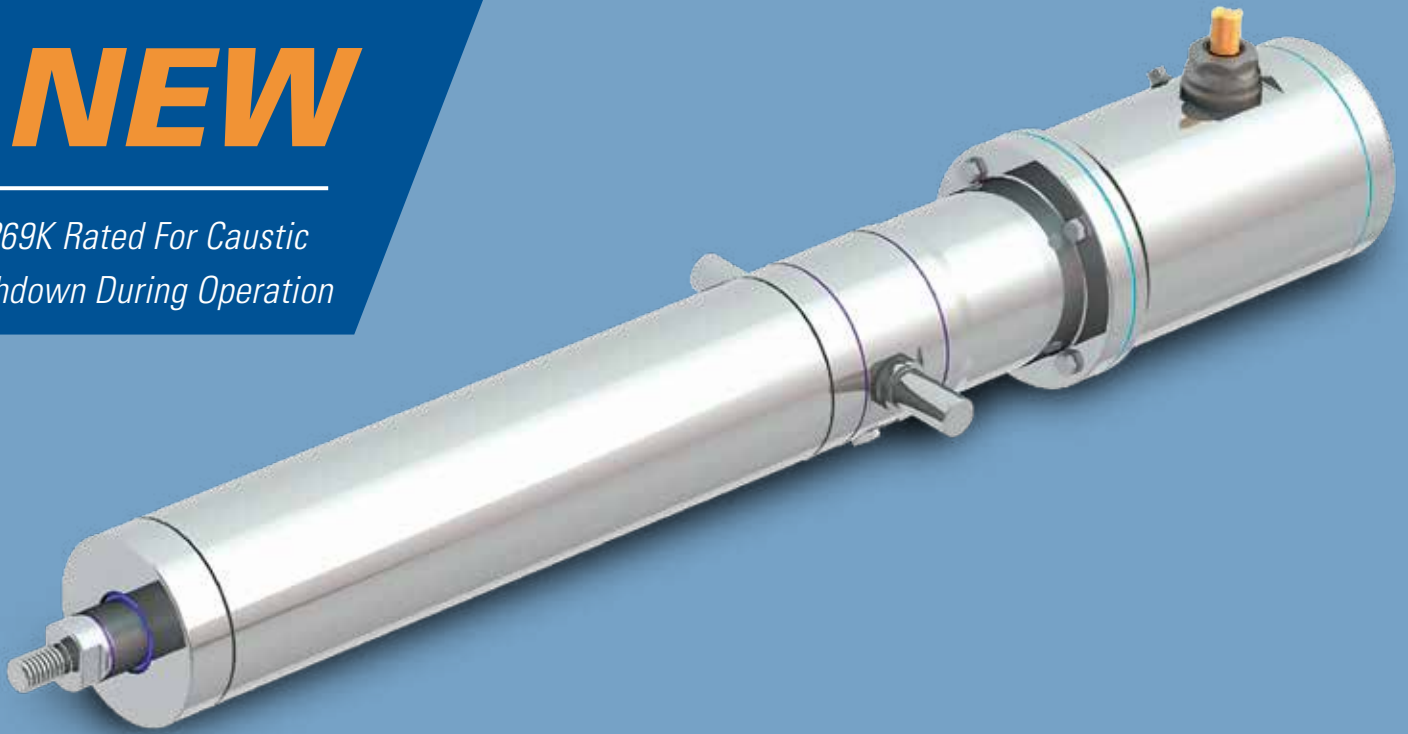


NEW

*IP69K Rated For Caustic
Washdown During Operation*



SA-20 Stainless Steel Linear Actuators

Hygienic Electromechanical Actuators for the Food and Beverage Industry

Thomson SA-20 Stainless Steel Food Grade Actuators

SA-20 stainless steel linear actuators conform to several hygienic design guidelines, including 3-A Dairy for the food and beverage industry, and are IP69K rated, enabling sanitary washdown during operation.

SA-20 actuators are suited for a wide variety of applications where reliability, durability, hygiene and corrosion resistance are critical.

