

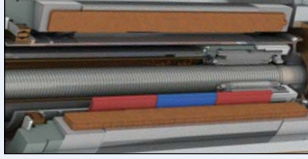
IMA-S STAINLESS STEEL INTEGRATED MOTOR ACTUATOR

IMA-S

The IMA-S is a hygienically designed integrated servo actuator for the food and beverage processing industry. The IMA-SA option incorporates an internal anti-rotate feature. Clean-in-place compatibility and the hygienic features of the IMA-S make it the perfect actuator for applications such as volumetric filling and pumping.

EFFICIENT INTEGRATED MOTOR DESIGN

- Skewed winding minimizes cogging torque for smooth, repeatable motion
- Low electric time constant motor for quick response
- Power dense



STAINLESS STEEL DESIGN

- 316 Stainless steel construction
- Superior corrosion resistance

GREASE PORT

- Integrated into rod end for hygienic design
- Screw re-lubrication system via needle zerk extends screw service life

WELDED JOINTS

- Welded, polished joints create the most hygienic seam

FLEXIBLE FEEDBACK & CABLE OPTIONS



- Single (DSL) and dual cable options

BLUE GASKETS & O-RINGS

- Chemically inert
- Wear resistant
- FDA approved

ADDITIONAL OPTIONS

- Brake
- Externally threaded rod end
- Front flange mount
- Rear clevis mount
- Hygienic fasteners
- FDA approved seal cartridge

MULTIPLE SCREW TECHNOLOGIES

- Ball screws provide efficient motion at an economical price
- Roller screws provide the highest force and longest life



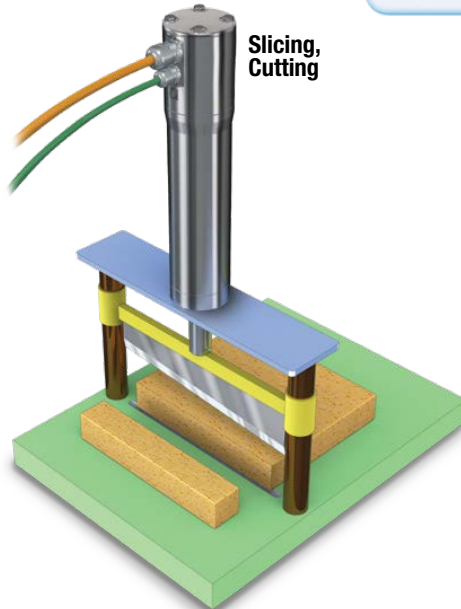
FIELD REPLACEABLE SEAL CARTRIDGE

- IP69K rated, wash-down protection
- Clean-in-place compatible
- FDA approved seal cartridge option

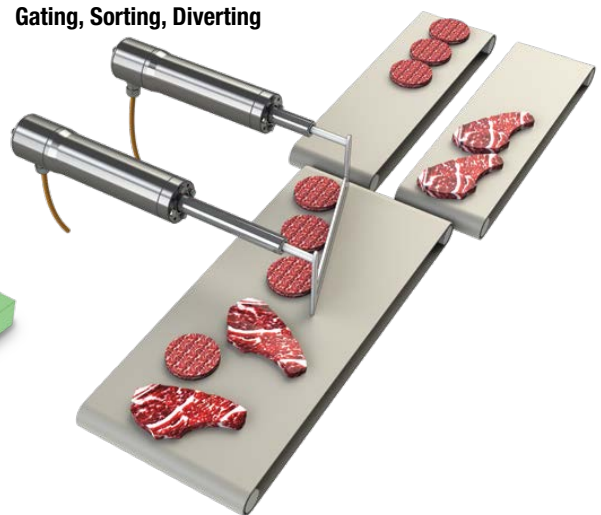
Volumetric Filling, Pumping & Dispensing



Slicing, Cutting



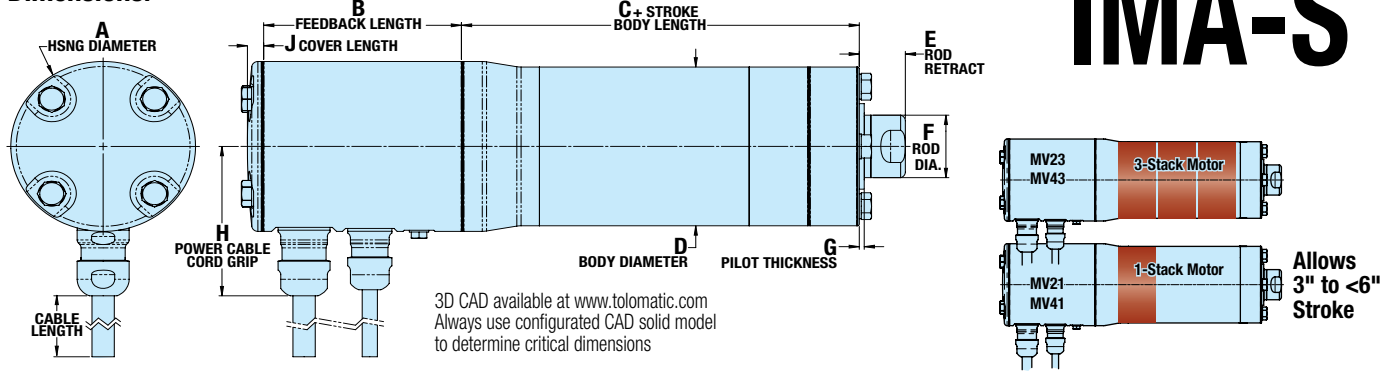
Gating, Sorting, Diverting



RODLESS SCREW-DRIVE ELECTRIC ACTUATOR

IMA-S

Dimensions:



