

ROLLON[®]
Linear Evolution

Hegra Rail



www.rollon.com

When you move. We move

Rollon S.p.A. was set up 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 with creative and efficient solutions in a wide range of applications used on a daily basis.

Solutions for linear motion



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



Actuators

- Belt driven actuators
- Ball screw driven actuators
- Rack and pinion actuators

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



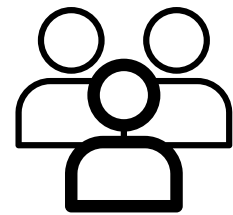
> Standard solutions

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

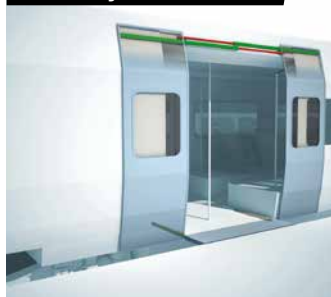


Applications

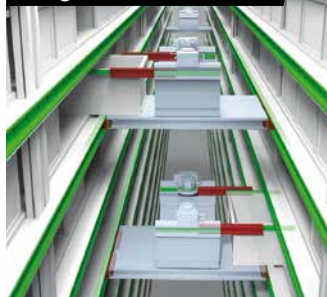
Aerospace



Railway



Logistics



Industrial Machines



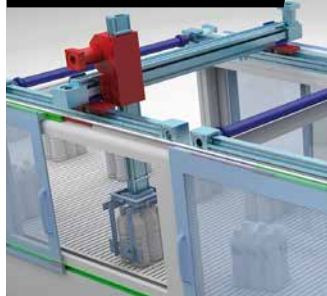
Medical



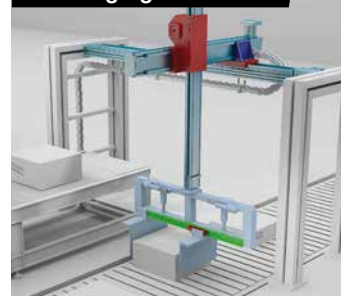
Specialty Vehicles



Robotics



Packaging



> *Hegra Rail*



Overview of technical features

1 Product explanation	HR-8
2 Technical data	
Performance characteristics and notes	HR-10
3 Load capacities and dimensions	
Partial extension guides	HR-11
Full extension guides	HR-24
Overextending guides	HR-37
Heavy load extension guides	HR-46
S-profiles	HR-56
4 Accessories	
Locking, catch plate, damping	HR-61
5 Technical information	
Selecting a suitable telescoping rail, Length tolerances, Life cycle, Load capacity, Deflection, Operating temperature, Corrosion protection, Ball cage displacement, Motive force, Lubrication	HR-62
Maintenance intervals, Assembly information	HR-64
Guides suitable for all applications	HR-65
Ordering key	
Ordering key with explanations	HR-66

Technical features overview



Reference				Product name	Extraction	Size	Material				Stroke direction				
Product category		Product	Section				Steel	X2	X4	A	B	BM			
Partial extension		HTT		HTT030		30	●	●	●	●	●				
				HTT040		40	●	●	●	●	●				
				HTT050		50	●	●	●	●	●				
				HTT060		60	●	●	●	●	●				
				HTT070		70	●	●	●	●	●				
				HTT080		80	●	●	●	●	●				
				HTT100		100	●	●	●	●	●				
				HTT120		120	●	●	●	●	●				
				HTT150		150	●	●	●	●	●				
		HTC		HTC026		26	●	●			●				
				HTC045		45	●				●				
				HTC050		50	●				●				
				HTC058		58	●	●			●				
				HTC075		75	●				●				
Full extension		HVB		HVB026		26	●	●			●				
				HVD026		26	●	●			●				
		HVD		HVD045		45	●				●				
				HVD050		50	●				●				
				HVD058		58	●	●			●	●			
		HVC		HVC045			45	●				●			
				HVC050			50	●				●			
				HVC058			58	●	●			●	●		
				HVC075			75	●				●	●		
				HVT060			60	●	●	●	●	●			
		HVT		HVT080			80	●	●	●	●	●			
				HVT100			100	●	●	●	●	●			
				H1D*			H1D045		45	●				●	
							H1D058		58	●	●			●	
							H1D075		75	●				●	
				H1C*			H1C075		75	●					●
		H1T*					H1T060		60	●	●	●	●	●	
						H1T080	80		●	●	●	●	●		
						H1T100	100		●	●	●	●	●		
						H1T150	150		●	●	●	●	●		
Heavy load extension		HGT		HGT030		30				●	●	●	●		
				HGT035		35				●	●	●	●		
				HGT040		40				●	●	●	●		
				HGT050		50				●	●	●	●		
				HGT060		60	●	●	●	●	●	●			
				HGT070		70	●	●	●	●	●	●			
				HGT080		80	●	●	●	●	●	●			
				HGT100		100	●	●	●	●	●	●			
				HGT120		120	●	●	●	●	●	●			
				HGT150		150	●	●	●	●	●	●			
				HGT200		200	●	●	●	●	●	●			
				HGT240		250	●	●	●	●	●	●			
S-profiles		HGS		HGS045		45	●			●	●				
				HGS060		60	●			●	●				
				HGS080		80	●			●	●				
				HGS100		100	●			●	●				
				HGS120		120	●			●	●				
				HGS150		150	●			●	●				

The values given are defaults.

For a complete overview of the technical data, please consult our catalogs on the website www.rollon.com.

In many cases, special designs or alternative surface coatings are possible. Please contact our technical service.

* 1 should be replaced by 2 (1 = 150 % extraction, 2 = 200 % extraction)

** Different temperature ranges -30 °C to +250 °C, after consultation with the application technologies

● feasible

▲ only to length 1000

□ rotor is 35x12 EB=18

○ only with locking bolt

Snap			Locking			Damp- ing	Max. load capacity per pair [N]		Max. rail length [mm]	Max. stroke [mm]	Max. extension speed [m/s]	Rigidity (deflection)	Operating tempera- ture [°C]
EG	EO	EB	VG	VO	VB	DG	C _{Orad}	C _{Oax}					
●	●	●				●	1200	50 %	1000	660	0,8	+++	0 °C to +100 °C**
●	●	●	●	●	●	●	2550	50 %	1000	660	0,8	+++	
●	●	●	●	●	●	●	2900	50 %	1200	720	0,8	+++	
●	●	●	●	●	●	●	3400	50 %	1500	900	0,8	+++	
●	●	●	●	●	●	●	4200	50 %	1700	1020	0,8	+++	
▲	▲	▲	●	●	●	●	5000	50 %	1700	1020	0,8	+++	
			●	●	●	●	10000	50 %	2000	1200	0,8	+++	
			●	●	●	●	12000	50 %	2000	1200	0,8	+++	
			●	●	●	●	15500	50 %	2000	1200	0,8	+++	
●	●	●				●	750	50 %	1000	660	0,8	+++	
●	●	●				●	1300	50 %	1200	800	0,8	+++	
●	●	●	□	□	□	●	1800	50 %	1200	800	0,8	+++	
●	●	●	●	●	●	●	2500	50 %	1500	1000	0,8	+++	
●	●	●	●	●	●	●	3000	50 %	1700	1020	0,8	+++	
●	●	●					1150	50 %	1000	1000	0,8	+	
●	●	●					750	50 %	1000	1000	0,8	++	
●	●	●				●	1700	50 %	1200	1200	0,8	++	
●	●	●				●	1900	50 %	1500	1500	0,8	++	
●	●	●				●	2500	50 %	1500	1500	0,8	++	
●	●	●				●	3700	50 %	2000	2000	0,8	++	
●	●	●				●	1200	50 %	1200	1200	0,8	++	
●	●	●	●	●	●	●	1500	50 %	1500	1500	0,8	++	
●	●	●	●	●	●	●	2100	50 %	1500	1500	0,8	++	
●	●	●	●	●	●	●	3300	50 %	2000	2000	0,8	++	
●	●	●	●	●	●	●	2700	50 %	1500	1500	0,8	++	
▲	▲	▲	●	●	●	●	4350	50 %	2000	2000	0,8	++	
			●	●	●	●	5700	50 %	2000	2000	0,8	++	
●	●	●				●	650	on request	1000	1500	0,5	++	
●	●	●				●	1900	on request	1500	2250	0,5	++	
●	●	●				●	2600	on request	1500	2250	0,5	++	
●	●	●				●	1350	on request	1500	2250	0,5	++	
●	●	●				●	2600	on request	1500	2250	0,5	++	
●	●	●				●	3200	on request	1500	2250	0,5	++	
●	●	●				●	5500	on request	1500	3000	0,5	++	
						●	5500	on request	2000	3000	0,5	++	
						●	7500	on request	2000	3000	0,5	++	
●	●	●				●	1100	50 %	1000	1000	0,5	++++	
●	●	●				●	1300	50 %	1000	1000	0,5	++++	
●	●	●				●	1600	50 %	1200	1200	0,5	++++	
●	●	●				●	2800	50 %	1200	1200	0,5	++++	
●	●	●	●	●	●	●	5500	50 %	1500	1500	0,5	++++	
●	●	●	●	●	●	●	7400	50 %	1500	1500	0,5	++++	
▲	▲	▲	●	●	●	●	9350	50 %	2000	2000	0,5	++++	
			●	●	●	●	11000	50 %	2000	2000	0,5	++++	
			●	●	●	●	11800	50 %	2000	2000	0,5	++++	
			●	●	●	●	13900	50 %	2000	2000	0,5	++++	
			●	●	●	●	17500	50 %	2300	2300	0,5	++++	
			●	●	●	●	20000	50 %	2000	2000	0,5	++++	
●	●	●					750		1000	1000	0,5	+++	
●	●	●					1400		1000	1000	0,5	+++	
●	●	●					2450		1000	1000	0,5	+++	
●	●	●	○				3600		1500	1500	0,5	+++	
●	●	●	○				5500		1500	1500	0,5	+++	
●	●	●	○				7400		1500	1500	0,5	+++	

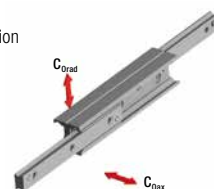
steel
 X2 stainless steel V2A
 X4 stainless steel V4A
 A aluminum

B stroke in both directions
 BM stroke in both directions with driving disc

EG snap on closed position
 EO snap on opened position
 EB snap on both positions

VG locking closed position
 VO locking opened position
 VB locking both positions

DG damping closed position



Product explanation



> Partial and full extension guides of different types, as well as linear guide systems



Fig. 1

The Hegra Rail product family consists of five product categories: partial, fully extending, overextending and heavy-duty rails as well as S-profiles. Different versions in the single categories, such as design or materials, also provide for increased customer benefits.

The most important characteristics:

- High load capacity and minimal deflection
- Different versions and materials
- Compact design
- Lightweight; smooth operation
- Long life
- High functional reliability

Preferred applications:

- Rail vehicles (maintenance and battery compartments)
- Motor vehicle technology
- Construction and machine technology
- Automotive
- Special purpose machinery
- Aerospace
- Aircraft Interiors

Partial extension guides

Partial extension guides with a stroke of more than 50 % of the closed telescoping length, consisting of one guide rail and one slider. The high system rigidity is achieved here in combination with the connection construction.



Fig. 2

Full extension guides

Full extension guides with strokes of about 100 % of the closed length consisting of three elements in different designs and sizes.



Fig. 3

Overextending guides

Overextending guides with a stroke of up to 200 % of the closed telescoping length. The use of intermediate elements with a high moment of inertia achieves excellent system rigidity and a high load capacity in fully extended systems.



Fig. 4

Heavy load extension guides

Full extension guides with strokes of about 100 % of the length consist of a solid, double T-shaped intermediate element and the two corresponding sliders. This full extension guide was specially designed for extremely heavy loads with minimal deflection and high system rigidity.



Fig. 5

S-profiles

Full extension guides with strokes of about 100 % of the closed length consisting of two guide rails and one S-shaped intermediate element. The advantages of the full extension guide are high rigidity and a compact design.

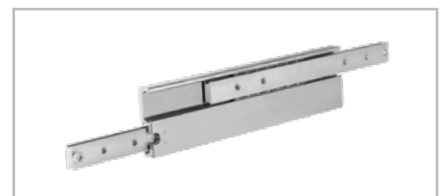


Fig. 6

Technical data

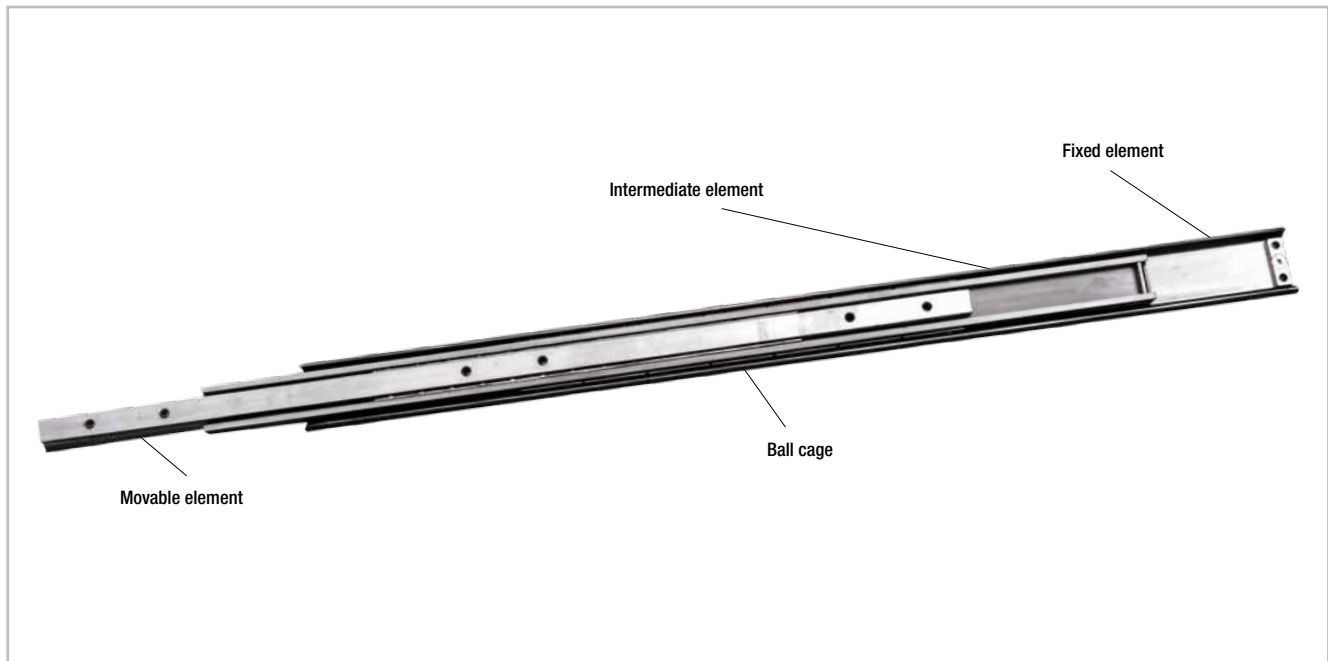


Fig. 7

Performance characteristics:

- Temperature range: 0 °C to +100 °C (32 °F to +212 °F)
(in exceptions also -30 °C to +250 °C (-22 °F to +482 °F))
- Max. operating speed 0.3 m/s (depending on the application)
- Different materials and anti-corrosion coatings are available
- Special solutions, such as locking mechanisms, damping elements or catches, are available on request

Notes:

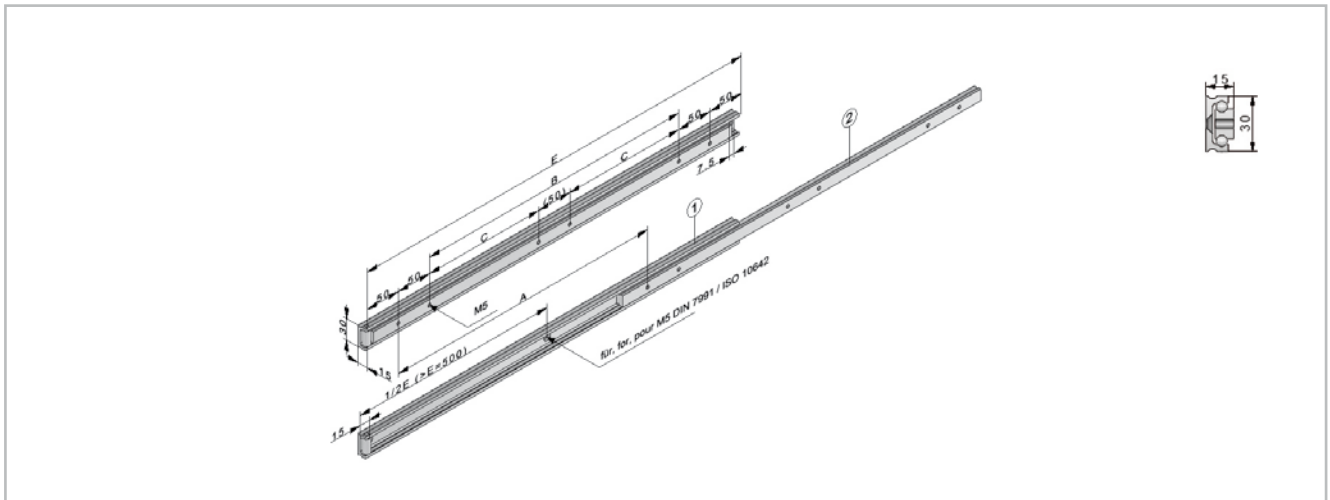
- Horizontal installation is recommended
- Vertical installation on request
- Special strokes on request
- All load capacities refer to one telescopic pair
- Mounting screws with a strength class of 10.9 must be used for all telescopic rails
- Internal stops are provided to stop the sliders when not under load and the ball cage. Please use external stops as limit stops for a system under load

Load capacities and dimensions



Partial extension guides

> HTT030



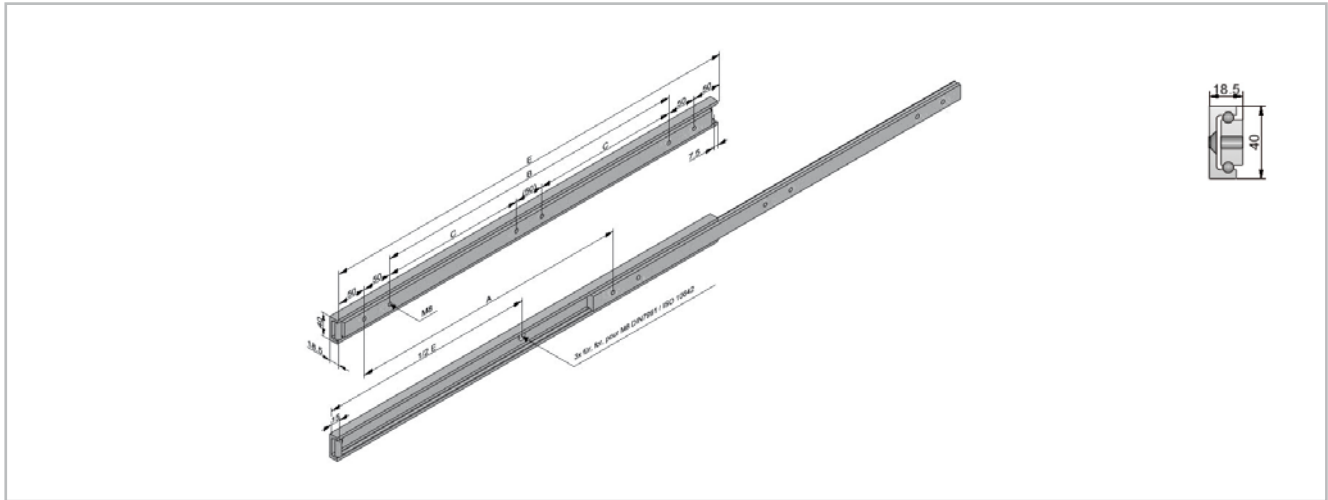
All dimensions are indicated in mm

Fig. 8

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTT	30	250	130	50	-	1100	50 %	4	0.60
		300	180	100	-	1200			0.70
		350	230	150	-	1150			0.80
		400	260	200	-	1100			0.90
		450	310	250	-	1050			1.00
		500	340	300	-	1000			1.20
		550	370	-	150	950		1.30	
		600	400	-	175	900		1.40	
		650	430	-	200	850		1.50	
		700	460	-	225	800		1.60	
		750	490	-	250	750		1.70	
		800	520	-	275	700		1.90	
		850	550	-	300	650		2.00	
		900	600	-	325	600		2.10	
		950	630	-	350	550		2.20	
		1000	660	-	375	500		2.40	

