

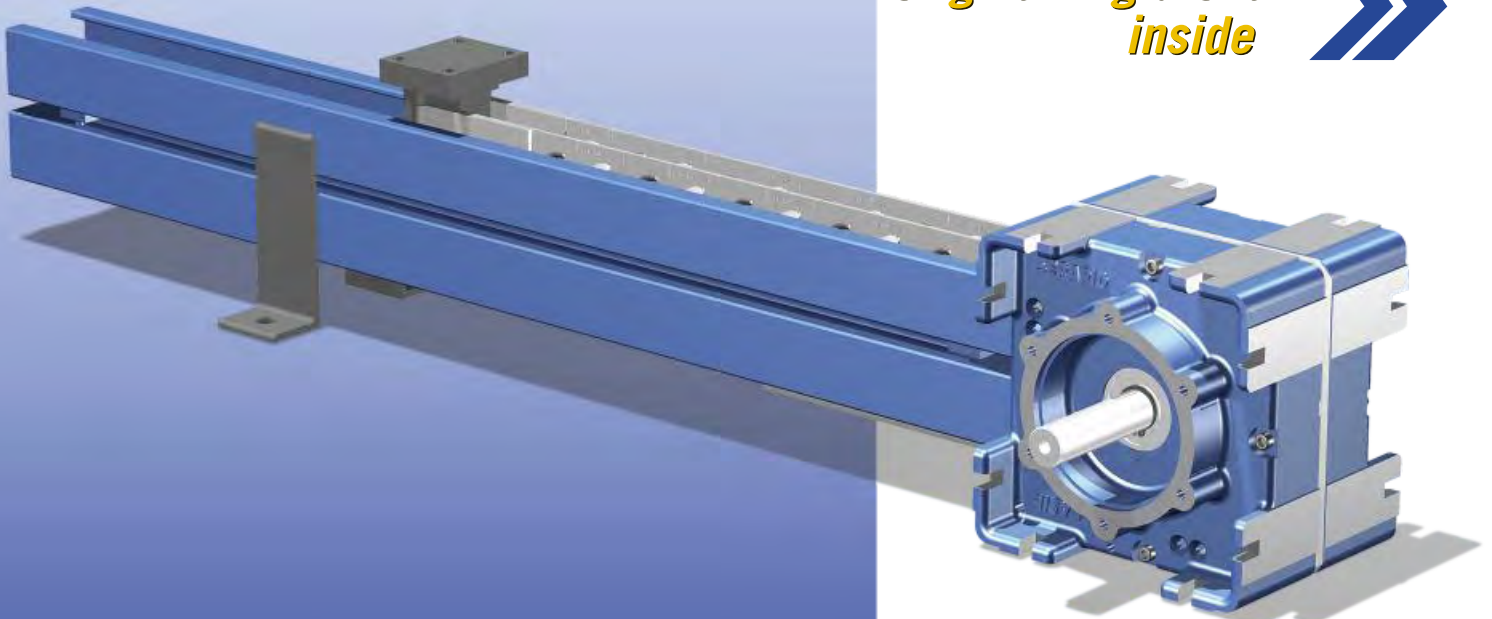


LinearBeam

The linear actuator solution for
any load, any distance,
any environment



*Original Rigid Chain
inside*



Key benefits

- stroke: 1 m to unlimited
- capacity: 1 kN to 160+ kN
- harsh-environment models

SERAPID
PUSHING AHEAD



LinearBeam

The linear actuator solution for any load, any distance, any environment

The SERAPID **LinearBeam** is a rodless linear actuator with a thrust capacity of up to 160 kN (35,000 lbs) and a stroke of virtually any length. It runs fast and smooth, using the robust and reliable Rigid Chain. Working purely mechanically, this actuator is as well suited for the clean-room as for the harsh factory floor, or any other environment. A full range of options allows adaptation to your individual conditions. Heavy duty models are guaranteed over 1 million cycles of full-load, permanent operation.

guides **load bracket** **mounting bracket**

use when load is guided

one pair every 1500 mm ±

options

- 1 option PB:** protective bellows for harsh environments
- 2 option OB:** oil bath for high cycles (horizontal motion only)
- 3 option GC:** guided load carriage (use when load is not guided)

recent application examples

- 100 ft (30 meters) linear actuator system for handling nuclear waste
- linear movement of a 200 ton organ on a stage
- steel mills
- furnace loading
- off-shore
- high temperature units
- and many more ...