- FDA-compliant exterior components
- Hardened, alloy steel ball screws
- Angular contact bearings minimize wear and extend operation life
- Clean in place (CIP) while actuator is operating
- 316 stainless housing for corrosion resistance
- Several mounting options
- Water and dust resistant (IP69K)
- Reduces the need for protective guards

Applications

Designed as an alternative to pneumatic cylinders in food and beverage applications, Thomson SA-20 actuators reduce total cost of washdown, including maintenance and air, and eliminate the need for replacement due to leakage. These advantages make them perfect for:

- Conveyors
- Cutting, slicing, filling and dumping
- Operating doors, hatches and lids
- Packaging
- Sorting
- Lifting, positioning, pushing and tilting



Technical Specifications

General Specifications

Parameter	SA-20
Screw type	ball
Nut type	ball nut
Motor configuration	inline
Anti-rotation	yes
End-of-stroke protection	no
External component material	316 S/S
Front adapters	threaded hole or threaded pin
Rear adapter	trunnion
Compliances	NSF/ANSI/3-A SSI 14159-1 – 2014 FDA 21 CFR, Parts 177 & 178

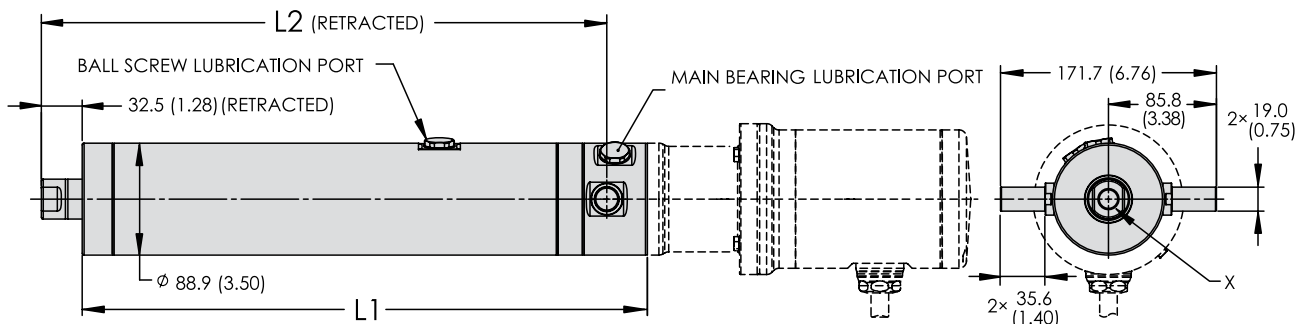
Life Expectancy - Example Case Calculation

Parameter	SA-20
Average / max. operating load [lbs]	230 / 450
Estimated travel life @ 230 lbs load [in]	1 208 689 488
Total number of 6 inch travel cycles [in]	201 488 248
Number of cycles/min	40
Expected life [hour]	83937
Expected life @ 16 h/day, 6 day/week [year]	16.8

Mechanical Specifications

Parameter	SA-20
Max. dynamic load (Fx) [N (lbf)]	5783 (1300)
screw lead 0.2 in	5783 (1300)
screw lead 0.5 in	5783 (1300)
screw lead 5 mm	5783 (1300)
screw lead 20 mm	5783 (1300)
Max. linear speed [mm/s (in/s)]	254 (10)
screw lead 0.2 in	635 (25)
screw lead 0.5 in	250 (9.84)
screw lead 5 mm	1000 (39.37)
screw lead 20 mm	
Max. input speed [rpm]	3000
Ordering stroke (S) lengths [mm]	150 - 750
Ordering stroke length increments [mm]	150
Operating temperature limits [°C (F)]	4 – 49 (40 – 120)
Full load duty cycle [%]	100
Protection class	IP69K
Food zone rating	contact

Dimensions



Shown with threaded hole front adapter.

Dimensions of dotted portions are dependent upon which motors and flanges are selected by the customer.

Dimensions [mm (in)]

L1	L2	X
329.2 (12.96) + ordering stroke	L1 + 0.3 (0.01)	5/8"-18 UNF-2B female thread or M16 x 2.0 – 6H metric female thread

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