Tab. 1

> **HTT040**



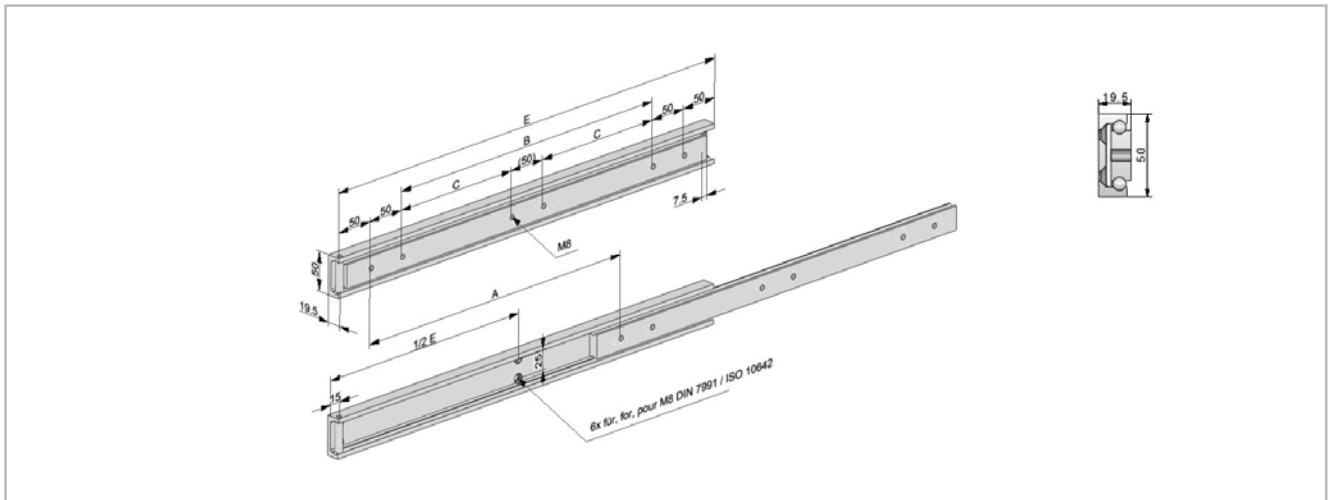
All dimensions are indicated in mm

Fig. 9

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTT	40	250	130	50	-	2100	50 %	4	1.10
		300	180	100	-	2250			1.30
		350	230	150	-	2350			1.50
		400	260	200	-	2450			1.70
		450	310	250	-	2550			1.90
		500	340	300	-	2500			2.20
		550	370	-	150	2450		2.40	6
		600	400	-	175	2400		2.60	
		650	430	-	200	2350		2.80	
		700	460	-	225	2300		3.00	
		750	490	-	250	2250		3.20	
		800	520	-	275	2150		3.50	
		850	550	-	300	2050		3.70	
		900	600	-	325	1950		3.90	
		950	630	-	350	1800		4.10	
		1000	660	-	375	1650		4.30	

Tab. 2

HTT050



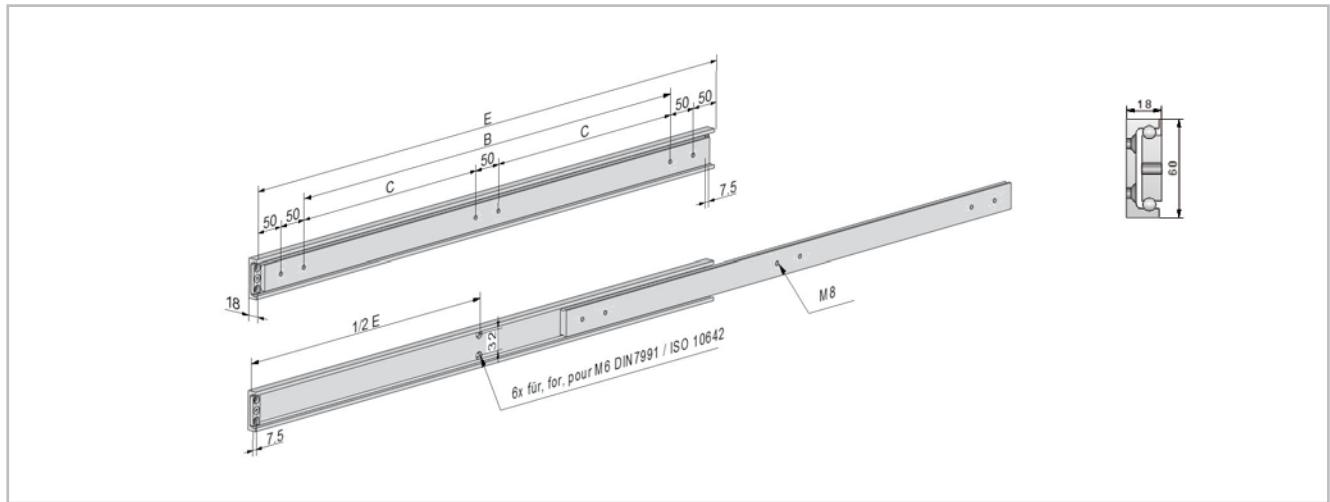
All dimensions are indicated in mm

Fig. 10

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTT	50	300	180	100	-	2500	50 %	4	1.70
		350	230	150	-	2600			2.00
		400	260	200	-	2700			2.20
		450	310	250	-	2800			2.50
		500	340	300	-	2900			2.80
		550	370	-	150	2850			3.10
		600	400	-	175	2800		3.40	
		650	430	-	200	2700		3.60	
		700	460	-	225	2600		3.90	
		750	490	-	250	2500		4.20	
		800	520	-	275	2400		4.50	
		850	550	-	300	2300		4.80	
		900	600	-	325	2200		5.10	
		950	630	-	350	2100		5.30	
		1000	660	-	375	2000		5.60	
		1100	690	-	425	1850		6.20	
1200	720	-	475	1650	6.70				

Tab. 3

> **HTT060**



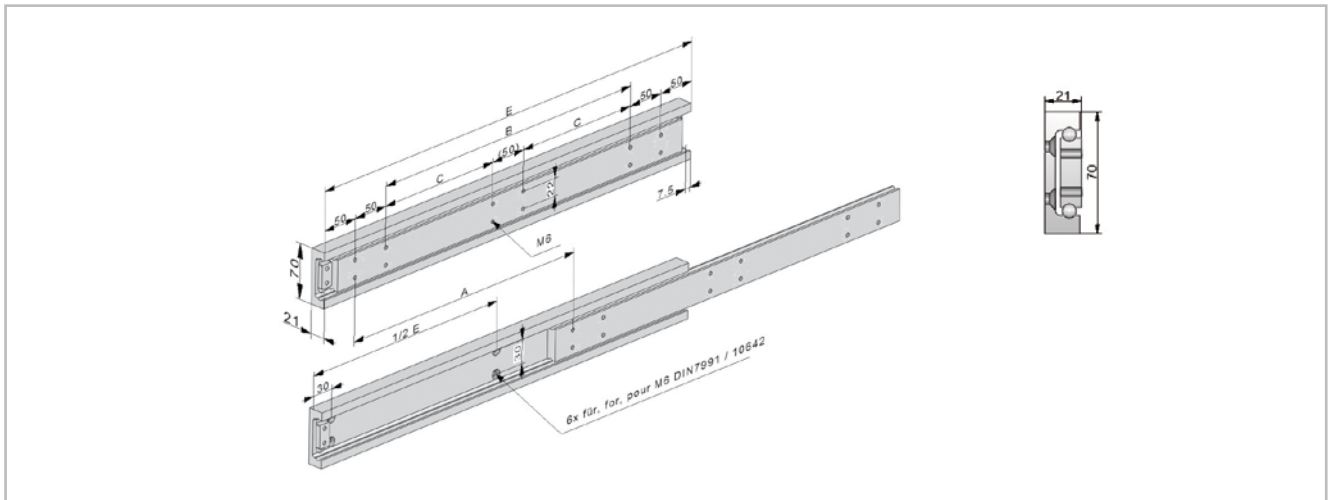
All dimensions are indicated in mm

Fig. 11

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTT	60	300	180	100	-	3200	50 %	4	2.30
		350	210	150	-	3250			2.70
		400	240	200	-	3300			3.10
		450	270	250	-	3350			3.50
		500	300	300	-	3400			3.90
		550	330	-	150	3350			4.30
		600	360	-	175	3300			4.60
		650	390	-	200	3250			5.00
		700	420	-	250	3200			5.40
		750	450	-	250	3100			5.80
		800	480	-	275	3000		6.10	
		850	510	-	300	2900		6.50	
		900	540	-	325	2800		6.90	
		950	570	-	350	2700		7.30	
		1000	600	-	375	2600		7.70	
		1100	660	-	425	2450		8.50	
		1200	720	-	475	2250		9.20	
		1300	780	-	525	2050		10.00	
		1400	840	-	575	1900		10.80	
		1500	900	-	625	1700		11.60	
							6		
								6.90	

Tab. 4

HTT070



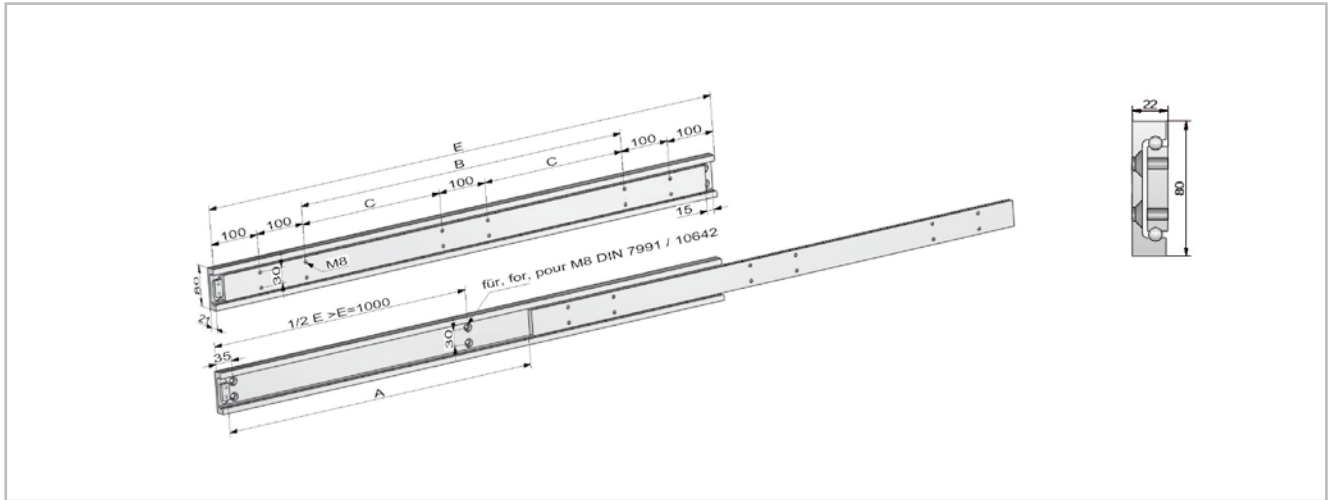
All dimensions are indicated in mm

Fig. 12

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Oxad} [N]	C_{Oax} [N]		
HTT	70	500	300	300	-	4200	50 %	8	4.50
		550	330	-	150	4150			5.00
		600	360	-	175	4100			5.50
		650	390	-	200	4050			6.00
		700	420	-	225	4000			6.50
		750	450	-	250	3900			6.90
		800	480	-	275	3800		7.40	
		850	510	-	300	3700		7.80	
		900	540	-	325	3600		8.30	
		950	570	-	350	3450		8.80	
		1000	600	-	375	3300		9.30	
		1100	660	-	425	3100		10.20	
		1200	720	-	475	2900		11.10	
		1300	780	-	525	2700		12.00	
		1400	840	-	575	2400		12.90	
		1500	900	-	625	2100		13.90	
		1600	960	-	675	1800		14.80	
		1700	1020	-	725	1500		15.70	

Tab. 5

> **HTT080**



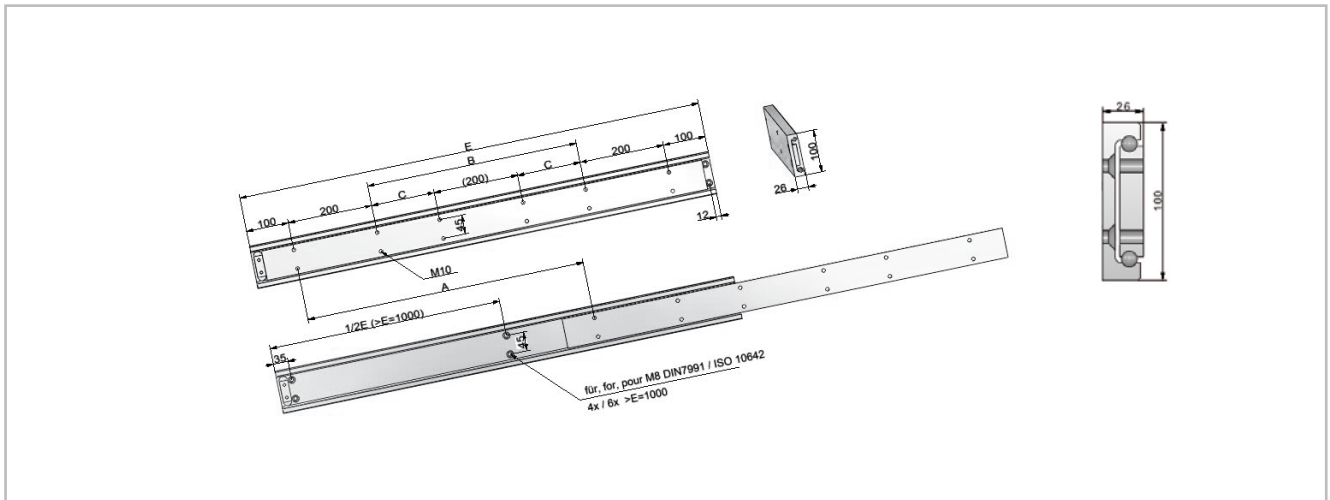
All dimensions are indicated in mm

Fig. 13

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTT	80	500	300	100	-	4800	50 %	8	5.20
		550	330	150	-	4900			5.70
		600	360	200	-	5000			6.20
		650	390	250	-	4900			6.70
		700	420	300	-	4800			7.30
		750	450	350	-	4700			7.70
		800	480	400	-	4600			8.30
		850	510	450	-	4500			8.80
		900	540	500	-	4400		9.30	
		950	570	550	-	4250		9.80	
		1000	600	600	-	4100		10.40	
		1100	660	-	300	3800		11.40	
		1200	720	-	350	3500		12.40	
		1300	780	-	400	3200		13.50	
		1400	840	-	450	2900		14.50	
		1500	900	-	500	2600		15.60	
		1600	960	-	550	2300		16.60	
1700	1020	-	600	2000	17.70				
							12		

Tab. 6

HTT100



All dimensions are indicated in mm

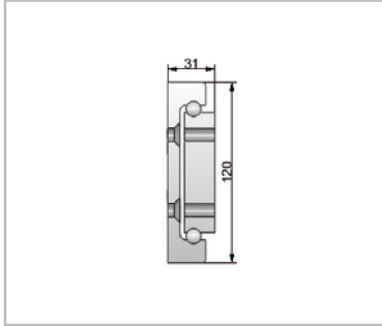
Fig. 14

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HTT	100	700	420	100	-	9000	50 %	8	12.00
		750	450	150	-	9500			12.80
		800	480	200	-	10000			13.60
		850	510	250	-	9750			14.00
		900	540	300	-	9500			15.40
		950	570	350	-	9250			16.20
		1000	600	400	-	9000			17.00
		1100	660	-	150	8500	18.70	12	
		1200	720	-	200	8000	20.40		
		1300	780	-	250	7500	22.10		
		1400	840	-	300	6900	27.80		
		1500	900	-	350	6300	25.50		
		1600	960	-	400	5700	27.20		
		1700	1020	-	450	5100	28.90		
		1800	1080	-	500	4500	30.60		
		1900	1140	-	550	3900	32.30		
		2000	1200	-	600	3300	34.00		

Tab. 7

Other sizes and versions are available on request

> **HTT120**

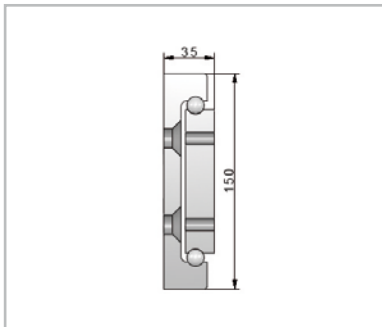


All dimensions are indicated in mm Fig. 15

Type	Size	Length [mm]	Load capacity per pair	
			C_{0rad} [N]	C_{0ax} [N]
HTT	120	700	11500	50 %
		⋮	⋮	
		2000	4700	

Tab. 8

> **HTT150**

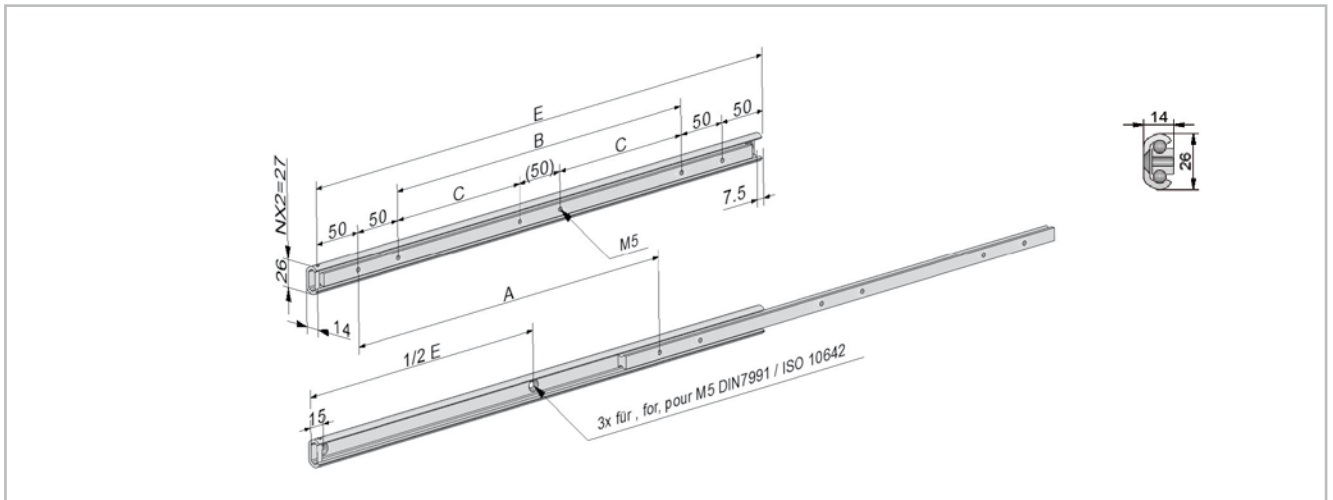


All dimensions are indicated in mm Fig. 16

Type	Size	Length [mm]	Load capacity per pair	
			C_{0rad} [N]	C_{0ax} [N]
HTT	150	700	14500	50 %
		⋮	⋮	
		2000	6400	

Tab. 9

> HTC026



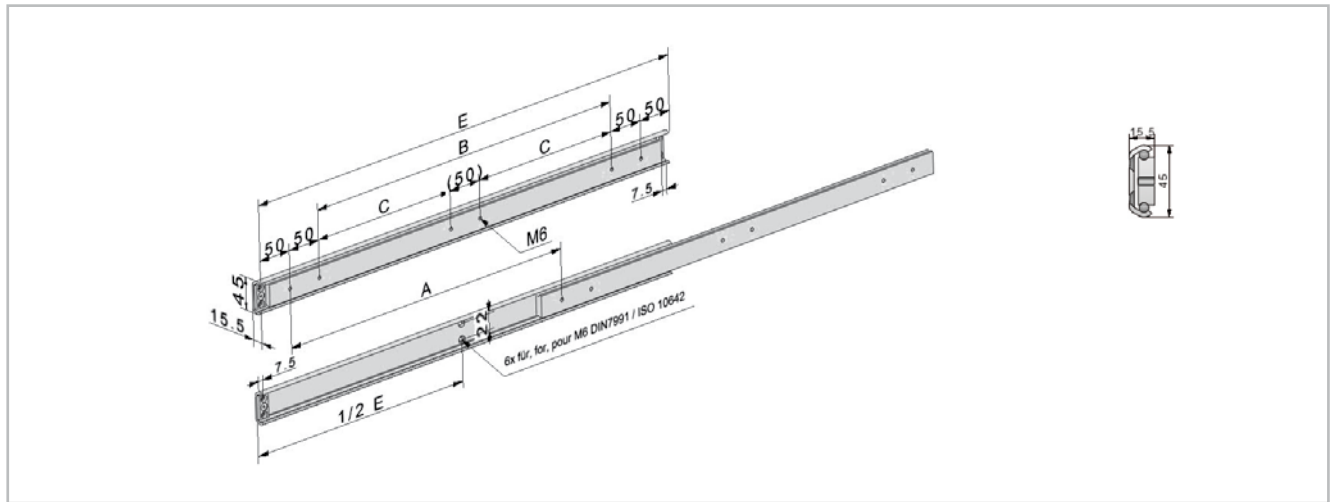
All dimensions are indicated in mm

Fig. 17

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTC	26	250	130	50	-	700	50 %	4	0.45
		300	180	100	-	750			0.53
		350	230	150	-	750			0.62
		400	260	200	-	700			0.71
		450	310	250	-	650			0.80
		500	340	300	-	600			0.90
		550	370	-	150	550		1.00	
		600	400	-	175	500		1.08	
		650	430	-	200	450		1.17	
		700	460	-	225	400		1.26	
		750	490	-	250	350		1.35	
		800	520	-	275	300		1.45	
		850	550	-	300	250		1.55	
		900	600	-	325	220		1.63	
		950	630	-	350	200		1.72	
		1000	660	-	375	180		1.81	

