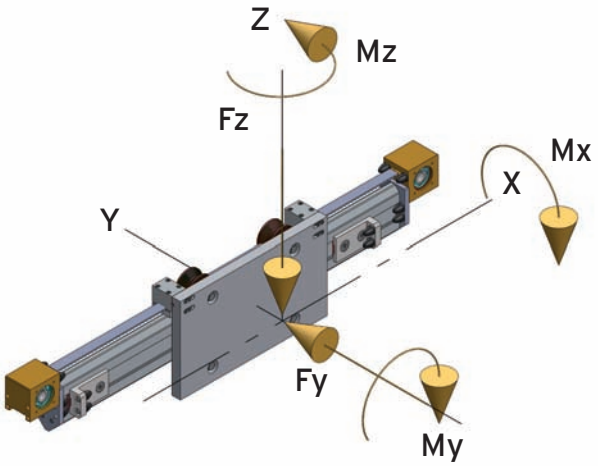


TECHNICAL DATA

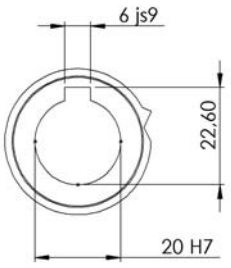
Features	Measurementunit	Value
Max. stroke	mm	6700
Linear stroke for one drive shaft turn	mm/giro	150
Power drive		AT10/25 timing belt
Accuracy of repeatability	+/-mm	+/-0,15 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	26
Surface quadratic moment on Y-Y axis **	cm^4	213,8
Linear system	SR120M Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke	Nm	34,8
Maximum working torque to the drive pulley for vertical stroke	Nm	27,85
Dynamic rated moment Mx *	Nm	32
Dynamic rated moment MY *	Nm	168
Dynamic rated moment Mz *	Nm	96
Dynamic rated load Fy	N	800
Dynamic rated load Fz	N	1400
Mass of drive and idler heads (nr2)	kg	2,2
Trolley mass	kg	7,6
Linear Mass	kg/mt	4,6

(*) Moments (cannot be added together) referred to the mediant rolley axis and to a 20000k msystem satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2

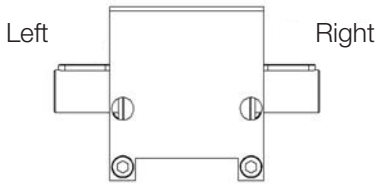
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



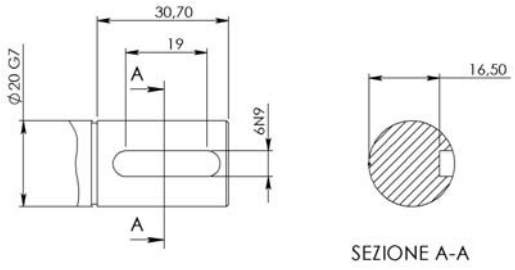
OPTIONALS



Standard hollow shaft dimensions



Single side shaft 1,2
Double side shaft



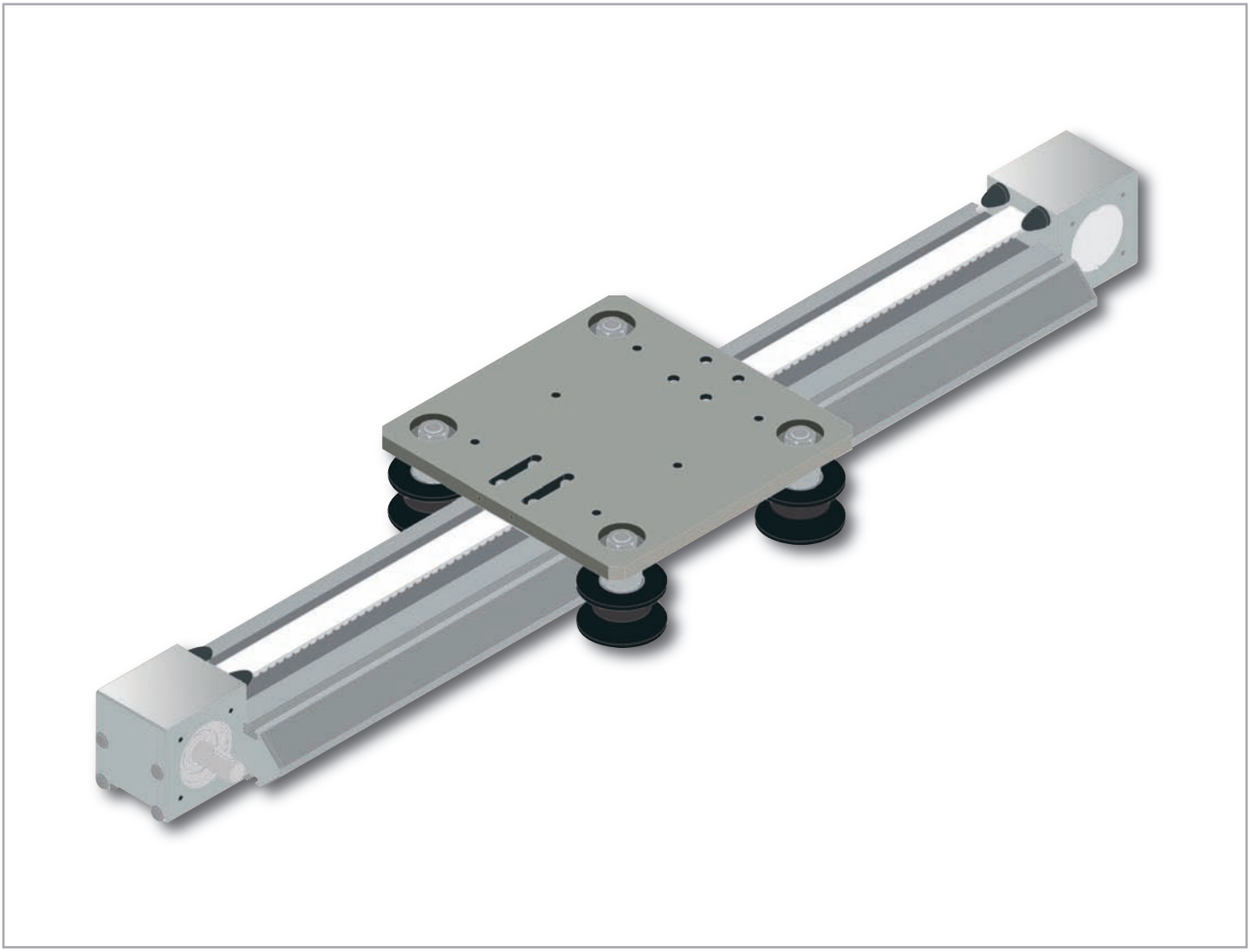
Shaft dimensions

REFERENCE CODE

MLT 408	1R	2.200	N	Z	4	2	N	Txx-xxx

TMT MODULE TYPE
NUMBER OF TROLLEYS
LINEAR STROKE mm
PROTECTIONS:
N=without protections
POWER TRANSMISSION:
timing belt AT10 25 width
POWER TRANSMISSION FEATURES:
1 = RIGHT SHAFT END
2 = LEFT SHAFT END
3 = BOTH SHAFT END
4 = HOLLOW SHAFT 20H7
NB: MODULE SEEN FROM THE ACTIVATION EXTREMITY
SHAFT OPTIONS:
1 = WITHOUT KEY (ONLY FOR OVER HANGING SHAFTS)
2 =WITH KEYG ROOVE
MOTOR CONNECTION:
N = NONE
G = FLANGE
R = COUPLING, FLANGE AND GEAR BOX
TMT DRAWING NR ONLY FOR SPECIAL TYPES.

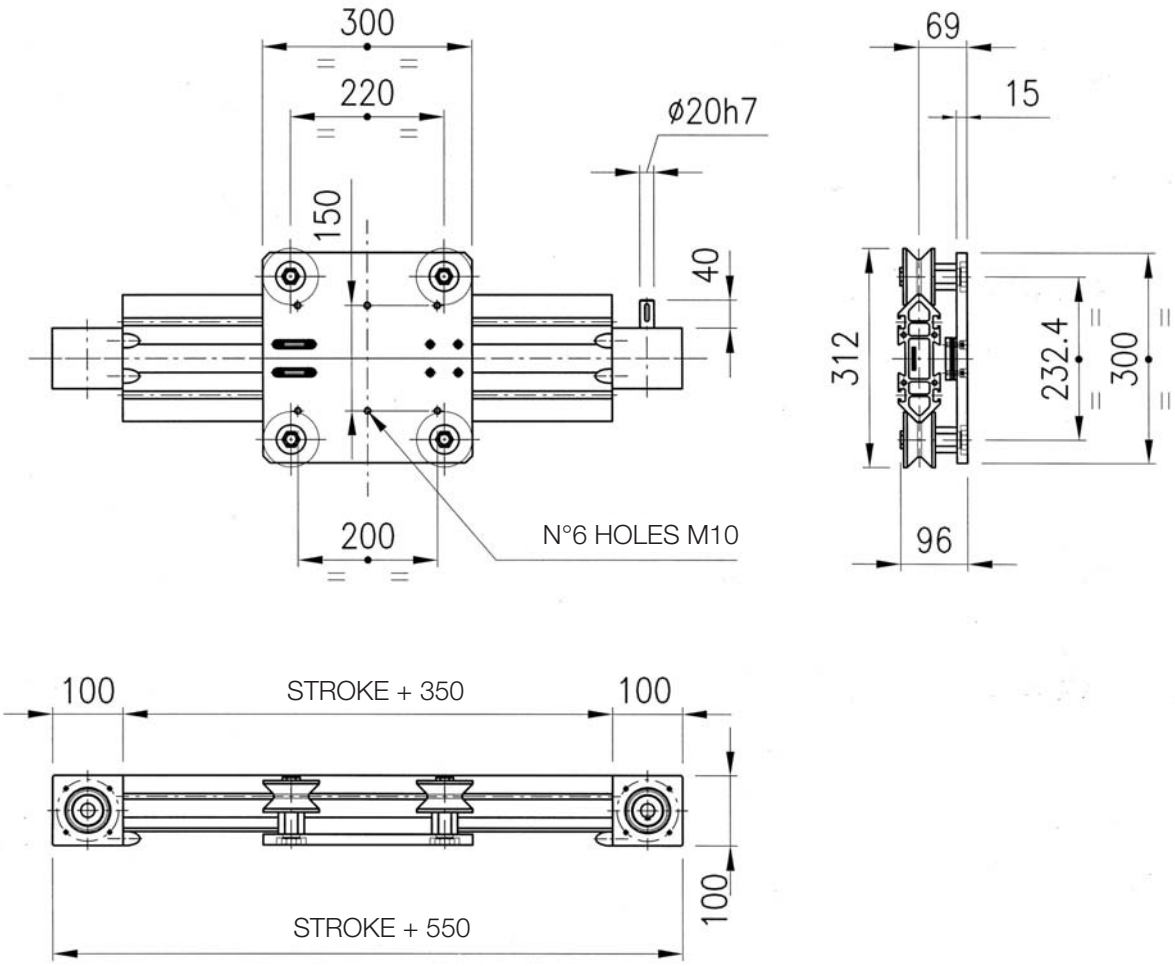
Modello MLT410



DESCRIPTION

The linear module MLT410 is consisting of a self-supporting profile Speedy Rail SR180M (section 180x60mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined. The power transmission is activated by a timing belt AT10 32mm width.

DIMENSIONS

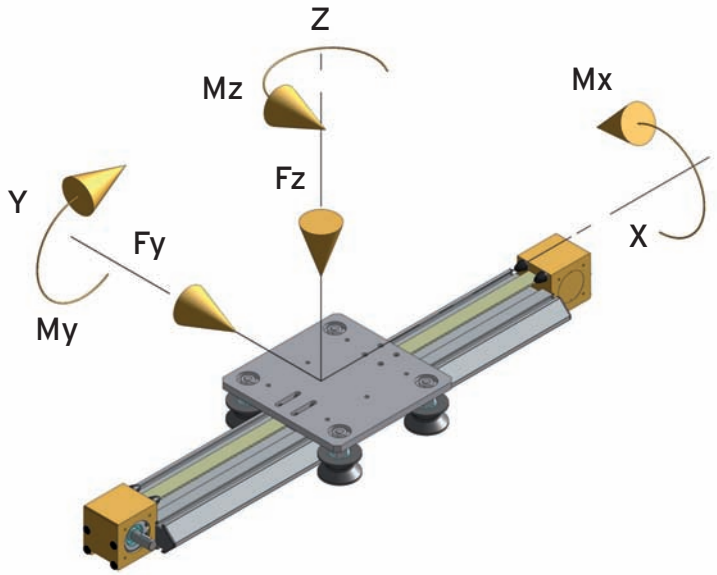


DATI TECNICI

Features	Measurementunit	Value
Max. stroke	mm	7150 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	180
Power drive		AT10/32 timing belt
Accuracy of repeatability	+/-mm	+/-0,15 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	1.029,11
Surface quadratic moment on Y-Y axis **	cm^4	127,87
Torsional quadratic moment***	cm^4	260,00
Linear system	SR180M Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke	Nm	53,7
Maximum working torque to the drive pulley for vertical stroke	Nm	44
Dynamic rated moment Mx *	Nm	93
Dynamic rated moment MY*	Nm	88
Dynamic rated moment Mz *	Nm	154
Dynamic rated load Fy	N	1400
Dynamic rated load Fz	N	800
Mass of drive and idler heads (nr2)	kg	5,90
Trolley mass	kg	7,00
Linear Mass	Kg/m	10,20

(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

Load capacity. If the standard load capacity of the module isn't enough it is possible (on the basis of a drawing) to apply roller boxes with nr. two rollers each unit or inalternative floating roller boxes equipped with nr. four rollers each unit. This execution enables to apply very heavy loads.

Connection coupling and gear box. Flange with internal Ø60, external Ø100. Rotex coupling Gs 28-98S h-A.

Ref. code: G + Ø coupling shaft

Accessories: To select the fixing elements, centralized lubrication and optional bumpers refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 410-1R	1750	N	Z	1	2	S	G(20)	Txxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
Z=timing belt AT10 32width

POWER TRANSMISSION FEATURES:
1= right shaft end
2 = left shaft end
3 = both shaft end
4 = hollow shaft 20H7
NB: module seen from the activation extremity

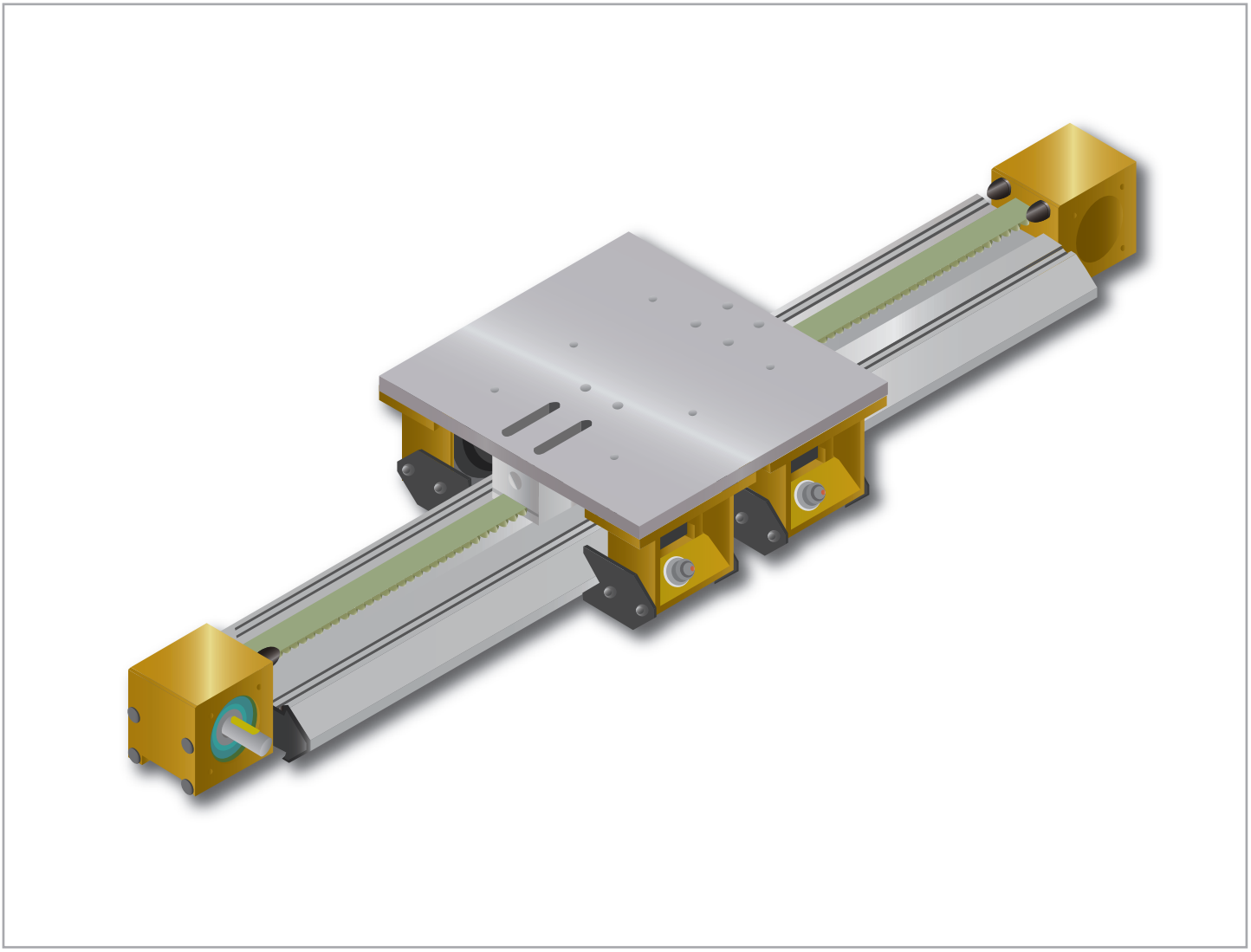
SHAFT OPTIONS:
1 = without key
2 = with key groove

BUMPERS:
S = standard
R = additiona ladjustable bumpers

MOTOR CONNECTION:
N = none
G = flange and coupling
R = coupling, flange and gear box

TMT DRAWING NR only for special types

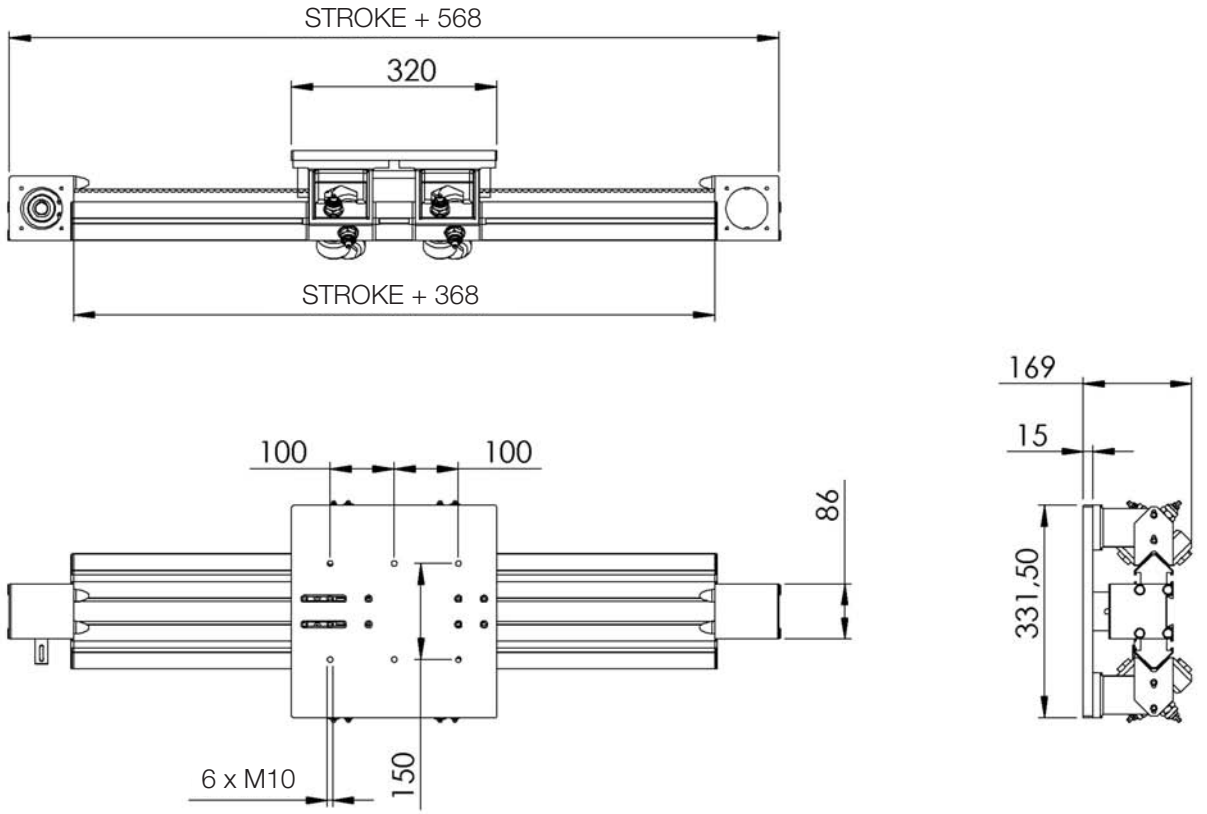
Modello MLT411



DESCRIPTION

The linear module MLT411 is consisting of a self-supporting profile Speedy Rail SR180M (section 180x60mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined.
The power transmission is activated by a timing belt AT10 32mm width.