other features and benefits

- positive, accurate and repetitive positioning
- used for vertical as well as horizontal transfer
- can be part of machine structure
- standard seamless units up to 5 meters of stroke
- transfer speed: up to 2 meter/s
- mechanical system built for heavy-duty industrial applications
- zero maintenance models available (oil bath)
- long list of options and design variations
- electric, pneumatic or hydraulic power source
- uses the SERAPID rigid chain, renowned for its reliability and toughness

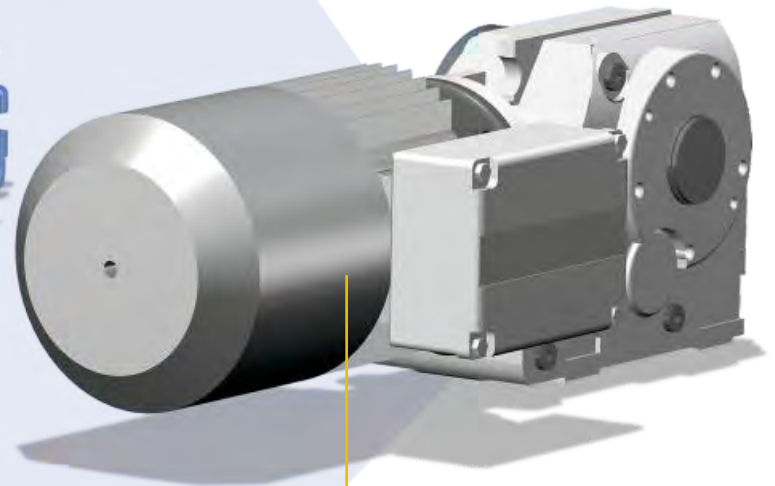
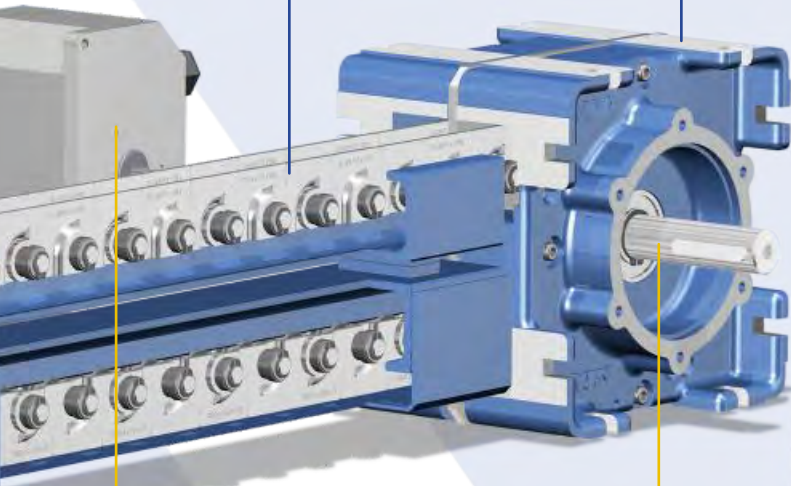
Original Rigid Chain inside



basics

rigid chain
type and performance
depending on
LinearBeam model

drive housing



4 option CS / EN / CSEN: positioning by a CAM limit switch, encoder or both

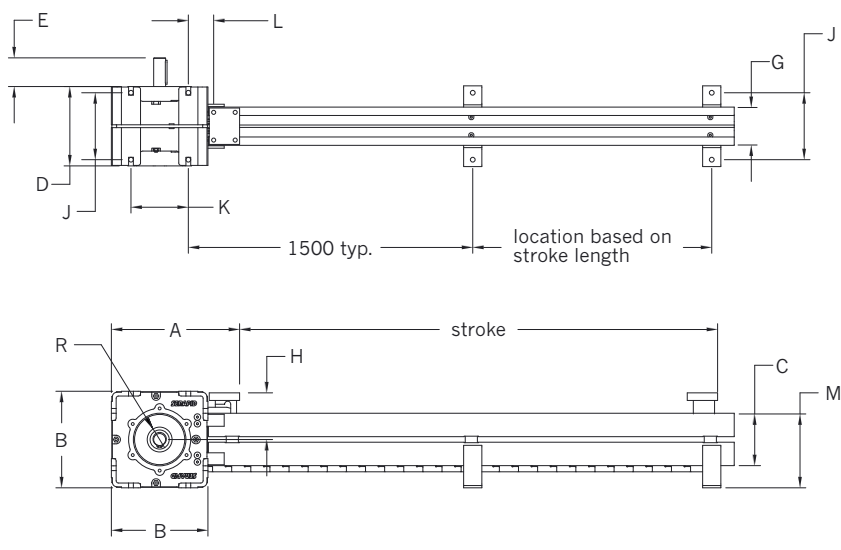
5 option SL / SR / SLR: drive shaft left or right hand or both

