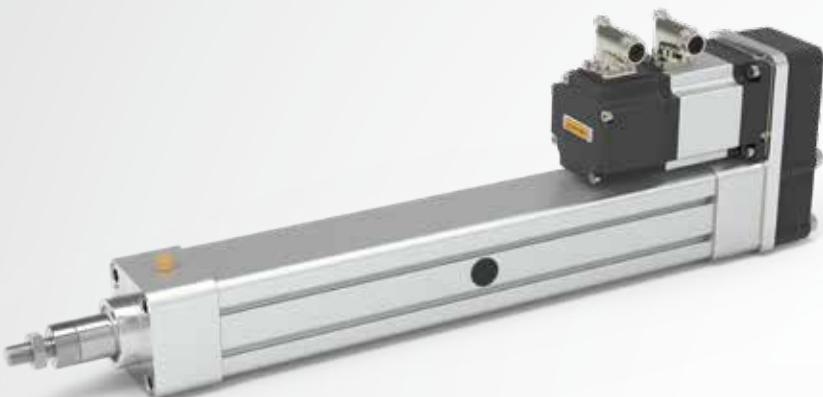




**Linear-Mech**®

# ELECTROMECHANICAL SERVOACTUATORS

*High Performance*



**SA PD Series**



**SA Series**



**SA IL Series**



GOOD REASONS  
TO GO ELETRIC

1. IMPROVE THE EFFICIENCY BY REDUCING ENERGY CONSUMPTION
2. BETTER CONTROL: POSITION - SPEED - FORCE
3. POSITIONING ACCURACY AND REPEATABILITY
4. GREAT SAFETY AND RELIABILITY
5. SAVE MONEY: EASIER INSTALLATION AND LESS MAINTENANCE

Linearmech electromechanical servo-actuators with brushless servomotors are a powerful alternative to the use of pneumatic cylinders in case of high dynamics (high speed, acceleration and deceleration, frequent back and forth inversion of the movement), precise positioning and high energy efficiency.

*The right alternative to pneumatic cylinders*

# Linearmech servo-actuators

## Modular construction system

### Features

Characterized by sturdy and compact structure, the Linearmech servo-actuators adopt fully innovative solutions, ranking in the high-end segment of automation components. All internal parts have been purposely studied and designed to operate under conditions of high dynamics: **high linear speeds, low inertia of components, extreme positioning precision and repeatability, reliability and long service life.**

Integrated ball screw drive, manufactured by Servomech. Wide range of fixing elements according to the ISO 15552 standard of pneumatic cylinders, for a total and simple interchangeability with the existing pneumatic cylinders.

Modular structure, in-line or parallel design configuration. Available with a **complete servomotor package** or the mechanical linear unit only with customized motor interface for **servomotors of the main brands on trade.**

#### 7 different standard sizes available

Ball screw from Ø 12 mm to Ø 40 mm

Load capacity up to 46 kN

Linear speed up to 1.500 mm/s

Electric limit switches

Incremental or absolute encoder

### Construction Technologies

#### HDE TECHNOLOGY

**Low inertia** to operate in highly dynamic conditions.

**High quality materials** for great strength and reduced weight.

Internal compensation of air flows to avoid waste of energy during functioning.

**Contactless seals** to avoid wear, overheating and efficiency losses due to friction.

#### S4M TECHNOLOGY

Precise and stiff transmission of motion without angular backlash.

Angular ball bearings or tapered roller bearings as standard option.

Thrust frontal guide to improve the support even in case of lateral loads.



#### ARMS TECHNOLOGY

Positioning accuracy and repeatability.

Components 100% made by Servomech: machining accuracy and **constant quality over time.**

Ball screw standard ISO IT7.

Available on request **ISO IT3 or IT5.**

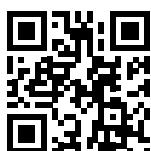
Zero axial clearance.

#### LIFE+ TECHNOLOGY

System **safety and reliability** over the time.  
Limit switches.

**Safety dumpers** to protect the mechanical parts in event of accidental shocks.

Integrated re-lubrication system of the ball nut specifically designed for Linearmech electromechanical servo-actuators.