DIMENSIONS

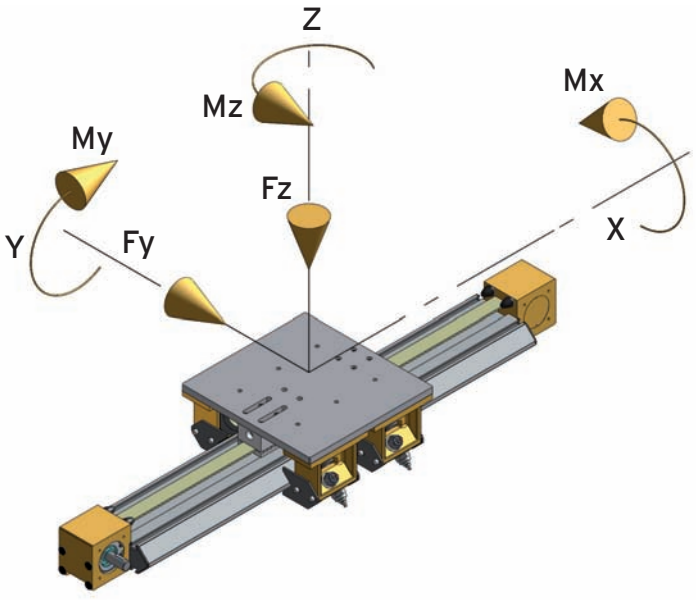


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	7130 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	180
Power drive	AT10/32 timing belt	
Accuracy of repeatability	+/-mm	+/-0,15 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	1029,11
Surface quadratic moment on Y-Y axis **	cm^4	127,87
Torsional quadratic moment ***	cm^4	260
Linear system	SR180M Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke	Nm	53,7
Maximum working torque to the drive pulley for vertical stroke	Nm	44
Dynamic rated moment Mx *	Nm	245
Dynamic rated moment MY *	Nm	299
Dynamic rated moment Mz *	Nm	299
Dynamic rated load Fy	N	3610
Dynamic rated load Fz	N	3610
Mass of drive and idler heads (nr2)	kg	5,9
Trolley mass	kg	11,46
Linear Mass	Kg/m	10,2

(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

Load capacity. If the standard load capacity of the module isn't enough it is possible (on the basis of a drawing) to apply roller boxes with nr. two rollers each unit or in alternative floating roller boxes equipped with nr. four rollers each unit. This execution enables to apply very heavy loads.

Connection coupling and gear box. Flange with internal Ø60, external Ø100.
Rotex coupling Gs 28-98 Sh-A.

Ref. code: G+Ø coupling shaft

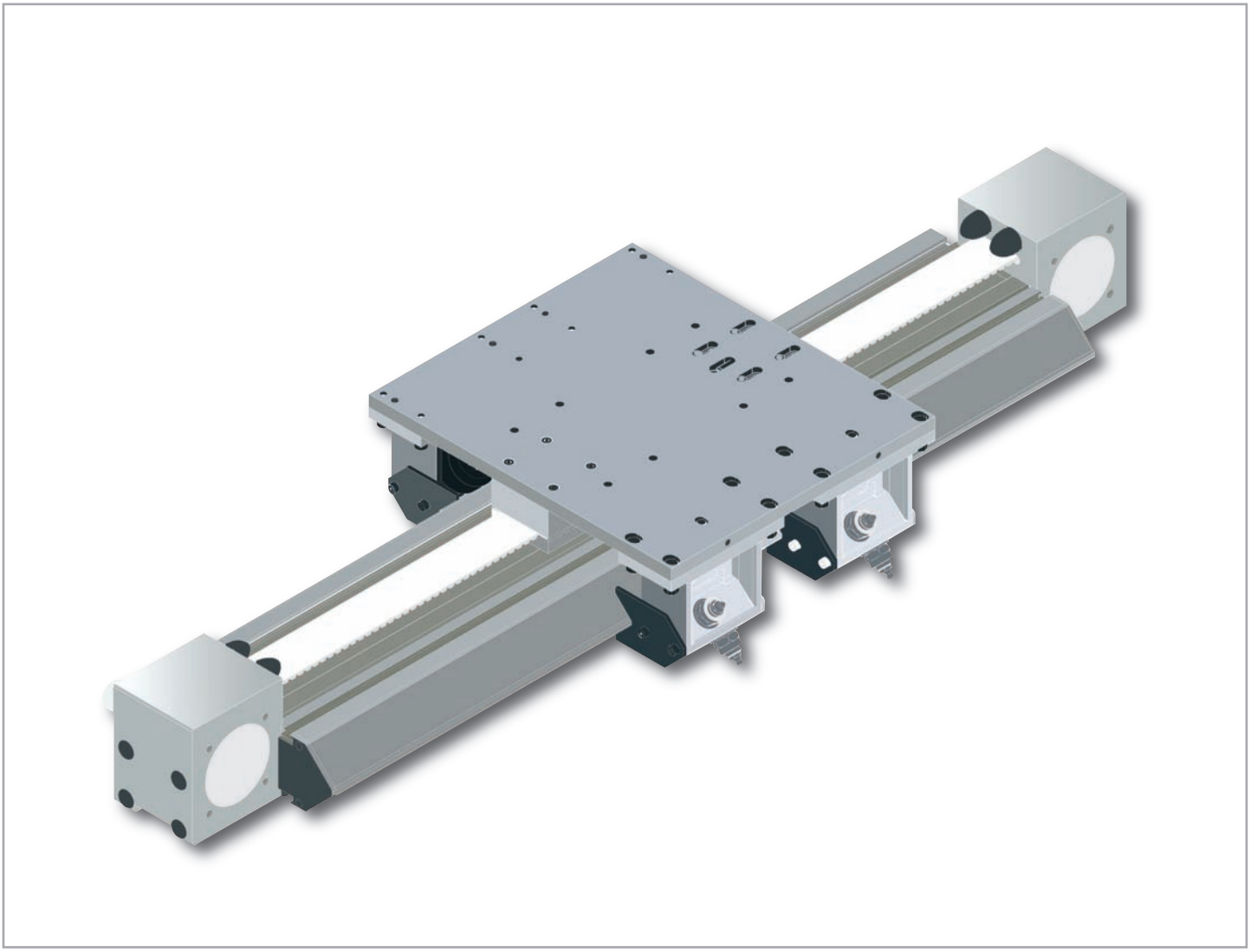
Accessories: To select the fixing elements, centralized lubrication and optional bumpers refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 411	1R	2200	N	Z	4	2	N	Txx-xxx

TMT MODULE TYPE
NUMBER OF TROLLEYS
LINEAR STROKE mm
PROTECTIONS:
N=without protections
POWER TRANSMISSION:
Z=timing belt AT10 32width
POWER TRANSMISSION FEATURES:
1 = right shaf tend
2= left shaft end
3= both shaft end
4= hollow shaft 30H7 (also for overhanging shafts)
NB: module seen from the activation extremity
SHAFT OPTIONS:
1= without key
2= with key groove
MOTOR CONNECTION:
N= none
G= flange and coupling
TMT DRAWING NR only for special types

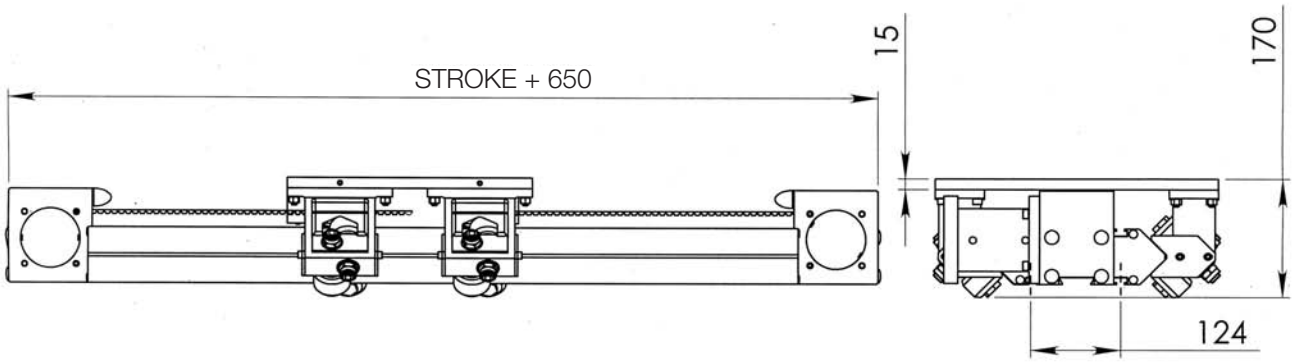
Modello MLT430

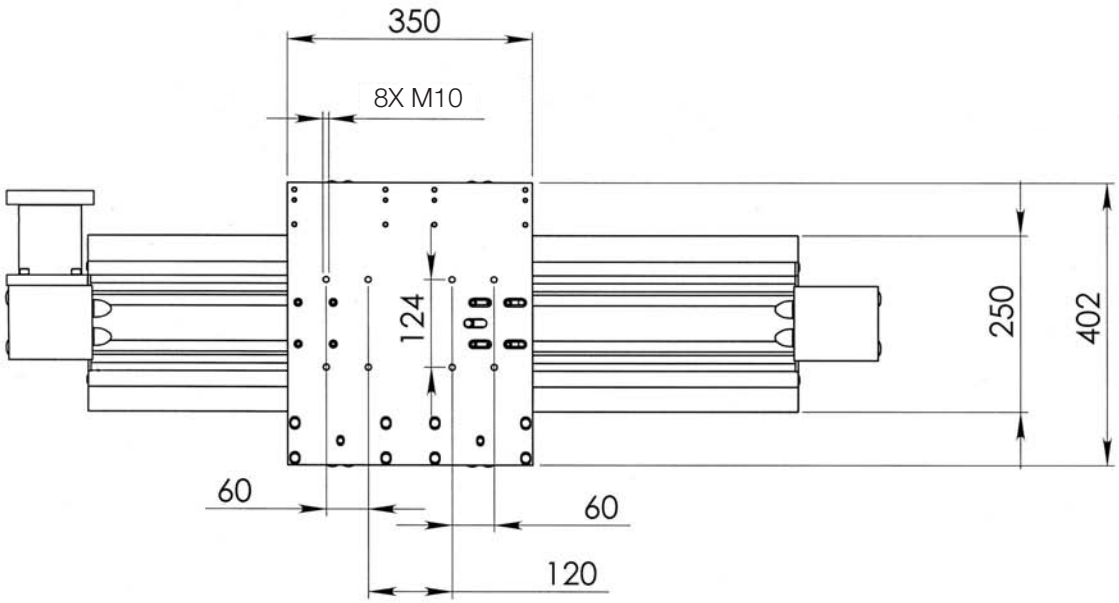


DESCRIPTION

The linear module MLT430 is consisting of a self-supporting profile Speedy Rail SR250M (section 250x80mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by roller boxes with cylindric rollers compound plastic lined.
The power transmission is activated by a timing belt AT10 50mm width.

DIMENSIONS



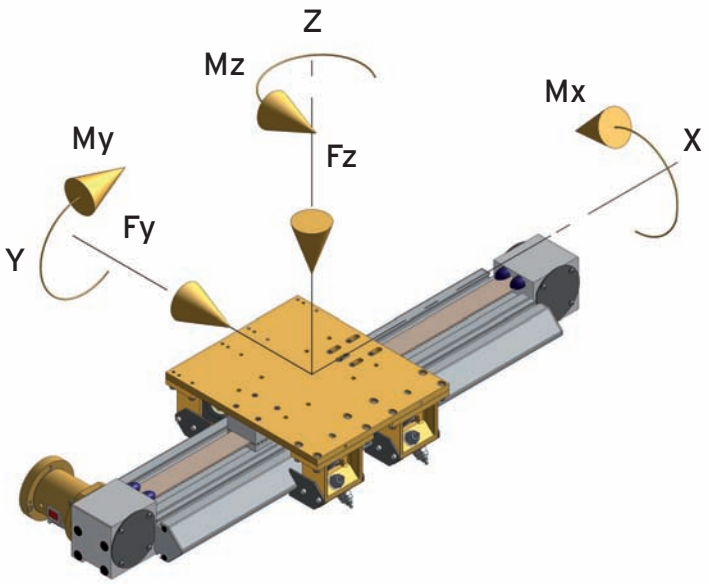


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	7100 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	240
Power drive	Cinghia Dentata AT10/50	
Accuracy of repeatability	+/-mm	+/-0,15 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	2734
Surface quadratic moment on Y-Y axis **	cm^4	412
Torsional quadratic moment ***	cm^4	840
Linear system	SR250M Speedy Rail guide and plastic compound rollers	
Maximum working torque to the drive pulley for horizontal stroke	Nm	110
Maximum working torque to the drive pulley for vertical stroke	Nm	90
Dynamic rated moment Mx *	Nm	292
Dynamic rated moment My *	Nm	363
Dynamic rated moment Mz *	Nm	363
Dynamic rated load Fy	N	3610
Dynamic rated load Fz	N	3610
Mass of drive and idler heads (nr2)	kg	9
Trolley mass	kg	15
Linear Mass	Kg/m	15,2

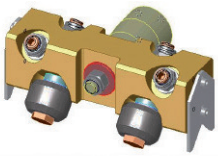
(*)Moments (cannot be added together) referred to the median trolley axis and to a 20000km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.

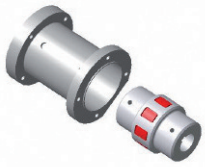


OPTIONALS

Lubrication. The Speedy Rail profile does not need to be lubricated. The rollers of the roller boxes are available in the periodical lubrication version **Ref. code P** or in the life time lubrication version **Ref. code V.** For environments with high temperatures or highly dusty we suggest to apply periodically lubricated rollers.



Load capacity. If the standard load capacity of the module isn't enough it is possible (on the basis of a drawing) to apply floating roller boxes with nr. four rollers each unit. This execution enables to apply a double heavy load.



Connection coupling and gear box. Coupling complete with flange with 4holes M8 on Ø108, internal Ø81, external Ø125.

Ref. code: G + Ø coupling shaft

Accessories. To select the fixing elements, centralized lubrication and optional bumpers refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 430 - 1R	1750	N	Z	1	2	P	G(25)	Txxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
Z=timing belt AT10 50 width

POWER TRANSMISSION FEATURES:
1 = right shaft end
2 = left shaft end
3 = both shaft end
NB: module seen from the activation extremity

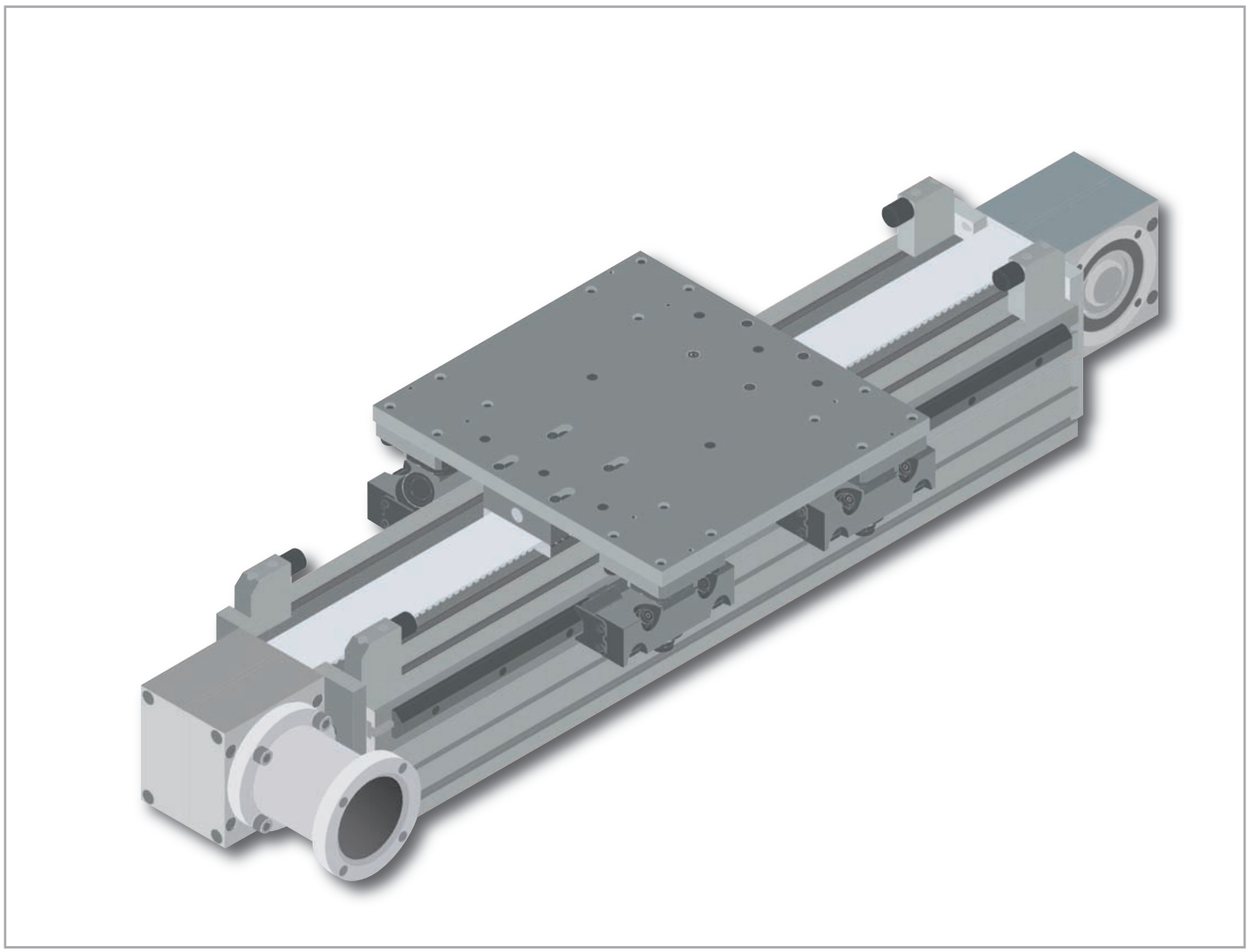
SHAFT OPTIONS:
1 = without key
2 = with key groove

ROLLERS LUBRICATION:
P = rollers equipped with grease nipple for the periodical lubrication
V= lifetime lubricated rollers

MOTOR CONNECTION:
N = none
G = flange and coupling
R = flange, coupling and gear box

TMT DRAWING NR only for special types.