| | ST22 | ST33 | SA33 |
|---------|-------|-------|-------|
| A | 3.00 | 3.75 | 3.75 |
| B min. | 3.45 | 3.15 | 3.15 |
| B max. | 5.62 | 5.51 | 5.51 |
| C1 min. | 4.87 | 6.25 | 15.02 |
| C2 max. | 4.97 | 6.35 | 15.12 |
| D | 2.52 | 3.50 | 3.50 |
| E2 min. | 0.62 | 0.83 | 0.83 |
| E1 max. | 0.72 | 0.93 | 0.93 |
| F | 0.999 | 1.378 | 1.378 |

Dimensions in inches

| | ST22 | ST33 | SA33 |
|-----|-------|-------|-------|
| G * | 0.100 | 0.100 | 0.100 |
| H † | 2.90 | 3.30 | 3.30 |
| J | 0.32 | 0.33 | 0.33 |

B varies depending on feedback device chosen
C1(min.) for standard actuator; C2(max.) for actuator with PCD option
E2(min.) for actuator with PCD option; E1(max.) for standard actuator

* Not compatible with PCD option

† Only 1 cord grip required with Sick Hiperface DSL (no "S", separate feedback cable); 22 size (74.9 mm [2.99"]); 33 size (85.4 mm [3.36"])

| | ST22 | ST33 | SA33 |
|--------|-------|-------|-------|
| A | 76.2 | 95.3 | 95.3 |
| B min. | 87.7 | 80.0 | 80.0 |
| B max. | 142.7 | 140.1 | 140.1 |

| | ST22 | ST33 | SA33 |
|---------|-------|-------|-------|
| C1 min. | 123.7 | 158.8 | 381.6 |
| C2 max. | 126.2 | 161.4 | 384.1 |
| D | 64.0 | 89.0 | 89.0 |
| E2 min. | 15.9 | 21.2 | 21.2 |
| E1 max. | 18.4 | 23.7 | 23.7 |
| F | 25.38 | 35.00 | 35.00 |
| G * | 2.54 | 2.54 | 2.54 |
| H † | 73.6 | 83.8 | 83.8 |
| J | 8.1 | 8.4 | 8.4 |

Dimensions in millimeters

Performance & Mechanical Specs:

| | | IMA-ST22 (1 STACK, MV21/41) | IMA-ST22 (3 STACK, MV23/43) | IMA-ST33 (1 STACK, MV21/41) | IMA-ST33 (3 STACK, MV23/43) | IMA-SA33 (3 STACK, MV23/43) |
|------------------|--------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| CONTINUOUS FORCE | kN | up to 0.45 | up to 1.15 | up to 1.30 | up to 3.77 | up to 3.77 |
| | lbf | up to 100 | up to 258 | up to 292 | up to 847 | up to 847 |
| PEAK FORCE | kN | up to 1.45 | up to 1.45 | up to 6.30 | up to 11.12 | up to 11.12 |
| | lbf | up to 325 | up to 325 | up to 1417 | up to 2500 | up to 2500 |
| MAX. VELOCITY | mm/sec | up to 497 | up to 497 | up to 497 | up to 497 | up to 497 |
| | in/sec | up to 19.6 | up to 19.6 | up to 19.6 | up to 19.6 | up to 19.6 |
| STROKE | mm | 76.2 to 304.8 | 152.4 to 304.8 | 76.2 to 457.2 | 152.4 to 457.2 | 0 to 304.8 |
| | in | 3.0 to 12.0 | 6.0 to 12.0 | 3.0 to 18.0 | 6.0 to 18.0 | 0 to 12.0 |
| TEMP RANGE | | -20° to +40° C; -4° to +104° F | | | | |
| IP RATING | | IP69K (Static) | | | | |

(Motor/screw selection determines performance. Not all models deliver maximum values listed, i.e.: Maximum thrust may not be available with maximum speed)

• ROBOT & DRIVE/CONTROLLER COMPATIBILITY •

Compatible feedback, connector(s) and wiring to match the following robot & drive/controller manufacturers:

- Allen Bradley
- Bosch Rexroth
- Kollmorgen
- Siemens
- Beckhoff
- Nidec
- Lenze
- And More

ACTUATOR SIZING

COMPLETE INFORMATION, SIZING SOFTWARE AND SOLID MODELS AVAILABLE AT:

www.tolomatic.com

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