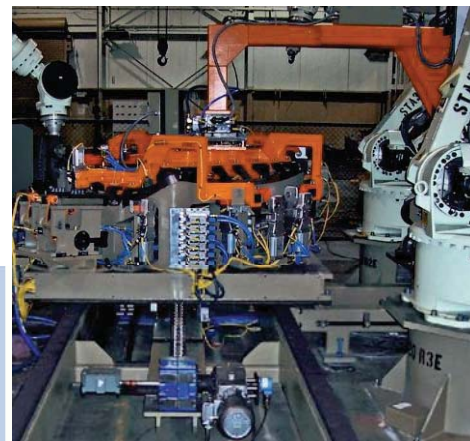
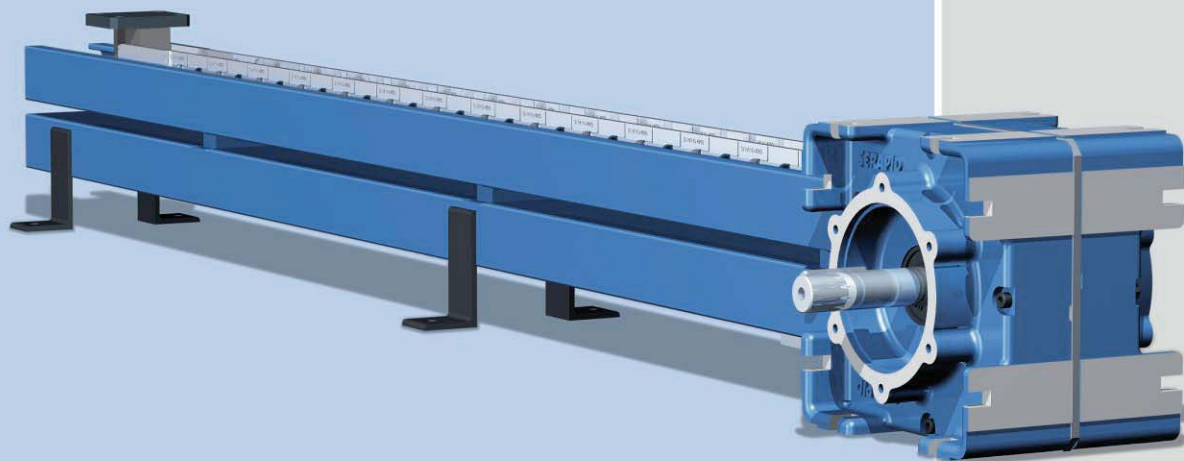


# LinearBeam

## LinearBeam

the rigid-chain actuator  
with in-line return storage

- ▶ totally mechanical
- ▶ long stroke: 1m, 5m, 10m ...
- ▶ high loads: up to 160 kN and more
- ▶ options for high-cycle operation and harsh environments



**SERAPID**  
PUSHING AHEAD

# Easy with heavy loads

Our LinearBeam series offers a wide range of actuators for the transfer and handling of heavy loads. Its most prominent feature is SERAPID's widely used and proven rigid-chain technology.