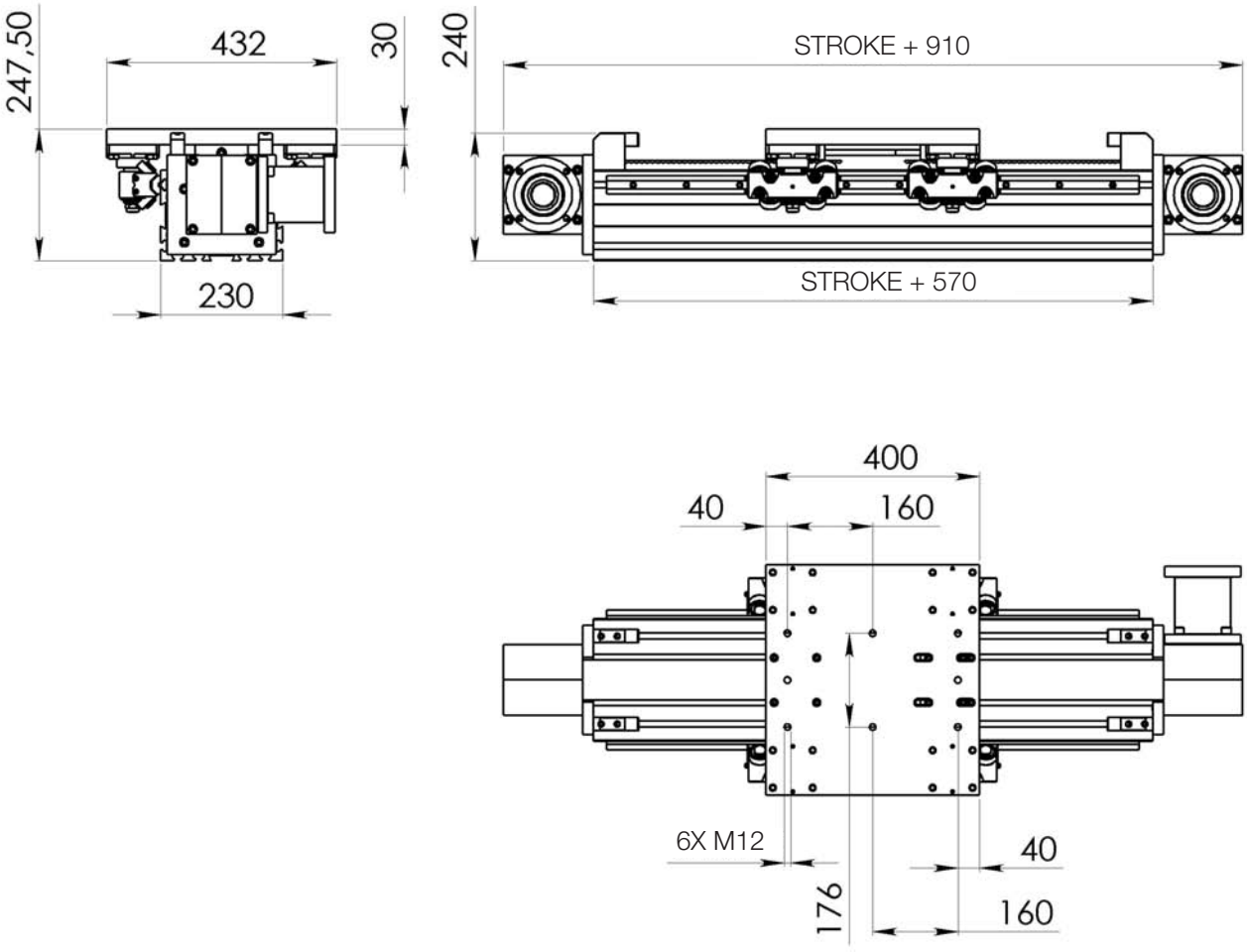
Modello MLT610



DESCRIPTION

The linear module MLT610 is consisting of a self-supporting profile Gantry Beam (section 170x230mm) light alloy with hard deep anodizing treatment assembled with 2 rails of the profile Steel Rail (section 35x16) steel made hardened and brushed.
The linear movement is obtained by floating roller boxes with 4 cylindric rollers steel made hardened and ground.
The power transmission is activated by a timing belt AT10 75mm width.

DIMENSIONS

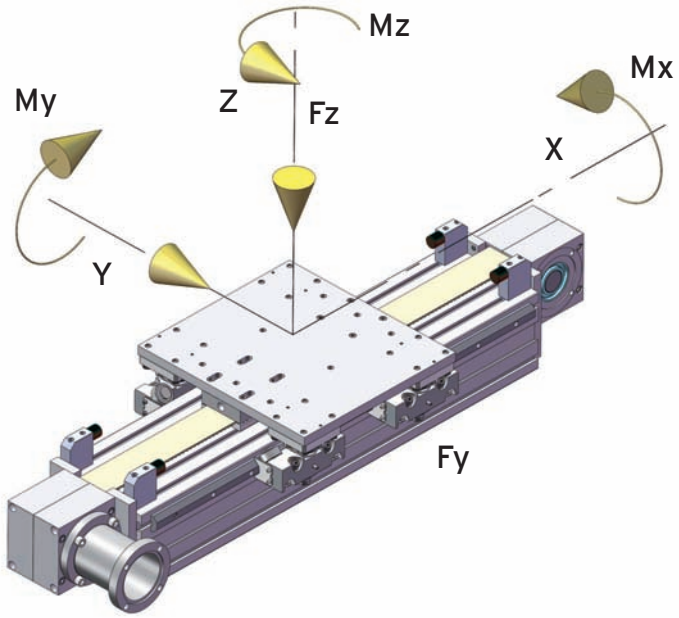


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	11430 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	400
Power drive	AT10/75 timing belt	
Accuracy of repeatability	+/-mm	+/-0,1 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	10384
Surface quadratic moment on Y-Y axis **	cm^4	3800
Torsional quadratic moment ***	cm^4	4878
Linear system	Steel Rail (35x16) guide and steel rollers	
Maximum working torque to the drive pulley for horizontal stroke	Nm	265
Maximum working torque to the drive pulley for vertical stroke	Nm	212
Dynamic rated moment Mx *	Nm	1150
Dynamic rated moment My *	Nm	1530
Dynamic rated moment Mz *	Nm	1530
Dynamic rated load Fy	N	10170
Dynamic rated load Fz	N	10170
Mass of drive and idler heads (nr2)	kg	20
Trolley mass	kg	23,00
Linear Mass	Kg/m	33

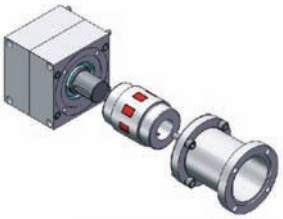
(*) Moments (cannot be added together) referred to the median trolley axis and to a 20000km system satisfying average lifetime.
(**) Modulus of elasticity: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.

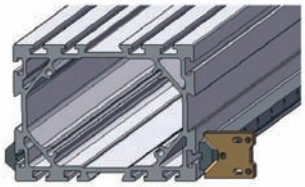


OPTIONALS

Lubrication. The rollers of the roller boxes are available in the periodical lubrication version **Ref. code V** or in the lifetime lubrication version **Ref. code P.** (suggested for dusty environments and high speeds).



Connection coupling and gear box. Coupling complete with flange with 4 holes M12 on Ø125, internal Ø96, external Ø143.
The hole on the coupling for the gear box shaft can be from 18 up to 50mm.



Oil distributor. Developed to achieve the constant lubrication of the sliding guides. It is equipped with two felt pieces which distribute the oil uniformly along the steel profile. The distributor content is 25cc oil with 460 cSt viscosity at 40° (ASTM445) enough to lubricate a 1000km distance.
Ref. code: DB

Accessories: To select the fixing elements, centralized lubrication and optional bumpers refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 610 - 1R	1750	N	Z	1	2	P	G	Txxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
Z=timing belt AT10/75
Z1=timing belt AT10/50

POWER TRANSMISSION FEATURES:
1 = right shaft end
2 = left shaft end
3 = both shaft end
NB: module seen from the activation extremity

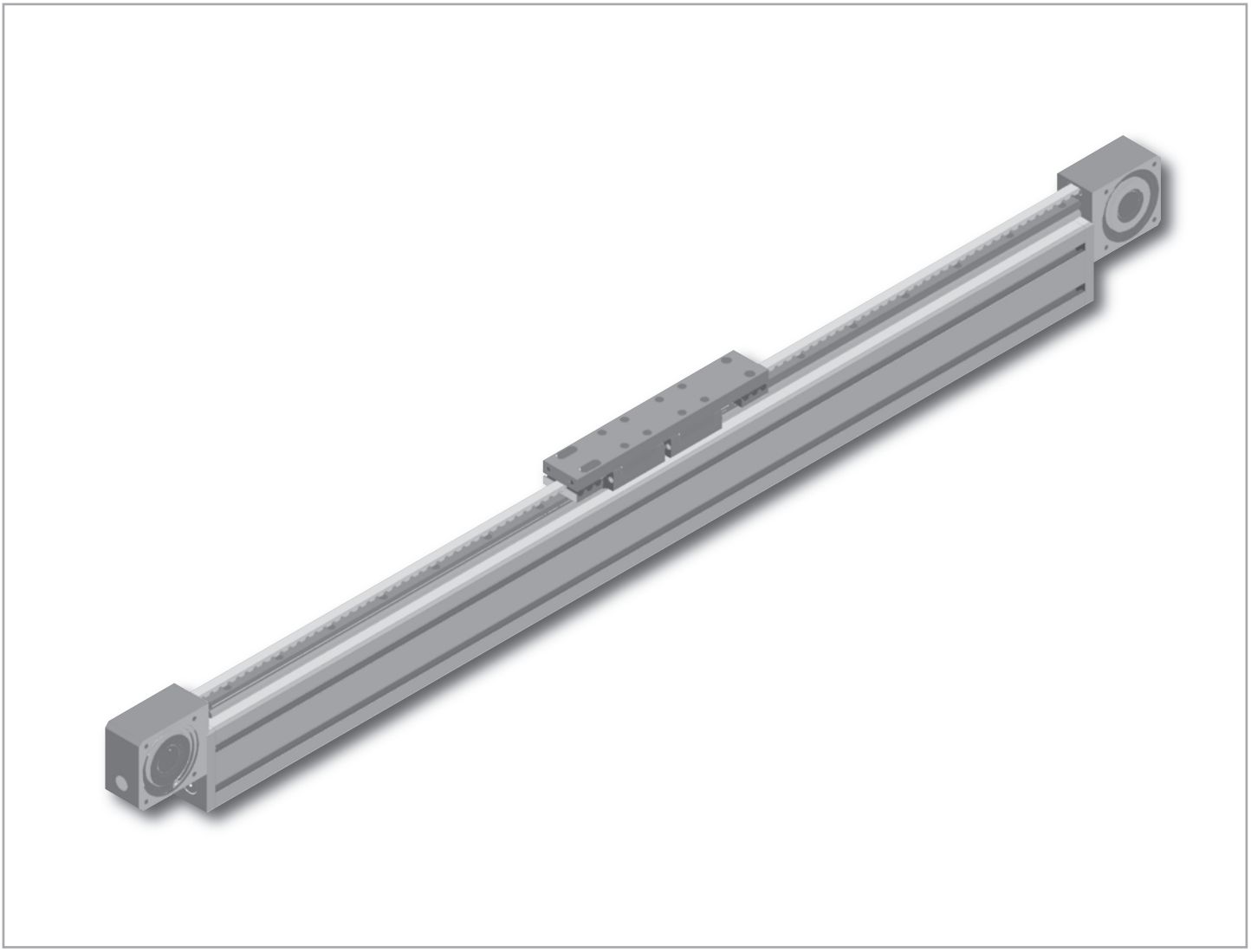
SHAFT OPTIONS:
1 = without key
2 = with key groove

LUBRICATION:
P = rollers equipped with grease nipple for the periodical lubrication
V = lifetime lubricated rollers
DB = trolley equipped with nr. 2 oil distributors

MOTOR CONNECTION:
N = none
G = flange and coupling
R = flange, coupling and gear box

TMT DRAWING NR only for special types

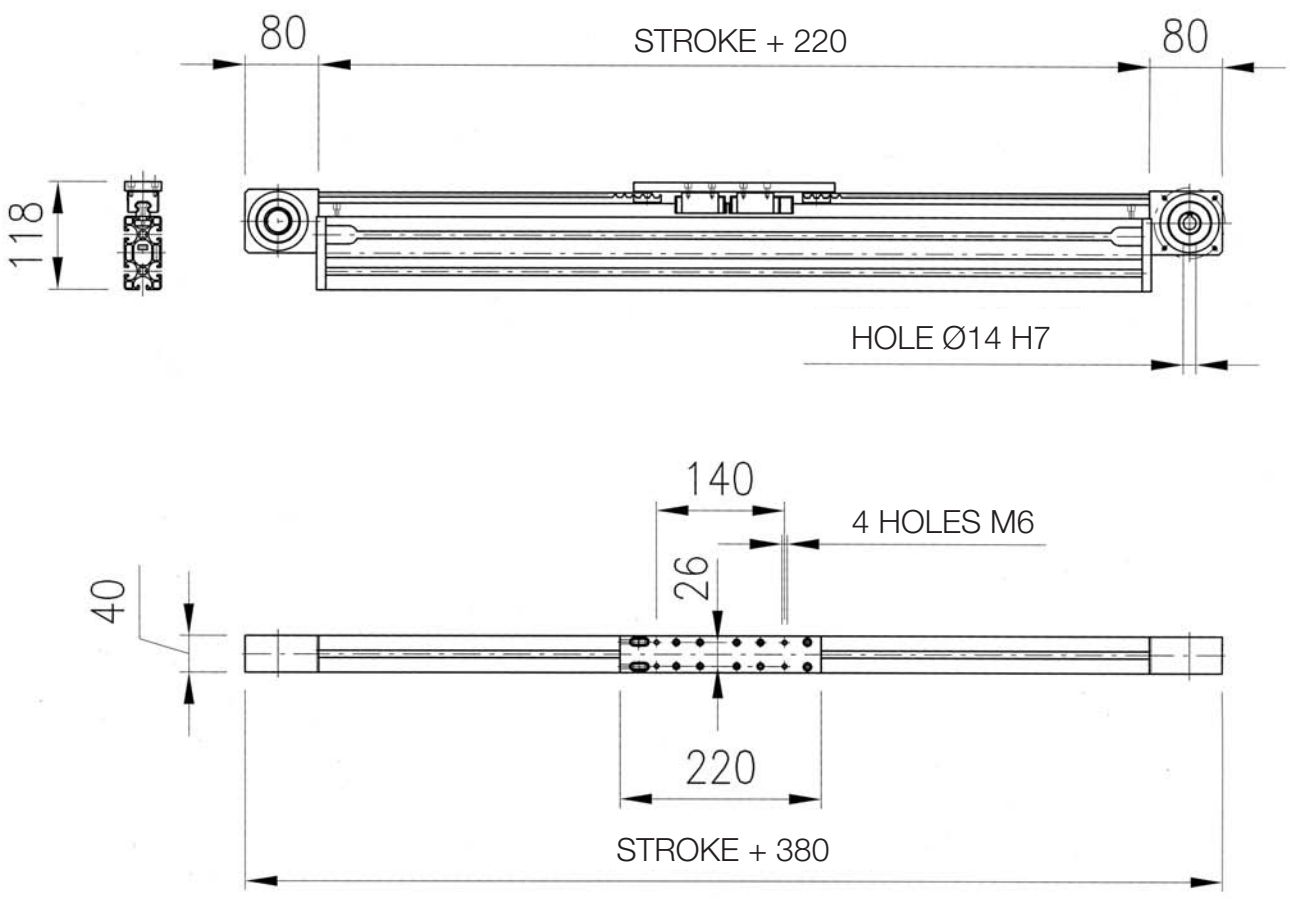
Modello MLT305



DESCRIPTION

The linear module MLT305 is consisting of a self-supporting profile Frame Line (section 80x40mm) light alloy with anodizing treatment assembled with a 4 rows linear guideway and 2 Size 15 blocks.
The power transmission is activated by a timing belt AT10 10mm width.

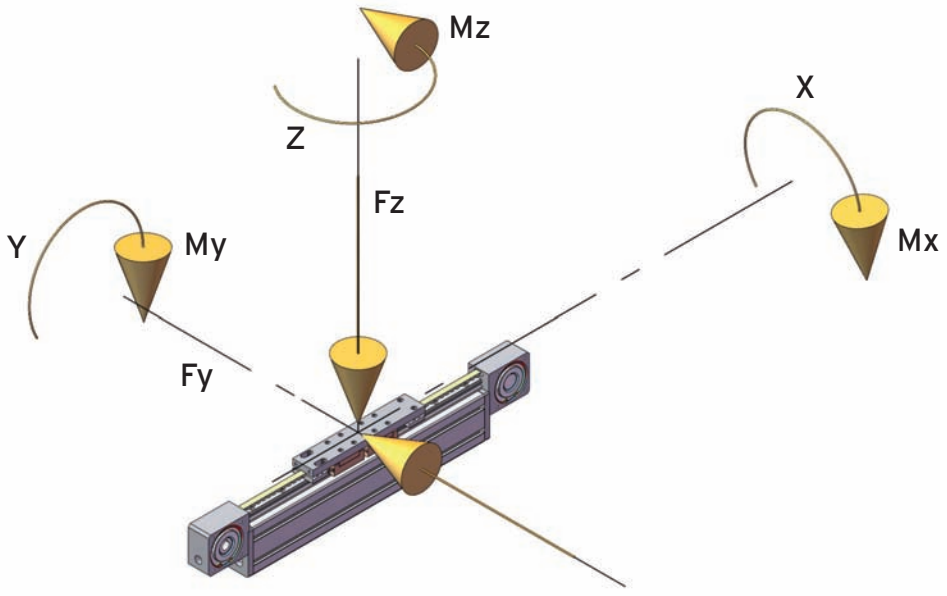
DIMENSIONS



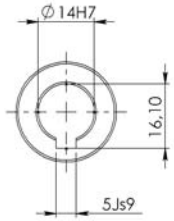
TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	6000 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	190
Power drive		AT10/10 timing belt
Accuracy of repeatability	+/-mm	+/-0,1 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	2,5 (4*)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	89,24
Surface quadratic moment on Y-Y axis **	cm^4	14,95
Linear system	Single Linear guide way and 2Size 15 blocks	
Maximum working torque to the drive pulley for horizontal stroke	Nm	17.6
Maximum working torque to the drive pulley for vertical stroke	Nm	14,1
Dynamic rated loads Fy and Fz	N	2060
Dynamic rated moment Mx **	Nm	15
Dynamic rated moment My **	Nm	70
Dynamic rated moment Mz **	Nm	70
Mass of drive and idler heads (nr2)	Kg	1,4
Trolley mass	kg	0,8
Linear Mass	Kg/m	4,9

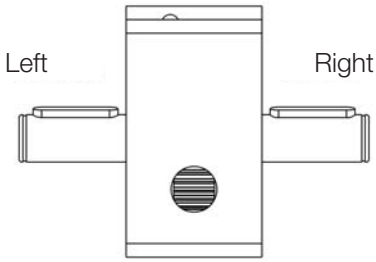
Periodical lubrication by optional oilers E2 about each 15000 km in accordance with the working conditions.
(*) On request **Ref code: S**
(**) Moments (cannot be added together) referred to the median trolley axis and a 20000 km working life.
(***) Normal elasticity modulus: E=70000N/mm^2



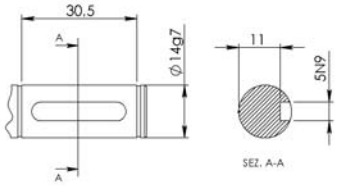
OPTIONALS



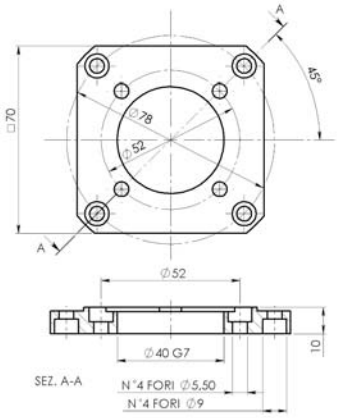
Standard hollow shaft dimensions



Single side shaft 1,2
Double side shaft



Shaft dimensions



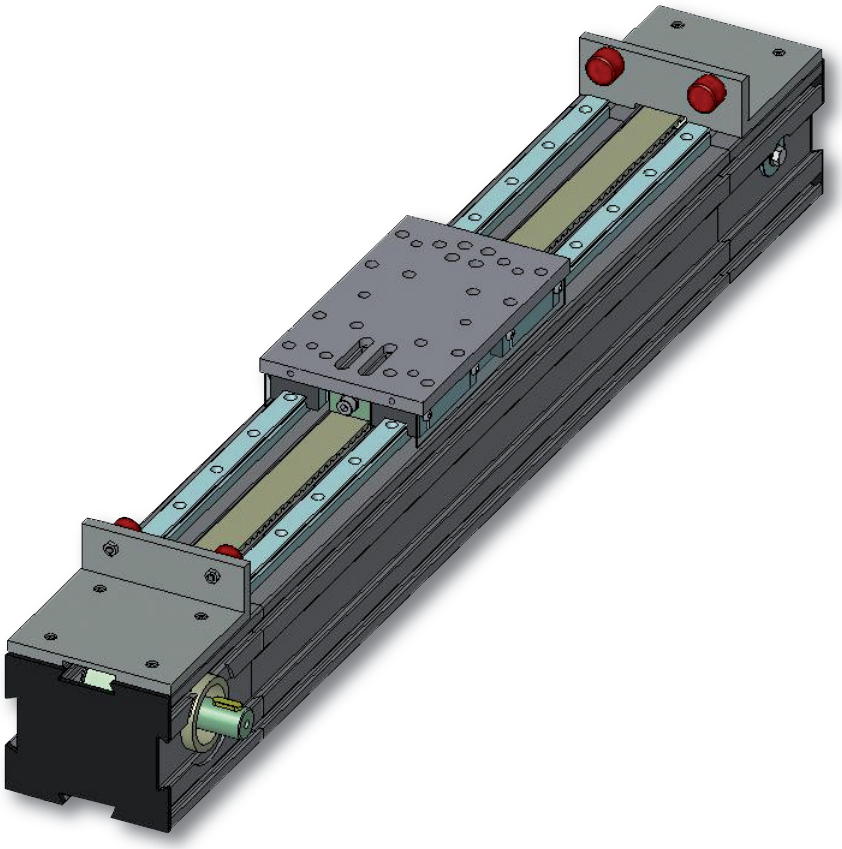
Gearbox mounting flange

REFERENCE CODE

MLT 305 - 1P	1200	N	Z	2	1	N	N	G	Txxx-xxx

TMT MODULE TYPE
LINEAR STROKE MM
PROTECTIONS:
N=WITHOUT PROTECTIONS
S=WITH BELLOWS
POWER TRANSMISSION: Z=timing belt at10/10
Power transmission features: 1 = right shaft end
2= left shaft end, 3 = both shaft end, 4 = hollow shaft
NB: module seen from the activation extremity
SHAFT OPTIONS: 1 = without key (only for overhanging shafts)
2 = with key groove
BLOCKS LUBRICATION:
N = NO LUBRICATION DISTRIBUTOR
E2 = BLOCKS WITH OILERS
BLOCKS SPEED CLASS: N = normal - S = high
MOTOR CONNECTION:
N = none
G = flange
R = flange, coupling and gear box
TMT DRAWING NR only for special types