Tab. 10

> HTC045



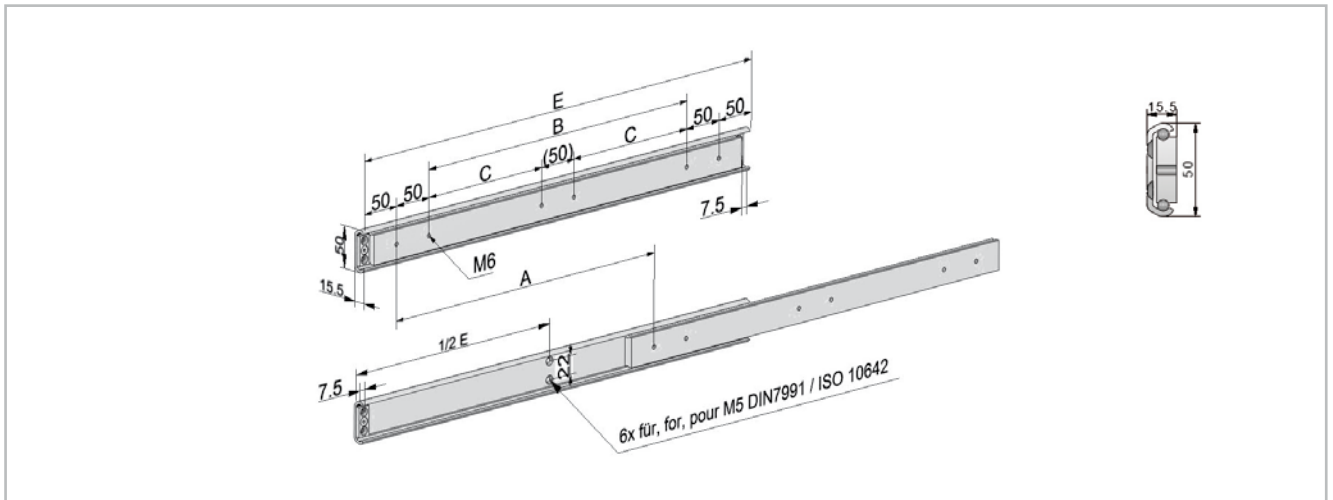
All dimensions are indicated in mm

Fig. 18

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C _{0rad} [N]	C _{0ax} [N]		
HTC	45	300	180	100	-	1250	50 %	4	1.10
		350	230	150	-	1300			1.30
		400	260	200	-	1250			1.50
		450	310	250	-	1200			1.70
		500	340	300	-	1150			1.90
		550	370	-	150	1100			2.10
		600	400	-	175	1050		2.25	
		650	430	-	200	1000		2.40	
		700	460	-	225	950		2.60	
		750	490	-	250	900		2.80	
		800	520	-	275	850		3.00	
		850	550	-	300	800		3.20	
		900	600	-	325	750		3.40	
		950	630	-	350	700		3.60	
		1000	660	-	375	650		3.80	
		1100	720	-	425	550		4.10	
1200	800	-	475	450	4.50				

Tab. 11

> HTC050



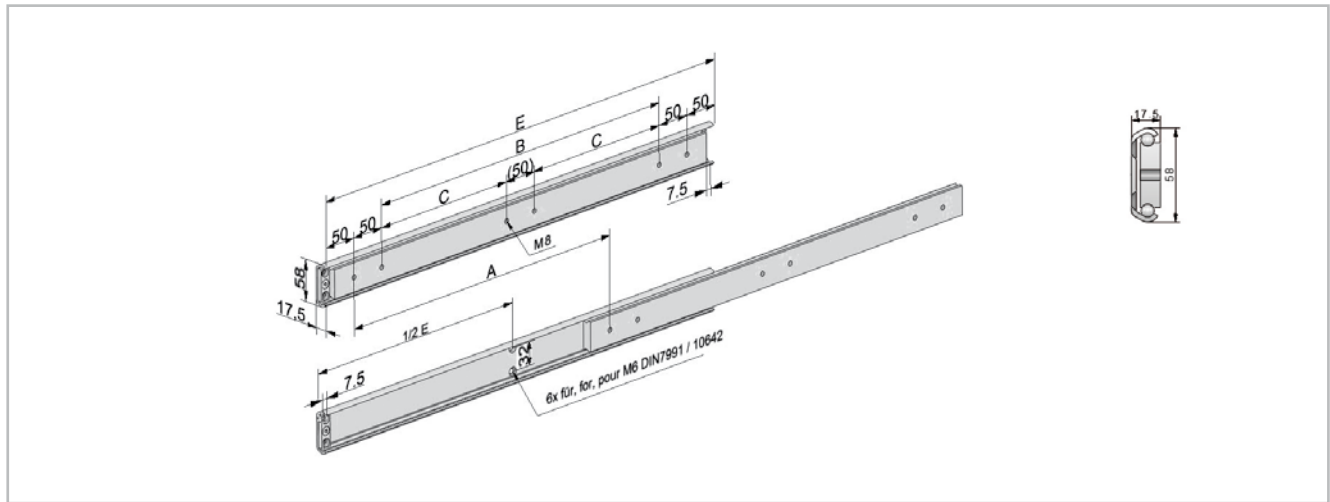
All dimensions are indicated in mm

Fig. 19

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HTC	50	300	180	100	-	1500	50 %	4	1.10
		350	230	150	-	1600			1.30
		400	260	200	-	1700			1.50
		450	310	250	-	1800			1.70
		500	340	300	-	1750			1.90
		550	370	-	150	1700			2.10
		600	400	-	175	1650		2.25	
		650	430	-	200	1600		2.40	
		700	460	-	225	1550		2.60	
		750	490	-	250	1450		2.80	
		800	520	-	275	1350		3.00	
		850	550	-	300	1250		3.20	
		900	600	-	325	1150		3.40	
		950	630	-	350	1050		3.60	
		1000	660	-	375	950		3.80	
		1100	720	-	425	750		4.10	
1200	800	-	475	550	4.50				

Tab. 12

> HTC058



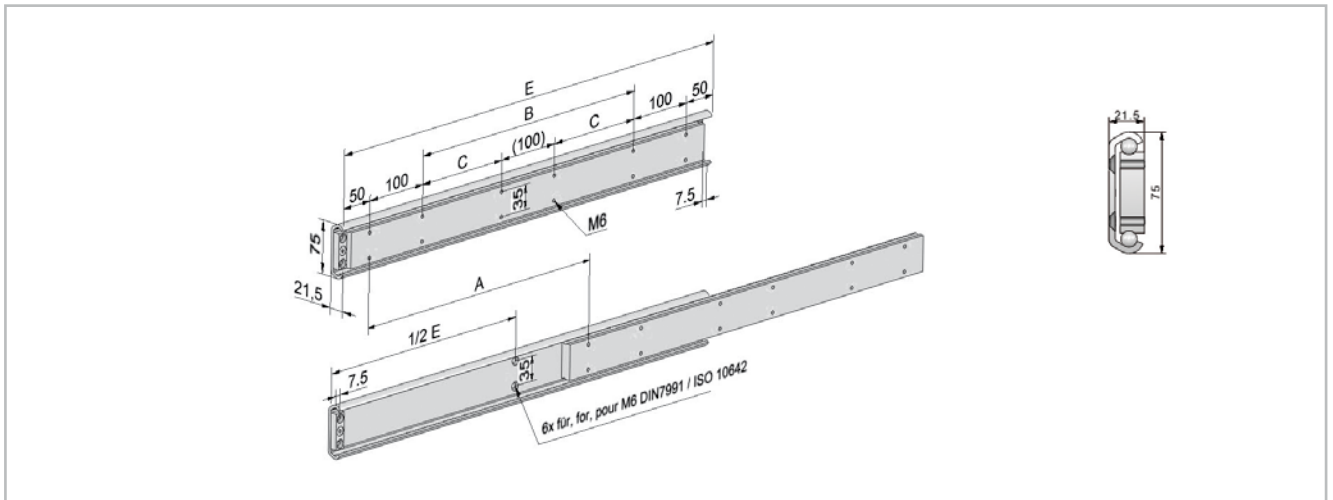
All dimensions are indicated in mm

Fig. 20

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTC	58	300	180	100	-	2200	50 %	4	2.20
		350	230	150	-	2300			2.50
		400	260	200	-	2400			2.80
		450	310	250	-	2500			3.20
		500	340	300	-	2450			3.50
		550	370	-	150	2400			3.90
		600	400	-	175	2350			4.20
		650	430	-	200	2300			4.60
		700	460	-	225	2200			5.00
		750	490	-	250	2100			5.30
		800	520	-	275	2000		5.70	
		850	550	-	300	1900		6.10	
		900	600	-	325	1800		6.40	
		950	630	-	350	1700		6.70	
		1000	660	-	375	1600		7.10	
		1100	720	-	425	1400		7.80	
		1200	800	-	475	1200		8.50	
		1300	860	-	525	1000		9.20	
		1400	920	-	575	800		10.00	
		1500	1000	-	625	600		10.60	
							6		
								6.40	

Tab. 13

> HTC075



All dimensions are indicated in mm

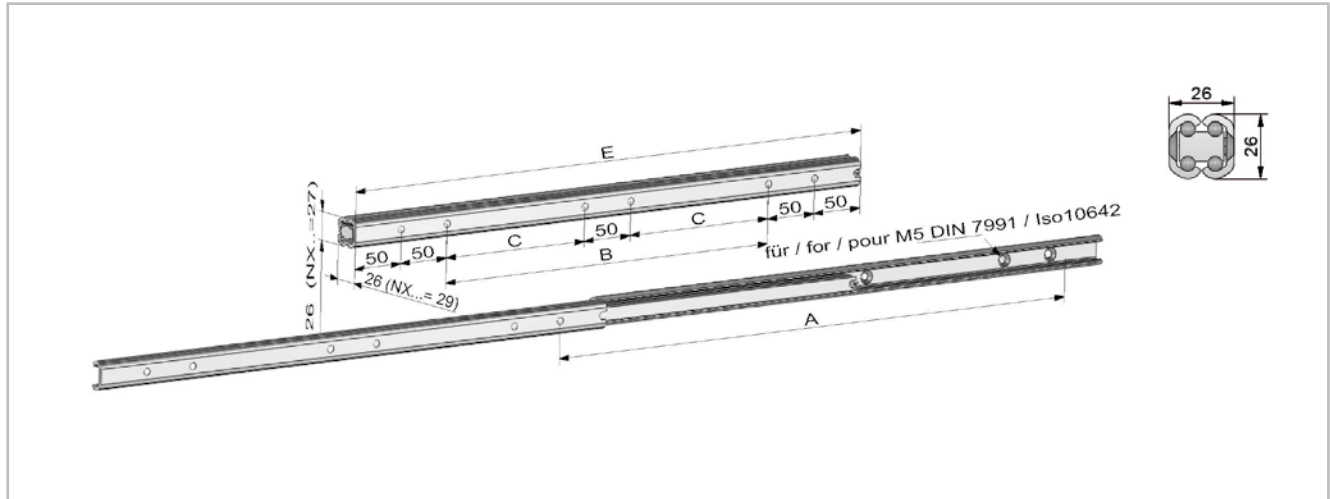
Fig. 21

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HTC	75	400	240	150	-	2800	50 %	6	3.50
		450	270	175	-	2850			4.00
		500	300	200	-	2900			4.40
		550	330	-	75	3000			4.90
		600	360	-	100	2950			5.30
		650	390	-	125	2900			5.70
		700	420	-	150	2850		6.20	
		750	450	-	175	2800		6.60	
		800	480	-	200	2750		7.00	
		850	510	-	225	2700		7.50	
		900	540	-	250	2650		8.00	
		950	570	-	275	2600		8.40	
		1000	600	-	300	2500		8.80	
		1100	660	-	350	2250		9.70	
		1200	720	-	400	2000		10.60	
		1300	780	-	450	1750		11.50	
		1400	840	-	500	1500		12.40	
		1500	900	-	550	1200		13.30	
		1600	960	-	600	900		14.20	
1700	1020	-	650	700	15.00				

Tab. 14

Full extension guides

> HVB026



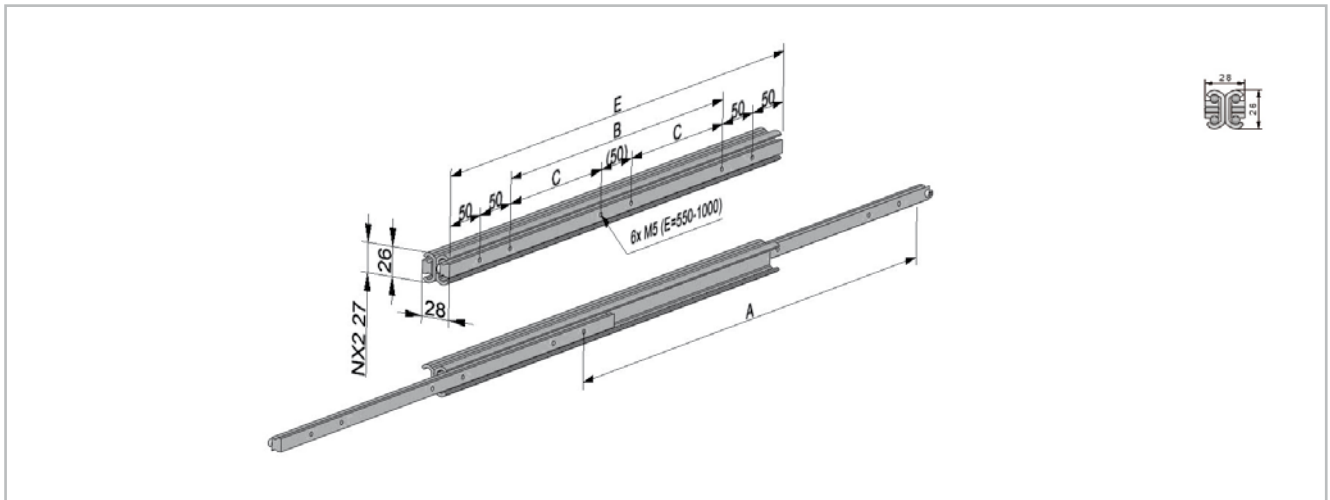
All dimensions are indicated in mm

Fig. 22

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVB	26	250	250	50	-	1050	50 %	4	0.90
		300	300	100	-	1100			1.10
		350	350	150	-	1150			1.30
		400	400	200	-	1100			1.50
		450	450	250	-	1050			1.70
		500	500	300	-	1000			1.90
		550	550	-	150	950		2.00	6
		600	600	-	175	900		2.20	
		650	650	-	200	850		2.40	
		700	700	-	225	800		2.60	
		750	750	-	250	750		2.80	
		800	800	-	275	700		3.00	
		850	850	-	300	650		3.20	
		900	900	-	325	600		3.40	
		950	950	-	350	550		3.60	
		1000	1000	-	375	500		3.80	

Tab. 15

> HVD026



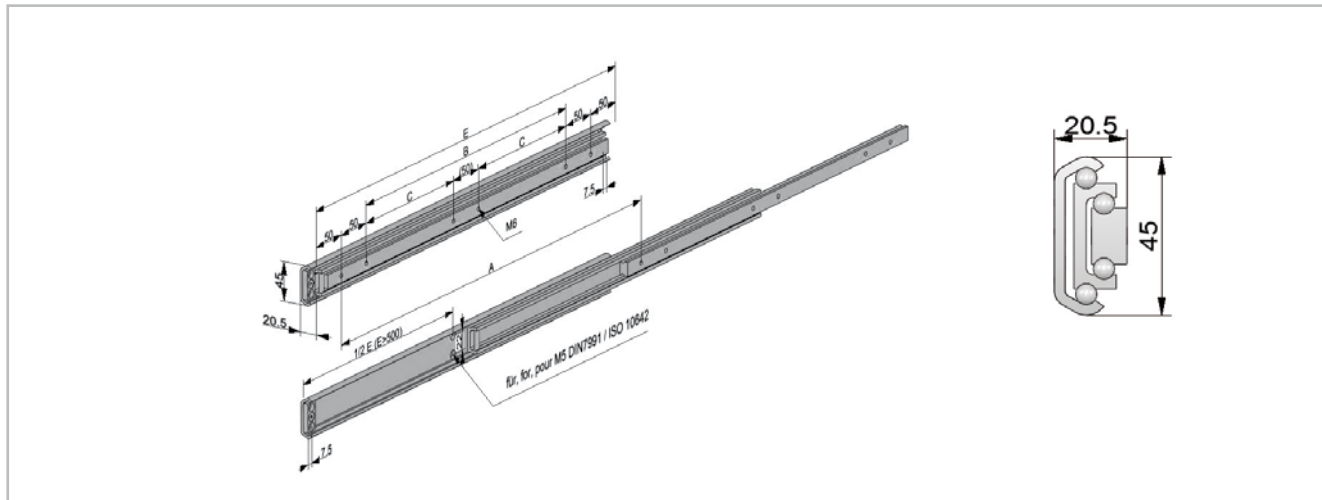
All dimensions are indicated in mm

Fig. 23

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Oxad} [N]	C_{Oax} [N]		
HVD	26	250	250	50	-	650	50 %	4	0.90
		300	300	100	-	700			1.10
		350	350	150	-	750			1.30
		400	400	200	-	700			1.50
		450	450	250	-	650			1.70
		500	500	300	-	600			1.90
		550	550	-	150	550		2.00	6
		600	600	-	175	500		2.20	
		650	650	-	200	450		2.40	
		700	700	-	225	400		2.60	
		750	750	-	250	350		2.80	
		800	800	-	275	300		3.00	
		850	850	-	300	270		3.20	
		900	900	-	325	240		3.40	
		950	950	-	350	220		3.60	
		1000	1000	-	375	200		3.80	

Tab. 16

> HVC045



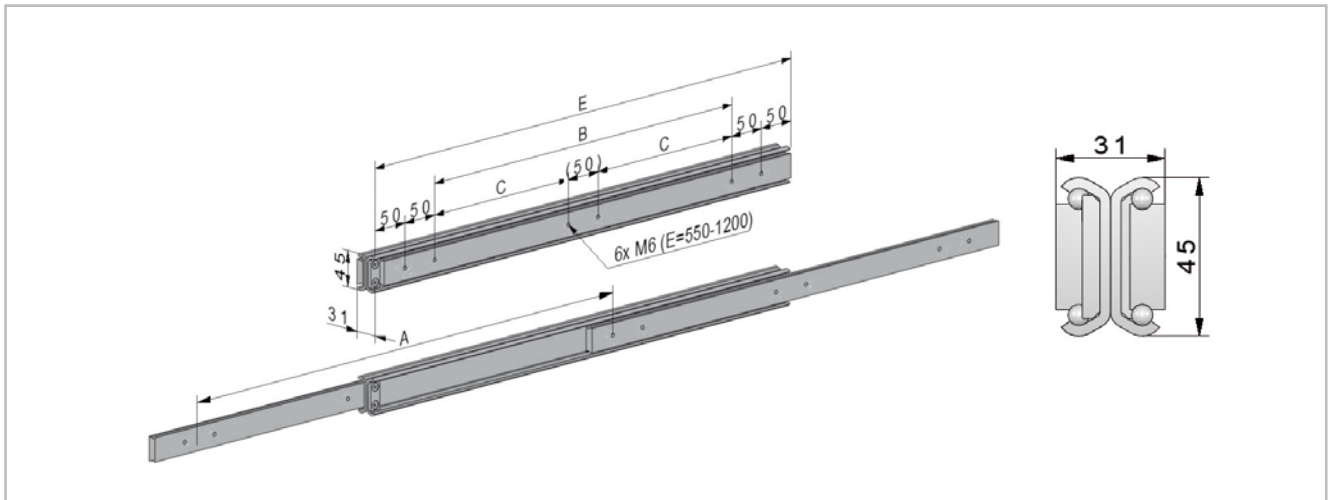
All dimensions are indicated in mm

Fig. 24

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVC	45	300	300	100	-	1150	50 %	4	1.20
		350	350	150	-	1200			1.40
		400	400	200	-	1200			1.60
		450	450	250	-	1150			1.80
		500	500	300	-	1150			2.00
		550	550	-	150	1100			2.20
		600	600	-	175	1050		2.40	
		650	650	-	200	1000		2.60	
		700	700	-	225	950		2.80	
		750	750	-	250	900		3.00	
		800	800	-	275	850		3.20	
		850	850	-	300	800		3.40	
		900	900	-	325	750		3.60	
		950	950	-	350	700		3.80	
		1000	1000	-	375	650		4.00	
		1100	1100	-	425	500		4.40	
1200	1200	-	475	400	4.80				

