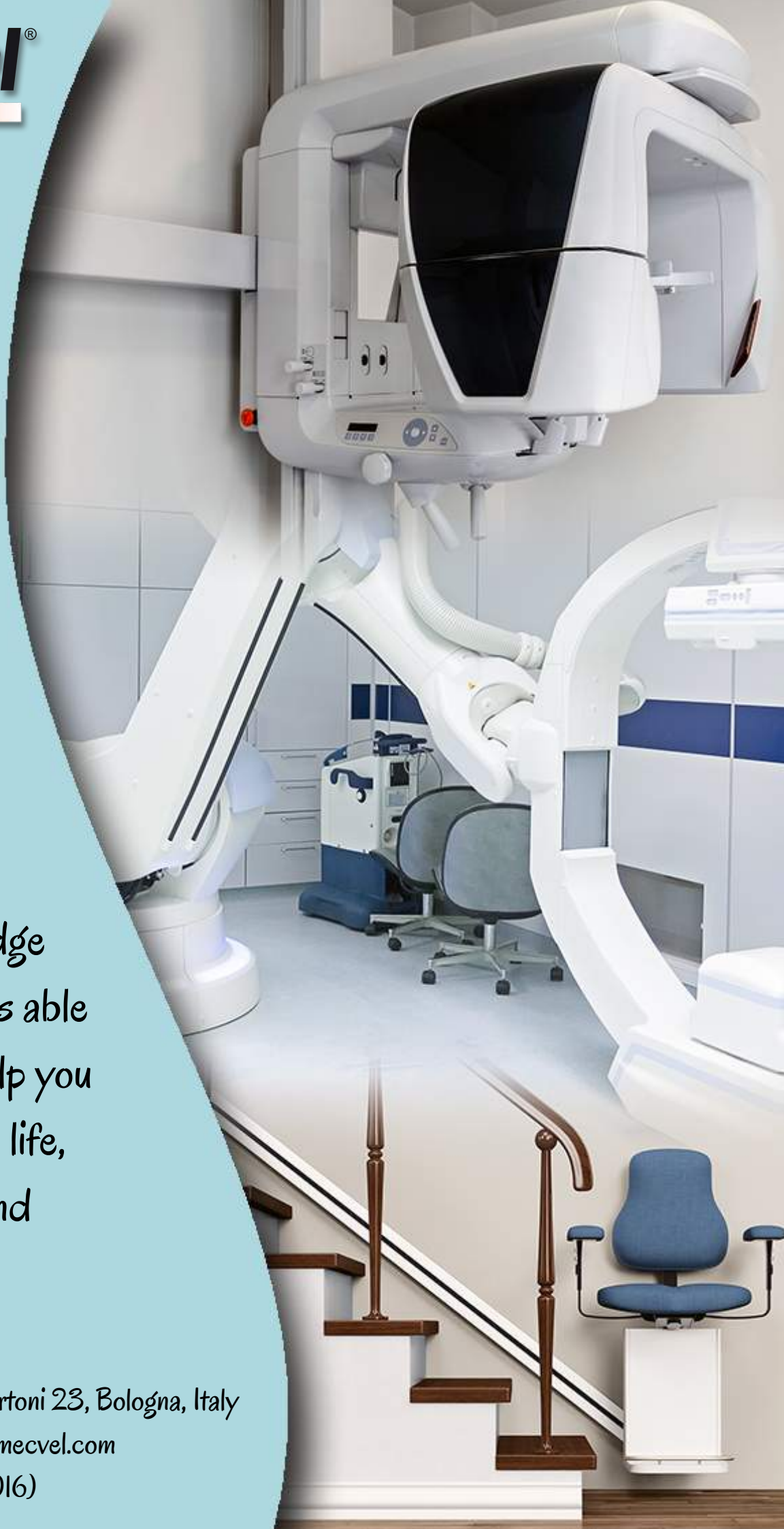


MecVel
takes care
of you

Expertise and
technical knowledge
to create products able
to support and help you
during your entire life,
both personally and
professionally

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Since 1987 MecVel designs and manufactures electric linear actuators, handling systems using motors, gear boxes and push tubes to convert the rotatory motion into a linear movement, allowing to lift, adjust, position, push or pull any load up to 200,000 N, offering tailored solutions for different kinds of applications.

The range developed for the medical field is dedicated to the patient comfort and to the medical staff support in its daily activities. These products, in fact, ensure a precise positioning through an efficient and silent movement, which is a fundamental feature in the medical branch. Moreover they provide high load capacity, containing at the same time the overall dimensions. Then the customization service allows to choose among many combinations, configuring each product depending on the specific application requests.