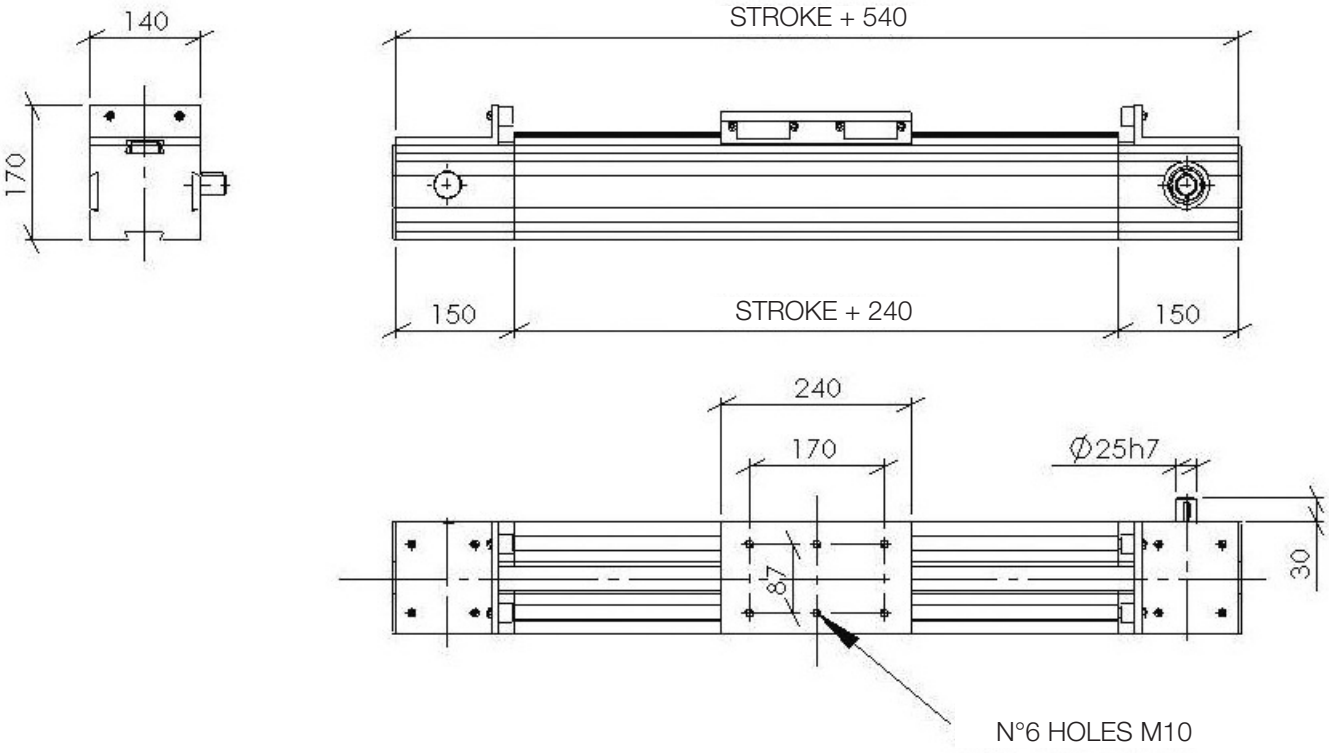
Modello MLT325



DESCRIPTION

The range of MLT LINEAR MODULES is designed to work without additional support structures. The MLT325 version guarantees high load capacity and excellent precision positioning, thanks to the use of linear rails with 4 recirculating ball bearings that, mounted on strong aluminum profiles, guarantee high inertia and movement.
With a wide range of accessories available, fixing the equipment to the columns is easy and fast. High performance, modularity, low cost and versatility: these are the strong points of our linear module range.

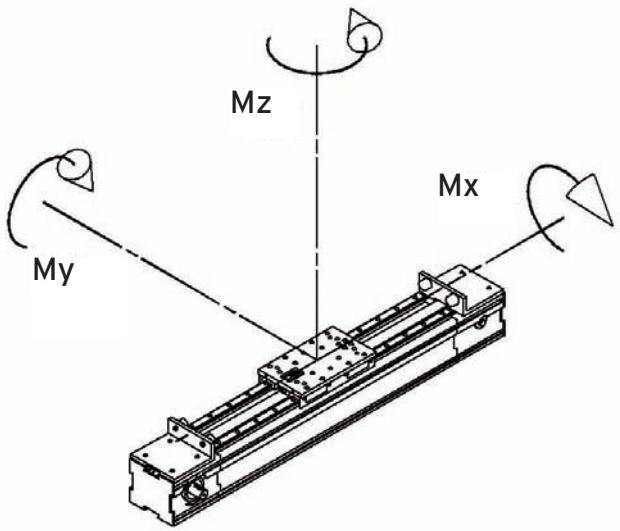
DIMENSIONS



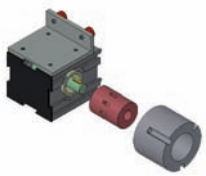
TECHNICAL DATA

Caratteristica	Unità misura	Valore
Max. stroke	mm	7260
Corsa per nº1 rotazione albero (puleggia diam prim 101,86mm)	mm/giro	320
Power drive		Cinghia Dentata AT10/32
Accuracy of repeatability	+/-mm	+/- 0,1
max speed	m/sec	2,5 (4*)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis ***	cm^4	1484
Surface quadratic moment on Y-Y axis ***	cm^4	1362
Torsional quadratic moment ****	cm^4	950
Linear system		Pattini a 4 rds Taglia 20
Maximum thrust force	N	3200
Dynamic rated moment Mx **	Nm	C 270 / H 330
Dynamic rated moment My **	Nm	C 420/H 520
Dynamic rated moment Mz **	Nm	C 420/H 520
Dynamic rated loads Fy and Fz	Nm	C 6240/H 7660
Mass of drive and idler heads (nr2)	kg	9
Trolley mass	kg	4,2
Linear Mass	Kg/m	19

(*) On request **Ref code: S**
(**) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.
(***) Normal elasticity modulus: $E=70000N/mm^2$
(****) Tangential elasticity modulus: $G=26000N/mm^2$



OPTIONALS



Joint complete with flange, with 3 M8 holes at 120° on diameter 105 (flange diam. int. 70, diam. est.120) for fixing motor plate. Possibility of transmitting up to a max. torque of 160Nm. Hole with key on joint for the motor shaft location, that can vary from 14 to 32mm in diameter.
ORDER CODE: GF diameter shaft in joint

Polyurethane bellows. The MLT325 module includes protection against impurities with sliding seals on the rollers, but optional polyurethane bellows can be mounted to provide complete protection of the rails and belt. A module with folding guard increases its total length by 200mm every 500mm of its stroke.
ORDER CODE: SF

It is possible to order our LINEAR MODULES by writing:
MODULE CODE + STROKE + POSSIBLE OPTIONAL CODE + ACCESSORY CODE WITH ITS QUANTITY IN PARENTHESES

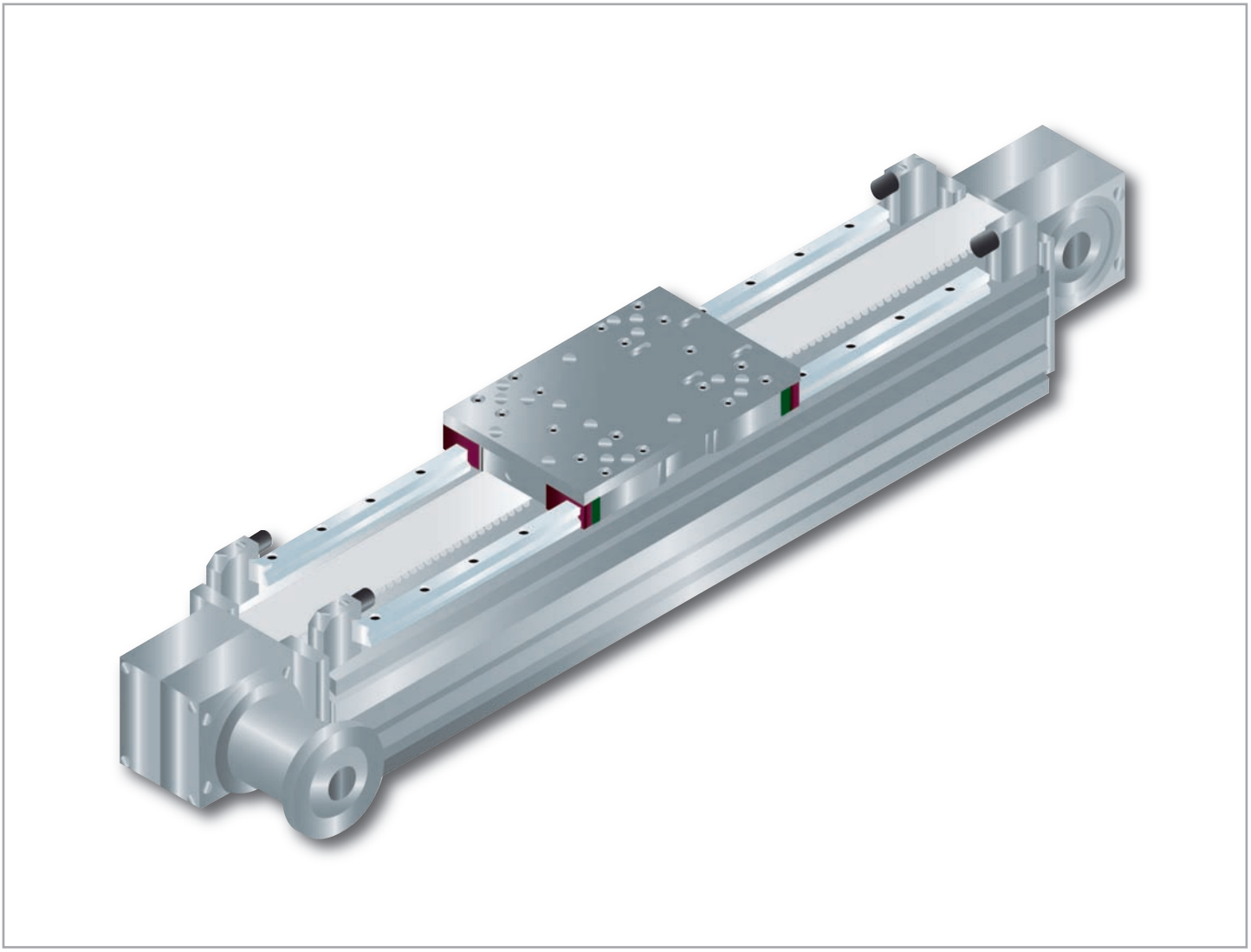
Example order:
If you want to order a linear module model MLT325, with a stroke of 1000, complete with shaft joint diam.20, with 3 dovetails cod.4110470, the order code would be:
N°1 LINEAR TYPE MODULE: MLT325+1000+GF20+4110470(3)

REFERENCE CODE

MLT 325-1P	1750	N	Z	N	C	1	2	E2	G(20)	Txxx

TMT MODULE TYPE
LINEAR STROKE mm
PROTECTIONS:
N=without bellows
F=with bellows
POWER TRANSMISSION::
Z=timing belt AT10/32
BLOCKS SPEED CLASS:
N = normal (max2,5m/s)
S = high (max4,0/s)
BLOCKS LOAD CAPACITY:
C = Medium
H = High
POWER TRANSMISSION FEATURES:
1 = right shaf tend
2 = left shaft end
3 = both shaft end
4 = hollow shaft
NB: module seen from the activation extremity
SHAFT OPTIONS:
1 = without key
2 = with key groove
BLOCKS LUBRICATION:
N = no lubrication distributor
E2 = blocks with oilers
MOTOR CONNECTION:
N = none
G = flange and coupling
R = flange, coupling and gear box
TMT DRAWING NR only for special types

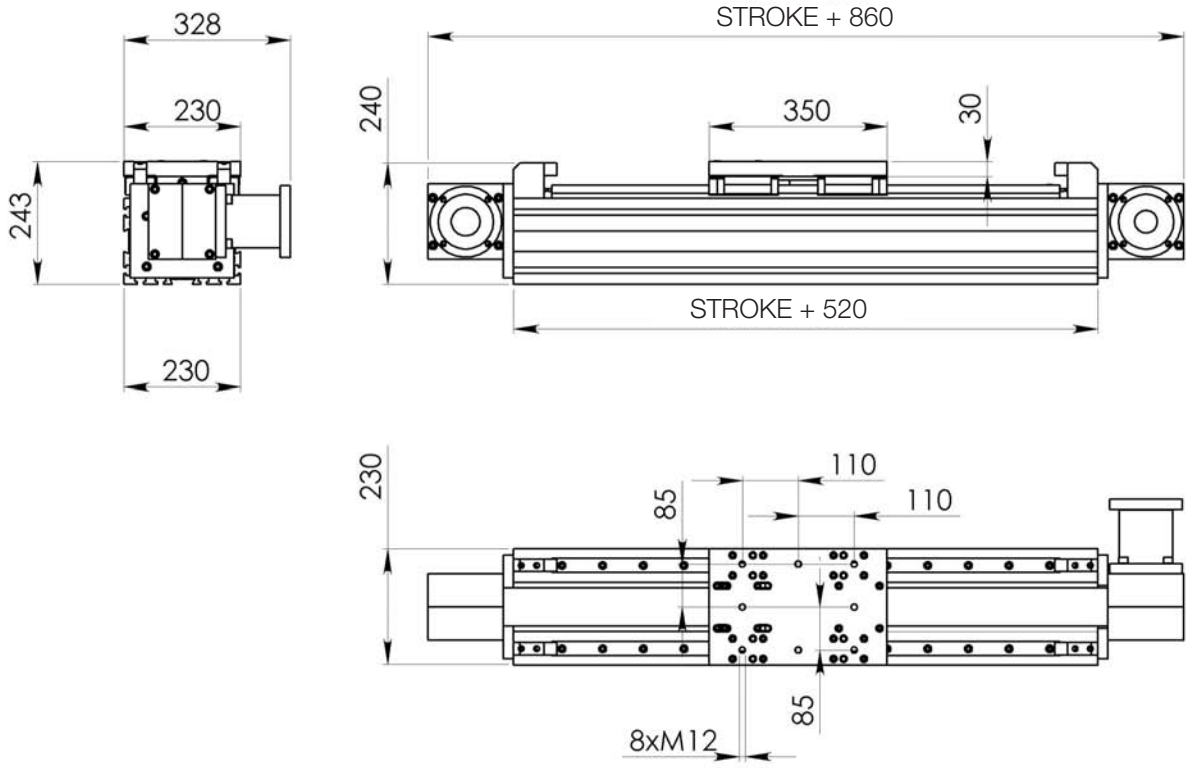
Modello MLT510



DESCRIPTION

The linear module MLT510 is consisting of a self-supporting profile Gantry Beam (section 230x170mm) light alloy with hard deep anodizing treatment assembled with two 4 rows linear guide ways and four blocks for the linear movement (C medium load capacity, H high load capacity).
The power transmission is activated by a timing belt AT10 75mm width.

DIMENSIONS

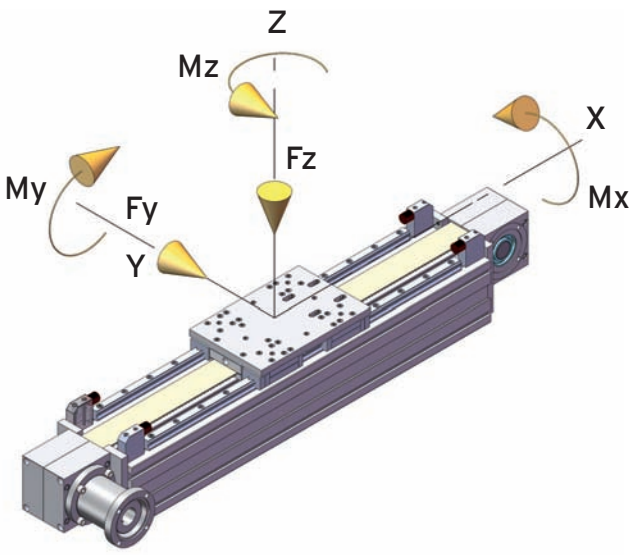


TECHNICAL DATA

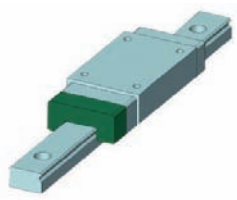
Features	Measurement unit	Value
Max. stroke	mm	11.450 Longer strokes on request
Linear stroke for one drive shaft turn	mm/giro	400
Power drive	AT10/75 timing belt	
Accuracy of repeatability	+/-mm	+/-0,1 up to stroke of 3000 +/-0.2 beyond 3000
max speed	m/sec	2,5 (4*)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis ***	cm^4	9021
Surface quadratic moment on Y-Y axis ***	cm^4	6298
Torsional quadratic moment ****	cm^4	4656
Linear system	2 linear guide ways and 4 Size 30/H blocks	
Maximum working torque to the drive pulley for horizontal stroke	Nm	265
Maximum working torque to the drive pulley for vertical stroke.	Nm	212
Dynamic rated moment Mx **	Nm	CA 1160 / HA 1410
Dynamic rated moment My **	Nm	CA 1390/HA 1690
Dynamic rated moment Mz **	Nm	CA 1390/HA 1690
Dynamic rated loads Fy and Fz	N	CA 14000/HA 17100
Mass of drive and idler heads (nr2)	kg	20
Trolley mass	kg	10,50
Linear Mass	Kg/m	37

(*) On request Ref code: S
(**) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.
(***) Normal elasticity modulus: E=70000N/mm^2
(****) Tangential elasticity modulus: G=26000N/mm^2

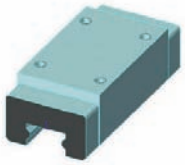
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS



Lubrication. The blocks can be equipped with replace able oil cartridge. Periodical lubrication by optional oilers about each 5000 km in accordance with the working conditions.
Ref. code: E2



High speed blocks. The blocks and the guide ways can be available in the version for high speed up to 4m/s.
Ref. code: S

High load capacity blocks: the blocks can be available in the long version high load capacity (H). They are interchangeable with the short version (C).
The lubricator can be applied also to the high load capacity version.
Ref. code: H

Gear box flange with coupling: Al flange internal Ø60, external 100 for the mounting of the gear box. Rotex coupling Gs 28-98 Sh-A
Ref. code: G + Ø coupling hole

Bellows: the guide ways of the module maybe protected from the dust by polyurethane bellows.
A module with bellows is longer than one without them of 200mm/each 500mm stroke.
Ref. code: F

