Focus on

Industrial automation

LINAK®

WE IMPROVE YOUR LIFE

LINAK.COM/TECHLINE

VS.

Pneumatic system

- Complex system of compressor, pumps, valves, filters, lubricators, flow controls etc.
- Elaborate installation due to many components
- Per default no integrated positioning
- Requires routine maintenance
- High energy consumption

Electric actuator system

- Simple system of actuator, control and power connection
- Easy installation due to few components
- Integrated positioning
- Maintenance-free
- Low energy consumption

Electric Actuators - energy efficient solutions for industrial automation

LINAK® improves productivity with simple, safe and powerful electric linear movement for a variety of industrial automation applications. For soldering ovens, packaging, welding and textile machines, bar feeders, conveyor belts, material handling devices and many other industrial automation applications LINAK delivers:

- reliable products
- a good alternative to pneumatic systems
- a turnkey supplier of complete electric linear movement solutions
- cutting-edge technology when more sophisticated controls and precise motion is required
- close collaboration between your team and our application engineers, represented in over 30 countries

From small, light and compact actuators for space savings, to powerful robust systems able to lift up to 15,000 N, LINAK electric actuators are built for long-lasting durability.

Furthermore, our actuators are tested to the highest standards and can be delivered in protection classes up to IP66 and IP69K– water, dust and dirt proof and tested for high-pressure cleaning.

Go electric and spot the difference

In numerous small and large applications LINAK electric actuators are a low-energy, cost and resource reductive alternative to pneumatic systems. Due to the technological development and increasing energy prices, linear electric actuators are becoming more and more attractive also in the industrial sector where pneumatics and hydraulics usually dominate. LINAK electric actuators work on low voltage DC, provide a high self-locking ability and optional manual operation, creating a safer work environment for the operator. Furthermore, an electric linear system requires no maintenance, which reduces the downtime of the application.

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LINAK offers service worldwide

Please contact your local LINAK office with your enquiry

What LINAK actuators do for the soldering oven

Due to their high control, electric actuators from LINAK® provide precise parallel movement ideal for lifting the hood of soldering ovens. Furthermore, TECHLINE® actuator systems offer simple installation, multiple feedback options and an 'all in one package' solution, which is easy and cost-efficient.

Additionally, safety is high when choosing an electric actuator solution, because LINAK provides brake and self-locking functions to hold the hood in position to ensure that it will not collapse in case of current cut-offs.

LINAK electric actuators also offer an environmentally clean solution with no leakage, which prevents destruction of products.

Hood

Opening and closing
of the hood

What LINAK® actuators do for the packaging machine

TECHLINE® offers electric actuator solutions for packaging machines allowing simple customisation with the press of a few buttons. E.g. it is possible to adapt the machines to various product types, shapes, sizes and weight in order to make the machines more productive. Furthermore, LINAK actuators can adjust the height of the whole line either to suit the operator or to connect to another machine.

LINAK actuators are energy saving, easy to control due to feedback options, simple to fit in the product assembly and maintenance-free.

