

ROLLON, the power of experience

A proposal can be extremely simple in terms of ideas and extremely effective when it comes to results. A good example of this is the SMART SYSTEM range of actuators designed by Rollon Group, an Italian manufacturer of linear units now active on the Indian market with its branch Rollon India Pvt. Ltd. in Bangalore. The linear units in the SMART SYSTEM series

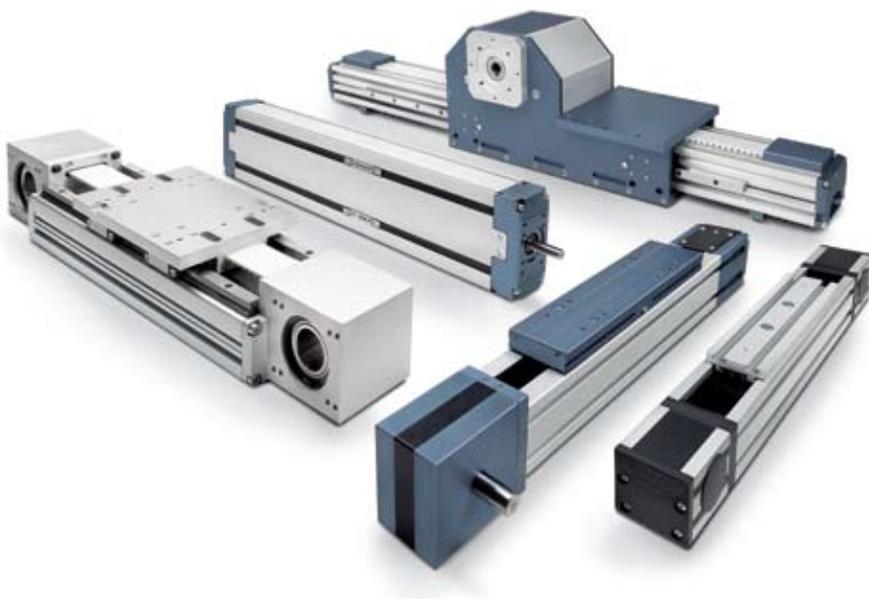
are versatile and capable of ensuring high performance and quality. Their structure is simple and functional, making them suitable for a wide variety of motion requirements. And with their great quality-price profile, users can feel confident that they are making great savings.

In addition to this, they are able to reap the numerous benefits of a pre-assembled industrial solution, rather than investing money, effort and internal resources to design and build these components themselves. Above all else, this ensures product reliability and quality, with internal laboratory tests on actuator components also providing an accurate forecast of their lifecycle.

Furthermore, Rollon offers specific know-how that is the result of its long-standing experience in the sector. The R&D team assesses all motion requirements and then applies the best solutions,

even in the most challenging cases, when standard solutions are impossible to apply and customised systems need to be studied. Rollon directly handles every stage of the processing of linear unit components (grinding, perforation, etc.).

This ensures the company retains an all-round vision of the production process and is a further assurance of quality. Lastly, when using Rollon products, customers have access to the precious advice and technical assistance that the company delivers throughout the world, thanks to the extensive reach of the Rollon Group.



ROLLON®
Linear Evolution

Two new products extend the Rollon range of actuators

Rollon's offering of actuators is among the most complete and is continually enhanced with new sizes and models to meet the needs of customers. This is the case for the new R-Smart 220 and TH90 actuators. Larger dimensions for large-scale operations as well as miniaturisation to handle precision motion on a reduced scale. Both are the result of the efforts of the company's R&D department, which is always on hand to interpret the needs of customers and then transform them into ready-to-use solutions.

The R-Smart series of actuators is belt driven, with anodised extruded aluminium structure and recirculating ball bearing guides. Ball bearing technology provides for a more fluid motion (4m/s maximum speed and 50 m/s² maximum acceleration) and provides an extremely compact structure. Lubrication is facilitated by the structure of the component, where the guides are placed externally. The product is designed to guarantee high performance in terms of load capacity, great versatility and excellent value-for-money.

The new 220 mm profile is offered alongside the existing 120 mm and 160 mm profiles used in industrial automation, mainly in the packaging sector. It was created for heavy-duty use in large doorways where longer strokes are required. It is a typical example of a situation where "self-built" solutions are often employed for large structures that do not require a high degree of precision. A careful analysis, however, highlights the cost effectiveness and numerous strengths of Rollon products in such cases. This is because hidden costs



ROLLON®
Linear Evolution

should always be included in the cost analysis. These are related to performance, product reliability, lifecycle (guaranteed by Rollon) and practicality.