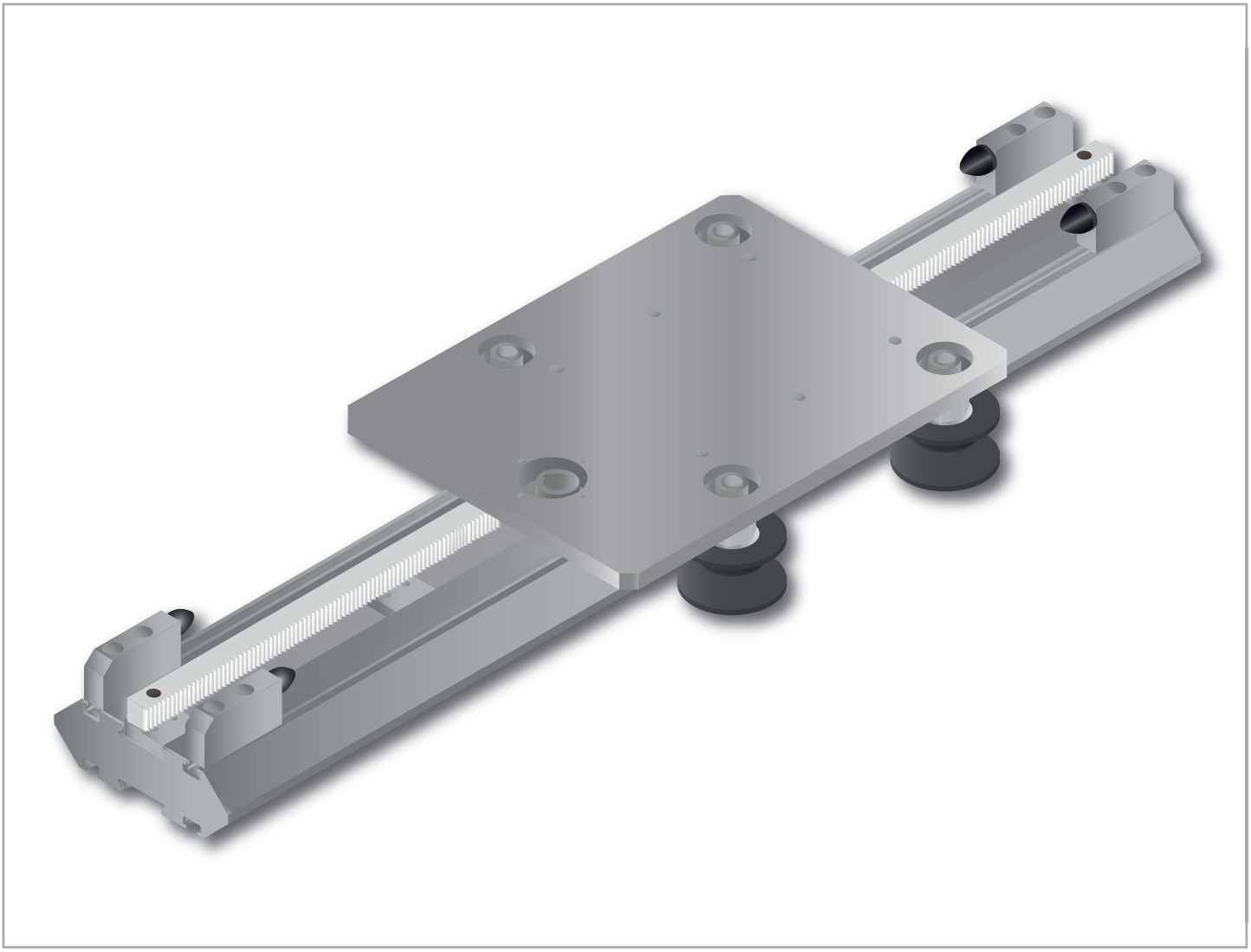
Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 510-1P	1750	N	Z	N	C	2	1	E2	G	Txxx

TMT MODULE TYPE
LINEAR STROKE mm
PROTECTIONS:
N=without bellows
F=with bellows
POWER TRANSMISSION:
Z=timing belt AT10/32
BLOCKS SPEED CLASS:
N = normal (max2,5m/s)
S = high (max4,0/s)
BLOCKS LOAD CAPACITY:
C = Medium
H = High
POWER TRANSMISSION FEATURES:
1 = right shaf tend
2 = left shaft end
3 = both shaft end
4 = hollow shaft
NB: module seen from the activation extremity
SHAFT OPTIONS:
1 = without key
2 = with key groove
BLOCKS LUBRICATION:
N = no lubrication distributor
E2 = blocks with oilers
MOTOR CONNECTION:
N = none
G = flange and coupling
R = flange, coupling and gear box
TMT DRAWING NR only for special types

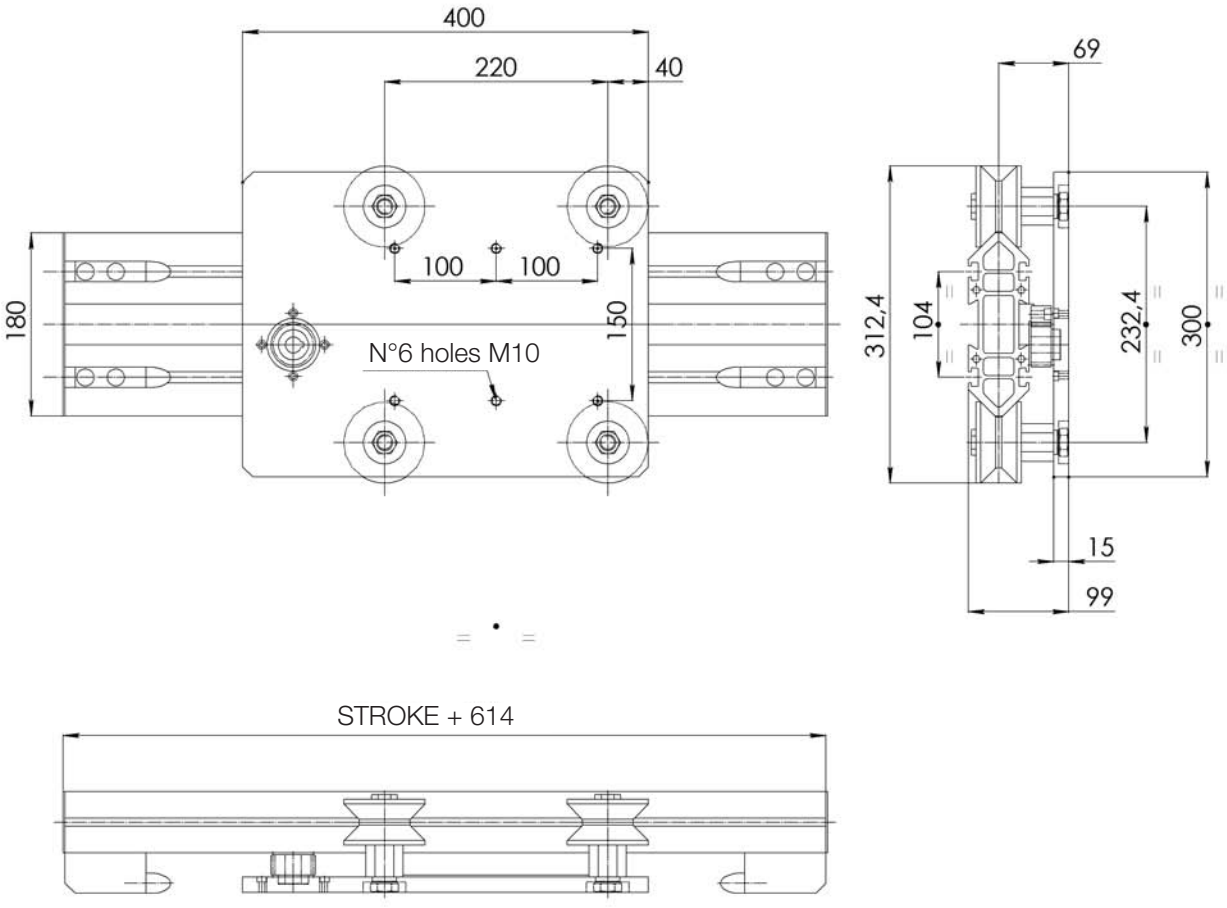
Modello MLT460



DESCRIPTION

The linear module MLT460 is consisting of a self-supporting profile Speedy Rail SR180M (section 180x60mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped rollers compound plastic lined.
The power transmission is activated by a rack M2 tilted teeth hardened and a hardened pinion M2.

DIMENSIONS

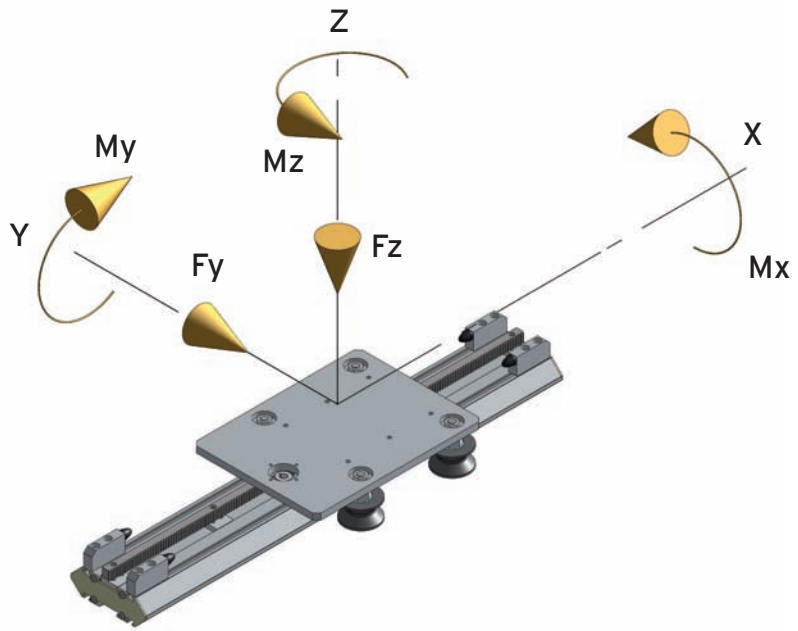


TECHNICAL DATA

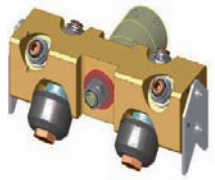
Features	Measurement unit	Value
Max. stroke	mm	6900 Longer strokes on request
Linear stroke for one pinion rev.	mm/giro	119,97mm
Power transmission	m2 mm hardened rack	
Accuracy of repeatability	+/-mm	0,15
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis *	cm^4	1.029,11
Surface quadratic moment on Y-Y axis *	cm^4	127,87
Torsional quadratic moment **	cm^4	260,00
Linear system	Speedy rail SR180M guide and plastic compound rollers	
Maximum thrust force	N	2000
Dynamic rated moment Mx ***	Nm	100
Dynamic rated moment My ***	Nm	88
Dynamic rated moment Mz ***	Nm	154
Dynamic rated loads Fy	N	1400
Dynamic rated loads Fz	N	800
Trolley mass	kg	7,00
Linear Mass	Kg/m	14,00

(*) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.
(**) Normal elasticity modulus: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

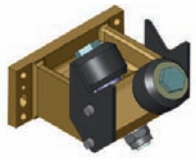
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS



Load capacity. If the load capacities of the standard module aren't enough it is possible to apply roller boxes each with nr. two rollers or floating roller boxes each with nr. four rollers.
By this version the values of the trolley load capacity are very high.



Accessories. To select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 460 - 1R	1750	N	C10	1	S	N	Sxxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
C10=rack Mod.2 tilted teeth, hardened

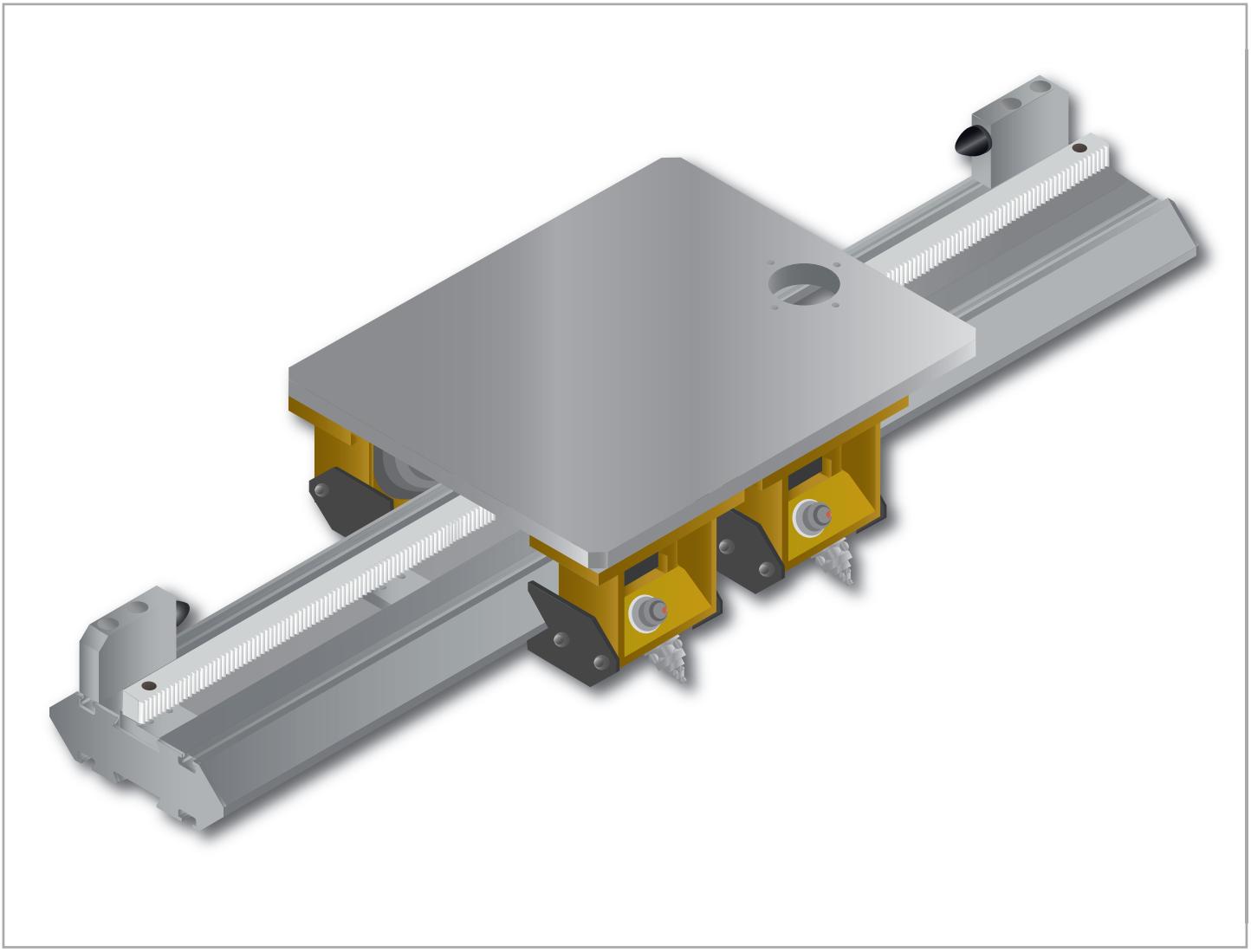
PINION FEATURES:
1 = hardened pinion Z = 18 with key groove

END STROKE BUMPERS:
S = standard – assembled on the heads
R = additional adjustable end stroke bumpers

MOTOR CONNECTION:
N = adjusted for gear box mounting
G = flange
R = flange and gear box

TMT DRAWING NR only for special types

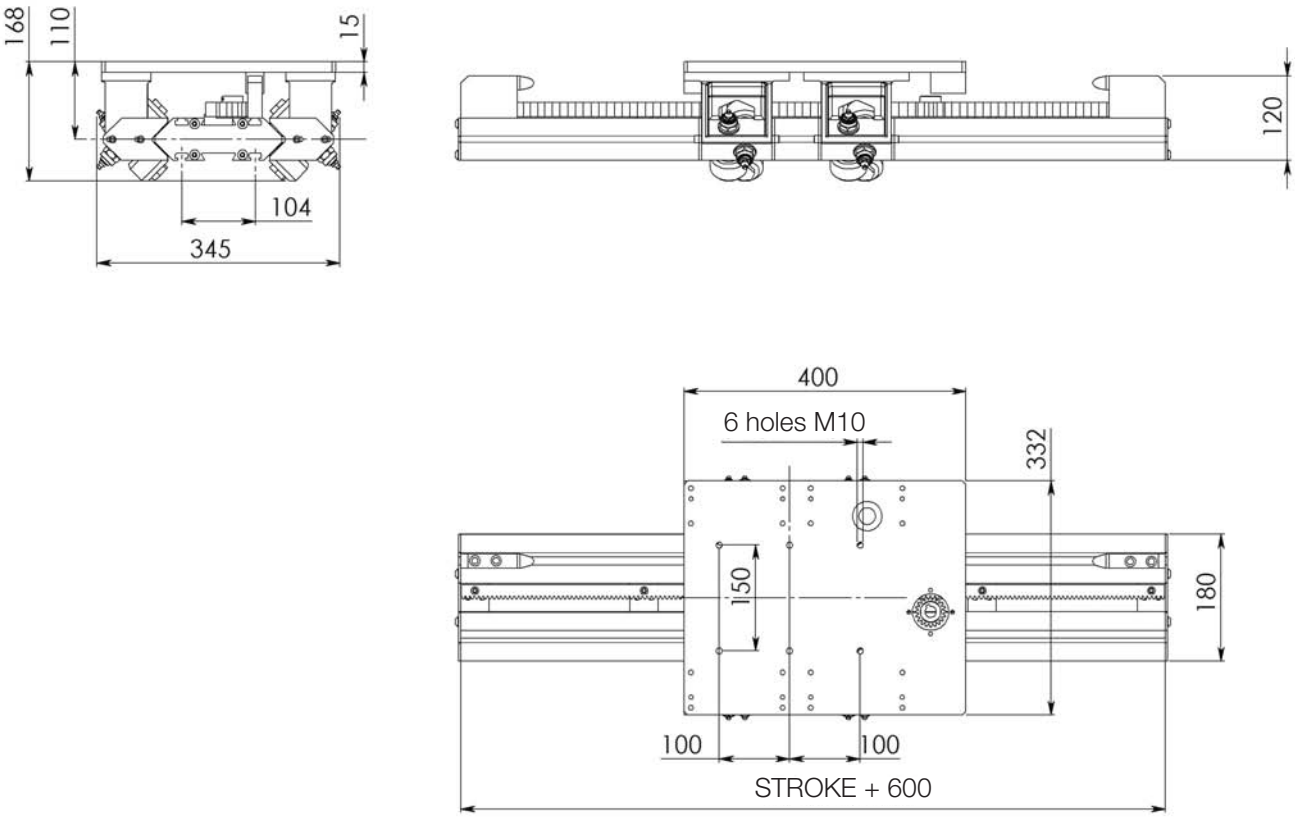
Modello MLT461



DESCRIPTION

The linear module MLT461 is consisting of a self-supporting profile Speedy Rail SR180M (section 180x60mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped cylindrical rollers compound plastic lined.
The power transmission is activated by a rack M2 tilted teeth hardened and a hardened pinion M2.