Tab. 17

> HVD045



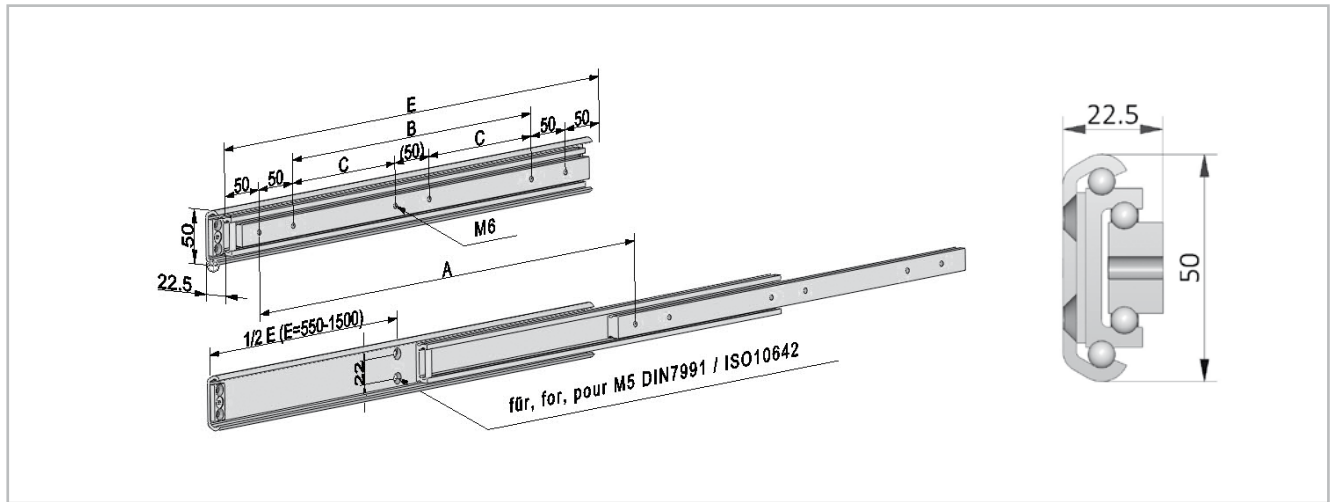
All dimensions are indicated in mm

Fig. 25

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HVD	45	300	300	100	-	1600	50 %	4	2.30
		350	350	150	-	1650			2.70
		400	400	200	-	1700			3.10
		450	450	250	-	1700			3.40
		500	500	300	-	1700			3.80
		550	550	-	150	1650			4.20
		600	600	-	175	1600		4.60	
		650	650	-	200	1550		5.00	
		700	700	-	225	1500		5.40	
		750	750	-	250	1450		5.70	
		800	800	-	275	1400		6.10	
		850	850	-	300	1350		6.50	
		900	900	-	325	1300		6.90	
		950	950	-	350	1250		7.30	
		1000	1000	-	375	1200		7.70	
		1100	1100	-	400	1100		8.10	
1200	1200	-	425	1000	8.50				
							6		

Tab. 18

> HVC050



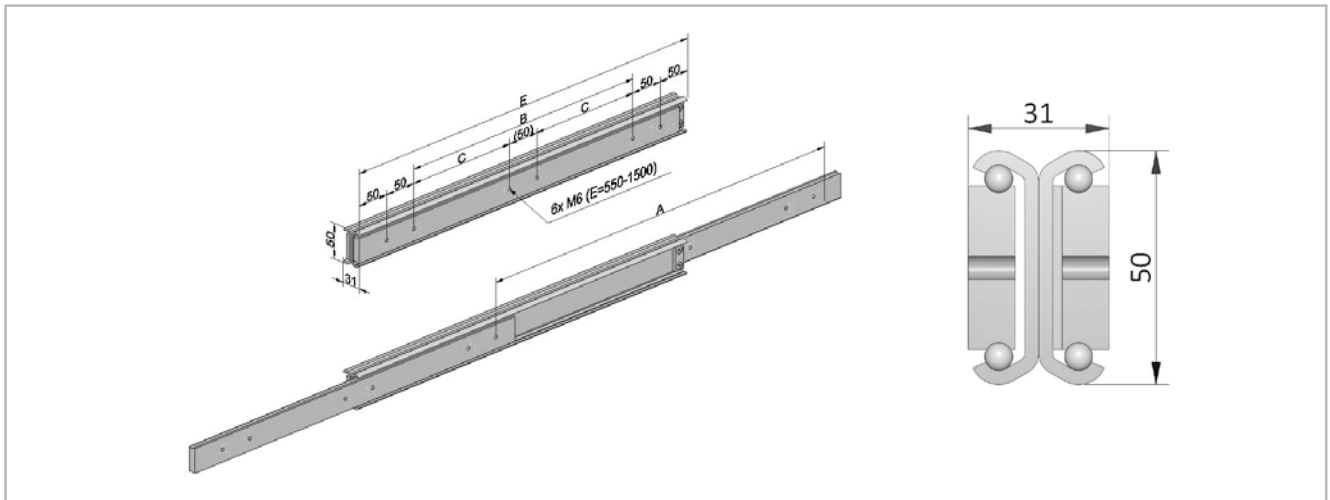
All dimensions are indicated in mm

Fig. 26

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVC	50	300	300	100	-	1400	50 %	4	1.52
		350	350	150	-	1450			1.77
		400	400	200	-	1500			2.00
		450	450	250	-	1450			2.30
		500	500	300	-	1400			2.50
		550	550	-	150	1350			2.80
		600	600	-	175	1300			3.00
		650	650	-	200	1250			3.30
		700	700	-	225	1200			3.60
		750	750	-	250	1150			3.80
		800	800	-	275	1100		4.10	
		850	850	-	300	1050		4.30	
		900	900	-	325	1000		4.60	
		950	950	-	350	950		4.80	
		1000	1000	-	375	900		5.10	
		1100	1100	-	425	800		5.60	
		1200	1200	-	475	700		6.10	
		1300	1300	-	525	600		6.60	
		1400	1400	-	575	500		7.10	
		1500	1500	-	625	400		7.60	
							6		

Tab. 19

> HVD050



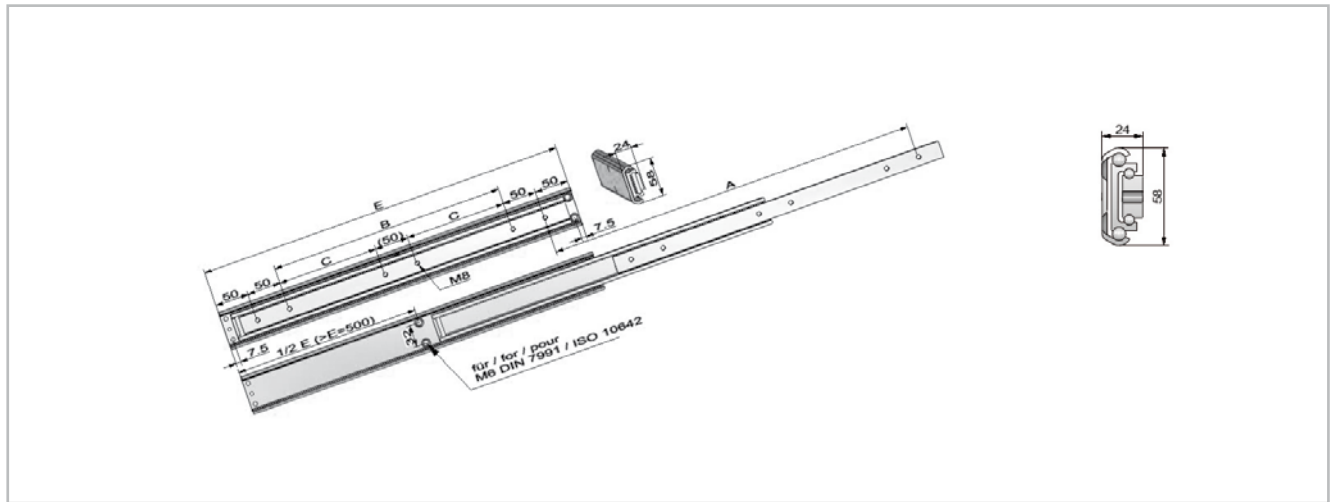
All dimensions are indicated in mm

Fig. 27

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVD	50	300	300	100	-	1800	50 %	4	2.70
		350	350	150	-	1850			3.10
		400	400	200	-	1900			3.50
		450	450	250	-	1850			4.00
		500	500	300	-	1800			4.40
		550	550	-	150	1750			4.90
		600	600	-	175	1700			5.30
		650	650	-	200	1650			5.70
		700	700	-	225	1600			6.20
		750	750	-	250	1550			6.60
		800	800	-	275	1500		7.10	
		850	850	-	300	1450		7.50	
		900	900	-	325	1400		8.00	
		950	950	-	350	1350		8.40	
		1000	1000	-	375	1300		8.80	
		1100	1100	-	425	1200		9.70	
		1200	1200	-	475	1100		10.60	
		1300	1300	-	525	1000		11.50	
		1400	1400	-	575	900		12.40	
		1500	1500	-	625	800		13.30	
							6		
								8.00	

Tab. 20

> HVC058



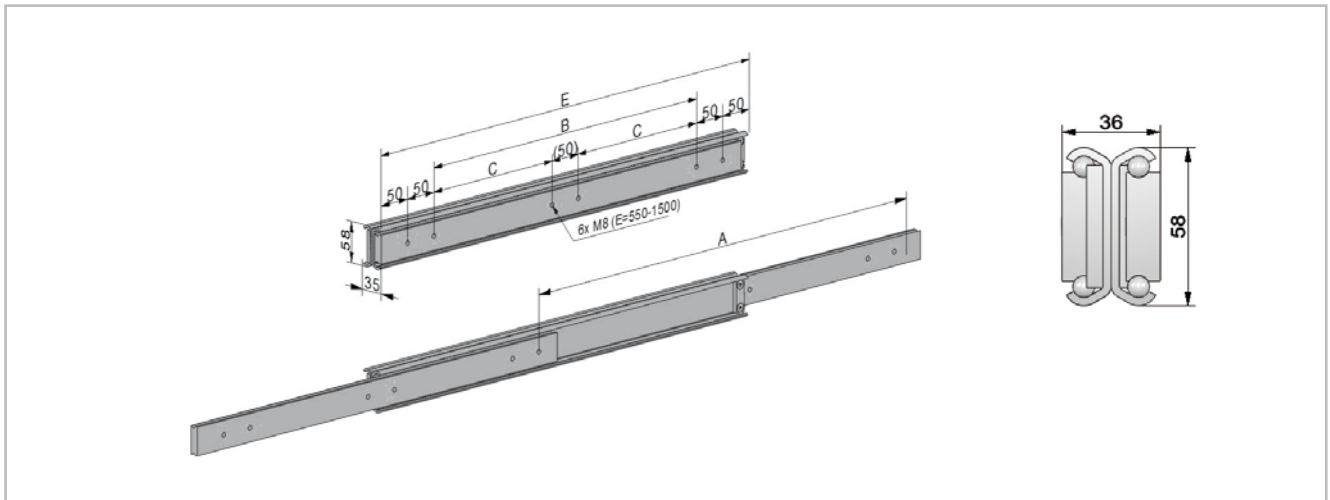
All dimensions are indicated in mm

Fig. 28

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVC	58	300	300	100	-	2000	50 %	4	1.90
		350	350	150	-	2050			2.30
		400	400	200	-	2100			2.60
		450	450	250	-	2050			2.90
		500	500	300	-	2000			3.20
		550	550	-	150	1950			3.50
		600	600	-	175	1900			3.90
		650	650	-	200	1850			4.20
		700	700	-	225	1800			4.50
		750	750	-	250	1750			4.80
		800	800	-	275	1700		5.20	
		850	850	-	300	1650		5.50	
		900	900	-	325	1600		5.80	
		950	950	-	350	1500		6.10	
		1000	1000	-	375	1450		6.50	
		1100	1100	-	425	1350		7.10	
		1200	1200	-	475	1250		7.70	
		1300	1300	-	525	1150		8.30	
		1400	1400	-	575	1050		9.00	
		1500	1500	-	625	1000		9.60	
							6		
								5.80	
								6.10	
								6.50	
								7.10	
								7.70	
								8.30	
								9.00	
								9.60	

Tab. 21

> HVD058



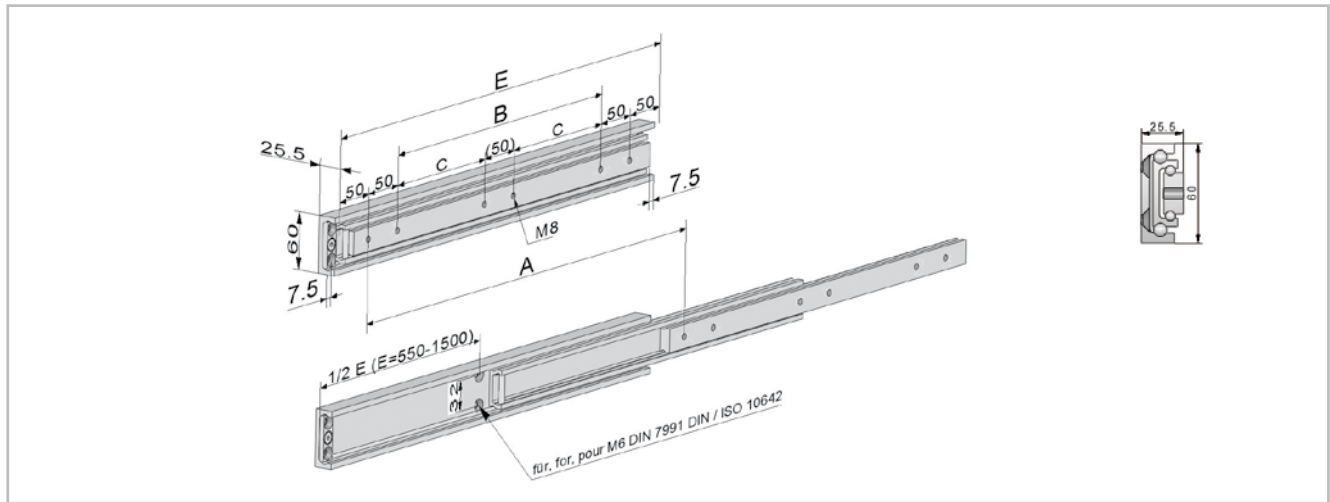
All dimensions are indicated in mm

Fig. 29

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HVD	58	300	300	100	-	2400	50 %	4	3.50
		350	350	150	-	2450			4.10
		400	400	200	-	2500			4.70
		450	450	250	-	2450			5.30
		500	500	300	-	2400			5.80
		550	550	-	150	2350			6.40
		600	600	-	175	2300			7.00
		650	650	-	200	2250			7.60
		700	700	-	225	2200			8.20
		750	750	-	250	2150			8.80
		800	800	-	275	2100		9.40	
		850	850	-	300	2050		10.00	
		900	900	-	325	2000		10.50	
		950	950	-	350	1900		11.10	
		1000	1000	-	375	1850		11.70	
		1100	1100	-	425	1750		12.90	
		1200	1200	-	475	1650		14.00	
		1300	1300	-	525	1550		15.20	
		1400	1400	-	575	1450		16.40	
		1500	1500	-	625	1400		17.60	
							6		
								10.50	

Tab. 22

> HVT060



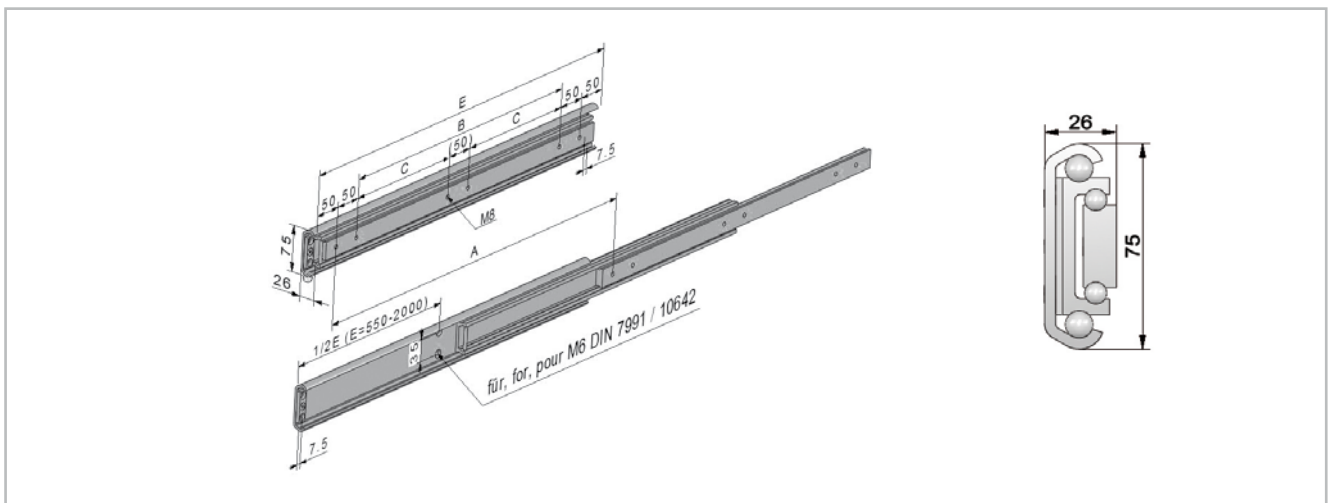
All dimensions are indicated in mm

Fig. 30

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVT	60	300	300	100	-	2600	50 %	4	1.52
		350	350	150	-	2650			1.77
		400	400	200	-	2700			2.00
		450	450	250	-	2650			2.30
		500	500	300	-	2600			2.50
		550	550	-	150	2550			2.80
		600	600	-	175	2500			3.00
		650	650	-	200	2450			3.30
		700	700	-	225	2400			3.55
		750	750	-	250	2350			3.80
		800	800	-	275	2300		4.05	
		850	850	-	300	2250		4.30	
		900	900	-	325	2200		4.55	
		950	950	-	350	2130		4.80	
		1000	1000	-	375	2050		5.10	
		1100	1100	-	425	1900		5.60	
		1200	1200	-	475	1750		6.10	
		1300	1300	-	525	1600		6.60	
		1400	1400	-	575	1500		7.10	
		1500	1500	-	625	1400		7.60	
							6		

Tab. 23

> HVC075

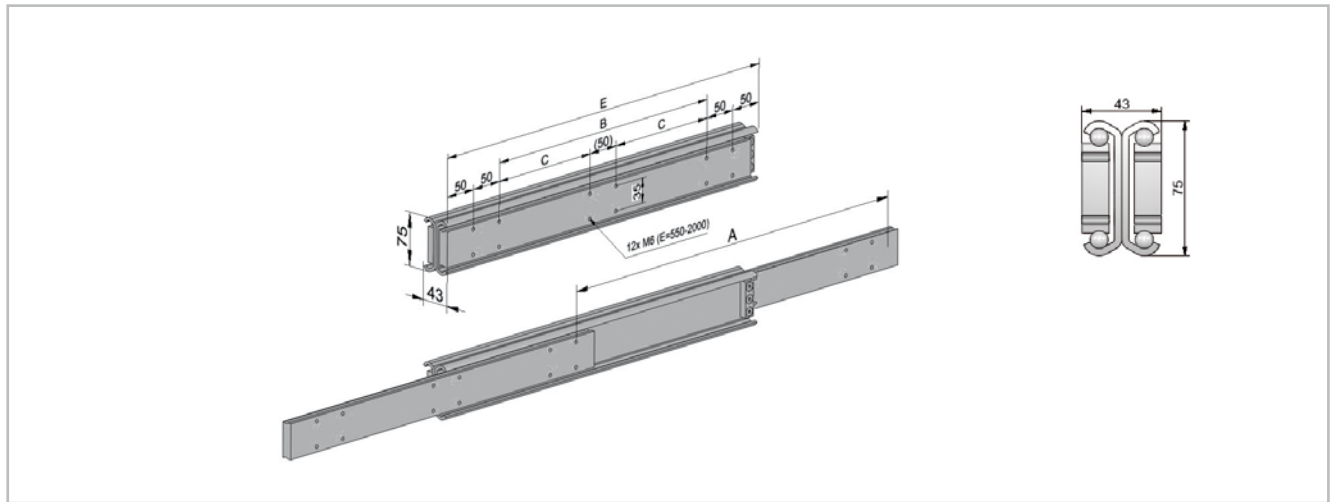


All dimensions are indicated in mm

Fig. 31

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HVC	75	300	300	100	-	3200	50 %	4	2.75
		350	350	150	-	3250			3.25
		400	400	200	-	3300			3.70
		450	450	250	-	3250			4.20
		500	500	300	-	3200			4.65
		550	550	-	150	3150			5.10
		600	600	-	175	3100			5.60
		650	650	-	200	3050			6.10
		700	700	-	225	3000			6.50
		750	750	-	250	2950			7.00
		800	800	-	275	2900		7.50	
		850	850	-	300	2850		7.90	
		900	900	-	325	2800		8.40	
		950	950	-	350	2750		8.80	
		1000	1000	-	375	2700		9.30	
		1100	1100	-	425	2600		10.20	
		1200	1200	-	475	2500		11.10	
		1300	1300	-	525	2350		12.10	
		1400	1400	-	575	2200		13.00	
		1500	1500	-	625	2050		14.00	
1600	1600	-	675	1900	14.90				
1700	1700	-	725	1750	15.80				
1800	1800	-	775	1600	16.70				
1900	1900	-	825	1450	17.70				
2000	2000	-	875	1300	18.60				
							6		