With Rollon products, a single supplier can take care of several problems and identify the best solution, giving the customer more time to dedicate to other activities. R-Smart 220 actuators have a maximum static load capacity of: 9190 N (Fx), 237,000 N (Fy), 237,000 N (Fz). The company's Application Engineering department is available to assist customers in the correct sizing of axes according to specific applications and the expected lifecycle of the system.

The innovation in the TH series, characterised by screw drive and recirculating ball bearing system, is the TH 90 actuator, completing the series which already features the 145 mm and 110 mm versions. The TH range is characterised by a high level of precision (up to 0.005 mm repeatability) and a rigid compact structure which can withstand heavy loads and can be integrated onto machines where space is of the essence. The internal parts of the

TH series actuators are protected by a casing and lubricated via separate channels dedicated to each component. This ensures proper lubrication of all parts. The linear units are available in single and twin carriage versions.

The smallest profile measuring 90 mm (TH 90) was developed to work in miniaturised environments (with short strokes and reduced loads), a challenge that is becoming more frequent in factories where assembled components are getting smaller and smaller. The product can be used in assembly lines, on welding and laser machines and in all those areas where precision motion is required, often as a Z axis within 3-axis systems.

A full range of solutions for linear motion

Linear units are used in a wide variety of sectors. Requirements range from the ability to handle heavy loads in difficult environments to space management, to name just a few. To meet these needs, Rollon has a wide range of actuators, which is constantly updated with new

models and sizes. Six series are currently available. Beginning with the SMART series, designed to offer maximum construction simplicity with high quality standards and PRECISION SYSTEM, the only range with recirculating ball bearing screw drive for extreme accuracy and repeatability, consisting of three product lines: TH, TT and TV.

The PLUS SYSTEM series consists of actuators with self-supporting toothed belt driven structures in anodised aluminium. It stands out for its



ability to withstand high loads and high operating speeds. It has three lines, all available with optional anti-corrosion features, with stainless steel internal elements and components and different characteristics.

The high-performance, protected ELM series is the best product for applications in work environments that are very hostile and can require high-speed work cycles offering extreme levels of repeatability. The ROBOT series is used for applications involving heavy loads, dragging and pushing considerable weights and stressful work cycles, mainly within industrial automation lines. Lastly, the SC series, with fixed carriage and mobile structure,

was created to meet vertical motion requirements and is designed to support heavy loads and applications with a high number of cycles. It was also specifically designed and set up to be assembled with the actuators of the ROBOT series without the aid of additional elements.

The CLEANROOM SYSTEM series includes belt actuators patented and certified by the Fraunhofer IPA Institute in Stuttgart for use in up to class ISO1 clean rooms (DIN EN ISO 14644-1). It is

used in sectors where contamination can be an obstacle to production.

The internal components of the Cleanroom System linear units are all made from stainless steel or undergo special low particle release treatments. The lubricants used for all bearings and linear guides are specific for use in clean rooms or vacuums. Their characteristics make them suitable for applications in the semiconductor industry or the pharmaceutical and biomedical sector and in research laboratories.

The ECO SYSTEM series comes with belt drive and self-supporting extruded aluminium structure and is available in two versions: the Eco-SP, which has a recirculating ball bearing

guide within its profile and the Eco-CI, which has four wheels with outer lancet arch profiles running along hardened steel bars inserted inside the profile. They are particularly suitable for packaging machines, light industrial robots and special machines.

The UNILINE SYSTEM series is made up of compact, belt-drive polyurethane linear units. The linear guides used inside the actuator is the COMPACT RAIL (a Rollon product), a linear roller pin system with hardened and ground raceways. This translates into an extremely compact guide with fast-moving runners. The UNILINE SYSTEM series is also suitable for harsh environments subject to high levels of dirt, due to protection from wipers at the ends of the carriages as well as longitudinal seals.

*For more information,
Rollon India Pvt. Ltd.
1st floor Regus Gem Business Centre
26/1 Hosur road,
Bommanahalli Bangalore 560068,
INDIA
Tel. : +91 80 67027066
Fax. : +91 80 67027004
E-mail: info@rollonindia.in
<http://www.rollonindia.in>*

ROLLON[®]
Linear Evolution