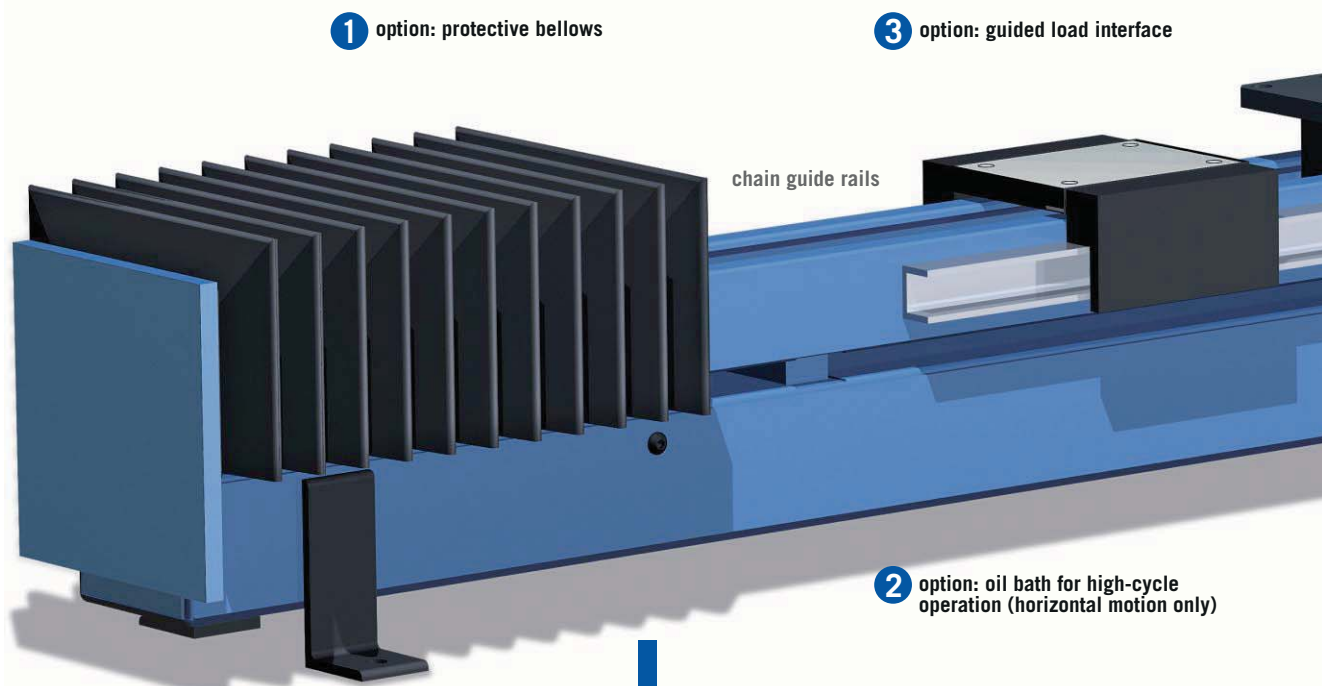
The rigid chain consists of links that interlock with each other under forward thrust and push the load like a solid bar. In the opposite direction, when retracting, the chain remains flexible. In the LinearBeam, it is redirected by 180°, so the returning portion is stored in parallel to the transfer path. This double utilization of the footprint space makes the LinearBeam easy to install even in confined and difficult environments.

The LinearBeam is completely mechanical, with high reliability, a long lifetime and with an energy efficiency of 80 to 90 percent making it a sustainable investment, ecologically as well as economically.

A comprehensive choice of options allows you to adapt the LinearBeam to your individual requirements. Special versions allow for operation in harsh environments or under heavy-duty, high-cycle conditions.