> HVD075

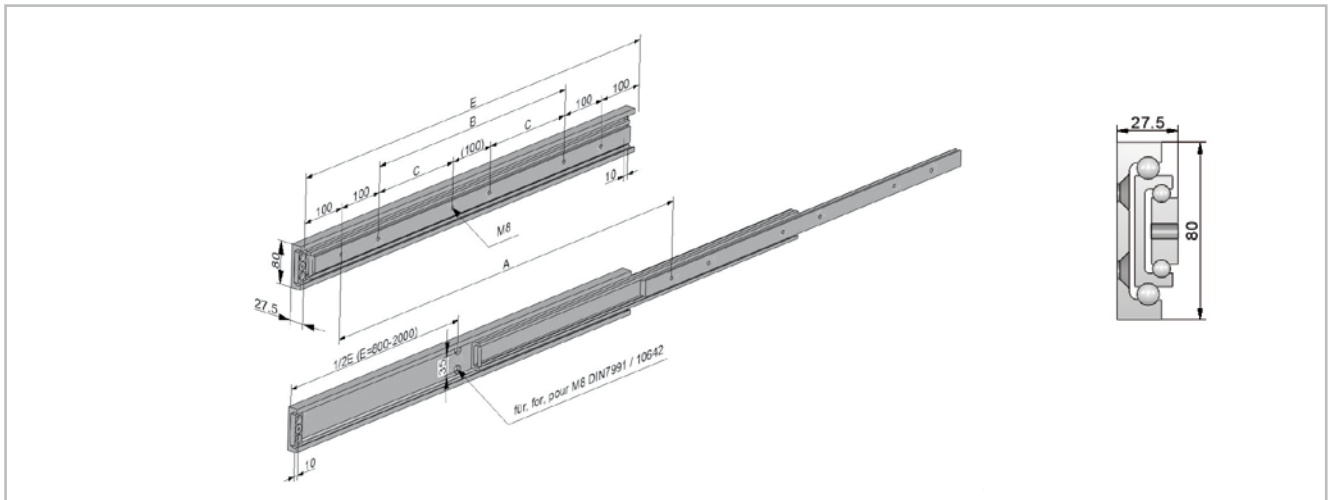


All dimensions are indicated in mm

Fig. 32

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVD	75	300	300	100	-	3600	50 %	8	5.60
		350	350	150	-	3650			6.60
		400	400	200	-	3700			7.50
		450	450	250	-	3650			8.40
		500	500	300	-	3600			9.40
		550	550	-	150	3550			10.30
		600	600	-	175	3500			11.30
		650	650	-	200	3450			12.20
		700	700	-	225	3400			13.20
		750	750	-	250	3350			14.10
		800	800	-	275	3300		15.00	
		850	850	-	300	3250		16.00	
		900	900	-	325	3200		16.90	
		950	950	-	350	3150		17.90	
		1000	1000	-	375	3100		18.80	
		1100	1100	-	425	3000		10.70	
		1200	1200	-	475	2900		22.60	
		1300	1300	-	525	2750		24.40	
		1400	1400	-	575	2600		26.30	
		1500	1500	-	625	2450		28.20	
1600	1600	-	675	2300	30.10				
1700	1700	-	725	2100	32.00				
1800	1800	-	775	1900	33.80				
1900	1900	-	825	1700	35.70				
2000	2000	-	875	1400	37.60				

> HVT080



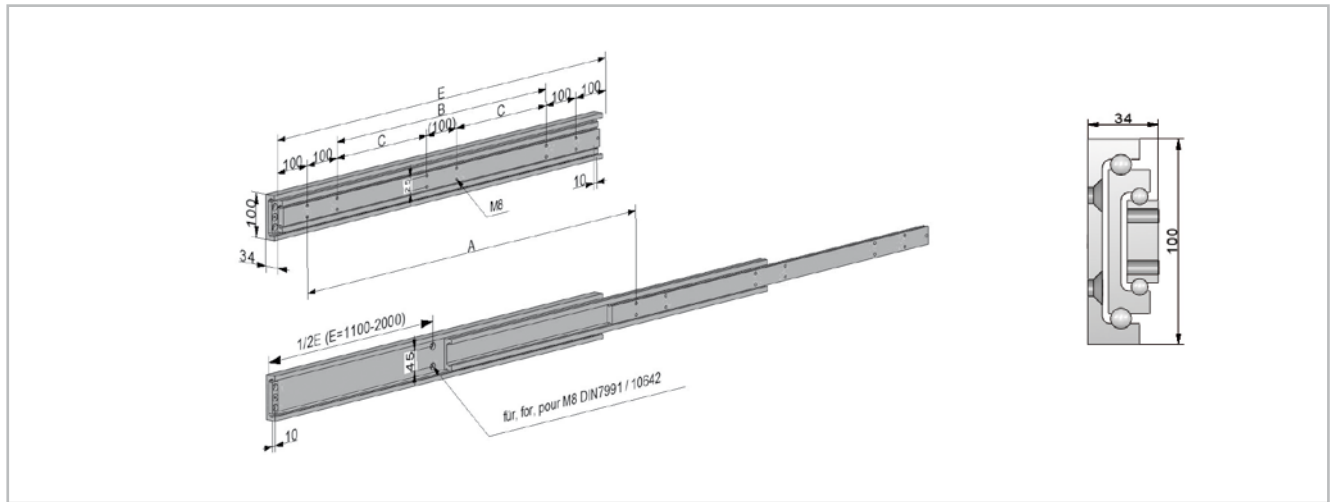
All dimensions are indicated in mm

Fig. 33

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HVT	80	500	500	100	-	4250	50 %	4	5.70
		550	550	150	-	4300			6.30
		600	600	200	-	4350			6.80
		650	650	250	-	4350			7.40
		700	700	300	-	4350			8.00
		750	750	350	-	4300			8.60
		800	800	-	150	4250			9.10
		850	850	-	175	4200			9.70
		900	900	-	200	4100			10.30
		950	950	-	225	4000			10.80
		1000	1000	-	250	3900		11.40	
		1100	1100	-	300	3700		12.50	
		1200	1200	-	350	3500		13.70	
		1300	1300	-	400	3250		14.80	
		1400	1400	-	450	3000		15.90	
		1500	1500	-	500	2700		17.10	
		1600	1600	-	550	2400		18.20	
		1700	1700	-	600	2150		19.40	
		1800	1800	-	650	1900		20.50	
		1900	1900	-	700	1650		21.60	
2000	2000	-	750	1400	22.80				
							6		

Tab. 26

> HVT100



All dimensions are indicated in mm

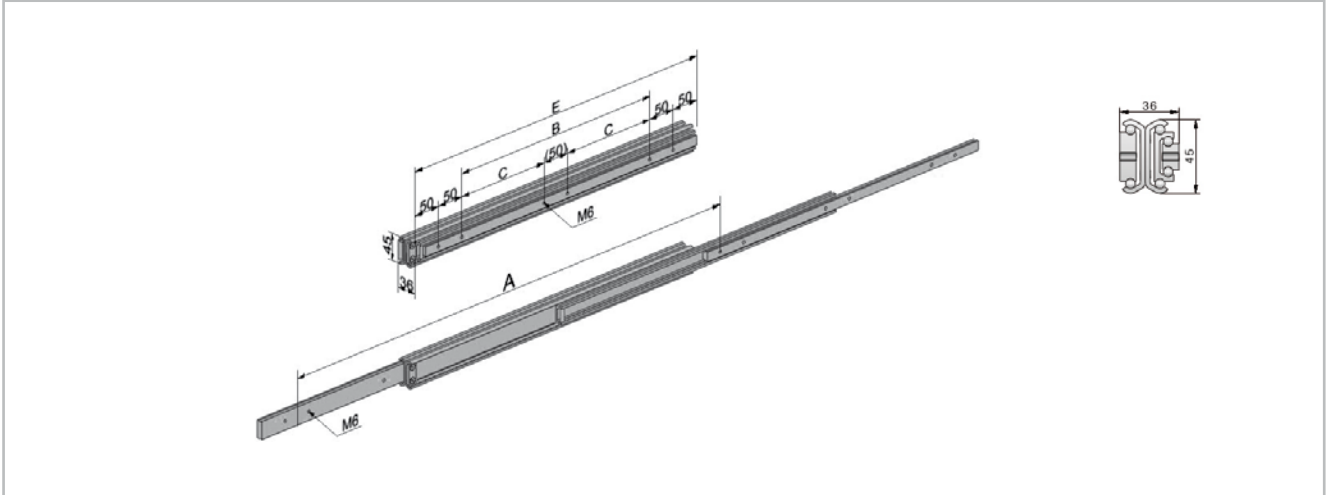
Fig. 34

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HVT	100	600	600	200	-	5700	50 %	8	11.20
		650	650	250	-	5600			12.20
		700	700	300	-	5500			13.10
		750	750	350	-	5400			14.00
		800	800	400	-	5300			15.00
		850	850	450	-	5200			15.90
		900	900	500	-	5100			16.80
		950	950	550	-	5000			17.80
		1000	1000	600	-	4900		18.70	
		1100	1100	-	300	4700		20.60	
		1200	1200	-	350	4500		22.50	
		1300	1300	-	400	4250		24.30	
		1400	1400	-	450	4000		26.20	
		1500	1500	-	500	3750		28.10	
		1600	1600	-	550	3500		29.90	
		1700	1700	-	600	3250		31.80	
		1800	1800	-	650	3000		33.70	
		1900	1900	-	700	2700		35.60	
		2000	2000	-	750	2400		37.40	

Tab. 27

Overextending guides

➤ H1D045



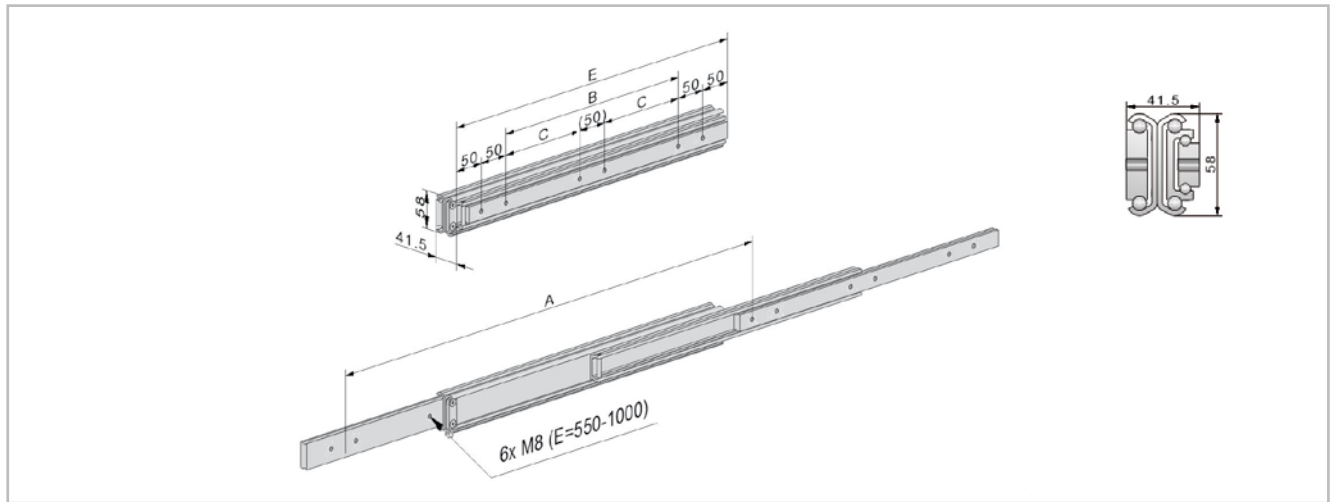
All dimensions are indicated in mm

Fig. 35

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Drad} [N]	C_{Oax} [N]		
H1D	45	250	375	50	-	500	on request	4	1.90
		300	450	100	-	550			2.30
		350	525	150	-	600			2.70
		400	600	200	-	650			3.10
		450	675	250	-	650			3.50
		500	750	300	-	650			3.90
		550	825	-	150	650		4.30	
		600	900	-	175	600		4.70	
		650	975	-	200	600		5.00	
		700	1050	-	225	550		5.40	
		750	1125	-	250	500		5.80	
		800	1200	-	275	450		6.20	
		850	1275	-	300	400		6.60	
		900	1350	-	325	350		7.00	
		950	1425	-	350	300		7.40	
		1000	1500	-	375	250		7.80	
							6		

Tab. 28

H1D058



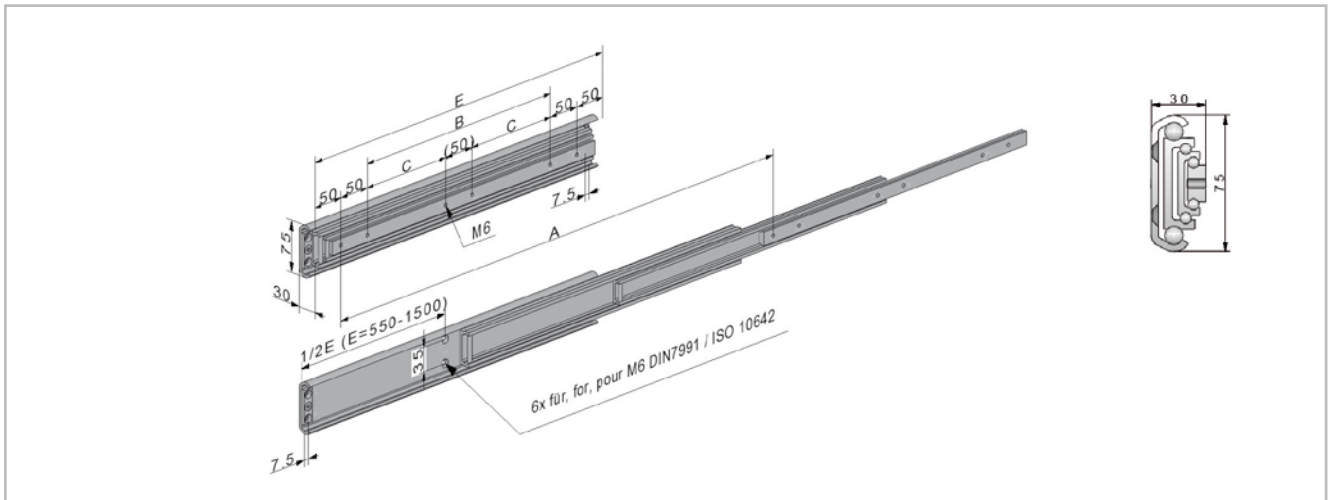
All dimensions are indicated in mm

Fig. 36

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
H1D	58	300	450	100	-	1700	on request	4	2.60
		350	525	150	-	1800			3.10
		400	600	200	-	1850			3.50
		450	675	250	-	1900			4.00
		500	750	300	-	1900			4.40
		550	825	-	150	1850			4.80
		600	900	-	175	1800			5.30
		650	975	-	200	1750			5.70
		700	1050	-	225	1700			6.10
		750	1125	-	250	1650			6.60
		800	1200	-	275	1600		7.00	
		850	1275	-	300	1530		7.50	
		900	1350	-	325	1460		7.90	
		950	1425	-	350	1390		8.30	
		1000	1500	-	375	1320		8.80	
		1100	1650	-	425	1190		9.60	
		1200	1800	-	475	1060		10.50	
		1300	1950	-	525	920		11.40	
		1400	2100	-	575	760		12.30	
		1500	2250	-	625	600		13.10	
							6		

Tab. 29

> H1C075



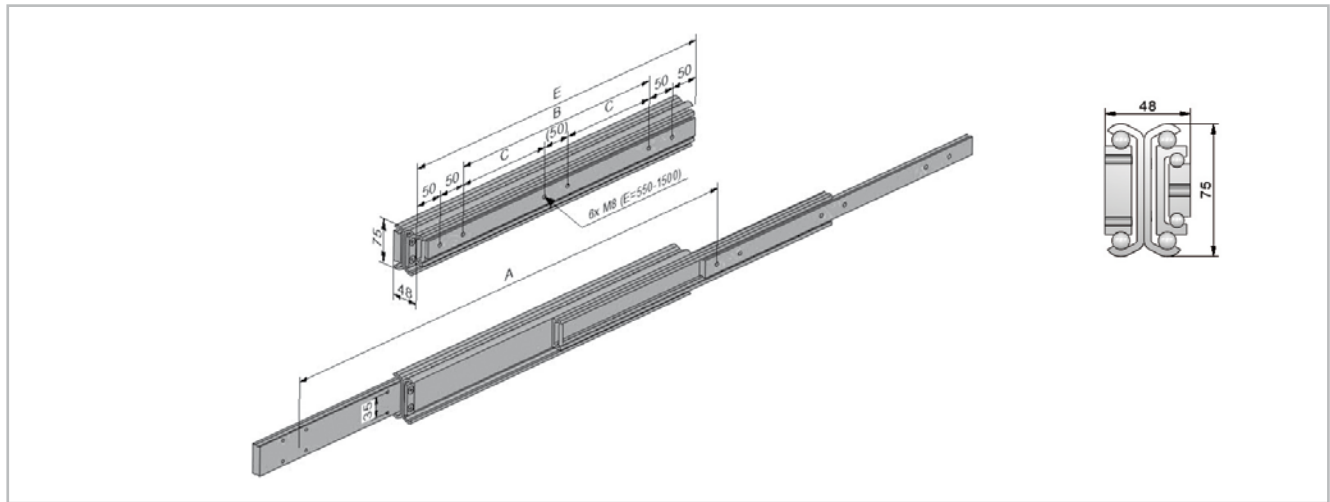
All dimensions are indicated in mm

Fig. 37

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
H1C	75	300	450	100	-	1200	on request	4	2.60
		350	525	150	-	1250			3.00
		400	600	200	-	1300			3.50
		450	675	250	-	1350			3.90
		500	750	300	-	1300			4.30
		550	825	-	150	1200		4.80	
		600	900	-	175	1150		5.20	
		650	975	-	200	1100		5.60	
		700	1050	-	225	1050		6.10	
		750	1125	-	250	1000		6.50	
		800	1200	-	275	950		6.90	
		850	1275	-	300	900		7.30	
		900	1350	-	325	850		7.80	
		950	1425	-	350	800		8.20	
		1000	1500	-	375	750		8.60	
		1100	1650	-	425	650		9.50	
		1200	1800	-	475	550		10.40	
		1300	1950	-	525	450		11.20	
		1400	2100	-	575	350		12.00	
		1500	2250	-	625	200		12.90	

Tab. 30

> H1D075



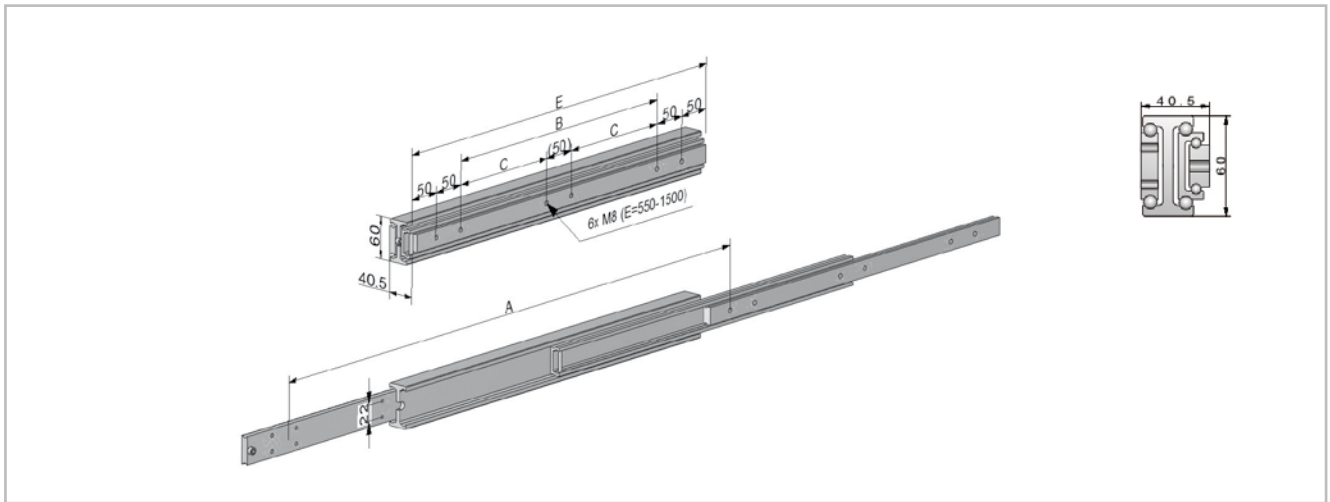
All dimensions are indicated in mm

Fig. 38

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		No. of holes		Weight [kg]
						C _{0rad} [N]	C _{0ax} [N]	M6	M8	
H1D	75	300	450	100	-	2400	on request	8	4	5.50
		350	525	150	-	2500				6.40
		400	600	200	-	2550				7.35
		450	675	250	-	2600				8.25
		500	750	300	-	2600				9.20
		550	825	-	150	2550				10.10
		600	900	-	175	2500		11.00		
		650	975	-	200	2450		11.90		
		700	1050	-	225	2400		12.85		
		750	1125	-	250	2350		13.70		
		800	1200	-	275	2300		14.70		
		850	1275	-	300	2250		15.60		
		900	1350	-	325	2200		16.50		
		950	1425	-	350	2150		17.30		
		1000	1500	-	375	2100		18.35		
		1100	1650	-	425	2000		20.20		
		1200	1800	-	475	1850		22.00		
		1300	19,50	-	525	1700		23.90		
1400	2100	-	575	1550	25.70					
1500	2250	-	625	1400	27.50					
						12	6			