Cover

Opening and closing of the machine cover

Adjustment

Adjustment of speed and tension

Sealing unit

Adjustment and
adaptation to suit
different packages

What LINAK® actuators do for the textile machine

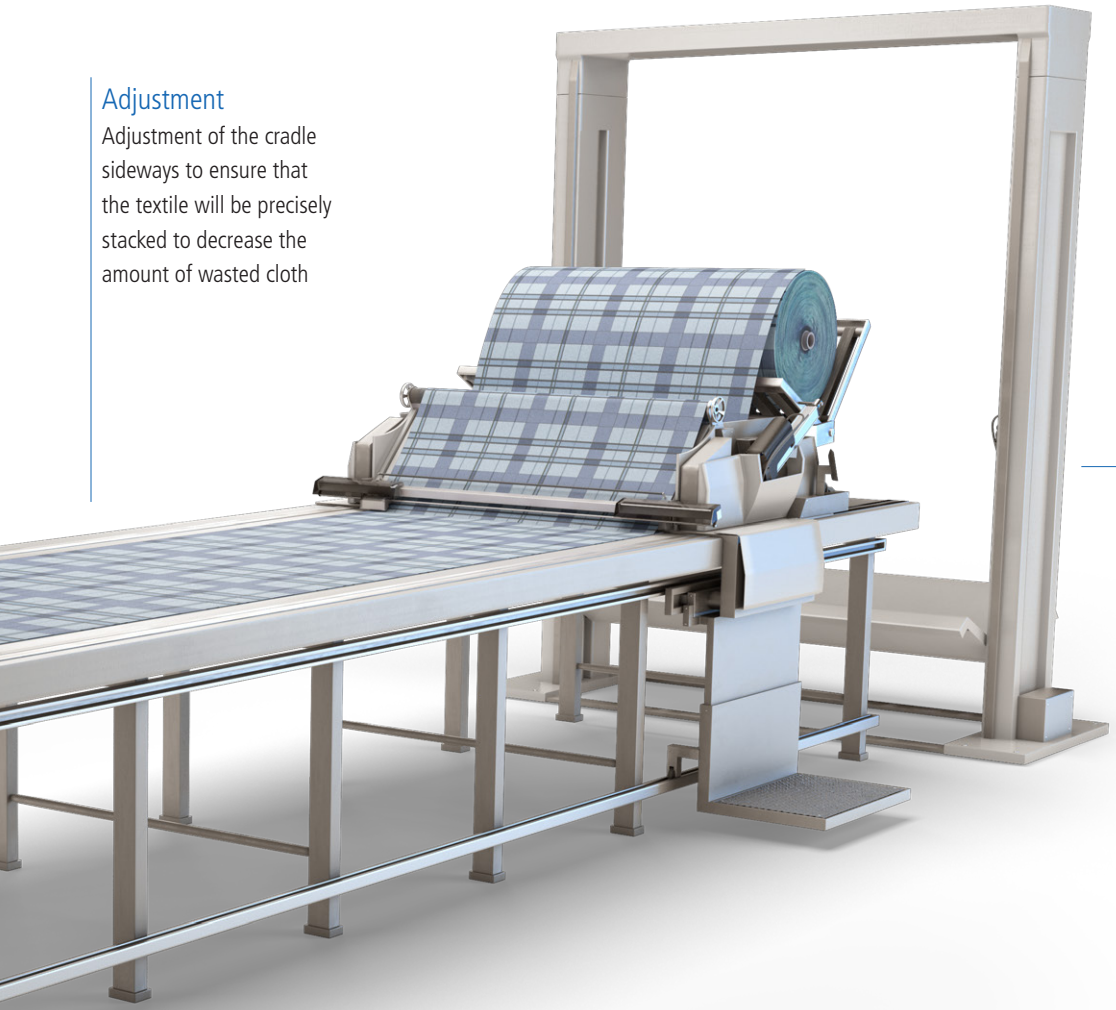
LINAK electric actuators are easy to fit into textile machine applications due to their small sizes and few cables with customised connection and plugs.

The actuators provide e.g. accurate parallel positioning of the cradle ensuring precisely stacked fabric and minimised waste of cloth.

LINAK actuators also offer an accurate overview of their position with feedback signals. Furthermore, the actuators only use power when they are moving, which means that no standby power is necessary.

Adjustment

Adjustment of the cradle sideways to ensure that the textile will be precisely stacked to decrease the amount of wasted cloth