## Application examples

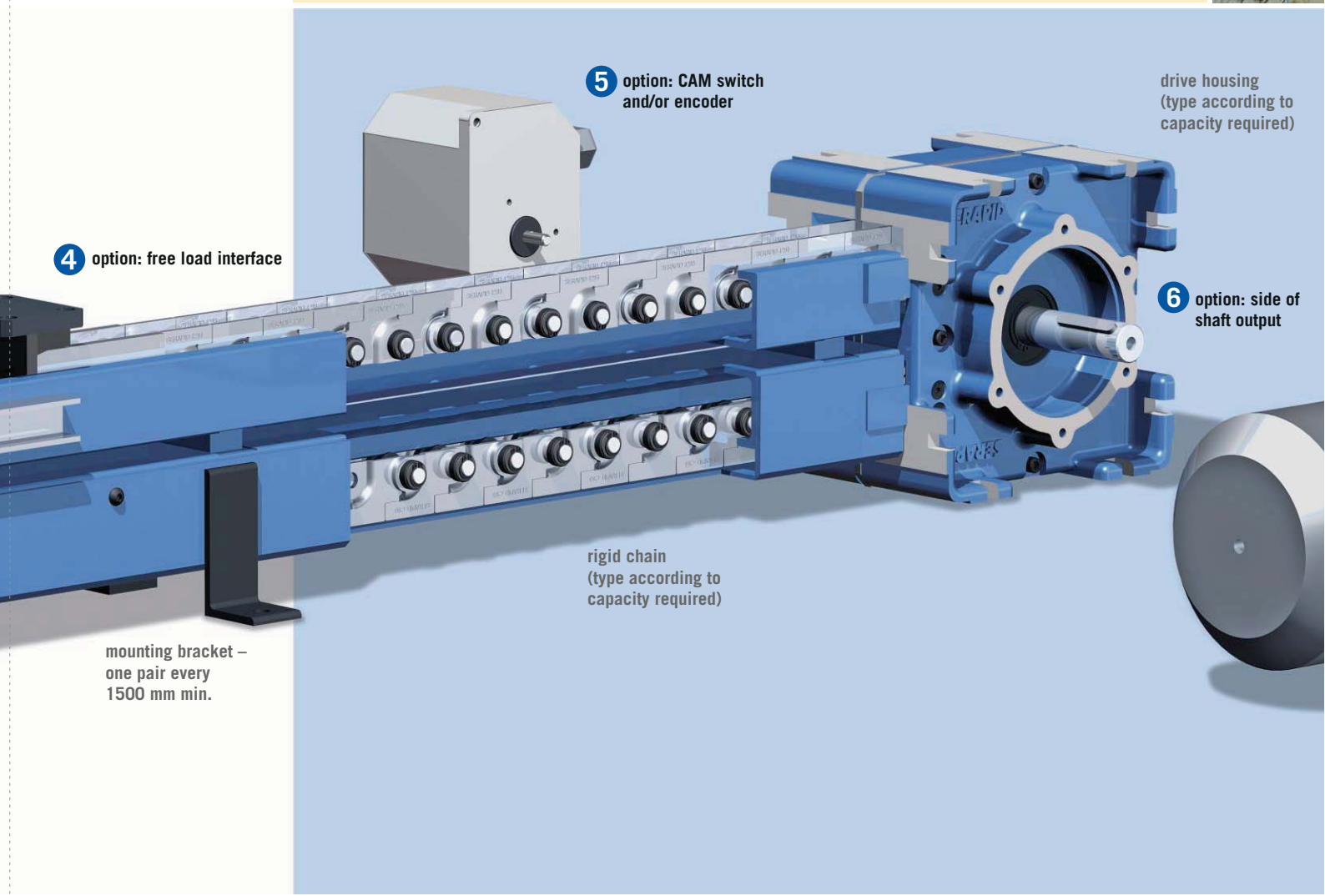
- ▶ 30 metres linear actuator system for handling nuclear waste
- ▶ motion system for a 200 tonne organ on a stage
- ▶ quick die change up to 160 kN (with single actuator), rolling-bolster systems for metal-forming presses
- ▶ opening and closing of variable roofs and canopies, e.g. in the roof of the Lisbon Arena over a distance of 16 m
- ▶ further applications in kinetic architecture
- ▶ material feeding in manufacturing
- ▶ steel mills
- ▶ furnace loading
- ▶ handling and positioning equipment on oil rigs
- ▶ load transfer within high-temperature zones
- ▶ and many more ...