6 option GM: gear motor, specified as needed for application

options

- 1 Protective bellows, order code PB:** Used when there is risk of debris or contaminants falling into the chain guides. Includes end cap and mounting brackets. Standard when the oil bath option is used.
- 2 Oil bath, order code OB:** Used when a maintenance free unit is desired. A sealed oil reservoir runs along the whole actuator. This provides permanent lubrication, especially desirable for high cycle units.
- 3 Guided carriage, order code GC:** Used with unguided loads and in case of moments and/or side loads. Guided on linear bearings lubricated for life.

- 4 Positioning, order code CS / EN / CSEN:** Either a CAM switch (CS) or an encoder (EN) or both (CSEN) can be provided for the positioning of the actuator.
- 5 Drive shaft output, order code SL / SR / SLR:** The drive shaft can be output to the left (SL) or right (SR) side, or both sides (SLR) of the drive housing (facing away from housing)
- 6 Gear motor, order code GM:** Prime mover is typically a 3 phase inverter duty electric motor. Other prime movers (hydraulic, pneumatic) also available. Gear motor custom sized as needed by application.



Original Rigid Chain inside

Please follow SERAPID instructions on how to calculate thrust. — All dimensions in mm. Dimensions approximate, request drawing file or download from website. — Stroke as required by application.

| LinearBeam Model | nominal thrust force F [kN] | R | A | B | C | D | E | G | H | J | K | L | M |
|------------------|-----------------------------|----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|
| LB 40 | 7.5 | 40 | 268 | 202 | 108 | 166 | 60 | 80 | 98 | 140 | 120 | 53 | 155 |
| LB S60 | 25 | 60 | 390 | 270 | 159 | 136 | 72 | 100 | 135 | 170 | 140 | 70 | 216 |
| LB D60 | 37 | 60 | 390 | 270 | 159 | 181 | 72 | 144 | 135 | 214.5 | 140 | 70 | 216 |
| LB J60 | 50 | 60 | 390 | 270 | 159 | 195 | 72 | 158 | 135 | 228.5 | 140 | 70 | 216 |
| LB S90 | 80 | 90 | 590 | 400 | 272 | 268 | 142 | 176 | 200 | 300 | 300 | 100 | 338 |
| LB D90 | 130 | 90 | 590 | 400 | 272 | 356 | 164 | 264 | 200 | 388 | 300 | 100 | 338 |
| LB J90 | 160 | 90 | 590 | 400 | 272 | 375 | 164 | 283 | 200 | 407 | 300 | 100 | 338 |
| Special | >160 | | | | | | | | | | | | |

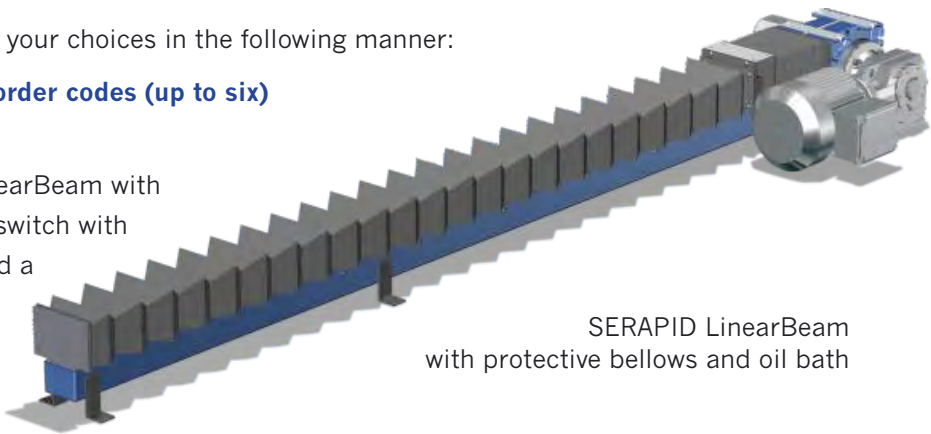
How to order

To order your specific LinearBeam, summarize your choices in the following manner:

Model designation - stroke (meters) - option order codes (up to six)

Example: LB S60-3.2-PB-CSEN-SL-GM

This example is for ordering a type LB S60 LinearBeam with 3.2 meters of stroke, protective bellows, CAM switch with encoder positioning, left-hand shaft output, and a gear motor.



SERAPID LinearBeam with protective bellows and oil bath

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