Positioning

Raising/lowering of the cradle to easily place a new textile roll

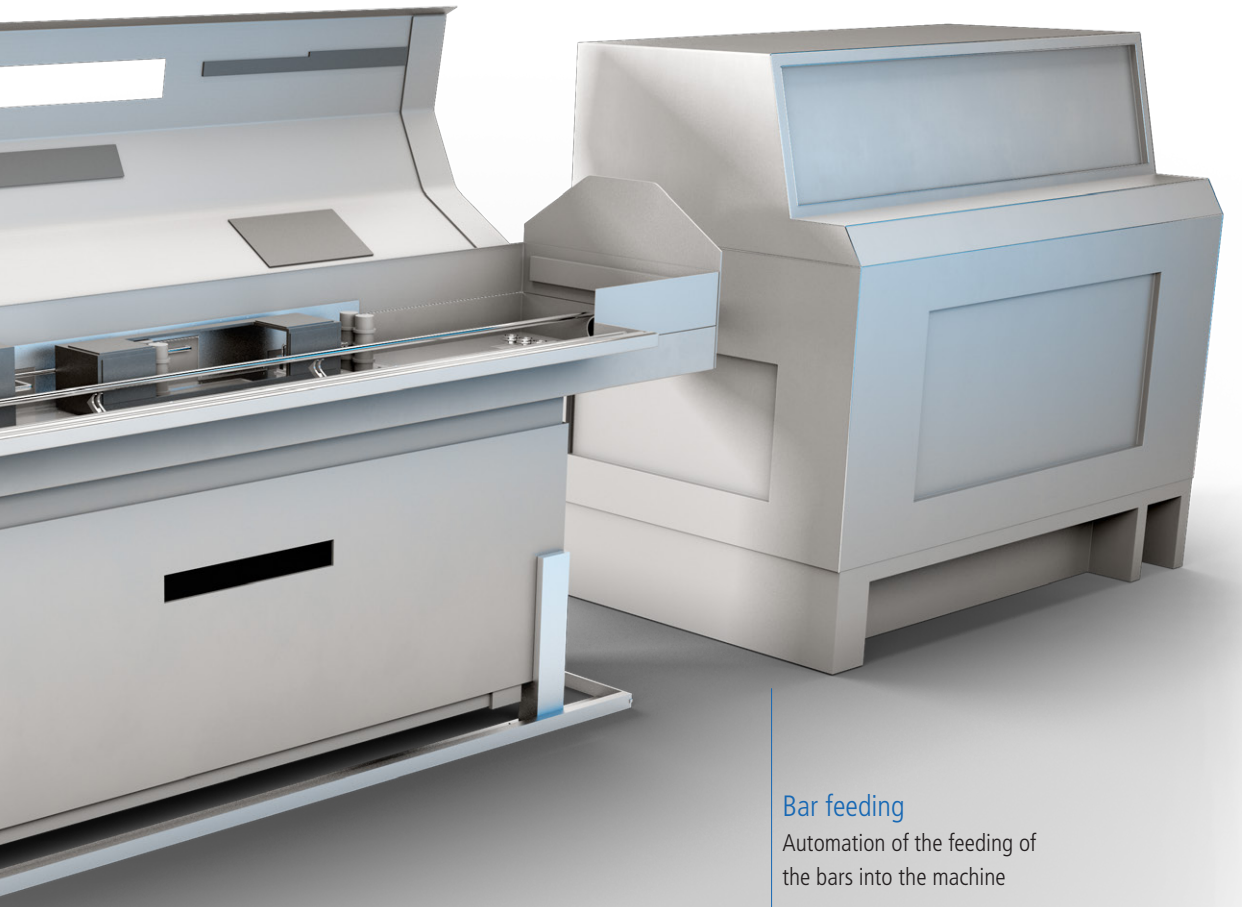
What LINAK® actuators do for the bar feeder

Through easy electric linear movement, high control and simple operation TECHLINE® actuator systems provide efficient automation in bar feeders, enabling the machine to run automatically without human help as long as there are enough bars in the system.

With LINAK actuators it is possible to automate the feeding of the bars into the bar feeder as well as the adjustment of the height of the bar feeder.

LINAK actuators are small, easily integrated into the bar feeder with programmable control systems and require no maintenance compared to more complex hydraulic systems.