## Features and benefits

- ▶ horizontal, vertical and inclined transfer
- ▶ rigid-chain technology, totally mechanical operation
- ▶ positive, accurate and repetitive positioning in the millimetre range
- ▶ simple and robust construction, suitable for special environments, such as clean rooms, high-temperature manufacturing, or radiation zones
- ▶ space saving, easy to integrate in machine structures
- ▶ high reliability, long lifetime, low maintenance
- ▶ wide range of options and accessories
- ▶ high-cycle operation using oil bath (option)
- ▶ standard speed up to 300 mm/s, higher speed on demand (up to 1 m/s)
- ▶ powered electrically, hydraulically or pneumatically
- ▶ special options: chain made of stainless steel, specific protective coatings, thermal resistance, etc
- ▶ multiple units, easy to configure
- ▶ associated services: project engineering, layout assistance, design studies, development, installation, etc.
- ▶ certified according to ATEX, Cat. II 2GD c T4



**4** option: free load interface

**5** option: CAM switch and/or encoder

drive housing  
(type according to  
capacity required)

**6** option: side of  
shaft output

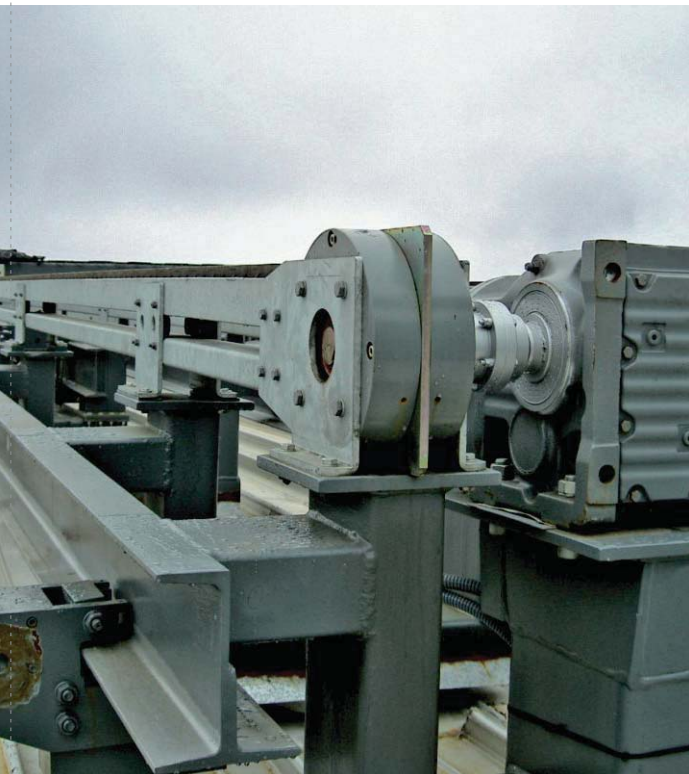
rigid chain  
(type according to  
capacity required)

mounting bracket –  
one pair every  
1500 mm min.