[www.linearmech.com](http://www.linearmech.com)

## New

### SA PD Series

#### Paralell Design linear servo-actuators

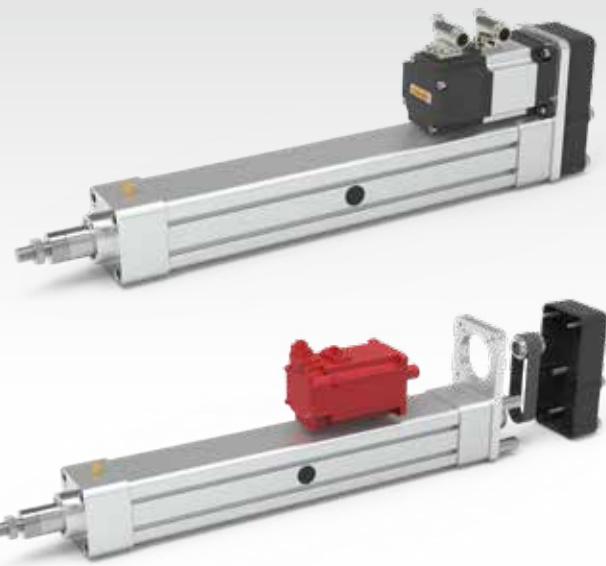
##### Execution with motor

Transmission of motion driven by high performance, efficiency and accuracy timing belt. Direct fitting of the pulley on the motor shaft with conical clamping joint.

Greater compact dimensions, **no angular backlash** and reduced inertia of the moving masses.

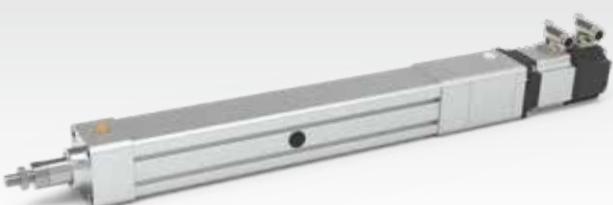
Motors available: brushless servomotors with encoder

Optional: brake on motor



##### Execution with customized motor interface

Mechanical linear unit only prepared to be interfaced with the **servomotors of the main brands on trade** (motor adapter and coupling included in the supplying).



### SA IL Series

#### In-Line Design linear servo-actuators

##### Execution with motor

Motor assembly on the mechanical linear unit with bell housing and torsionally rigid clamping coupling for a **better control and precision** in movement.



##### Execution with customized motor interface

Mechanical linear unit only prepared to be interfaced with the **servomotors of the main brands on trade** (motor adapter and coupling included in the supplying).

### SA Series

#### Mechanical linear unit

Mechanical linear unit with **cylindrical input shaft**, supplied without motor and without motor interface. Available on request different input shafts executions, customized dimensions, with or without key.



# Main features

High performance electromechanical servoactuators from **Linearmech** consist of 3 main series: **SA PD Series**, **SA IL Series**, **SA Series**.

**Modular structure, in-line or parallel design configuration.**

Available with a **complete servomotor package** or the mechanical linear unit only can be easily interfaced with the **servomotors of the main brands on trade**.

Wide range of fixing elements according to the ISO 15552 standard of pneumatic cylinders, for a total and simple interchangeability with the existing pneumatic cylinders.

**7 different standard sizes available**

Linear speed up to **1.500 mm/s**

Load capacity up to **46 kN**



Servoactuators Series and Sizes	SA 0 SA 0 IL SA 0 PD	SA 1 SA 1 IL SA 1 PD	SA 2 SA 2 IL SA 2 PD	SA 3 SA 3 IL SA 3 PD	SA 4 SA 4 IL SA 4 PD	SA 5 SA 5 IL SA 5 PD	SA 6 SA 6 IL SA 6 PD	
Cover profile (ISO 15552)	[mm]	□ 45	□ 52	□ 65	□ 75	□ 95	□ 115	□ 140
Push rod diameter	[mm]	Ø 20	Ø 22	Ø 25	Ø 30	Ø 35	Ø 50	Ø 60
Ball screw (diameter x lead)	[mm]	12 × $P_h$	14 × $P_h$	16 × $P_h$	20 × $P_h$	25 × $P_h$	32 × $P_h$	40 × $P_h$

## Quality, Technology and Innovation. Our commitment.



Servomech produce **a wide range of electromechanical linear actuators and screw jacks**, ball screw and nuts, electromechanical servo actuators, completely manufactured inside the Servomech factory in Bologna - ITALY.

**High technology and accuracy in manufacturing**, inspections and controls during the entire production process for a constant quality over the time.

Technical support in product selection; on request, **custom-based product** execution to meet your specific application requirements.

**Ball screw and nuts** made by Servomech.

Available on request:

- Ball screws with ISO IT3 or IT5 accuracy grade, according to application requirements
- Ball nuts zero backlash or preloaded

For more information, please contact our sales/technical support at [sales@servomech.com](mailto:sales@servomech.com) or visit our web site [www.servomech.com](http://www.servomech.com)



**Servomech S.p.a.**

Via M. Calari, 1  
40011 Anzola dell'Emilia (Bologna) - ITALY  
Tel. +39.051.6501711 – Fax +39.051.734574

Linear actuators  
Screw Jacks  
[www.servomech.com](http://www.servomech.com)

 **Servomech**  
new ideas in linear motion