Tab. 31

> H1T060



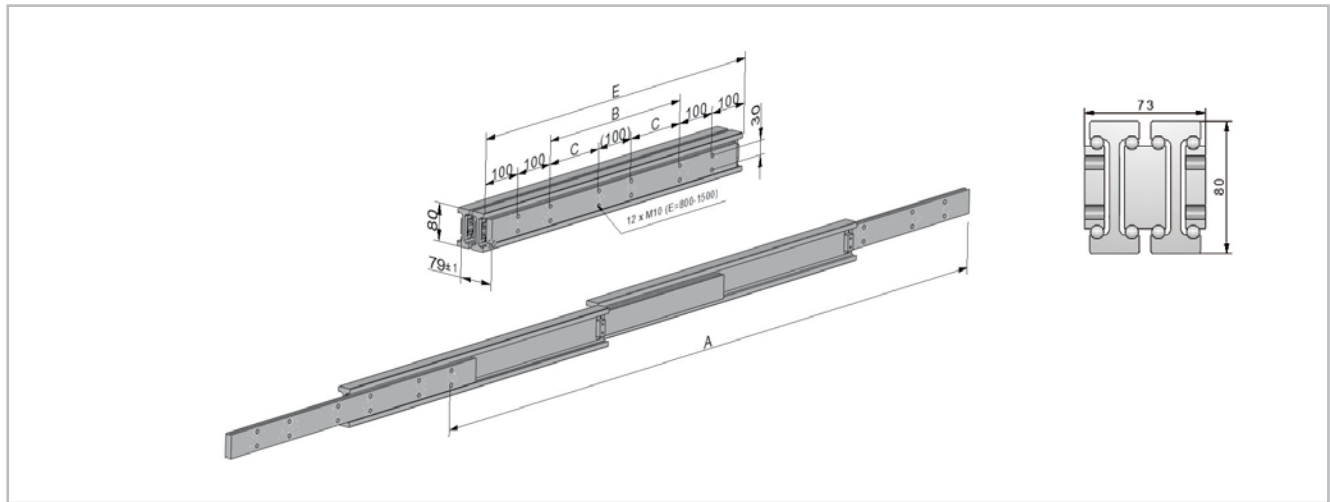
All dimensions are indicated in mm

Fig. 39

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		No. of holes		Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]	M6	M8	
H1T	60	300	450	100	-	2400	on request	8	4	3.90
		350	525	150	-	2500				4.50
		400	600	200	-	2550				5.10
		450	675	250	-	2600				5.80
		500	750	300	-	2600				6.40
		550	825	-	150	2550				7.10
		600	900	-	175	2500				7.70
		650	975	-	200	2450				8.40
		700	1050	-	225	2400				9.00
		750	1125	-	250	2350				9.70
		800	1200	-	275	2300		10.30		
		850	1275	-	300	2250		10.90		
		900	1350	-	325	2200		11.60		
		950	1425	-	350	2150		12.20		
		1000	1500	-	375	2100		12.90		
		1100	1650	-	425	2000		14.10		
		1200	1800	-	475	1850		15.40		
		1300	1950	-	525	1700		16.70		
		1400	2100	-	575	1550		18.00		
		1500	2250	-	625	1400		19.30		
							12	6		

Tab. 32

> H2T080



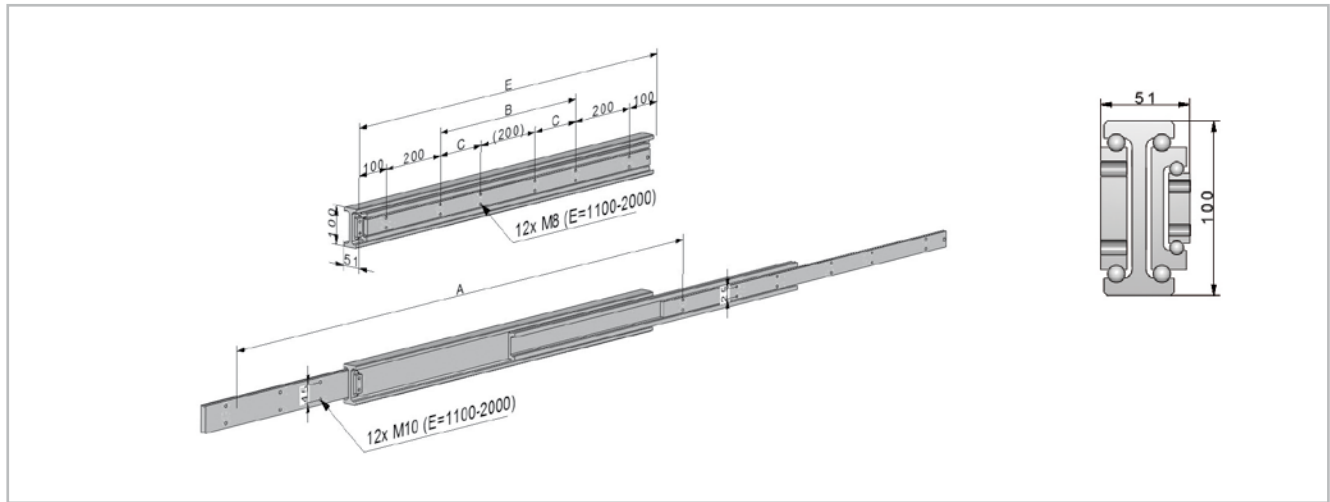
All dimensions are indicated in mm

Fig. 40

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C _{0rad} [N]	C _{0ax} [N]		
H2T	80	500	1000	100	-	4850	on request	8	17.40
		550	1100	150	-	5200			19.10
		600	1200	200	-	5400			20.90
		650	1300	250	-	5500			22.60
		700	1400	300	-	5350			24.30
		750	1500	350	-	5200			26.10
		800	1600	-	150	5050		27.80	
		850	1700	-	175	4850		29.60	
		900	1800	-	200	4650		31.30	
		950	1900	-	225	4450		33.10	
		1000	2000	-	250	4250		34.80	
		1100	2200	-	300	3750		38.30	
		1200	2400	-	350	3250		41.80	
		1300	2600	-	400	3100		45.20	
		1400	2800	-	450	3000		48.70	
		1500	3000	-	500	2800		52.20	
							12		

Tab. 33

> H1T100



All dimensions are indicated in mm

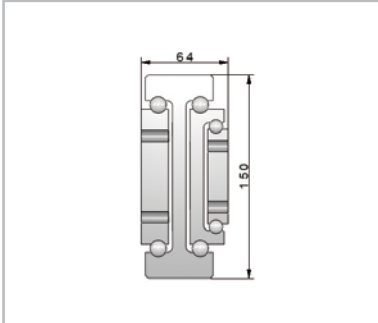
Fig. 42

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
H1T	100	700	1050	100	-	5500	on request	8	20.00
		750	1125	150	-	5500			21.50
		800	1200	200	-	5300			22.90
		850	1275	250	-	5100			24.30
		900	1350	300	-	4700			25.80
		950	1425	350	-	4500			27.20
		1000	1500	400	-	4300		28.60	
		1100	1650	-	150	400		31.50	
		1200	1800	-	200	3700		34.40	
		1300	1950	-	250	3400		37.30	
		1400	2100	-	300	3100		40.10	
		1500	2250	-	350	2900		43.00	
		1600	2400	-	400	2600		45.80	
		1700	2550	-	450	2300		48.70	
		1800	2700	-	500	2000		51.60	
		1900	2850	-	550	1700		54.50	
		2000	3000	-	600	1400		57.30	

Tab. 35

Other sizes and versions are available on request

> H1T150



All dimensions are indicated in mm

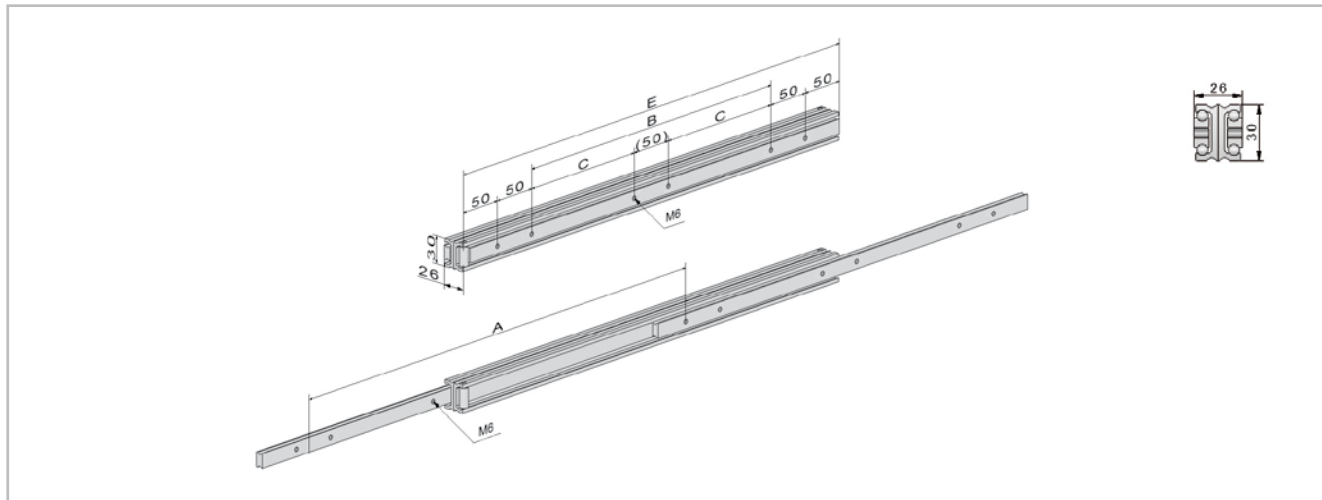
Fig. 43

Type	Size	Length [mm]	Load capacity per pair	
			C_{0rad} [N]	C_{0ax} [N]
H1T	150	700	7000	on request
		⋮	⋮	
		2000	2300	

Tab. 36

Heavy load extension guides

> HGT030



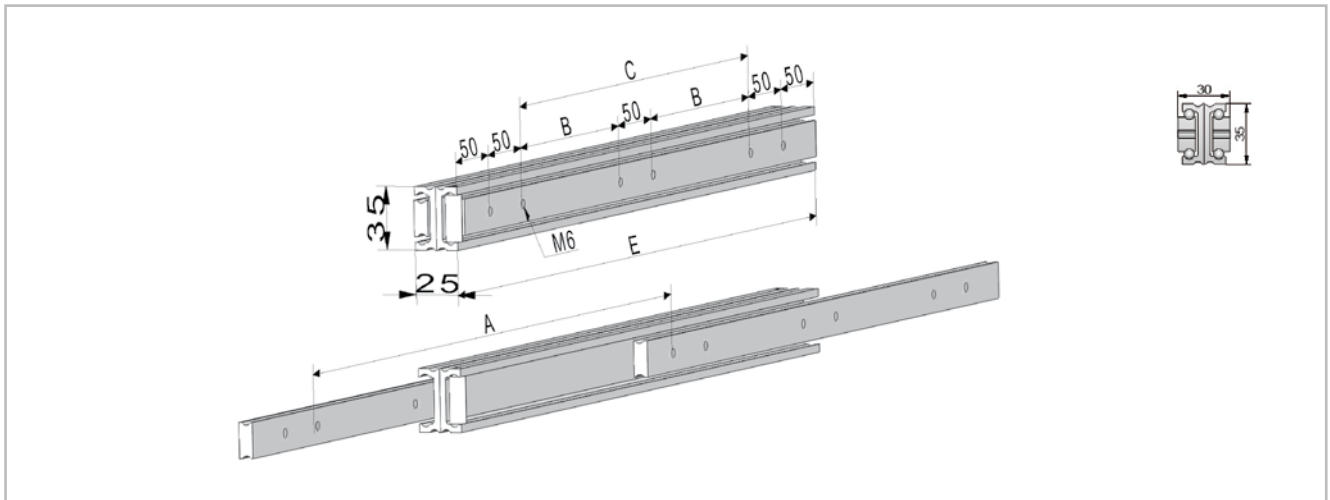
All dimensions are indicated in mm

Fig. 44

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HGT	30	250	250	50	-	1000	50 %	4	1.20
		300	300	100	-	1050			1.40
		350	350	150	-	1100			1.60
		400	400	200	-	1100			1.80
		450	450	250	-	1050			2.00
		500	500	300	-	1050			2.30
		550	550	-	150	1000		2.50	
		600	600	-	175	1000		2.80	
		650	650	-	200	950		3.00	
		700	700	-	225	900		3.20	
		750	750	-	250	850		3.50	
		800	800	-	275	800		3.70	
		850	850	-	300	750		3.90	
		900	900	-	325	700		4.20	
		950	950	-	350	650		4.50	
		1000	1000	-	375	600		4.70	

Tab. 37

> HGT035



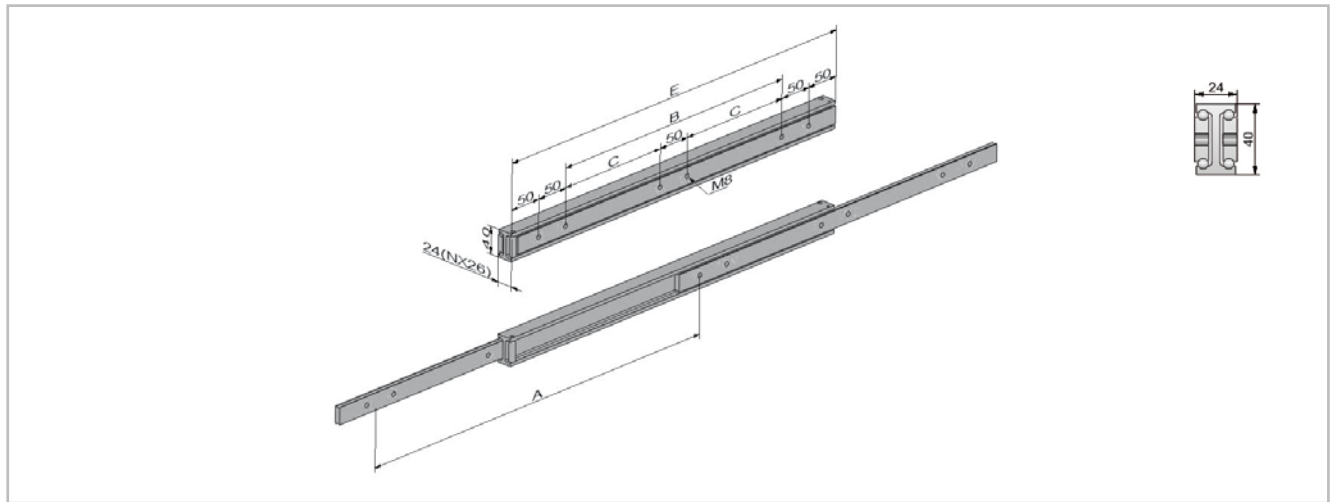
All dimensions are indicated in mm

Fig. 45

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HGT	35	250	250	50	-	1200	50 %	4	1.60
		300	300	100	-	1250			2.00
		350	350	150	-	1300			2.30
		400	400	200	-	1300			2.60
		450	450	250	-	1250			3.00
		500	500	300	-	1250			3.30
		550	550	-	150	1200		3.60	6
		600	600	-	175	1200		3.90	
		650	650	-	200	1150		4.30	
		700	700	-	225	1100		4.60	
		750	750	-	250	1050		4.90	
		800	800	-	275	1000		5.20	
		850	850	-	300	950		5.50	
		900	900	-	325	900		5.80	
		950	950	-	350	850		6.10	
		1000	1000	-	375	800		6.40	

Tab. 38

> HGT040



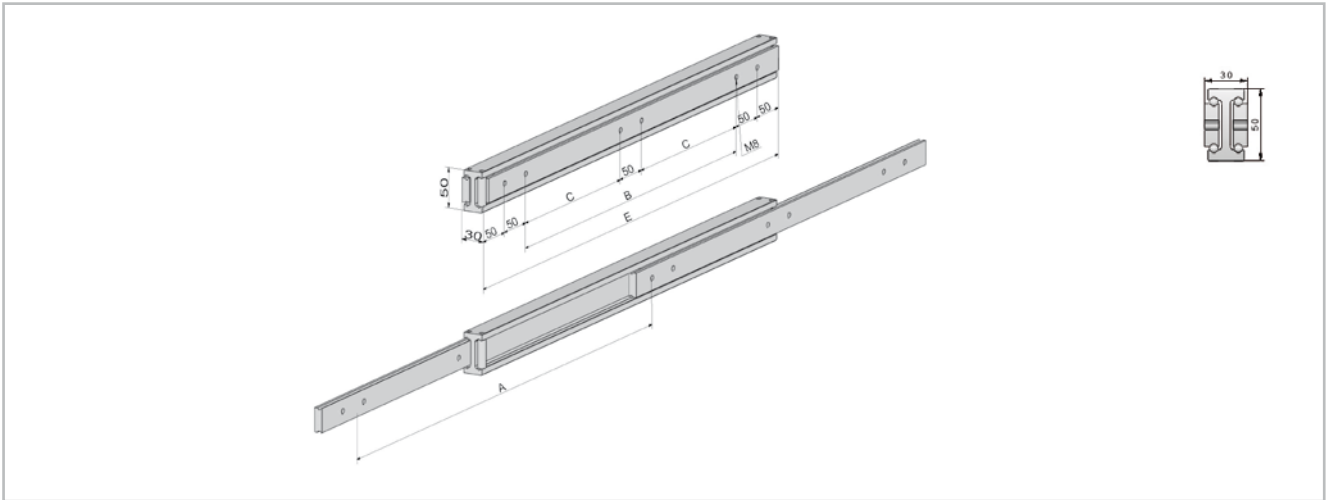
All dimensions are indicated in mm

Fig. 46

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HGT	40	250	250	50	-	1400	50 %	4	1.50
		300	300	100	-	1500			1.80
		350	350	150	-	1600			2.20
		400	400	200	-	1550			2.40
		450	450	250	-	1500			2.80
		500	500	300	-	1450			3.00
		550	550	-	150	1400		3.40	
		600	600	-	175	1350		3.70	
		650	650	-	200	1300		4.00	
		700	700	-	225	1250		4.30	
		750	750	-	250	1200		4.60	
		800	800	-	275	1150		4.90	
		850	850	-	300	1100		5.20	
		900	900	-	325	1050		5.50	
		950	950	-	350	1000		5.80	
		1000	1000	-	375	950		6.10	
		1100	1100	-	425	850		6.70	
		1200	1200	-	475	700		7.30	
							6		

Tab. 39

> HGT050



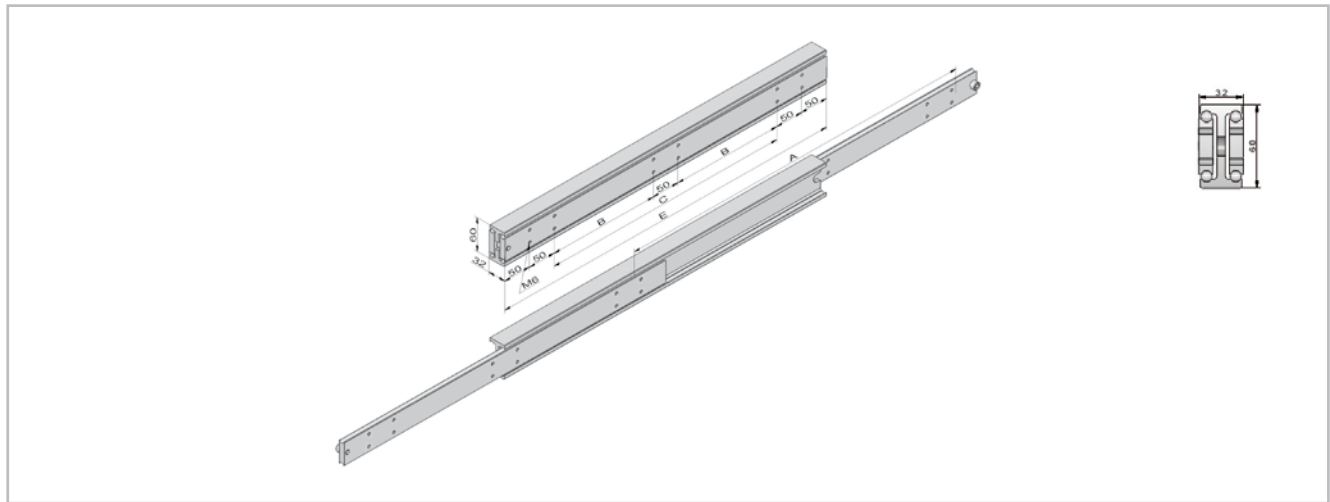
All dimensions are indicated in mm

Fig. 47

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HGT	50	250	250	50	-	2000	50 %	4	2.40
		300	300	100	-	2300			2.90
		350	350	150	-	2500			3.20
		400	400	200	-	2650			3.70
		450	450	250	-	2750			4.10
		500	500	300	-	2800			4.60
		550	550	-	150	2750		5.00	
		600	600	-	175	2700		5.50	
		650	650	-	200	2650		6.00	
		700	700	-	225	2550		6.40	
		750	750	-	250	2450		6.90	
		800	800	-	275	2350		7.30	
		850	850	-	300	2250		7.80	
		900	900	-	325	2150		8.30	
		950	950	-	350	2050		8.70	
		1000	1000	-	375	1950		9.20	
		1100	1100	-	425	1780		10.10	
		1200	1200	-	475	1650		11.00	