Linear actuators are used in incubators, X-ray machines (as orthopantomographs, c-arm and mammography machines), chairs and operating tables, but also in the "care" field for rehab machines, motorized wheelchairs and stair lifts.

Linear actuators for incubators:

- Kind of motion: to orient, raise and lower the cradle
- Benefits: maintenance of a comfortable environment for the baby, with soft and precise movements, with the possibility to adjust the height of the incubator, for an optimal handling of the patient
- Most suitable MecVel products: AL11-F and AL12-FCM, for loads up to 250 kg in less than 1 kg weight and 200 mm length

AL11-F

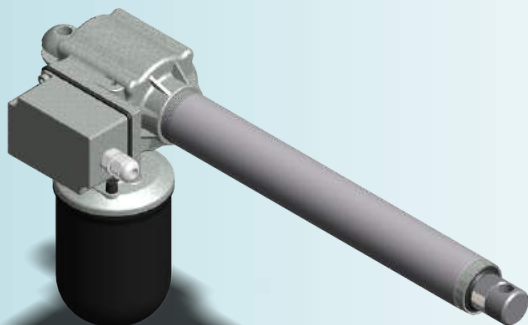


AL12-FCM

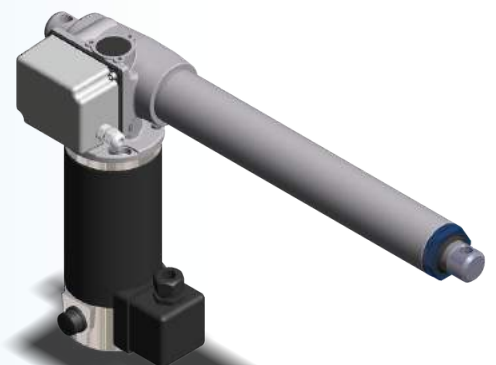


Linear actuators for X-ray machines:

- Kind of motion:
 - Vertical lift in orthopantomographs
 - Orientation of c-arms
 - Positioning of mammography machines
- Benefits: placement of these medical devices, to find the perfect angle from where take each radiograph
- Most suitable MecVel products: AL12-FCM for limited weights (orthopantomographs), AL13-F and AL14-F for the handling of c-arms and mammography machines, as they match high load capacity (up to 1 ton) with contained sizes



AL13-F



AL14-F

Linear actuators for ophthalmic and dental chairs:

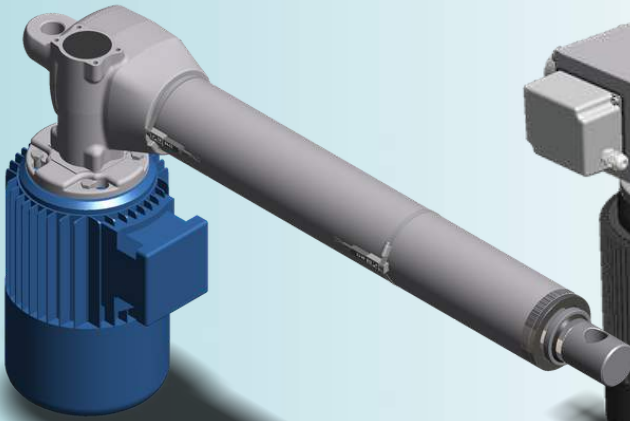
- Kind of motion: raised and lowered of the chair, but also positioning of backrest and footrest areas
- Benefits: speed, flexibility and ease of use, as the system given to the operator is a simple ON/OFF, in addition to a more comfortable situation for the patient
- Most suitable MecVel products: ALI3-F or, to reduce the overall dimensions, ALI3-PF version, as it mounts the motor in parallel, for loads up to 600 kg



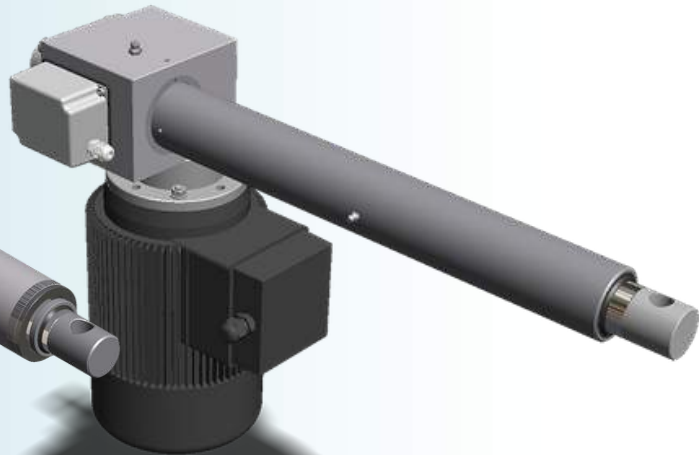
AL13-PF

Linear actuators for operating tables and rooms:

- Kind of motion: adjustment of the position of the whole table or the radiological equipment used inside the operating room
- Benefits: facilitation of the medical staff position in relation to the patient, and consequently advantage for the entire operation (with reference to ergonomic parameters)
- Most suitable MecVel products: ALI5 and AV3, as they can move also loads of 2,5 tons



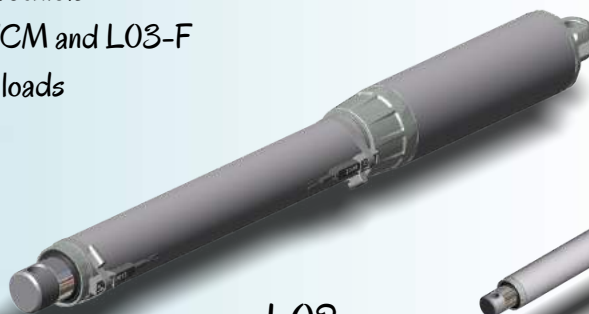
ALI5



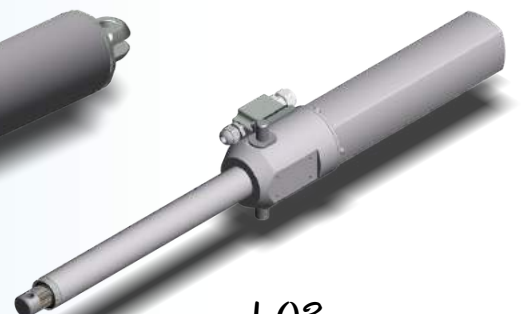
AV3

Linear actuators for rehab machines, motorized wheelchairs and stair lifts:

- Kind of motion:
 - Adjustment of the machine position dedicated to rehab (orthopedics and physiotherapy fields)
 - Regulation of the seat of motorized wheelchairs
 - Opening and closing of the final part of rails used for the descent and the ascent of stair lifts, to optimize the space taken by these kinds of devices
- Benefits: comfort and independence of the patient, thanks to resistant but at the same time functional and silent products
- Most suitable MecVel products: L02-FCM and L03-F inline models, with smaller dimensions and loads up to 500 kg



L02



L03

Plus and technical details of MecVel range

The use of a naked screw in the medical branch helps to reduce the overall size of the product, and brings to a perfect collocation inside the machine, together with a decrease in the noise generated by the system.

The use of limit switches increases the level of control and safety, as these devices are dedicated to the monitoring of the stroke and the movement performed by the linear actuator.

The use of the electric system leads to easy and essential connections, provides power only when required and allows a reliable control (with arrest also in intermediate positions of the stroke), generates minimum noise together with low wear and maintenance, and does not require the use of pumps, valves and tubes, excluding the risk of contamination due to oil leaks, making this system suitable for applications in sterile environments.

An in-depth study of the branch, and the match between design and power in the field of the linear motion, led to the creation of a new product which extends MecVel range also to telescopic columns. Lifta, in fact, is a telescopic and self-supporting column with 2/3 stages able to reach the maximum load capacity: in push up to 500 kg, with speed up to 10 mm/s. In the medical field it is dedicated in particular to adjusting the height of operating tables, but also of chairs and machinery in general.

Lifta's main features and performance:

- Made of anodized extruded aluminum
- Plug and play system: extreme easyness in connection and use
- High load capacity: force in push up to 5.000 N
- Speed up to 10 mm/s
- Stroke from 200 mm up to 700 mm (steps of 50 mm)
- 24 V DC motor, with the possibility to mount a 1-phase 220 V 50 Hz power supply
- No maintenance required
- Low noise level, as required by the medical field
- Standard VDE connector on the widest profile
- Control and arrest of the stroke through current limiter
- Intermittent duty: 10%
- Working environment temperature: from 10° up to 40°
- Possibility to customize the product according to application needs

To remember that the care and the attention given to each detail allow to ensure high performance and also long life both for products and applications, with the aim to improve and make unique every single handling.

For more information or to set up your product dedicated to the medical field contact us at:
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