Height adjustment
Adjustment of the height of the bar feeder



Bar feeding

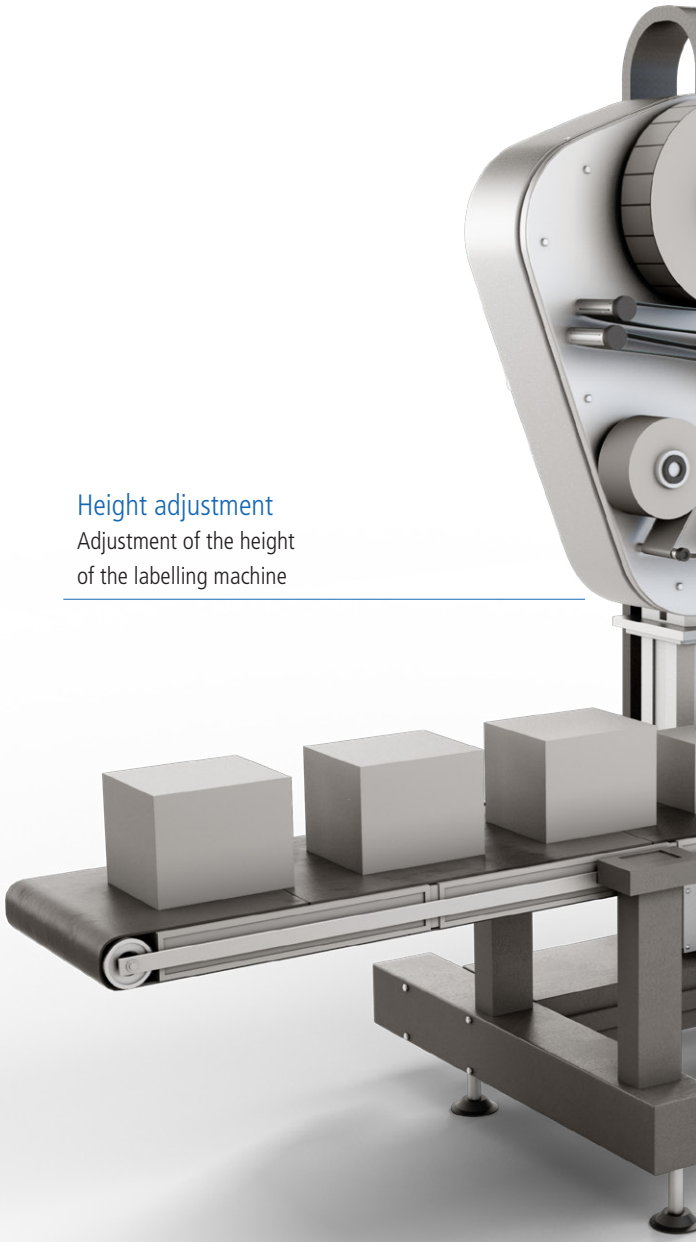
Automation of the feeding of
the bars into the machine

What LINAK® actuators do for labelling equipment

Through the flexibility and user-friendliness that the electric actuator solutions from TECHLINE® provide, automatic height adjustment and positioning of labelling equipment is made easy. This offers the possibility to adapt the machine automatically depending on the product that needs to be labelled.

The robustness and rigidity of LINAK columns effectively prevent any movement of the application, ensuring high precision during the labelling process.

Furthermore, the simple LINAK plug and play solution provides a quick installation and exchange of the actuator, which reduces the downtime of the application.