DIMENSIONS

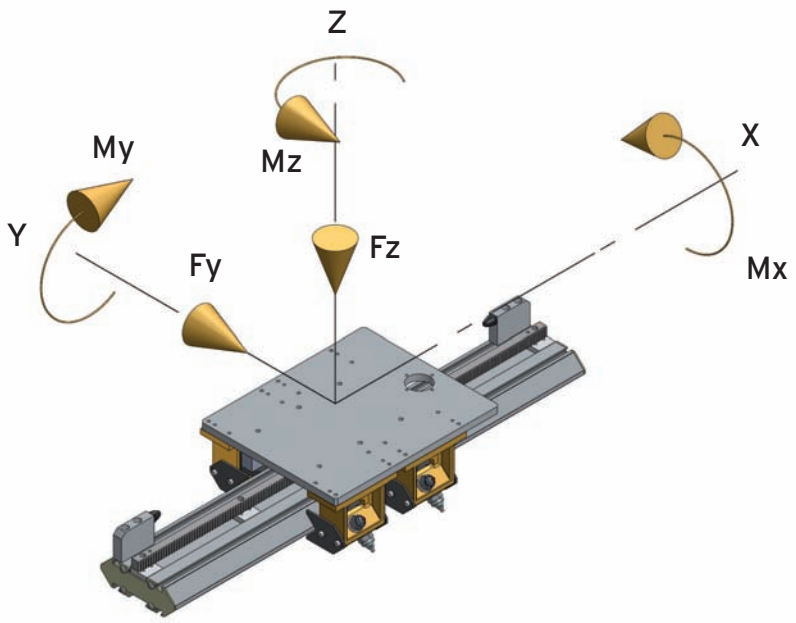


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	6900
Linear stroke for one pinion rev.	mm/giro	119,97mm
Power transmission	m2 mm hardened rack	
Accuracy of repeatability	+/-mm	0,15
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis *	cm^4	1.029,11
Surface quadratic moment on Y-Y axis*	cm^4	127,87
Torsional quadratic moment **	cm^4	260,00
Linear system	Speedy rail SR180M guide and plastic compound rollers	
Maximum thrust force	N	2000
Dynamic rated moment Mx ***	Nm	245
Dynamic rated moment My ***	Nm	310
Dynamic rated moment Mz ***	Nm	310
Dynamic rated loads Fy	N	3610
Dynamic rated loads Fz	N	3610
Trolley mass	kg	11,46
Linear Mass	Kg/m	13

(*) Normal elasticity modulus: E=70000N/mm^2
(**) Tangential elasticity modulus: G=26000N/mm^2
(***) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

Load capacity: the standard module is equipped with nr four roller boxes with two cylindrical rollers each unit. If the load capacities of the standard module aren't enough it is possible to apply floating roller boxes each unit with nr. four rollers.
By this version the values of the trolley load capacity are very high.

Lubrication: The rollers are available in the version with periodical lubrication ref. code P or lifetime lubricated ref. code V. For environments with high temperatures or very dusty it is suggested the application of periodical lubricated rollers.

Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 461 - 1R	1750	N	C10	1	V	N	Txxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
C10=rack Mod.2 tilted teeth, hardened

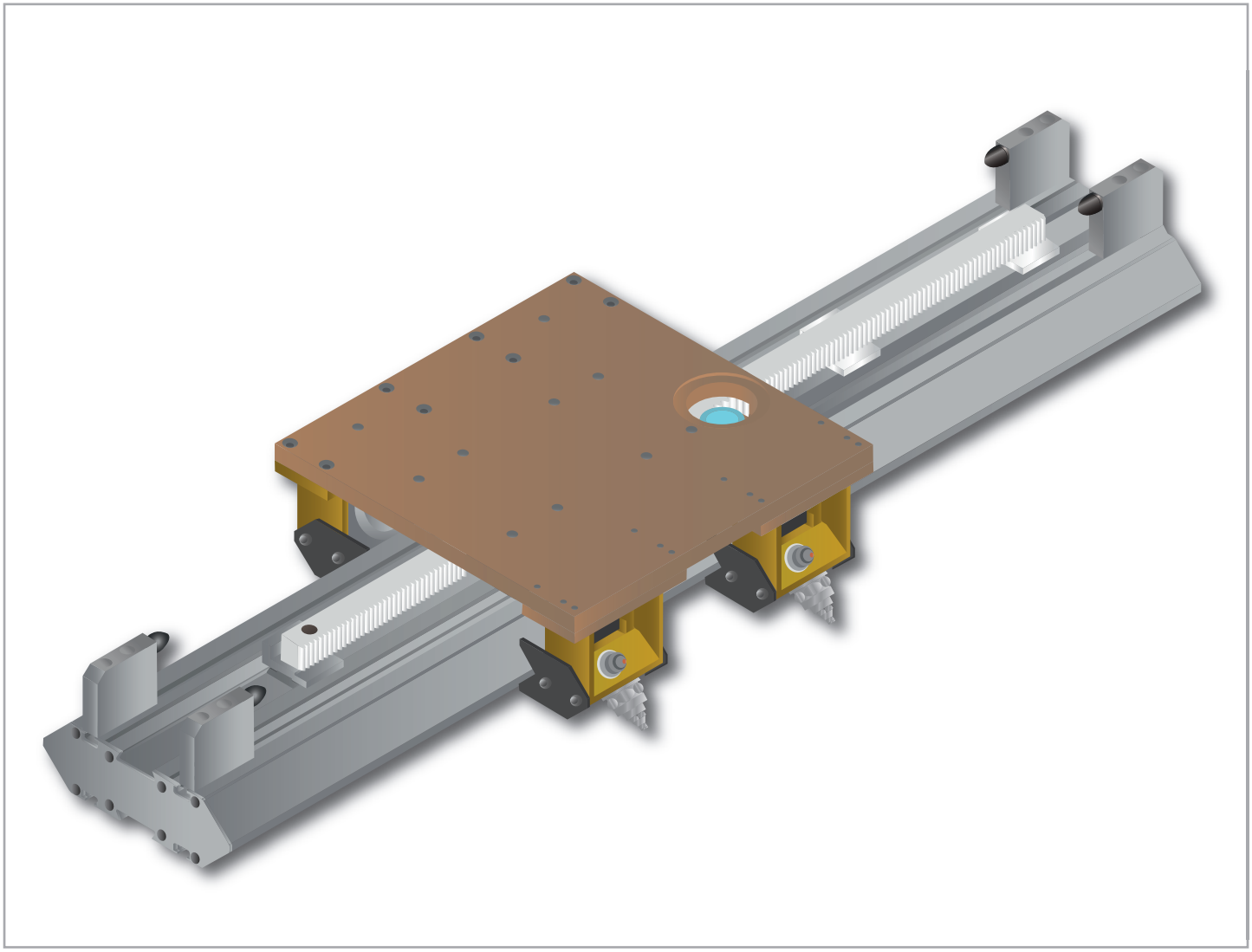
POWER TRANSMISSION FEATURES:
1 = hardened pinion - DP xx = with key groove

ROLLERS LUBRICATION:
P = rollers equipped with nipple for the periodical lubrication
V = lifetime lubricated rollers

MOTOR CONNECTION:
N = adjusted for gear box mounting
G = flange
R = flange and gear box

TMT DRAWING NR only for special types

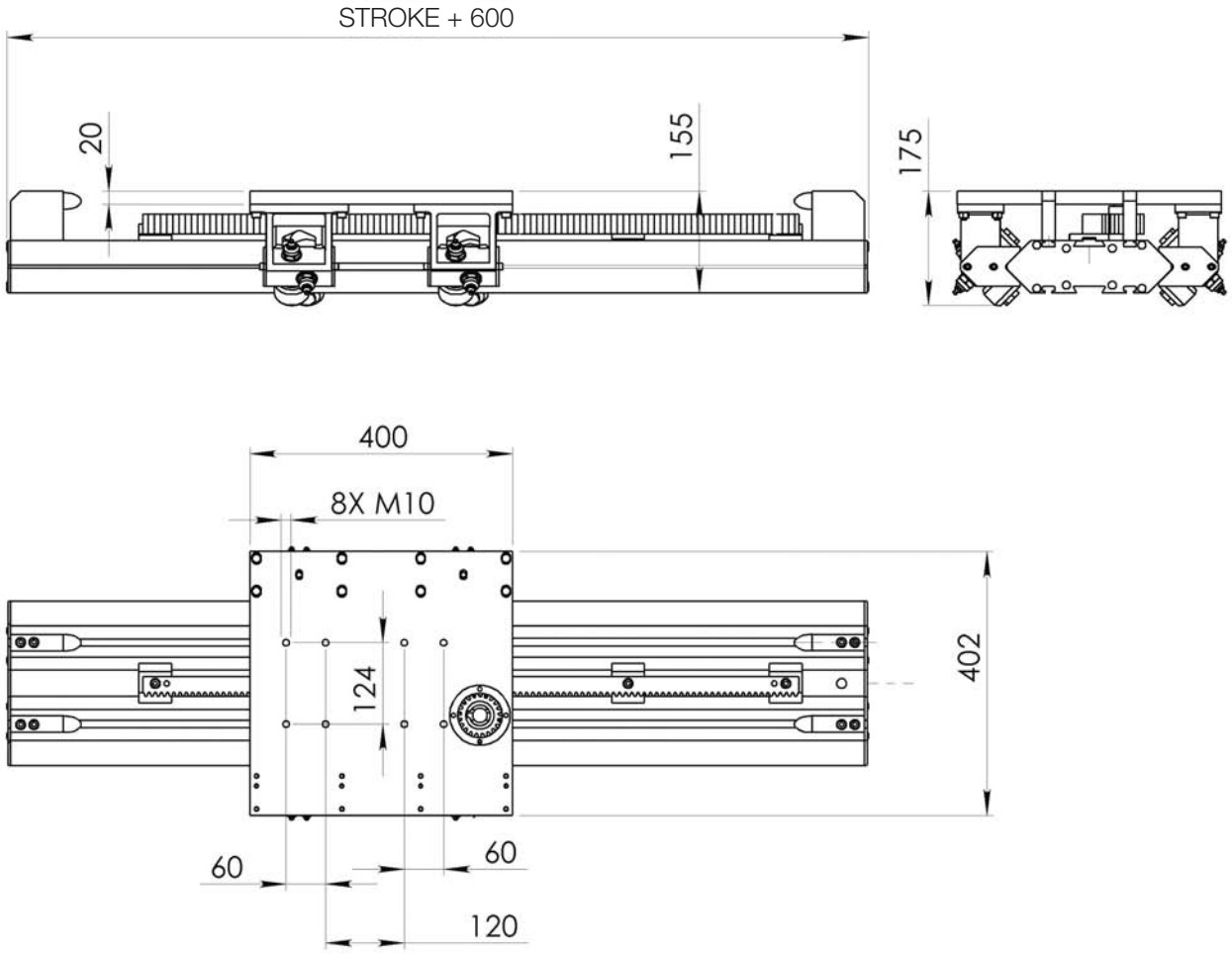
Modello MLT480



DESCRIPTION

The linear module MLT480 is consisting of a self-supporting profile Speedy Rail SR250M (section 250x80mm) light alloy with hard deep anodizing treatment.
The linear movement is obtained by V shaped cylindrical rollers compound plastic lined.
The power transmission is activated by a rack M3 tilted teeth hardened and a hardened pinion.

DIMENSIONS

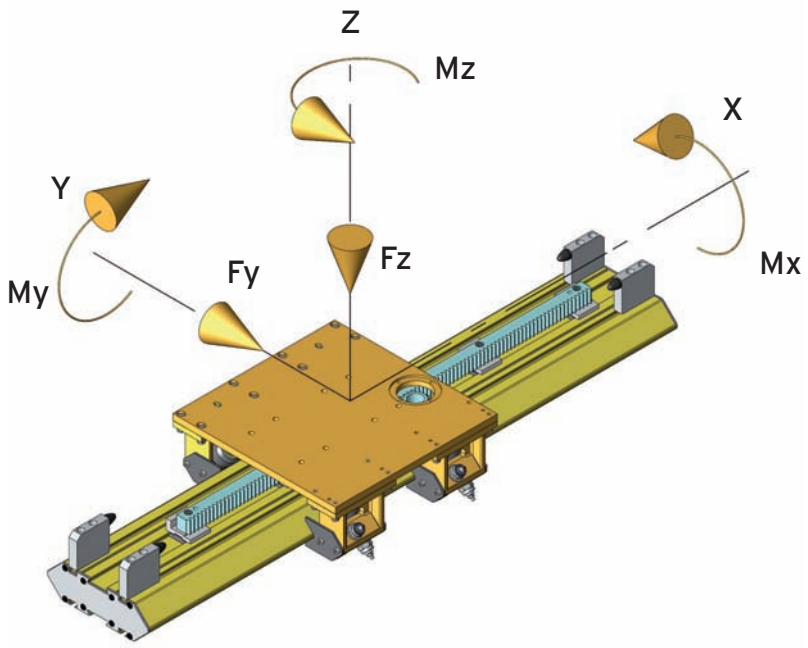


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	6900 Longer strokes on request
Linear stroke for one pinion rev.	mm/giro	200
Power transmission	m3 mm hardened rack	
Accuracy of repeatability	+/-mm	0,15
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	2735
Surface quadratic moment on Y-Y axis **	cm^4	412
Torsional quadratic moment ***	cm^4	842
Linear system,:	Speedyrail SR250M guide and plastic compound rollers	
Maximum thrust force	N	4000
Dynamic rated moment Mx *	Nm	290
Dynamic rated moment MY *	Nm	450
Dynamic rated moment Mz *	Nm	450
Dynamic rated loads Fy	N	3610
Dynamic rated loads Fz	N	3610
Trolley mass	kg	15
Linear Mass	kg/m	21,7

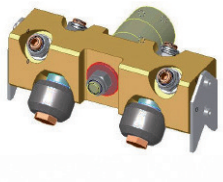
(*) Moments (cannot be added together) referred to the mediant rolley axis and a 20000km working life.
(**) Normal elasticity modulus: E=70000N/mm^2
(***) Tangential elasticity modulus: G=26000N/mm^2

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

Lubrication: The rollers are available in the version with periodical lubrication **ref. code P** or lifetime lubricated **ref. code V.** For environments with high temperatures or very dusty it is suggested the application of periodical lubricated rollers.



Load capacity: the standard module is equipped with standard roller boxes with two rollers each unit. If the load capacities of the standard module aren't enough it is possible to apply floating roller boxes each unit with nr. four rollers.
By this version the values of the trolley load capacity are doubled.

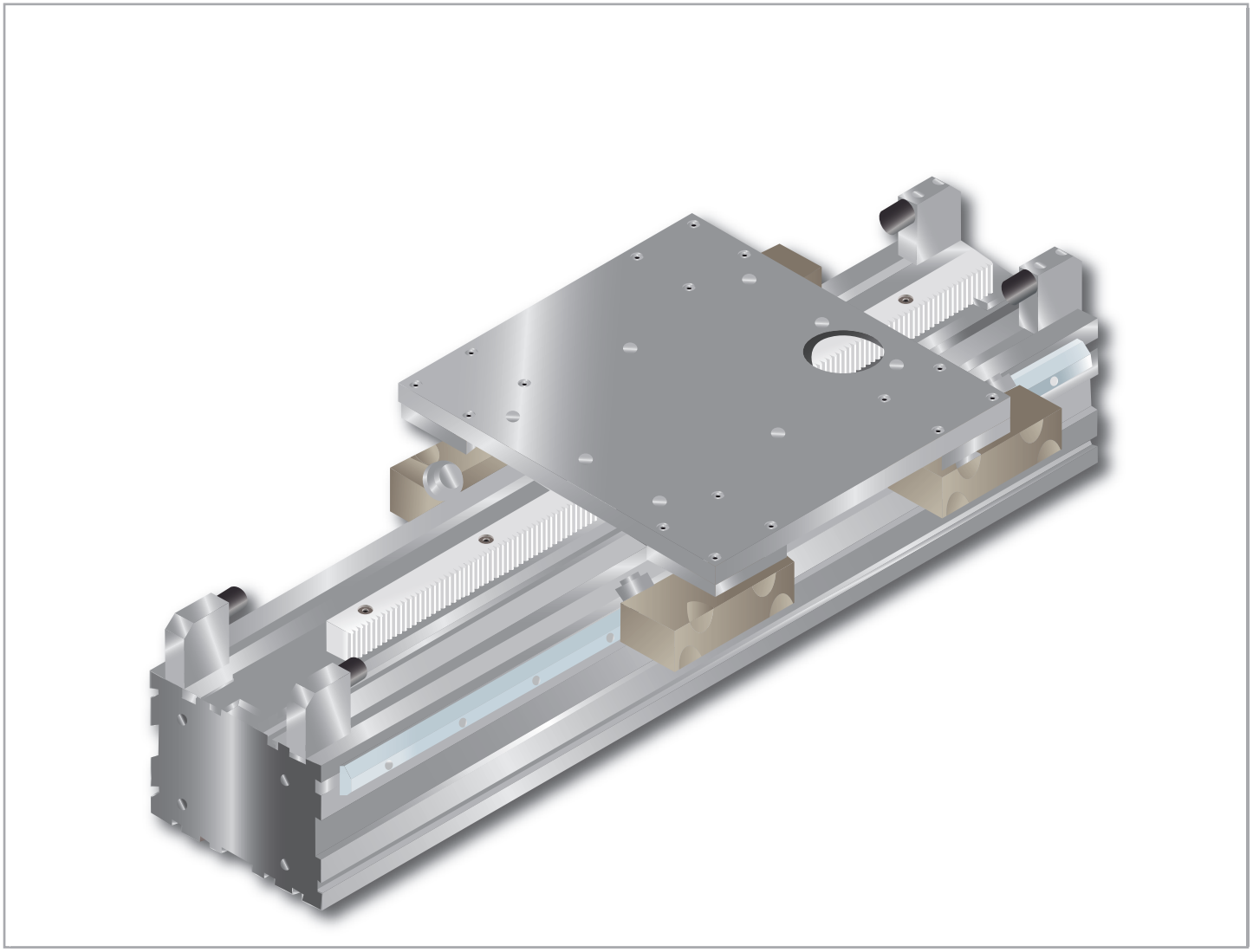
Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 480 - 1R	1750	N	C10	1	V	N	Txxx

TMT MODULE TYPE
LINEAR STROKE mm
PROTECTIONS:
N=without protections
POWER TRANSMISSION:
C10=rack Mod.3 tilted teeth, hardened
POWER TRANSMISSION FEATURES:
1 = hardened pinion
DP xx = with key groove
ROLLERS LUBRICATION:
P = rollers equipped with nipple for the periodical lubrication
V = lifetime lubricated rollers
MOTOR CONNECTION:
N = adjusted for gear box mounting
G = flange
R = flange and gear box
TMT DRAWING NR only for specia ltypes

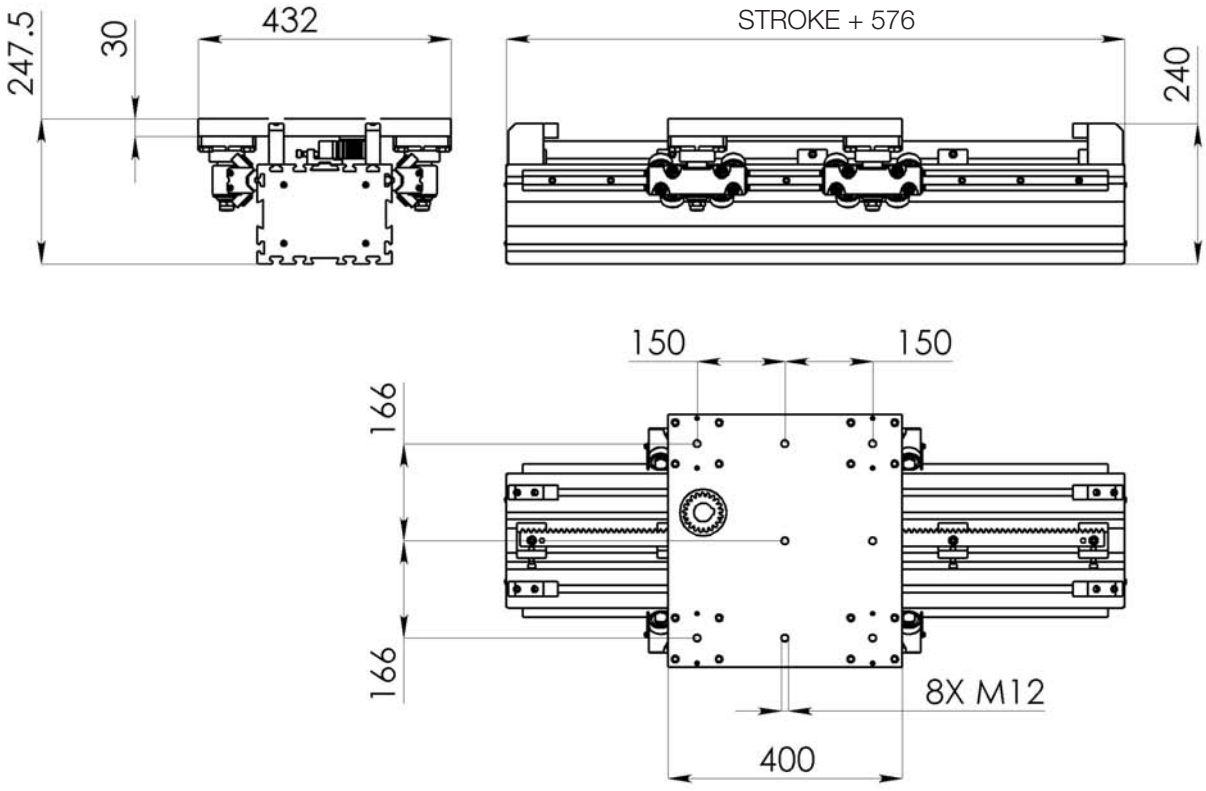
Modello MLT650



DESCRIPTION

The linear module MLT650 is consisting of a self-supporting profile Gantry Beam (section 170x230mm) light alloy with hard deep anodizing treatment assembled with two rails of the profile Steel Rail (section 35x16mm) steel made hardened and brushed.
The linear movement is obtained by cylindrical rollers steel made hardened and ground.
The power transmission is activated by a rack M3 tilted teeth hardened Q10 and a hardened pinion or as alternative by a rack M3 29x29 hardened, to-tally ground and with tilted teeth Q6.