Tab. 40

HGT060



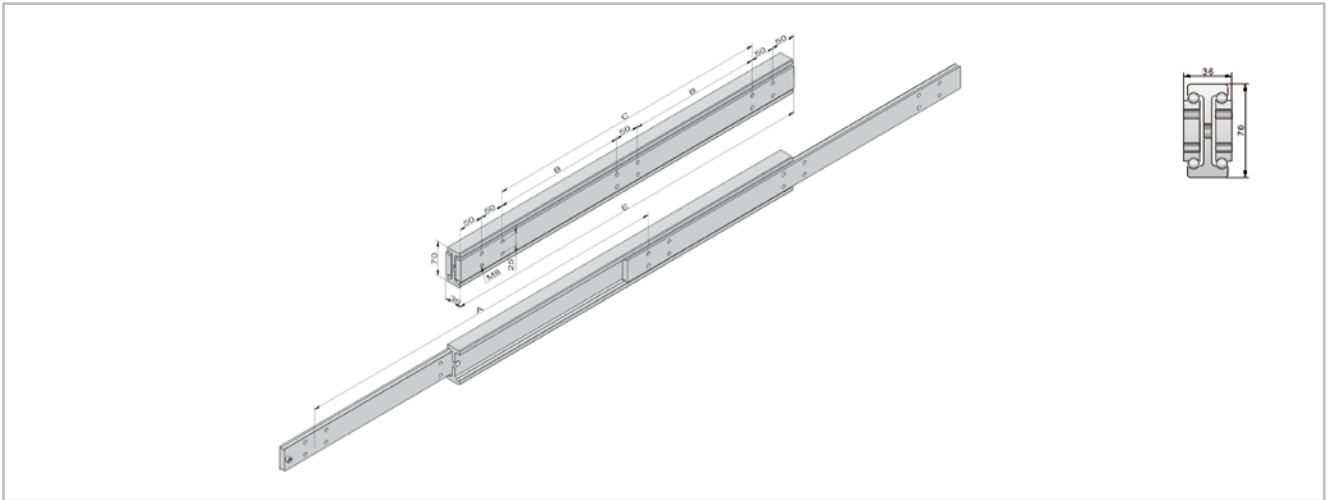
All dimensions are indicated in mm

Fig. 48

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HGT	60	400	400	200	-	5250	50 %	8	4.60
		450	450	250	-	5350			5.20
		500	500	300	-	5400			5.80
		550	550	-	150	5500		6.40	
		600	600	-	175	5400		7.00	
		650	650	-	200	5350		7.60	
		700	700	-	225	5250		8.20	
		750	750	-	250	5100		8.70	
		800	800	-	275	4900		9.30	
		850	850	-	300	4700		9.90	
		900	900	-	325	4500		10.50	
		950	950	-	350	4300		11.10	
		1000	1000	-	375	4050		11.70	
		1100	1100	-	425	3700		12.90	
		1200	1200	-	475	3300		14.00	
		1300	1300	-	525	2900		15.20	
		1400	1400	-	575	2500		16.40	
1500	1500	-	625	2100	17.50				

Tab. 41

> HGT070



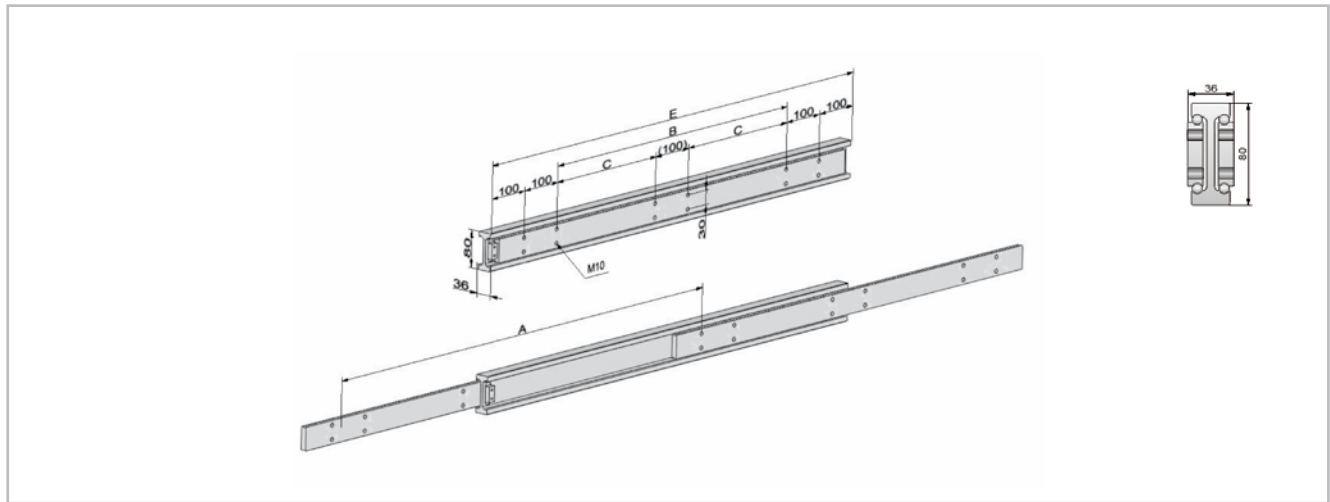
All dimensions are indicated in mm

Fig. 49

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Grad} [N]	C_{Oax} [N]		
HGT	70	400	400	200	-	6500	50 %	8	5.80
		450	450	250	-	7000			6.60
		500	500	300	-	7200			7.30
		550	550	-	150	7400		7.90	
		600	600	-	175	7400		8.50	
		650	650	-	200	7300		9.10	
		700	700	-	225	7150		9.70	
		750	750	-	250	6950		10.20	
		800	800	-	275	6750		10.80	
		850	850	-	300	6550		11.40	
		900	900	-	325	6300		12.00	
		950	950	-	350	6100		12.60	
		1000	1000	-	375	5800		13.20	
		1100	1100	-	425	5450		14.50	
		1200	1200	-	475	5000		16.00	
		1300	1300	-	525	4550		17.50	
		1400	1400	-	575	4100		19.00	
1500	1500	-	625	3650	20.50				

Tab. 42

> HGT080



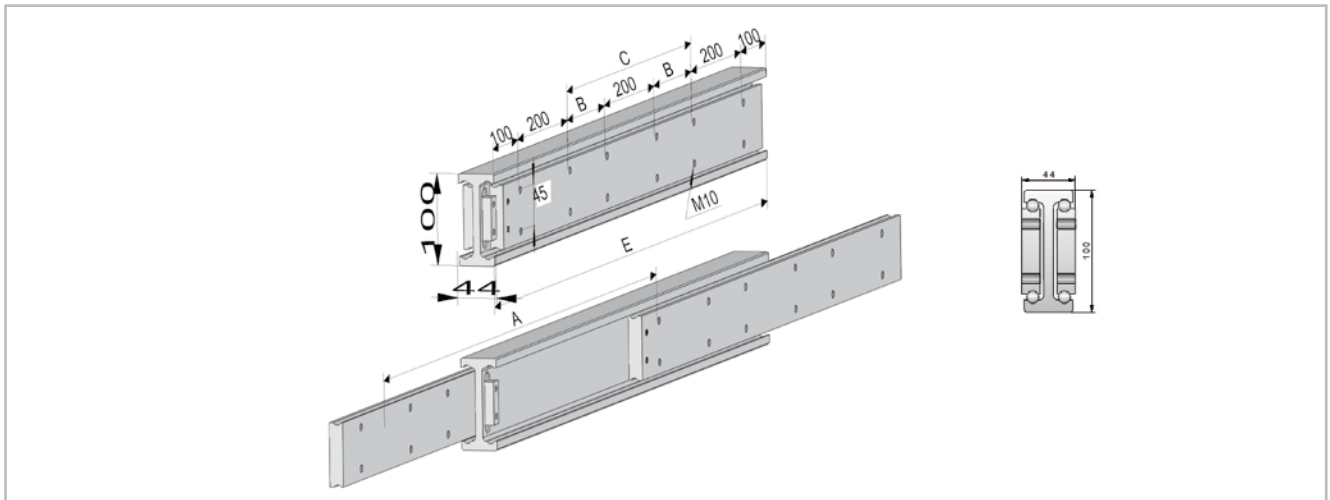
All dimensions are indicated in mm

Fig. 50

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{0rad} [N]	C_{0ax} [N]		
HGT	80	500	500	100	-	9000	50 %	8	8.8
		550	550	150	-	9250			9.6
		600	600	200	-	9350			10.5
		650	650	250	-	9200			11.4
		700	700	300	-	9050			12.3
		750	750	350	-	8800			13.1
		800	800	400	-	8600			14.0
		850	850	450	-	8350			14.9
		900	900	500	-	8100			15.8
		950	950	550	-	7850			16.6
		1000	1000	600	-	7550		17.5	
		1100	1100	-	300	7150		19.3	
		1200	1200	-	350	6700		21.0	
		1300	1300	-	400	6200		22.8	
		1400	1400	-	450	5700		24.5	
		1500	1500	-	500	5200		26.3	
		1600	1600	-	550	4600		28.0	
		1700	1700	-	600	4100		29.8	
		1800	1800	-	650	3600		31.5	
		1900	1900	-	700	3000		33.3	
2000	2000	-	750	2500	35.0				
							12		

Tab. 43

> HGT100



All dimensions are indicated in mm

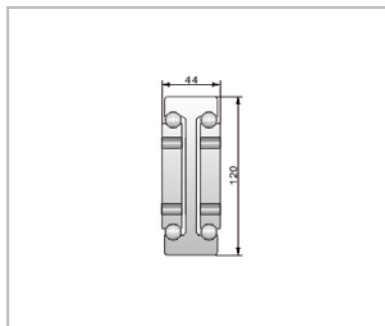
Fig. 51

Type	Size	Length [mm]	Stroke [mm]	B [mm]	C [mm]	Load capacity per pair		Number of holes	Weight [kg]
						C_{Oxad} [N]	C_{Oax} [N]		
HGT	100	700	700	100	-	11000	50 %	8	19.30
		750	750	150	-	10750			20.70
		800	800	200	-	10500			22.10
		850	850	250	-	10250			23.50
		900	900	300	-	10000			24.90
		950	950	350	-	9750			26.20
		1000	1000	400	-	9500			27.60
		1100	1100	-	150	9000			30.40
		1200	1200	-	200	8500		33.20	
		1300	1300	-	250	7900		36.00	
		1400	1400	-	300	7300		38.70	
		1500	1500	-	350	6700		41.50	
		1600	1600	-	400	6100		44.20	
		1700	1700	-	450	5450		47.00	
		1800	1800	-	500	4800		49.70	
		1900	1900	-	550	4100		52.50	
		2000	2000	-	600	3400		55.30	

Tab. 44

Other sizes and versions are available on request

> HGT120

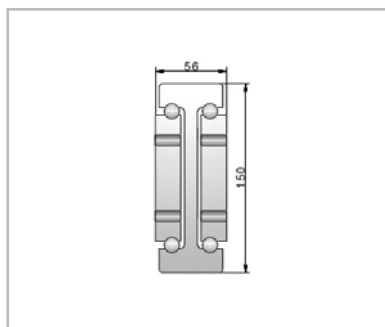


All dimensions are indicated in mm Fig. 52

Type	Size	Length [mm]	Load capacity per pair	
			C_{Orad} [N]	C_{Oax} [N]
HGT	120	700	11500	50 %
		⋮	⋮	
		2000	4700	

Tab. 45

> HGT150

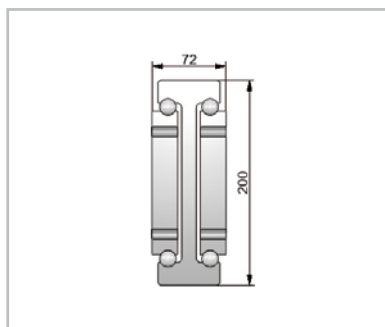


All dimensions are indicated in mm Fig. 53

Type	Size	Length [mm]	Load capacity per pair	
			C_{Orad} [N]	C_{Oax} [N]
HGT	150	700	13900	50 %
		⋮	⋮	
		2000	7000	

Tab. 46

> HGT200

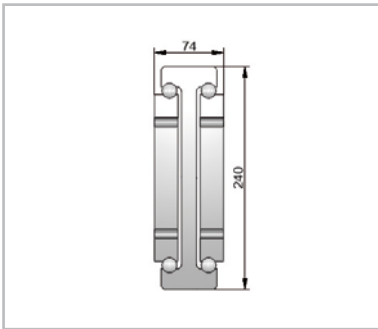


All dimensions are indicated in mm Fig. 54

Type	Size	Length [mm]	Load capacity per pair	
			C_{Orad} [N]	C_{Oax} [N]
HGT	200	700	15000	50 %
		⋮	⋮	
		2300	6700	

Tab. 47

> HGT240



All dimensions are indicated in mm

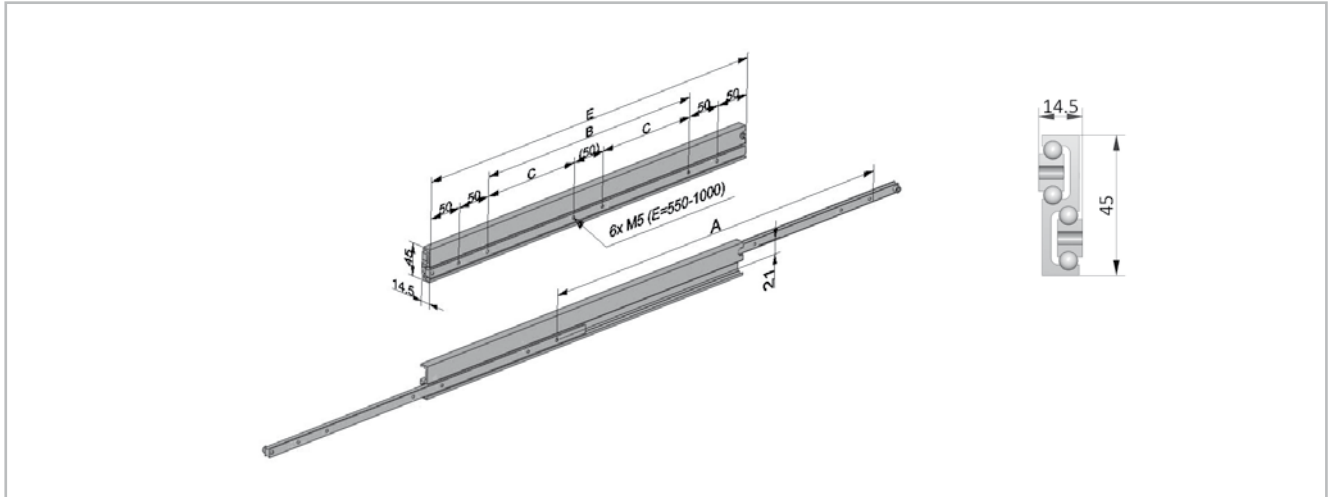
Fig. 55

Type	Size	Length [mm]	Load capacity per pair	
			C_{0rad} [N]	C_{0ax} [N]
HGT	240	700	17500	50 %
		⋮	⋮	
		2000	12500	

Tab. 48

S-profiles

> HGS045



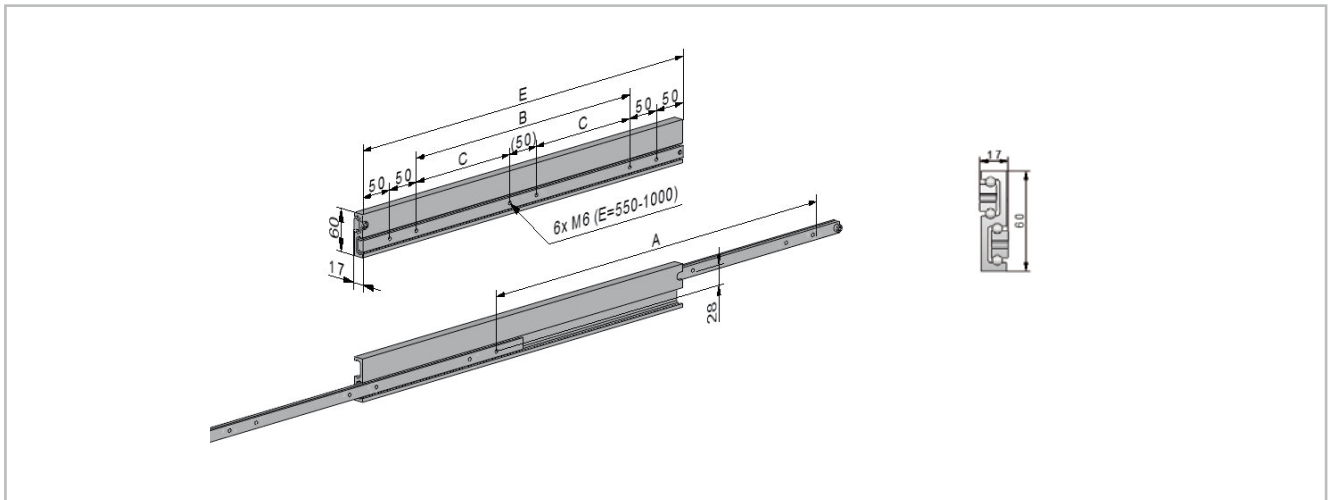
All dimensions are indicated in mm

Fig. 56

Type	Size	Length	Stroke	B	C	Load capacity per pair	Number of holes	Weight
		[mm]	[mm]	[mm]	[mm]	C_{Orad} [N]		[kg]
HGS	45	250	250	50	-	650	4	0.80
		300	300	100	-	700		1.00
		350	350	150	-	750		1.10
		400	400	200	-	700		1.30
		450	450	250	-	650		1.50
		500	500	300	-	600		1.70
		550	550	-	150	550	6	1.80
		600	600	-	175	500		2.00
		650	650	-	200	450		2.20
		700	700	-	225	400		2.30
		750	750	-	250	350		2.40
		800	800	-	275	300		2.60
		850	850	-	300	270		2.80
		900	900	-	325	240		3.00
		950	950	-	350	220		3.10
		1000	1000	-	375	200		3.30

Tab. 49

> HGS060



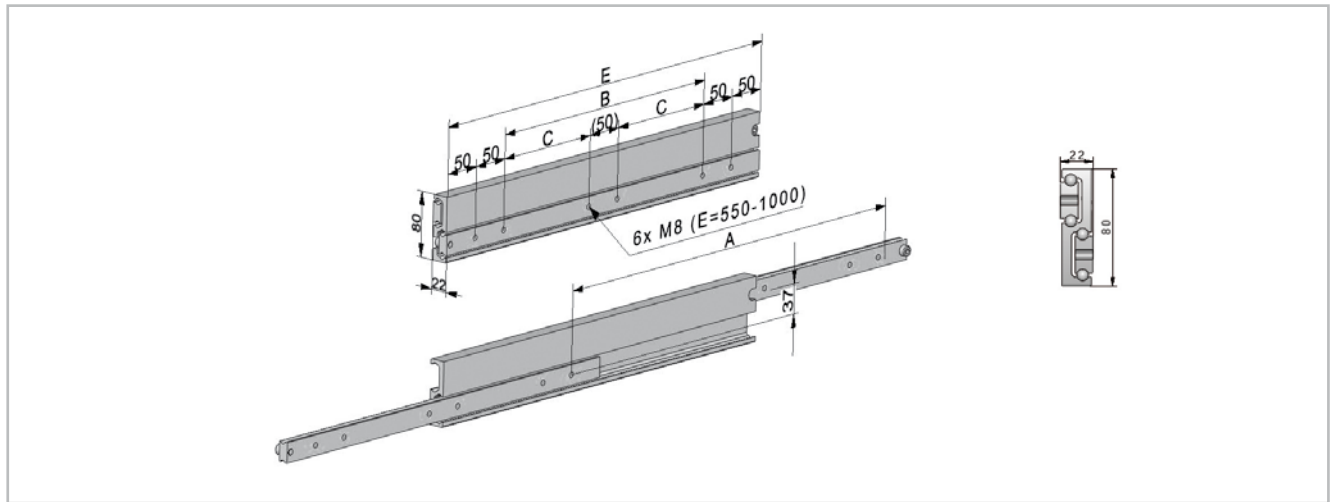
All dimensions are indicated in mm

Fig. 57

Type	Size	Length	Stroke	B	C	Load capacity per pair C_{brad} [N]	Number of holes	Weight
		[mm]	[mm]	[mm]	[mm]			[kg]
HGS	60	250	250	50	-	1000	4	1.60
		300	300	100	-	1250		1.80
		350	350	150	-	1350		2.00
		400	400	200	-	1400		2.30
		450	450	250	-	1400		2.60
		500	500	300	-	1400		2.90
		550	550	-	150	1350	6	3.20
		600	600	-	175	1300		3.50
		650	650	-	200	1250		3.80
		700	700	-	225	1200		4.10
		750	750	-	250	1150		4.40
		800	800	-	275	1050		4.70
		850	850	-	300	950		5.00
		900	900	-	325	850		5.30
		950	950	-	350	750		5.70
		1000	1000	-	375	650		6.00