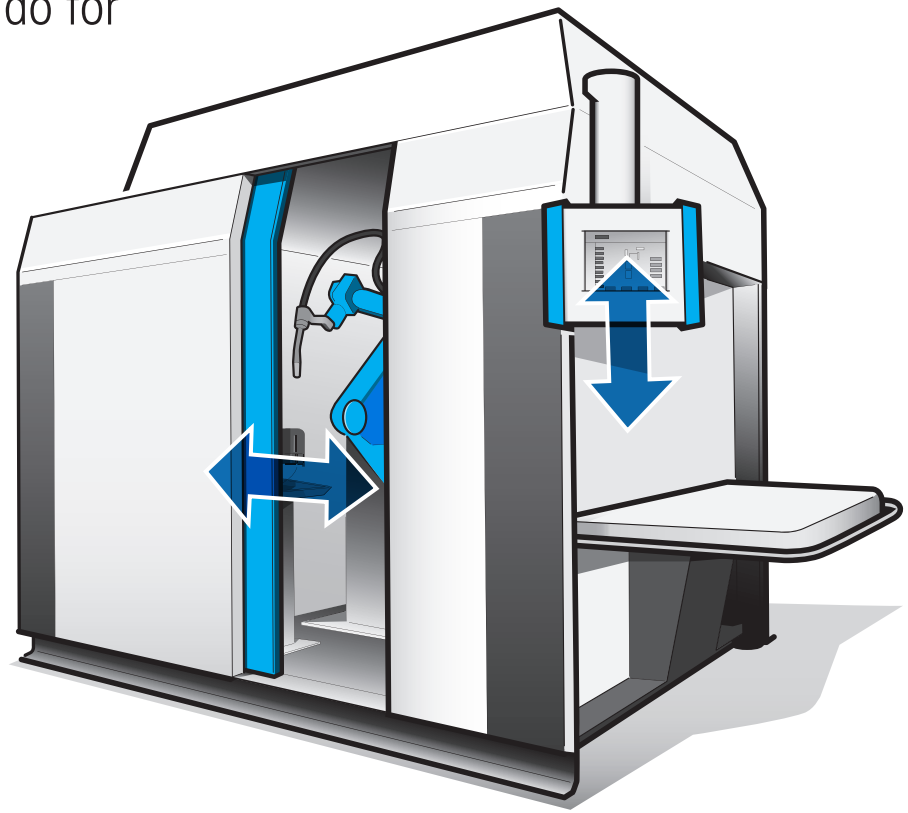


Height adjustment
Adjustment of the height of the labelling machine

Positioning adjustment

Sideways adjustment of the position of the labelling machine

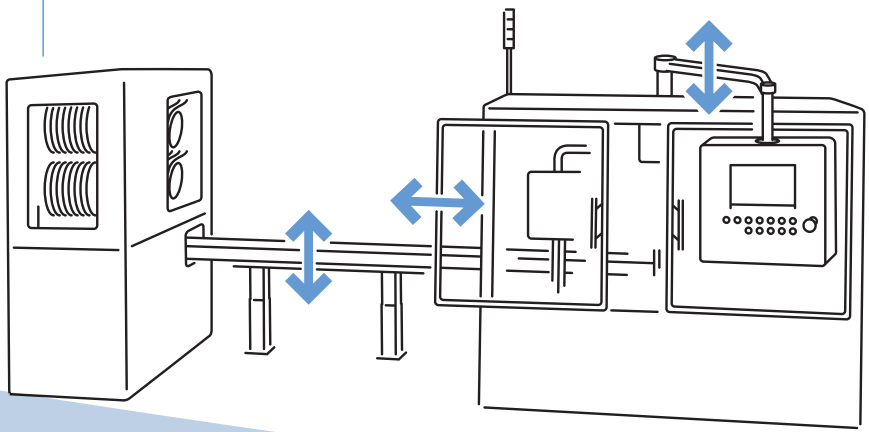
What LINAK® actuators do for industrial automation