DIMENSIONS

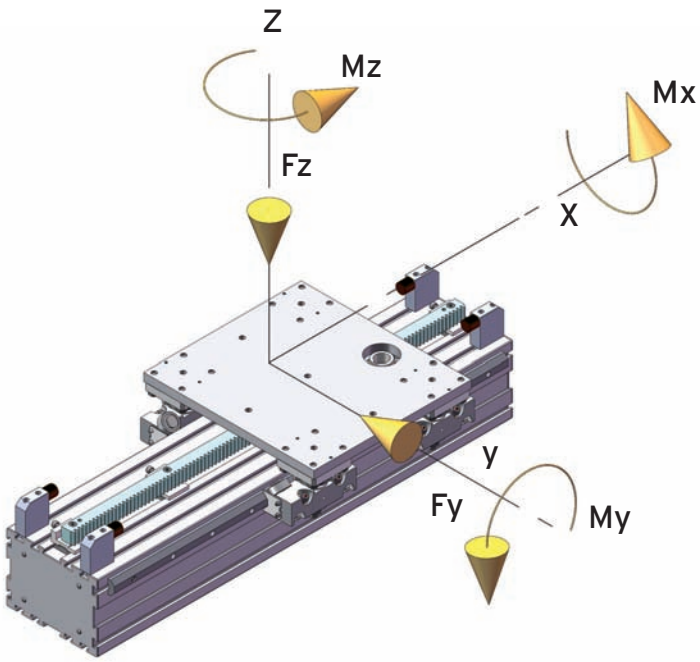


TECHNICAL DATA

Features	Measurement unit	Value
Max. stroke	mm	11.420
		Longer strokes on request
Linear stroke for one pinion rev. (helical teeth m=3mm Z=18)	mm/giro	199,68
Power transmission	m 3mm hardened rack	
Accuracy of repeatability	+/-mm	0,1 (0,05 *)
max speed	m/sec	8
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis **	cm^4	10.384
Surface quadratic moment on Y-Y axis **	cm^4	3.800
Torsional quadratic moment ***	cm^4	4.878
Linear system	Steel Rail (35x16) guides and steel rollers	
Maximum thrust force	N	4000
Maximum thrust force helical ground teeth (CR)	N	7000
Dynamic rated moment Mx ****	Nm	1150
Dynamic rated moment My ****	Nm	1530
Dynamic rated moment Mz ****	Nm	1530
Dynamic rated loads Fy	N	10170
Dynamic rated loads Fz	N	10170
Trolley mass	kg	23,50
Linear Mass	kg/m	40,00

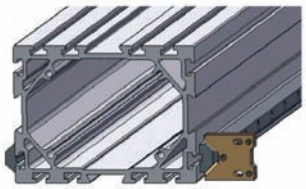
Frequency of lubrication depending on the working conditions.
(*) On request rack and pinion with inclined ground teeth. **Ref code: CR**
(**) Normal elasticity modulus: $E=70000N/mm^2$
(***) Tangential elasticity modulus: $G=26000N/mm^2$
(****) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.

The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

Lubrication: The steel rollers Ø40mm of each floating roller box are available in the version life time lubricated or equipped with a nipple for the periodical lubrication (suggested for high speeds and dusty environments)



Oil distributor: developed to achieve the constant lubrication of the sliding guides. It is equipped with two felt pieces which distribute the oil uniformly along the steel profile. The distributor contentis 25cc oil with 460 cSt viscosity at 40°C (ASTM445) enough to lubricate a 1000 km distance.
Ref. code: DB

Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 650 - 1R 1750 N C10 1 P N Sxxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without protections

POWER TRANSMISSION:
C10=rack Mod.3 tilted teeth, hardened
C6=rack Mod.3 29x29 helical teeth, hardened and totally ground

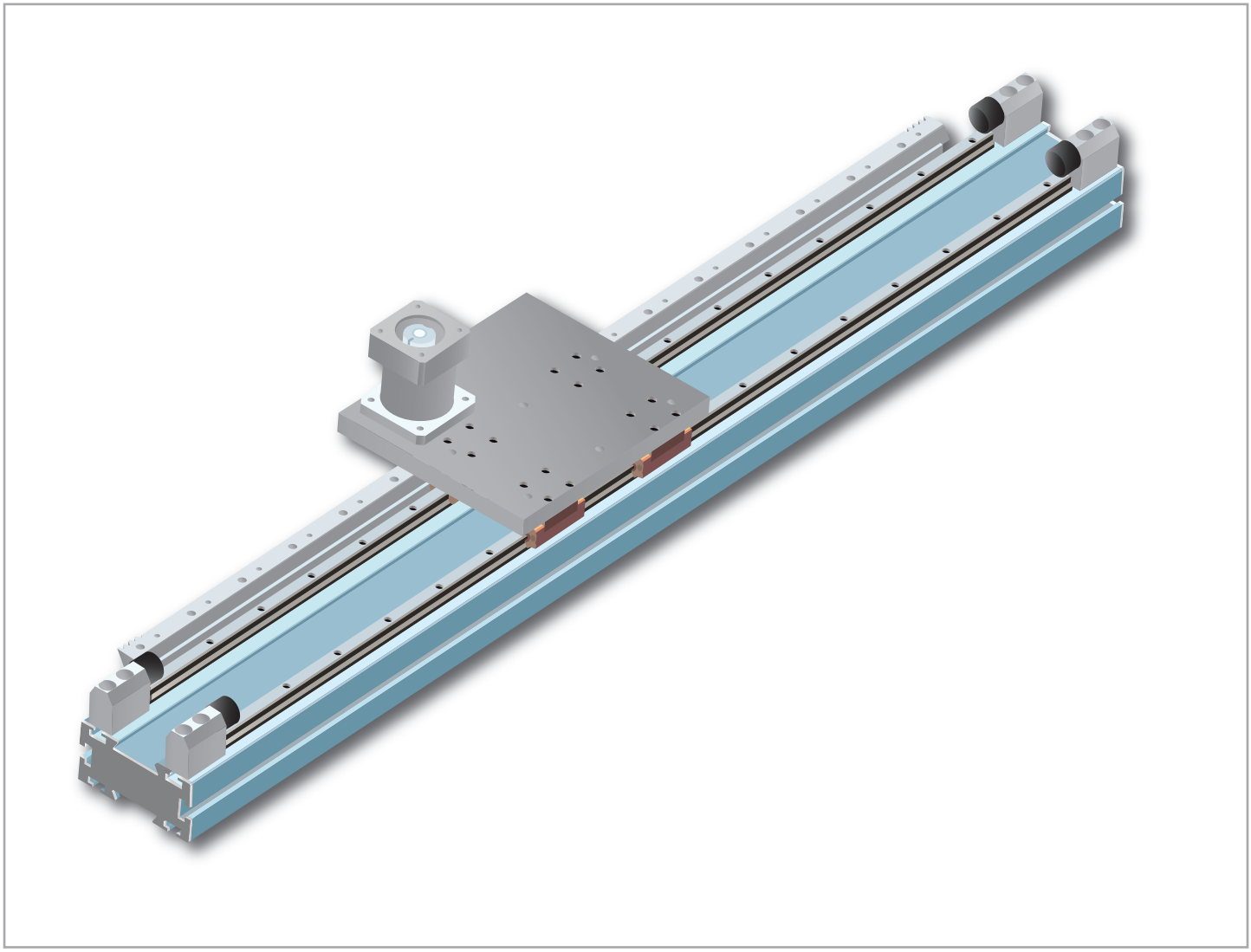
POWER TRANSMISSION FEATURES:
1 = hardened pinion
DP66 = with key groove

ROLLERS LUBRICATION:
P = rollers equipped with nipple for the periodical lubrication
V = lifetime lubricated rollers
DB = trolley equipped with nr. two oil distributors

MOTOR CONNECTION:
N = adjusted for gear box mounting
G = flange
R = flange and gear box

TMT DRAWING NR only for special types

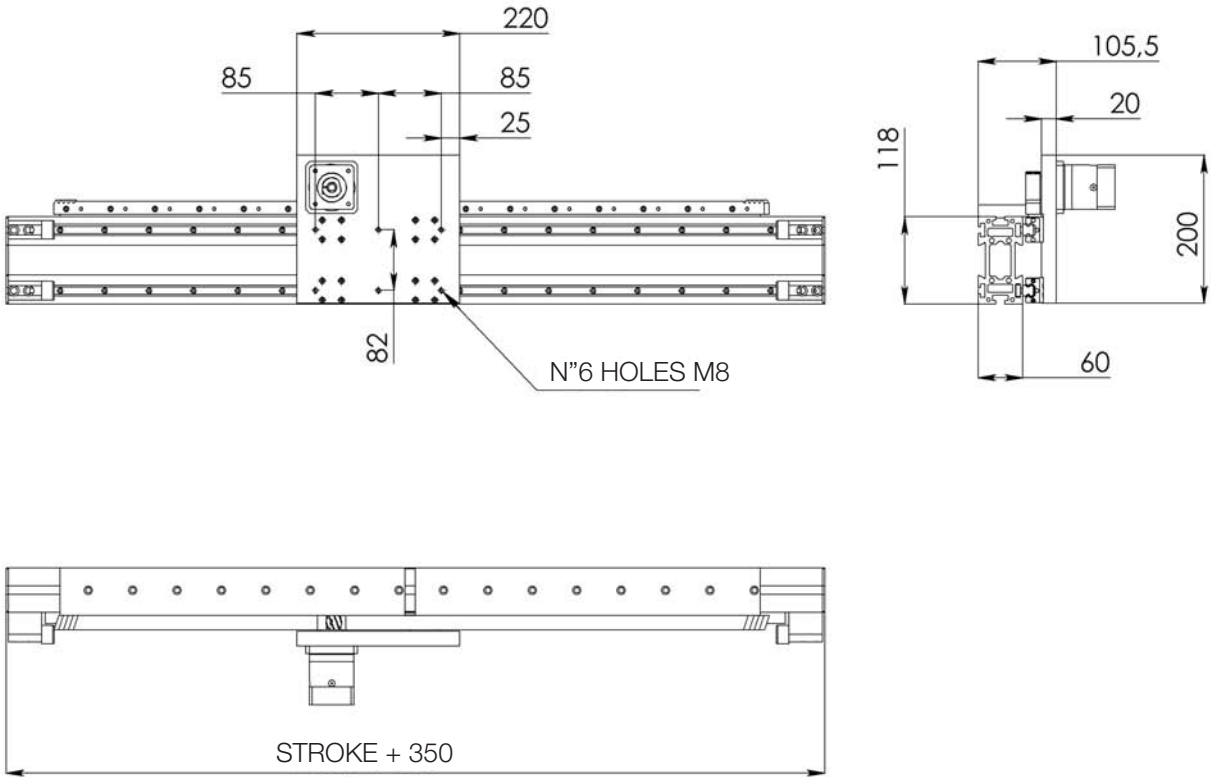
Modello MLT358



DESCRIPTION

The linear module MLT358 is consisting of a self-supporting profile New Hold Beam (section 118x60mm) light alloy with hard deep anodizing treatment assembled with two linear guide ways and four blocks Size 15.
The power transmission is activated by a rack M2 tilted teeth hardened and a hardened pinion or as alternative by a rack M2 19x19 hardened, totally ground and with tilted teeth.

DIMENSIONS

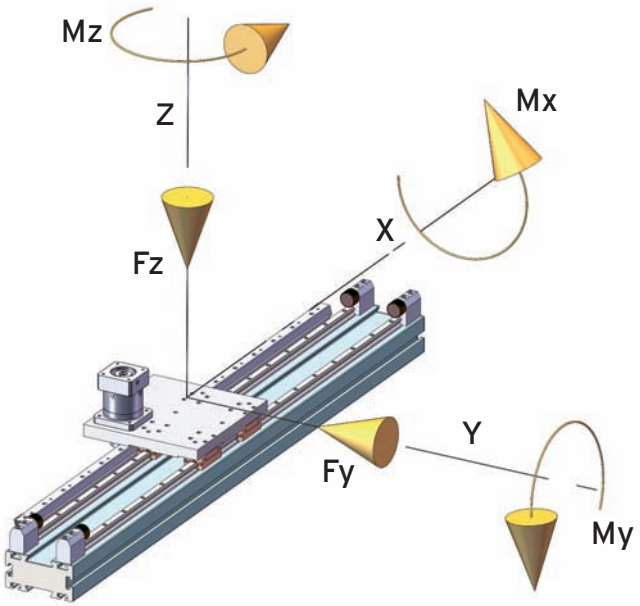


TECHNICAL DATA

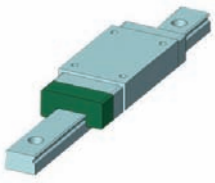
Features	Measurement unit	Value
Max. stroke	mm	9550 Longer strokes on request
Linear stroke for one pinion rev. (helical teeth m=3mm Z=18)	mm/giro	119,97mm
Power transmission	m2 mm hardened rack and pinion	
Accuracy of repeatability	+/-mm	0,1 (0,05*****)
max speed	mt/sec	2,5 (4,5*)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis ***	cm^4	626,44
Surface quadratic moment on Y-Y axis ***	cm^4	262,47
Torsional quadratic moment ****	cm^4	109
Linear system	2 linear guide ways and 4Size 15 blocks	
Maximum thrust force (*****)	N	2300
Dynamic rated moment Mx **	Nm	170
Dynamic rated moment MY **	Nm	260
Dynamic rated moment Mz**	Nm	260
Dynamic rated loads Fy	N	4120
Dynamic rated loads Fz	N	4120
Trolley mass	kg	3,50
Linear Mass	kg	19

(*) On request **Ref. code: S**
(**) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.
(***) Normal elasticity modulus: E=70000N/mm^2
(****)Tangential elasticity modulus: G=26000N/mm^2
(*****) On request **Ref code: CR**

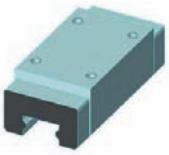
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



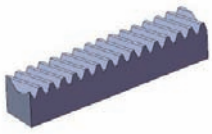
OPTIONALS



Lubrication: The blocks can be equipped with replace able oil cartridge. Periodical lubrication by optional oilers about each 15000 km in accordance with the working conditions.
Ref. code: E2



Blocks with protections against dust: blocks available also in the version with protections for dusty environments. To select them refer to the official Hiwin catalogue.
Ref. code: on request



Rack M2 19x19mm helical teeth, hardened, totally ground coupled with a pinion Z=18 hardened, totally ground.
Ref. code: CR

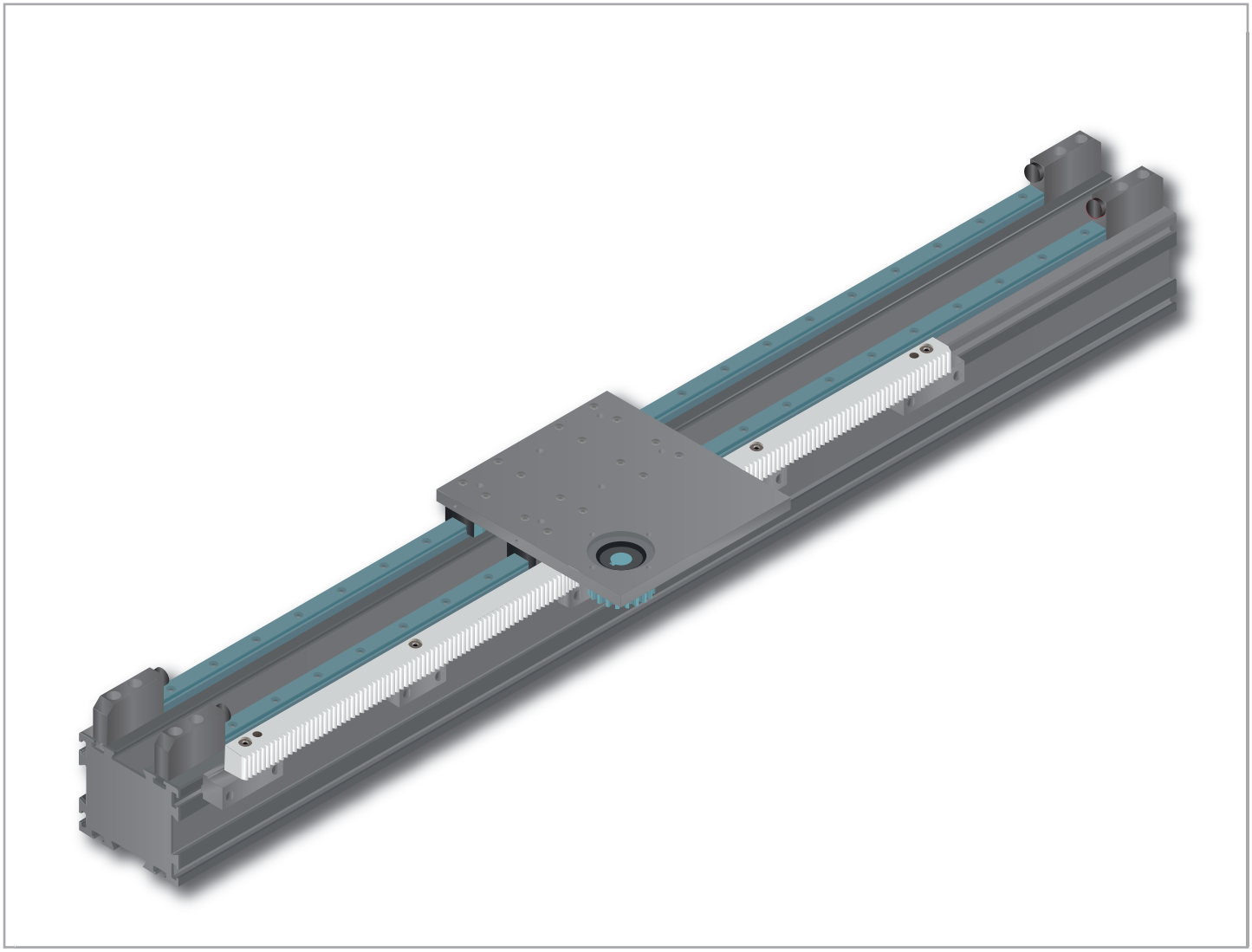
Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 358	1P	1750	N	CR	N	C	1	E2	N	Txxx-xxx

TMT MODULE TYPE
NUMBER OF TROLLEYS
LINEAR STROKE mm
PROTECTIONS:
N=without bellows
F=with bellows
POWER TRANSMISSION:
C10=rack Mod.2 tilted teeth, hardened
CR=rack Mod.2 19x19 hardened, tilted teeth, ground
BLOCKS SPEED CLASS:
N = normal (max 2,5m/s)
S = high (max 4,5m/s)
BLOCKS LOAD CAPACITY: C = high
POWER TRANSMISSION FEATURES:
1 = CR and pinion Z18 and key groove
BLOCKS LUBRICATION:
N = nooiler
E2 = blocks equipped with oil distributor
MOTOR CONNECTION:
N = adjusted for gear box mounting
G = flange
R = flange and gear box
TMT DRAWING NR only for special types

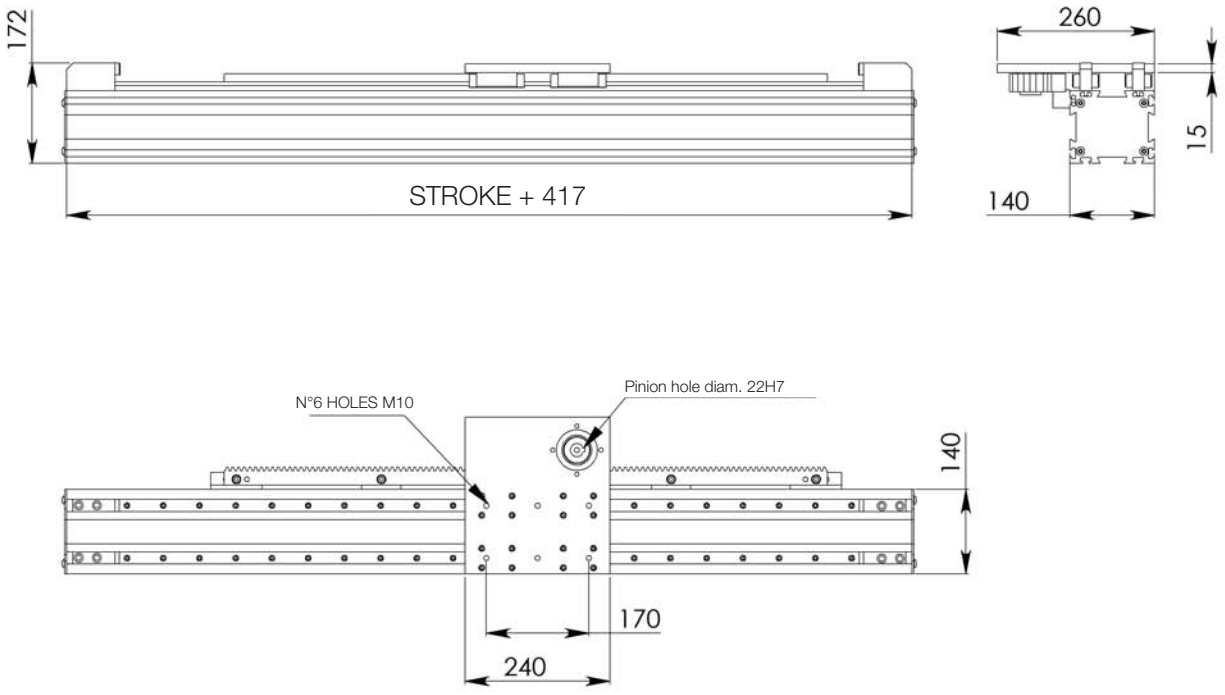
Modello MLT375



DESCRIPTION

The linear module MLT375 is consisting of a self-supporting profile New Unibeam (section 140x120mm) light alloy with hard deep anodizing treatment assembled with two linear guide ways Hiwin and four blocks for the linear movement (C for medium load capacity, H for high load capacity).
The power transmission is activated by a rack M3 tilted teeth induction hardened and straighten and an induction hardened pinion or as alternative by a rack M3 29x29 hardened, totally ground and with tilted teeth.