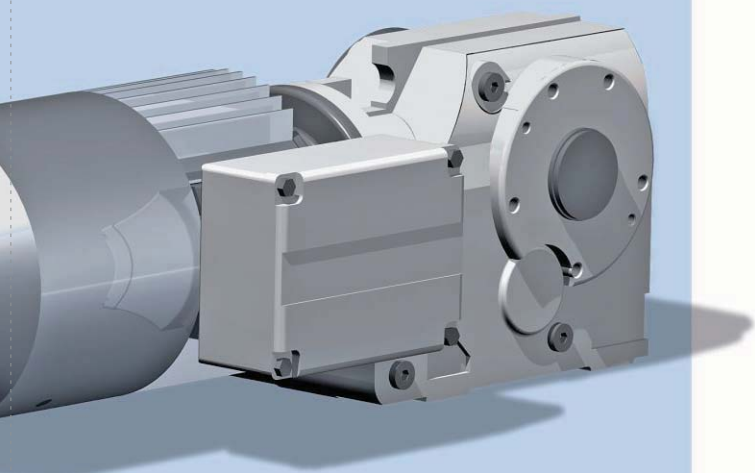
# LinearBeam

the rigid-chain actuator  
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option	designation	application and function	conditions and possibili-
1	protective bellows	keeps debris out of guides	includes end caps and mounting brackets; standard with oil bath (option 2)
2	oil bath	permanent lubrication	A sealed oil reservoir encloses the lower guide, allowing high operating cycles. (Only for horizontal application.)
3	guided load interface	Load is attached to a guided carriage.	absorbs moments and side loads (The load itself is not guided.)
4	free load interface	standard load attachment above guide	prevents transmission of moments onto chain
5	CAM switch and/or encoder	position detection and control of acceleration and deceleration	The standard CAM switch has 4 positions; additional switches can be installed on request. The encoder can be absolute or incremental.
6	side of drive shaft output	side where motor is mounted	shaft output can be to A (left), B (right) side, or both sides
7	gear motor or gear reducer	source of power driving the chain; custom-sized per application	mounted on shaft output; electric, pneumatic or hydraulic; voltage regulation or other utility as required

**7** option: gear motor / gear reducer

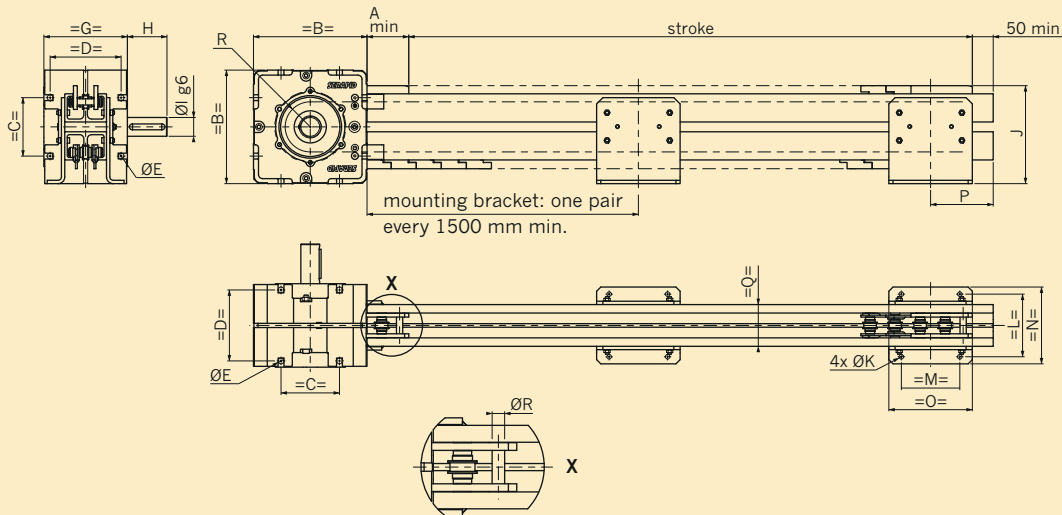


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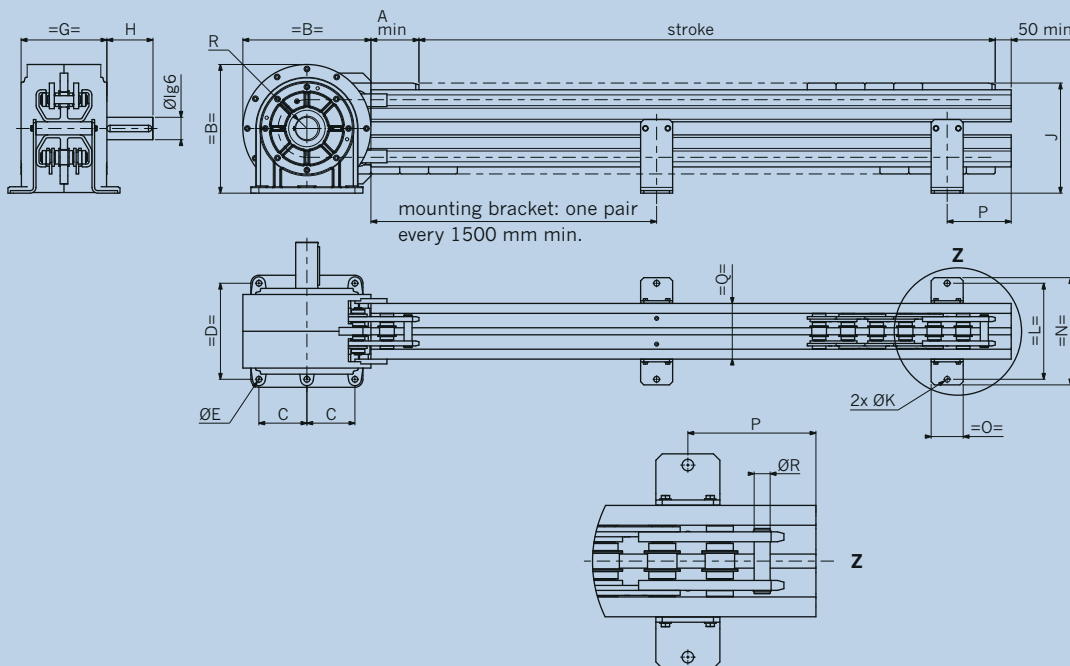
**the rigid-chain actuator  
with in-line return storage**