Welding machine

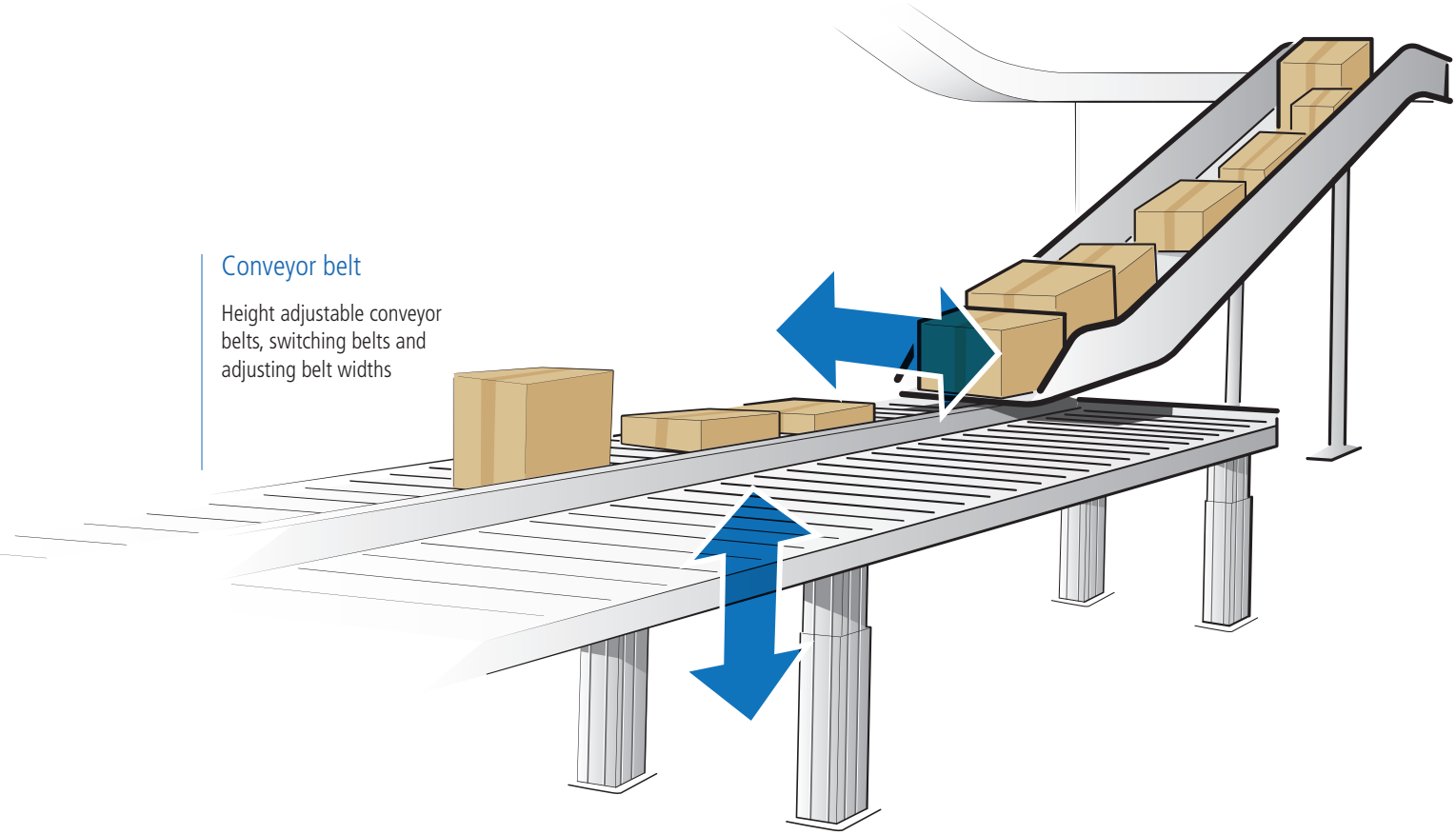
Opening and closing of the machine cover

Plastic machine

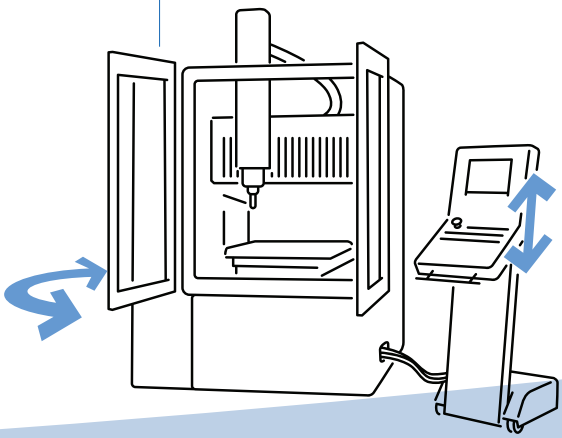


Conveyor belt

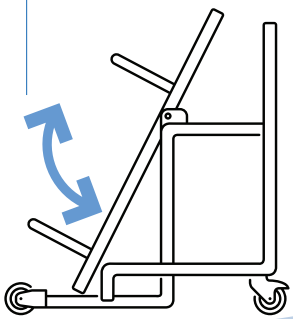
Height adjustable conveyor belts, switching belts and adjusting belt widths