DIMENSIONS

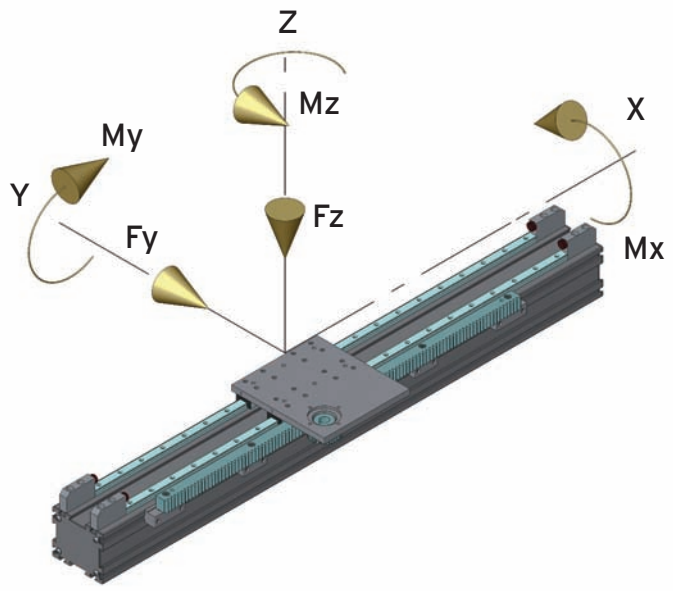


TECHNICAL DATA

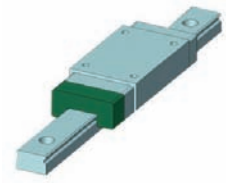
Features	Measurement unit	Value
Max. stroke	mm	7200 Longer strokes on request
Linear stroke for one pinion rev. (helical teeth m=3mm Z=20)	mm/giro	199,99
Power transmission	m3 mm hardened rack and pinion	
Accuracy of repeatability	+/-mm	0,1 (0,05 *****)
max speed	m/sec	2,5 (4 *)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis ***	cm^4	1484
Surface quadratic moment on Y-Y axis ***	cm^4	1369
Torsional quadratic moment ****	cm^4	950
Linear system,:	2 linear guide ways and 4 Size 20CA/HA blocks	
Maximum thrust force	N	4000
Maximum thrust force helical ground teeth (CR)	N	7000
Dynamic rated moment Mx **	Nm	C 270 / H 330
Dynamic rated moment My **	Nm	C 420 / H 520
Dynamic rated moment Mz **	Nm	C 420 / H 520
Dynamic rated loads Fy and Fz	N	C 6240 / H 7660
Trolley mass	kg	4,5
Linear Mass	kg/m	25,5

(*) On request **Ref. code: S**
(**) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life.
(***) Normal elasticity modulus: $E=70000N/mm^2$
(****) Tangential elasticity modulus: $G=26000N/mm^2$
(*****) On request rack and pinion with tilted teeth and ground. **Ref code: CR**

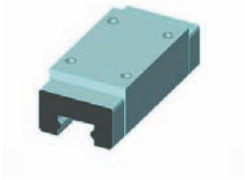
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS

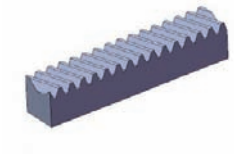


Lubrication: The blocks can be equipped with replace able oil cartridge. Periodical lubrication by optional oilers about each 15000 km in accordance with the working conditions.
Ref. code: E2



Blocks with cage high speed: blocks and guide ways available also in the version for high speed up to 4 m/s.
Ref. code: S

Blocks with high load capacity: the blocks can be available also in a longer version for high load capacity (H). They are interchangeable with the shor-ter version (C). The oil distributor is available also for the high load capacity version.
Ref. code: H



Rack M3 29x29mm helical teeth, hardened, totally ground coupled with a pinion Z=20 dp=63,66 induction hardened, totally ground.
Ref. code: CR

Bellows: The module is protected against the dust by blocks slip seals however as option are available polyurethane bellows as protection of the guide ways.
The module with bellow is totally longer 200mm each 50 mm stroke. **Ref. code:F**

Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCECODE

MLT 375 - 1P	3000	N	C10	1	N	C	E2	N	Txxx

TMT MODULE TYPE

LINEAR STROKE mm

PROTECTIONS:
N=without bellows
F=with bellows

POWER TRANSMISSION:
C10=rack Mod.3 30x30 straight teeth, hardened and straightened
CR=rack Mod.3 29x29 helical teeth, totally ground

POWER TRANSMISSION FEATURES:
1 = induction hardened pinion and key groove

BLOCKS SPEED CLASS:
N = normal (max 2,5m/s)
S = high (max 4,0m/s)

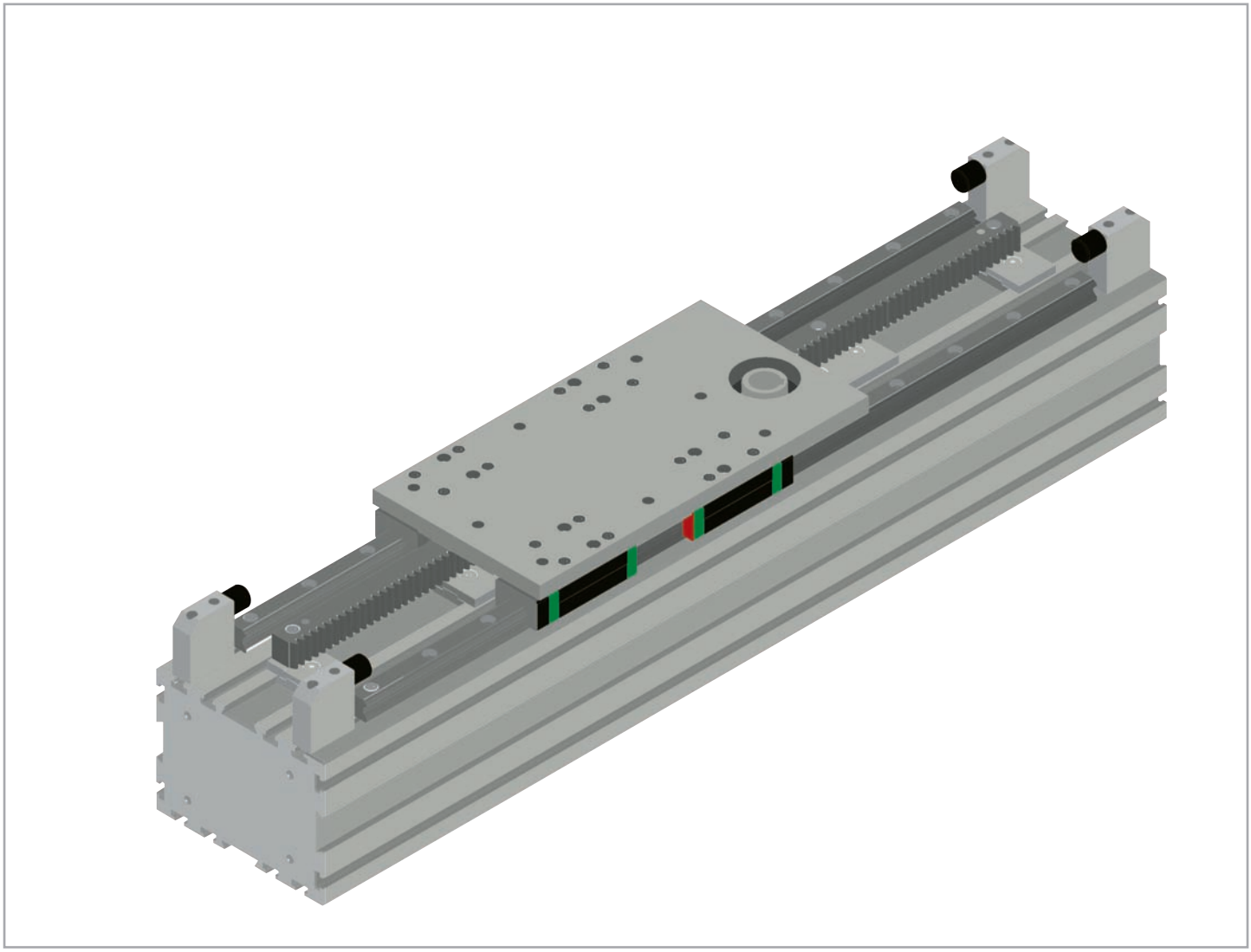
BLOCKS LOAD CAPACITY:
C = medium
H = high

BLOCKS LUBRICATION:
N = nooiler
E2 = blocks equipped with oil distributor

MOTOR CONNECTION:
N = adjusted for gear box mounting
F = flange
R = flange and gear box

TMT DRAWING NR only for special types

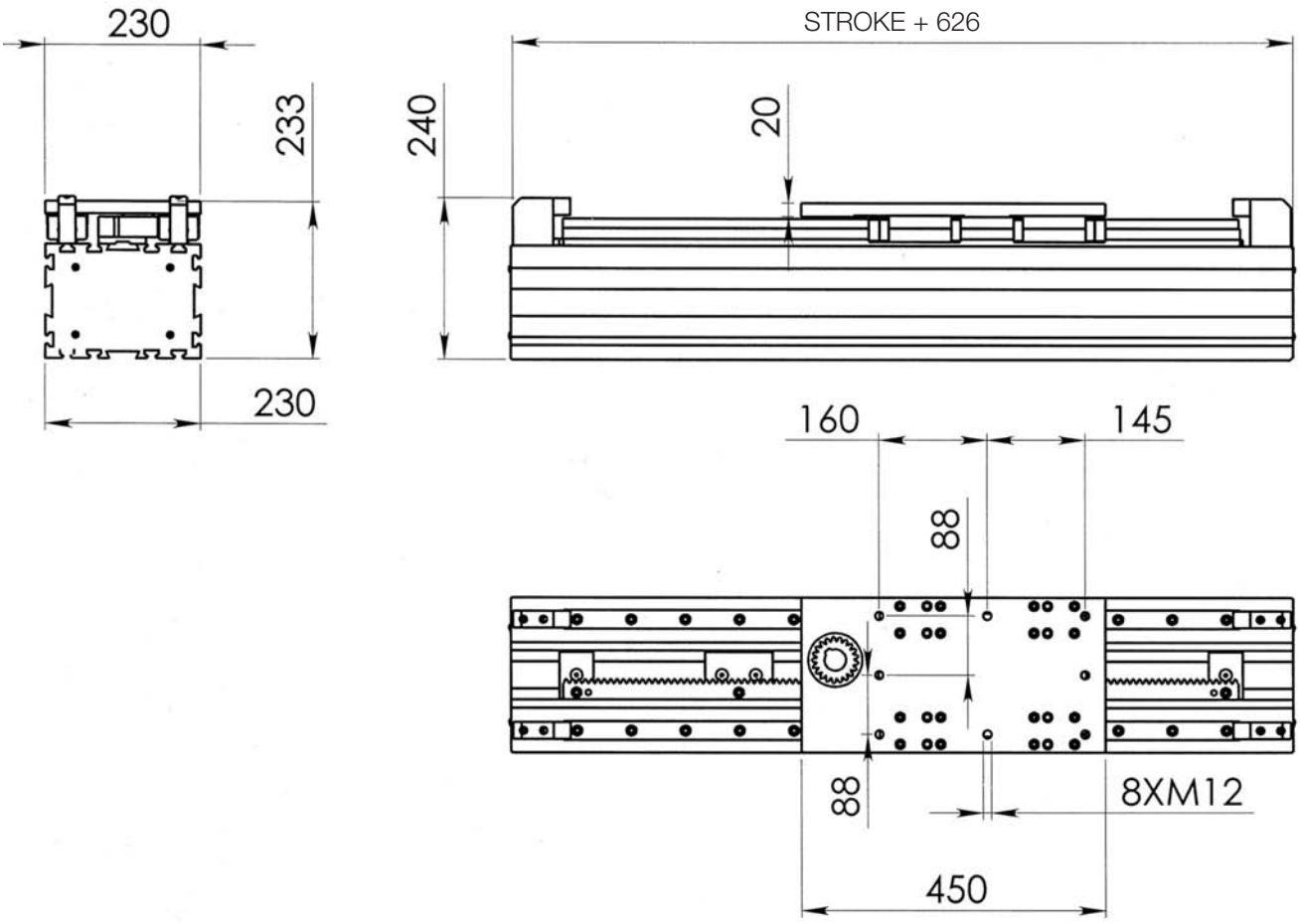
Modello MLT550



DESCRIPTION

The linear module MLT550 is consisting of a self-supporting profile GANTRY BEAM (section 230x170mm) light alloy with hard deep anodizing treatment assembled with two linear guide ways and four blocks for the linear movement (C for medium load capacity, H for high load capacity).
The power transmission is activated by a rack M3 tilted teeth induction hardened and an induction hardened pinion or as alternative by a rack M3 29x29 hardened, totally ground and with helical teeth.

DIMENSIONS

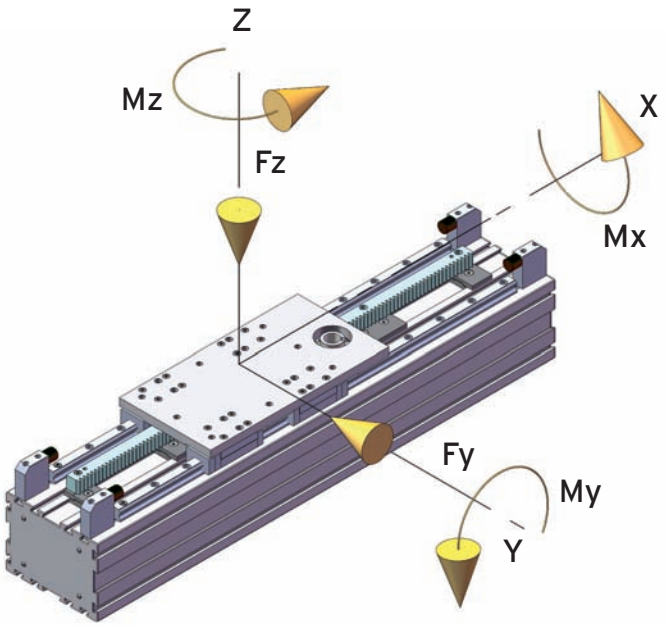


TECHNICAL DATA

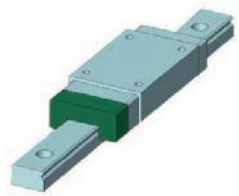
Features	Measurement unit	Value
Max. stroke	mm	11.370 Longer strokes on request
Linear stroke for one pinion rev. (helical teeth m=3mm Z=20)	199,68	
Power transmission	m3 mm hardened rack and pinion	
Accuracy of repeatability	+/-mm	0,1 (0,05 *)
max speed	m/sec	2,5 (4**)
max allowed temperature	°C	80
Surface quadratic moment on Z-Z axis ***	cm^4	9021
Surface quadratic moment on Y-Y axis ***	cm^4	6298
Torsional quadratic moment ****	cm^4	4656
Linear system	2 linear guide ways and 4 size 30 blocks	
Maximum thrust force	N	4000
Maximum thrust force helical ground teeth (CR)	N	7000
Dynamic rated moment Mx *****	Nm	CA 1160/ HA 1410
Dynamic rated moment My *****	Nm	CA 1390/ HA 1690
Dynamic rated moment Mz *****	Nm	CA 1390/ HA 1690
Dynamic rated loads Fy and Fz	N	CA 14000 / HA 17000
Trolley mass	kg	11,50
Linear Mass	Kg/m	43,50

*) On request rack and pinion with ground tilted teeth. **Ref code: CR**
(**) On request **Ref code: S**
(***) Normal elasticity modulus: E=70000N/mm^2
(****) Tangential elasticity modulus: G=26000N/mm^2
(*****) Moments (cannot be added together) referred to the median trolley axis and a 20000km working life

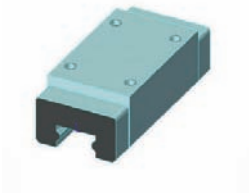
The rubber blocks at stroke ends cannot support static loads and kinetic energy.
Their only purpose is to set the stroke end avoiding the direct contact between the moving and the static parts.



OPTIONALS



Lubrication: The blocks can be equipped with replace able oil cartridge. Periodical lubrication by optional oilers about each 15000 km in accordance with the working conditions.
Ref. code: E2



Blockswithcagehighspeed: blocks and guide ways available also in the version for high speed up to 4 m/s.
Ref. code: S

Blockswithhighloadcapacity: the blocks can be available also in a longer version for high load capacity (H). They are interchangeable with the shorter version (C). The oil distributor is available also for the high load capacity version.
Ref. code: H

Bellows: The module is protected against the dust by blocks slip seals however as option are available polyurethane bellows as protection of the guide ways.
The module with bellow is totally longer 200mm each 500mm stroke. **Ref. code: F**

Accessories: to select the fixing elements, centralized lubrication, optional bumpers and bellows refer to the paragraph **ACCESSORIES.**

REFERENCE CODE

MLT 550 - 1P	1750	N	C10	1	C	N	E2	N	Txxx

TMT MODULE TYPE
LINEAR STROKE mm
PROTECTIONS:
N=without bellows
F=with bellows
POWER TRANSMISSION:
C10=rack Mod.3 tilted teeth, hardened
CR=rack Mod.3 29x29 tilted teeth, hardened and totally ground
POWER TRANSMISSION FEATURES:
1 = induction hardened pinion and key groove
BLOCKS LOAD CAPACITY:
C = medium
H = high
BLOCKS SPEED CLASS:
N = normal (max 2,5m/s)
S = high (max 4,0m/s)
BLOCKS LUBRICATION:
N = nooiler
E2 = blocks equipped with oil distributor
MOTOR CONNECTION:
N = adjusted for gear box mounting
F = flange
R = flange and gear box
TMT DRAWING NR only for special types

Notes

Notes

Notes

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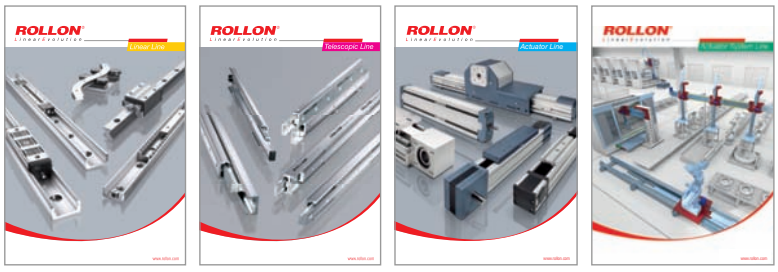

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