Tab. 50

> HGS080



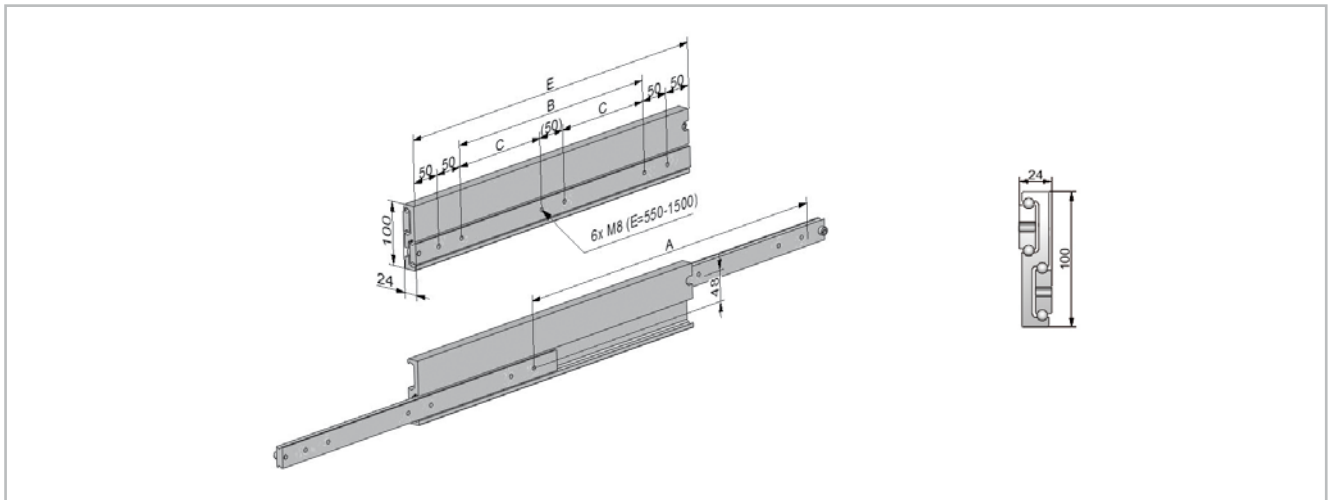
All dimensions are indicated in mm

Fig. 58

Type	Size	Length	Stroke	B	C	Load capacity per pair C_{Orad} [N]	Number of holes	Weight
		[mm]	[mm]	[mm]	[mm]			[kg]
HGS	80	250	250	50	-	1600	4	2.70
		300	300	100	-	2000		3.20
		350	350	150	-	2200		3.70
		400	400	200	-	2350		4.20
		450	450	250	-	2450		4.70
		500	500	300	-	2450		5.30
		550	550	-	150	2450	6	5.80
		600	600	-	175	2400		6.30
		650	650	-	200	2300		6.80
		700	700	-	225	2200		7.40
		750	750	-	250	2100		7.90
		800	800	-	275	2000		8.40
		850	850	-	300	1900		8.90
		900	900	-	325	1800		9.40
		950	950	-	350	1650		10.00
		1000	1000	-	375	1500		10.50

Tab. 51

> HGS100



All dimensions are indicated in mm

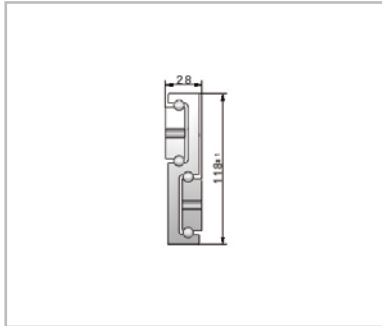
Fig. 59

Type	Size	Length	Stroke	B	C	Load capacity per pair C_{brad} [N]	Number of holes	Weight
		[mm]	[mm]	[mm]	[mm]			[kg]
HGS	100	400	400	200	-	3200	4	5.70
		450	450	250	-	3500		6.40
		500	500	300	-	3600		7.10
		550	550	-	150	3600		7.80
		600	600	-	175	3550	8.50	
		650	650	-	200	3450	9.30	
		700	700	-	225	3300	10.00	
		750	750	-	250	3150	10.70	
		800	800	-	275	3000	11.40	
		850	850	-	300	2850	12.10	
		900	900	-	325	2700	12.80	
		950	950	-	350	2550	13.40	
		1000	1000	-	375	2400	14.20	
		1100	1100	-	425	2250	15.60	
		1200	1200	-	475	2100	17.10	
		1300	1300	-	525	1950	18.50	
		1400	1400	-	575	1850	19.90	
		1500	1500	-	625	1600	21.30	

Tab. 52

Other sizes and versions are available on request

> HGS120

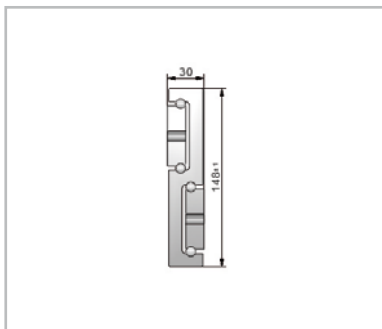


All dimensions are indicated in mm Fig. 60

Type	Size	Length [mm]	Load capacity per pair C_{Orad} [N]
HGS	120	400	5250
		⋮	⋮
		1500	2100

Tab. 53

> HGS150



All dimensions are indicated in mm Fig. 61

Type	Size	Length [mm]	Load capacity per pair C_{Orad} [N]
HGS	150	400	6500
		⋮	⋮
		1500	3650

Tab. 54

Accessories



Available options (depending on telescope version)

> Locking

Locking mechanisms make it possible to lock the Hegra rails in the end position. This prevents inadvertent extension or retraction of the rail in any case. Locking mechanisms can be implemented as locking bolts or bars. This ensures personal safety and protection of materials, especially in moving installations, as in vehicles.



Fig. 62



Fig. 63

> Driving disc

In the full extension rails with dual stroke the intermediate element does not follow a particular order. The exact position of the element is therefore defined only in fully extended condition. The optional driving disc defines the movement of the intermediate element. This prevents unwanted protrusion of the element. An example for use of the driving disc is in warehouse rails, which are extended in both directions.



Fig. 64



Fig. 65

> Damping

Hegra telescoping rails can be equipped with damped end stops. Plastic or elastomer damping elements provide for quieter operation, a softer end stop when pushing in the rail and higher resistance at the end of the stroke.

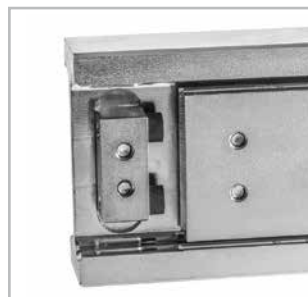


Fig. 66



Fig. 67

Technical information



> Selecting a suitable telescoping rail

To find a telescoping rail that meets your requirements, the following factors must be considered.

- Desired load capacity
- Available sizes (height, width and rail length)
- Required extension type (partial, full extension, etc.)
- Length of travel
- Desired material and surface

> Length tolerances

Installation

length (mm)	$\geq 150 < 420$	$\geq 420 < 1050$	$\geq 1050 < 2840$
Tolerance (mm)	$\pm 0,5$	$\pm 0,8$	$\pm 1,2$

During installation, compensation tolerances of $\pm 0.2 - \pm 0.3$ mm must be allowed for.

For all other dimensions, the tolerances according to DIN ISO 2768-1 (m) apply.

> Life cycle

The life cycle describes the time span from installation to failure of the telescoping rail, due to wear.

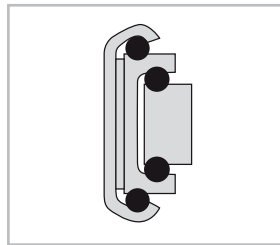
The life cycle is affected by the following factors.

- Load
- Assembly precision
- Parallelism when installed in pairs
- Rigidity of the connection construction
- Jolts and vibrations
- Operating temperature
- Lubrication (in accordance with maintenance intervals)

> Load capacity

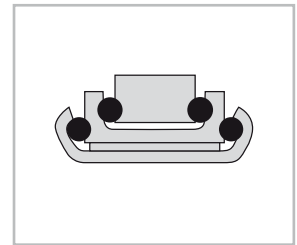
The specified maximum load capacity always refers to one pair of vertically installed telescoping rails. To achieve this capacity, the following requirements must be fulfilled.

- An absolutely rigid connection construction
- Even distribution of the load over the entire length of the moving rail element
- Mounting of the telescoping rails on a flat and rigid surface using all provided mounting holes
- Please be sure to use the correct screw length to prevent damage to the ball cage: shank length of screw $<$ thickness of the moving element
- Vertical installation of telescoping rails



Vertical installation

Fig. 68



Level installation

Fig. 69

If optimal implementation of all of these requirements is not possible, we will be glad to assist you in calculating the actual load capacity.

In case of a level installation of the telescoping rails, only 50 % of the permissible load values is possible, depending on the type.

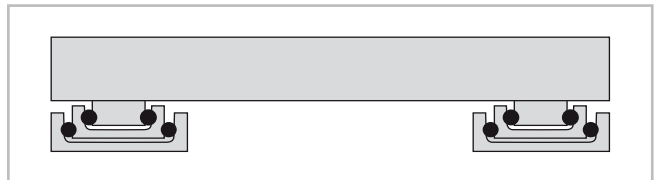


Fig. 70

> Deflection

If the rails are installed in pairs and the requirements under “Load capacity” are taken into account, the maximum deflection of steel rails under full load is 1 % of the extended length (stroke). Example: 500 mm length of travel -> max. 5 mm deflection under full load.

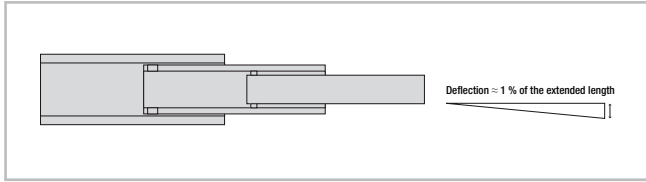


Fig. 71

> Operating temperature

The telescoping rails can be used at ambient temperatures from 0 °C to +100 °C (32 °F to +212 °F). At lower temperatures down to -30 °C (-22 °F) or higher temperatures up to +250 °C (+482 °F), please contact our application engineers. These ranges always require the use of a special lubricant.

> Corrosion protection

As standard features, all series are zinc electroplated, thick-film passivated and Reach/RoHS compliant. For higher corrosion protection we offer zinc nickel plating with stainless steel balls. Overview of available coatings:

Coating type thickness 12-15µm	Salt-spray test DIN EN ISO 9227	Reach/ RoHS	max tempera- ture
Thick-film passivated	ca. 400 hours	yes	110 °C
Zinc nickel	more than 700 h	yes	130 °C

Tab. 55

If the specified temperatures are exceeded, this will not destroy the surface, although it will have a significant effect on the corrosion protection.

> Ball cage displacement

The stroke movement of a telescoping rail is achieved by the ball cages, among other elements. You should ensure that the telescoping rail is always fully extended and retracted, since otherwise the ball cages can become displaced. Ball cage displacement occurs as a result of slippage and means that you can achieve the required extension length and the desired closed condition of the telescoping rail only with increased application of force.

Automated systems must have sufficient reserve driving force or an additional maximum stroke must be planned for in order to prevent displacement.

On request we also implement custom design solutions. Feel free to contact us.

> Motive force

The motive force is subject to production-related tolerances and is also defined by the load and the deflection of a telescoping rail. Taking into account the load and deflection of a telescoping rail, the closing force is higher than the opening force, since deflection occurs under load and closing takes place by pushing against a slanted plane.

> Lubrication

Alternative lubricants, for example for the food industry, or alternate temperature ranges are available on request. Our aluminium or stainless steel telescoping rails are generally delivered without grease.

> Maintenance intervals

A visual inspection should be conducted occasionally; foreign particles should be removed and “dry” guide rails should be lightly lubricated with roller bearing grease. This prevents friction, protects the components and prolongs the life of the system. The lubrication intervals are variable and should be determined based on the respective operating conditions such as load, ambient conditions, travel speed, temperature, pollution, etc.

> Mounting instructions

- Please use all mounting holes, in addition to screws of the correct length.
- A stable base is necessary for mounting the telescoping rails.
- In the connection construction, be aware that we have switched to counterbores according to DIN 74 Form F and due to the material thickness of our profiles, the head of the countersunk screw protrudes somewhat from the profile, so that the mating piece must have a corresponding counterbore.

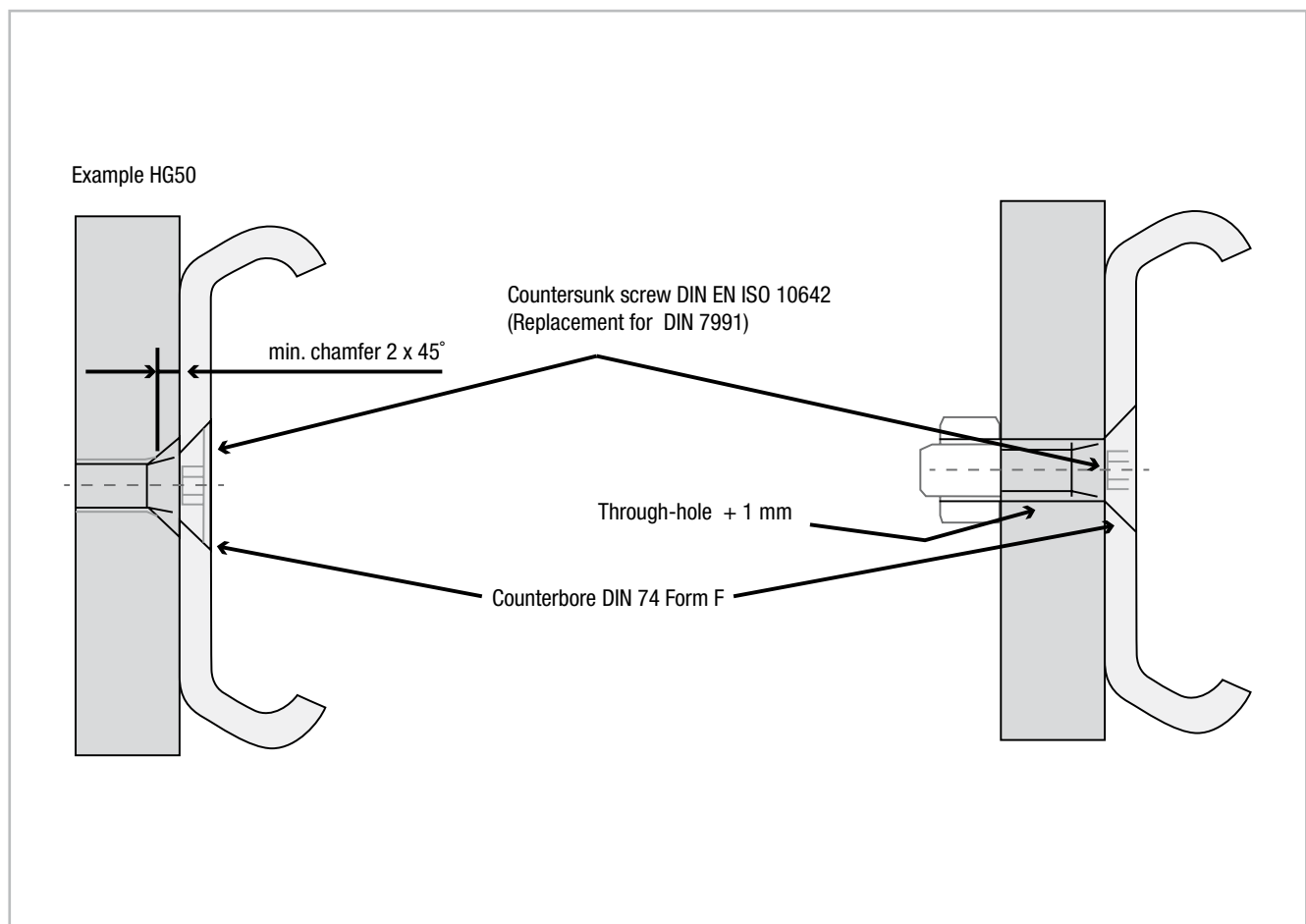
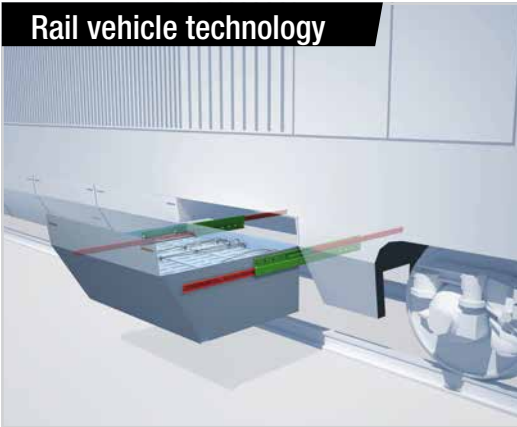


Fig. 72

Potential areas of use



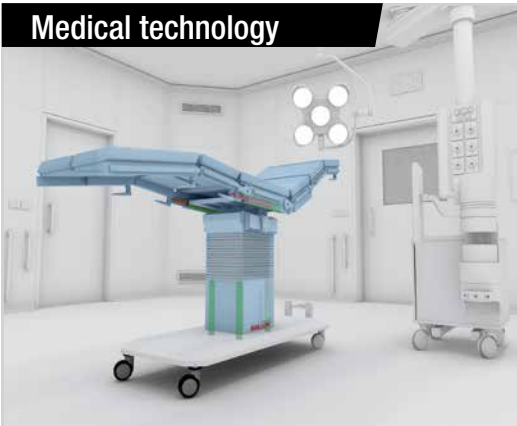
Rail vehicle technology



Aviation



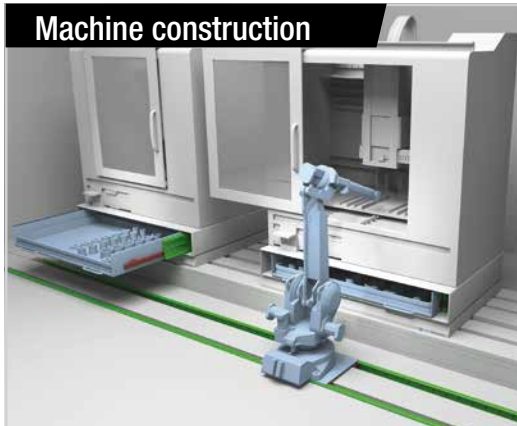
Medical technology



Warehouse logistics



Machine construction



Motor vehicle technology



Ordering key



> Heavy load extension guides

HGTX080	0500	0600	EG	VO	DG	B	Z	R	
									right or left
									alternate coating
									stroke in both directions
									damping
									locking
									snap
									alternate stroke
									closed length
									type with material and size

Ordering example: HGTX080-0500-0600-EG-VO-DG-B-Z-R

Code							
Type	Material	Size	Accessory	Length	Coating	Layout	Configuration
XXX	X	XXX	XX	XXXX	X	X	XXX

Type	
HTC	partial extension c-profile
HTT	partial extension machined/drawn profile
HVB	full extension outer c-profiles
HVD	full extension double c-profile
HVC	full extension single c-profile
HVT	full extension machined/drawn profile
HGT	heavy duty slide
H1D	over extension 150 % double c-profile
H1C	over extension 150 % single c-profile
H1T	over extension 150 % machined/drawn profile
H2D	over extension 200 % double c-profile
H2C	over extension 200 % single c-profile
H2T	over extension 200 % machined/drawn profile
HGS	s-profile

Material	
	steel
A	aluminum
X2	stainless steel V2A
X4	stainless steel V4A

Accessory	
	no accessory
EO	snap on opened position
EG	snap on closed position
EB	snap on closed an opened position
VO	locking opened position
VG	locking closed position
VB	locking on closed an opened position
DG	damping closed position
B	stroke on closed an opened position
BM	stroke on closed an opened position with synchronization

Coating	
	thick-film passivation
Z	zinc nickel
N	nickel
E	anodizing colorless

Layout	
L	left
R	right

Special/Configuration	
S01	special (according to drawing)
C01	configuration (special stroke, stainless steel balls, special grease...)



ROLLON S.p.A. - ITALY



Via Trieste 26
I-20871 Vimercate (MB)
Phone: (+39) 039 62 59 1
www.rollon.it - infocom@rollon.it

● Rollon subsidiaries & agencies
● Sales partner

Subsidiaries:

ROLLON GmbH - GERMANY



Bonner Strasse 317-319
D-40589 Düsseldorf
Phone: (+49) 211 95 747 0
www.rollon.de - info@rollon.de

ROLLON B.V. - NETHERLANDS



Ringbaan Zuid 8
6905 DB Zevenaar
Phone: (+31) 316 581 999
www.rollon.nl - info@rollon.nl

Rep. Offices:

ROLLON S.p.A. - RUSSIA



117105, Moscow, Varshavskoye
shosse 17, building 1, office 207.
Phone: +7 (495) 508-10-70
www.rollon.ru - info@rollon.ru

ROLLON S.A.R.L. - FRANCE



Les Jardins d'Eole, 2 allée des Séquoias
F-69760 Limonest
Phone: (+33) (0) 4 74 71 93 30
www.rollon.fr - infocom@rollon.fr

ROLLON Corporation - USA



101 Bilby Road. Suite B
Hackettstown, NJ 07840
Phone: (+1) 973 300 5492
www.rolloncorp.com - info@rolloncorp.com

ROLLON Ltd. UK



The Works 6 West Street Olney
Buckinghamshire, United Kingdom, MK46 5 HR
Phone: +44 (0) 1234964024
www.rollon.uk.com - info@rollon.uk.com

ROLLON Ltd - CHINA



2/F Central Plaza, No. 227 North Huang Pi
Road, China, Shanghai, 200003
Phone: (+86) 021 2316 5336
www.rollon.cn.com - info@rollon.cn.com

ROLLON India Pvt. Ltd. - INDIA



1st floor, Regus Gem Business Centre, 26/1
Hosur Road, Bommanahalli, Bangalore 560068
Phone: (+91) 80 67027066
www.rollonindia.in - info@rollonindia.in

ROLLON - SOUTH AMERICA



R. Joaquim Floriano, 397. 2o. andar
Itaim Bibi - 04534-011. São Paulo, BRASIL
Phone: +55 (11) 3198 3645
www.rollonbrasil.com.br - info@rollonbrasil.com

Please also be aware of our other product series



Contact:

The addresses of our worldwide sales partners are listed on our website: www.rollon.com