



Healthcare industry



MecVel
products for
the linear
automation of
the medical
field

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MECVEL FOR THE HEALTHCARE INDUSTRY WITH A SPECIFIC RANGE OF LINEAR ACTUATORS

Since 1987 MecVel offers its know-how to medical, hospital and "healthcare" industries, with advanced technologies dedicated to automations and linear motions required in these fields. The core business of the company, in fact, is the design and the manufacture of electric linear actuators, to transform the rotatory motion of a motor into a linear movement and lift, position, push or pull loads up to 200000 N (20 tons). At the same time, MecVel solutions are characterized by efficiency and low-noise, in order to meet the specific needs of these industries.

MECVEL ELECTRIC SYSTEM PROS

Electric systems, unlike hydraulic and pneumatic ones, do not have particular use restrictions and performances are not influenced by:



- Variations in the level of oil flow or air pressure
- Contaminants leaks
- Large size components that require intensive maintenance

MecVel linear actuators offer:

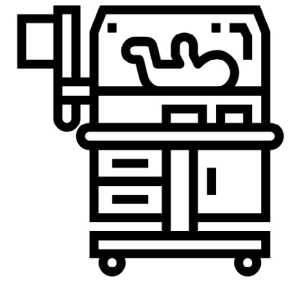


- High precision in positioning, also in case of frequent repetition
- Excellent levels of safety thanks to optional devices for feedback and control as limit switches, encoder and potentiometer
- Possibility of full customization: this service has the purpose to tailor each product in its technical parts on customer needs
- Plug and play installation and remote control, matchable with the latest electronic devices
- Green technology as per industry 4.0 concepts of energetic efficiency and sustainable industrial production



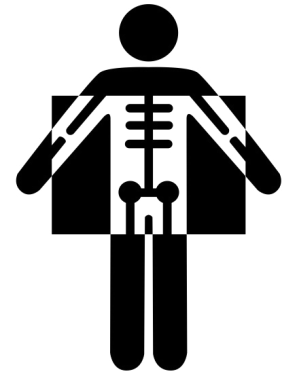
INCUBATORS

The most technologically innovative incubators are fitted with electric linear actuators to achieve an optimal orientation and positioning of the cradle (movement used also with eggs in zootechnics, as regards the trays, in order to get an uniform heating), as well as to adjust the height of the whole incubator. The electric linear actuator developed for these applications is extremely compact, silent and accurate: ALI1 and ALI2 models, for loads up to 2500 N, are the most recommended solutions in these cases.



X-RAY MACHINES

Several machines used in radiology need movements provided by electric linear actuators, from the vertical lifting in an orthopantomograph to the adjustment of mammography machines till the orientation of c-arms. These technologies offer a lot of possibilities in the positioning, getting the most suitable way to perform the radiographic exam. These devices help to achieve an optimal result in the diagnostic process, requiring a minimum manual operation by the medical staff and a lower exposure to X-rays. The most suitable products are ALI2 in case of low loads (orthopantomographs), while ALI3 and ALI4 are more indicated in case of handlings of mammography machines and c-arms, due to their higher forces (up to 10000 N).



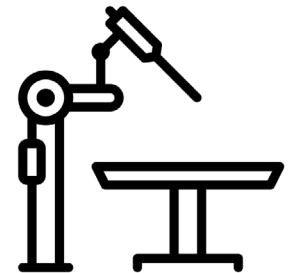
OPHTHALMIC AND DENTAL CHAIRS, REHAB MACHINERY AND MOTORIZED CHAIRS

In machines for physiotherapy, orthopedics and rehabilitation in general, or on ophthalmic and dental chairs, the automation required by the operator is the height adjustment of the seat and the inclination of the backrest rather than the footrest. These movements are available also on motorized chairs, and for this reason electric linear actuators must be reliable, resistant, silent and precise. These systems are also really easy to use for the operator, as they are simple ON/OFF devices. ALI3, a real "passe-partout" product, is the most suitable, thanks to its load capacity up to 6000 N.



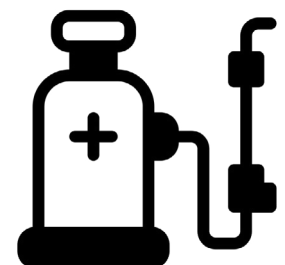
SURGERY AND VETERINARY TABLES

Electric linear actuators with flexible load capacities are chosen for the handling of tables, in order to tilt, rotate and position the table itself, or parts of it. The aim is to get a very versatile but extremely accurate regulation, according to the operation to be performed or the kind of patient. The range of product used goes up to AV3, thanks to their forces up to 25000 N.



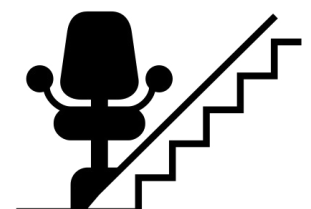
DISINFECTION DEVICES

These systems are used mainly in hospital and operating rooms, to maximize the efficiency of the disinfection process and reduce the time between surgeries. These devices use UV rays and can be automatically height-adjusted according to the size of the room to be purified, in order to sanitize it with a single cycle through an optimal irradiation angle. Electric linear actuators dedicated to this application are part of the inline L series, in order to contain the overall dimensions, offering up to 5000 N of force.



STAIRLIFT

Stairlifts use electric linear actuators to automate the opening/closing of the final section of the rail used by the stairlift itself, in order to optimize the space taken by the rail when the stair lift is not in use. For this reason, also in this case the inline L series is the most suitable to perform these movements.



FOCUS ON THE HEALTHCARE FIELD

The naked screw can help to further reduce the electric linear actuator overall dimensions, for a perfect placement inside the machine structure, as well as an increase in the low-noise level of the system.

A further plus characterizing MecVel range is the use of the electric system: it does not require oil, unlike hydraulic and pneumatic systems, being completely sterile and suitable for the medical industry, as it meets defined safety standards. Moreover, the power is supplied only when required, the position is kept even in static conditions, getting a high level of control with minimal connections and low consumptions.

A high level of control is made possible also by limit switches that can be placed on board of electric linear actuators, able to provide a constant feedback on the position reached by the stroke.

The company customization service offered to customers, in fact, allows to develop tailored and performing solutions, configuring each product according to the technical specifications of the application to which it is intended.

The attention that the company gives to the industry 4.0 concepts of energy efficiency and sustainable production allows to place on the market high-performing electric linear actuators, able to improve any motion, even in the most complex applications.