## Dimensions of each LinearBeam model

## LinearBeam 40 / 60

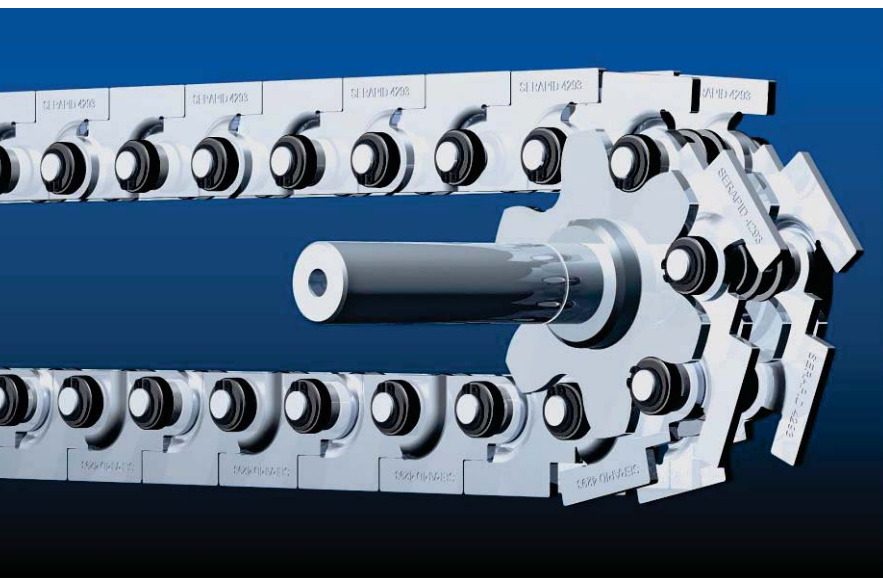


## LinearBeam 90

[illegible]

# LinearBeam

	information	remarks
model	LB ...	load:     kg ; pushing / pulling force:     N
stroke	m	
horizontal speed	mm/s	speeds > 200 mm/s require a frequency converter
vertical speed	mm/s	speeds > 50 mm/s require a frequency converter
cadence		cycles per day:                      days per year:
option 1: over hook	<input type="checkbox"/> yes	
option 2: C-hook	<input type="checkbox"/> yes	
option 3: E-guide	<input type="checkbox"/> yes	
option 4: T-rail guide	<input type="checkbox"/> yes	
option 5: CAM switch / encoder	<input type="checkbox"/> A or <input type="checkbox"/> B	number of positions: <input type="checkbox"/> absolute or <input type="checkbox"/> incremental
option 6: shaft output side	<input type="checkbox"/> A or <input type="checkbox"/> B	type of gear motor / reducer:
option 7*: gear motor / reducer	<input type="checkbox"/> yes	brand:



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**TORION**  
泰瑞恩

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