Tooling machine



Library automation



Explore the rich technology behind actuators

Actuator Academy™

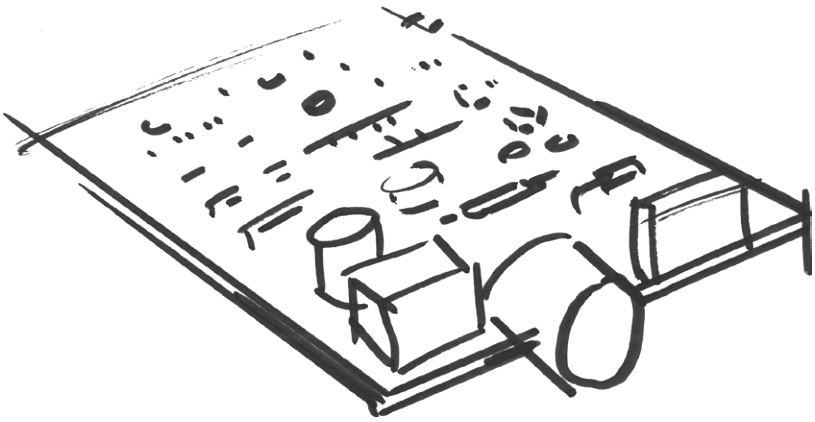
At the Actuator Academy™, you will find a library of videos and information about actuator components, actuator testing, and intelligent actuator control.

Find out what you should expect of a good industrial actuator, what affects its performance and efficiency, and how to best utilise your linear motion actuator.

We hope to inspire you and ultimately make you wiser on the moving electric revolution we are all part of.

Happy exploring!

Smart movement for industrial automation



A LINAK® IC actuator with built-in controller reduces the number of external components and the need for a third-party supplier for power electronics.

It also offers a comprehensive range of interfaces and gives you access to productivity enhancing data - all delivered by a single supplier you can trust.

By helping you move smarter at every stage of your application process, from development, installation and integration to tailored movement and improved productivity, our IC actuators add value across the board.

IC INTEGRATED CONTROLLER™

Choosing an IC actuator for your application is a smart move in many ways:

- Reduced complexity for faster development and production
- Flexible integration with a variety of industrial interfaces
- Data monitoring that minimise downtime and boost productivity
- Benefit from one single supplier

For more information on IC, please visit LINAK.COM or scan the QR code.

Actuators for industrial automation

LINAK® industrial actuators offer a versatile array of movement solutions for industrial automation.

With **thrusts up to 15,000 N, max speeds up to 160 mm/s, and strokes between 20 and 999 mm**, the actuators are highly adaptable for a wide variety of applications.

Industrial actuators with **heavy-duty aluminium housings** are very suitable for use in corrosive environments. Having been thoroughly salt spray and chemical resistance tested and approved for ratings up to **IP66 and IP69K static**, these actuators will work reliably for years, even when exposed to salt, water, wind, and sun.

Operating temperatures between -40°C to +85°C make them fit for work in numerous settings.

Actuator LA37

Actuator LA36

Actuator LA33

Actuator LA25

Actuator LA23

Actuator LA14

Actuator LA12

Lifting column DL2

Testing programme

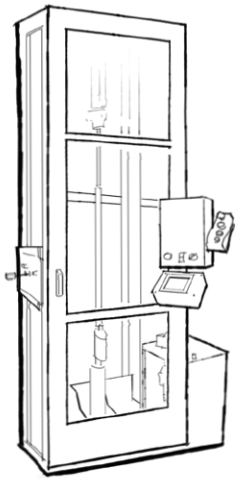
In each industrial application, the actuator is just one component of many, but at LINAK® we fully appreciate that it is of utmost importance to you and your customers. Not a single actuator leaves the factory until it has undergone a 100% function test.

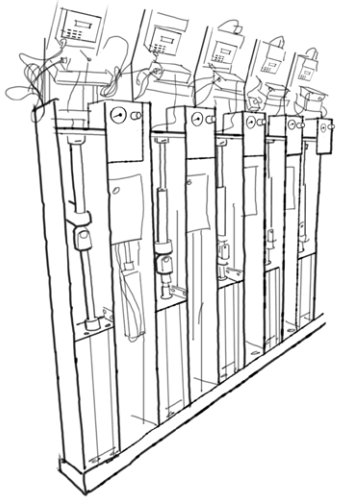
Depending on the actuator type, various tests have been carried through. Please consult your local LINAK office or take a look at the actuator data sheet in question to get a thorough test overview.

This is your guarantee that a solution based on LINAK TECHLINE electric actuator systems is a solution that will work reliably for years and years.

"Our actuators must never malfunction. Therefore, it is important that all our products are tested inside and out, and to the extreme in a wide range of tests."

- Claus H. Sørensen, Director R&D

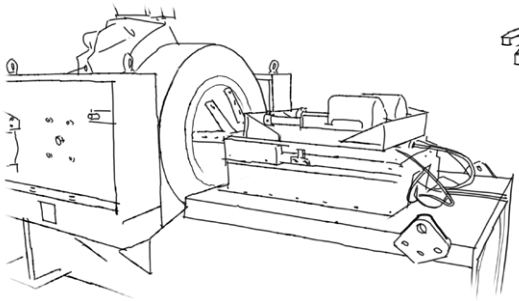


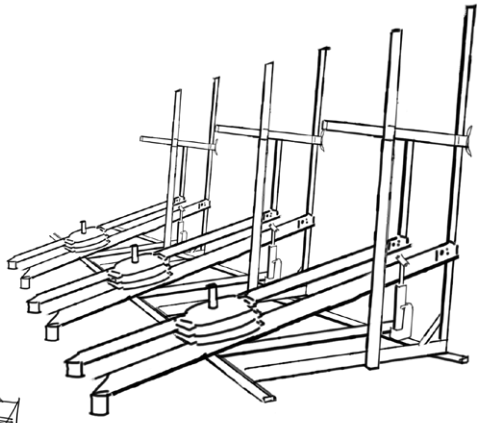


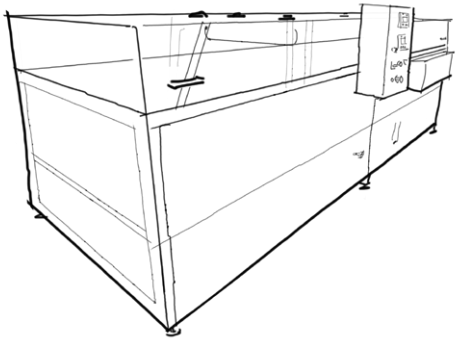
Climatic tests:

In the climatic test the actuators are tested to operate in extreme temperatures as well as to endure rapid changes in temperature. In a dunk test, the actuators have to withstand repeating temperature fluctuations between +85°C to -40°C and still maintain full functionality and ingress protection.

EN60529-IP6X	- Dust
EN60529-IPX6	- Water
ISO16750- IP69K	- High pressure cleaning
IEC60068-2-3	- Moisture storage
IEC60068-2-30	- Operation in moisture
ISO16750-4:2010	- Dunk test
EN60068-2-52	- Salt spray
BS7691 Section 6.11.2.4	- Chemicals







Electrical tests:

All electrical parts are tested i.e. power supply, power and signals cables, control signals etc. Electrical immunity is tested according to industrial standards i.e. for radio noise, electrical discharge and burst.*

EN/IEC 61000-6-4	- Generic standard emission industry
EN/IEC 60204	- Electrical equipment of machinery
EN 50121-3-2	- Railway applications - Rolling stock apparatus
94/25/EC	- Recreational crafts directive
EN/ISO 13766	- Earth moving machinery
EN/IEC 61000-6-2	- Generic standard immunity industry
2004/104/EC	- Automotive Directive
EN/ISO 14982	- Agricultural and forestry machines
EN/ISO 13309	- Construction machinery

* These tests do not apply to third party products!

Mechanical tests:

Vibration: The actuator must withstand continuous vibration in three directions.
Shock: The shock test puts the actuator through 3 shocks of up to 50 G in each of six directions.
Bump: The actuator receives bumps of up to 30 G in each of six directions several hundred times.

EN60068-2-64 (Fh)	- Random vibration
EN60068-2-27 (Ea)	- Shock
EN60068-2-29 (Eb)	- Bump

Find out more about how we test actuators to the extreme:

linak.com/segments/techline/tech-trends/testing/

For further information, please visit our website:
LINAK.COM/BUSINESS-AREAS/INDUSTRIAL-AUTOMATION/

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QUALITY

Built by market leading experts, using state-of-the-art technologies and perfected production methods, you can expect the same quality worldwide.

INNOVATION

Innovation is in our core. We take the lead and have the courage to make it real.

RESPONSIBILITY

We are responsible in what we do – towards customers, employees and environment. Creating trust is a natural part of who we are.

LOCAL & GLOBAL

From global presence to local understanding. We believe in world-wide support and being close to our customers.

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