



TECHLINE

Understanding your needs

For many years, LINAK[®] has been a sub-supplier to several ventilation equipment manufacturers and stable designers all over Europe. Our reference list is long and we are proud of our good reputation. However, we also know that an image like this does not create itself. Therefore, we work even harder when designing solutions and we know what it takes to supply actuator systems where flexibility and reliability are the top priority.

Ventilation equipment manufacturers and suppliers realise significant improvements by using linear actuators from LINAK. Easy installation, excellent feedback and integration are some of the features that may provide your business with a competitive advantage in the marketplace.

An electric actuator from LINAK is an obvious choice for harsh environments with moisture, dust and temperature changes; we know how essential a welloperating ventilation system is for the farmer.



Strategic partnerships within R&D, after sales, logistics, marketing, and manufacturing

"For more than 20 years, LINAK has supplied maintenance-free products with a long lifetime for several ventilation equipment manufacturers and stable designers all over Europe."

What LINAK has done for the ventilation industry for more than 20 years:

- Supplied maintenance-free products with a long lifetime
- Excellent feedback and positioning
- Supplied solutions where a high degree of protection-IP is required
- Designed customised solutions for the end-users
- Provided systems with battery backup, alarm and safety options etc.
- · Supplied actuators that are easy to install and operate
- Offered close cooperation with our welleducated sales and application engineers, represented in more than 30 countries

LINAK offers service worldwide

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Please contact your local LINAK office with your enquiry





What LINAK® actuators do for ventilation and farming solutions

Reliable and adequate ventilation in animal houses is essential to farmers. The ventilation system takes care of adjusting the temperature and the humidity of the air as well as regulating the indoor climate by cleaning out dust, fumes and natural gasses. An insufficient or malfunctioning ventilation system can cause serious - even fatal - problems for livestock.

LINAK[®] electric actuator systems are very well suited for a lot of applications that could improve the working conditions for a modern farmer. Automatic adjustment of the feed flow, control of valves and cover lifts or adjustment of the windows are just a few examples.

Inlet valves

Stepless adjustment of inlet valves to ensure an acceptable and healthy indoor climate in order to increase the productivity and to avoid diseases.



Climate cover

Young pigs need warm and protected places where they can rest during the day. However, the farmer needs to check their condition occasionally. With electrical cover lifts he can gain an overview of the complete stable within minutes.



Ventilation dampers

The actuator can be used for stepless opening and closing of ventilation dampers for air outlet, depending on temperature level, humidity or vacuum etc.



Feed units

In modern farming industries the amount of feed is measured very carefully. By using an actuator it is possible to adjust the feed flow proportionately according to the particular feeding programme required.



Agriculture valves

For example slurry valves and fodder valves are often placed in positions where access can be limited; therefore, electrical solutions can be very beneficial for the user.

Explore the rich technology behind actuators



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

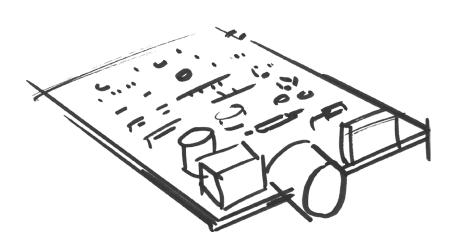
Find out what you should expect of a good industrial actuator, what affects its performance and efficiency, and how to best utilise your linear motion actuator.

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 ventilation and farming



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.

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 ventilation and farming

 $\mathsf{LINAK}^{\circledast}$ industrial actuators offer a versatile array of movement solutions for ventilation and farming.

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. Also, the actuators LA36, LA25 and LA14 are certified according to IECEx and ATEX and can be operated in dust explosive atmospheres.





Actuator LA25

Actuator LA14

Actuator LA12







Testing programme

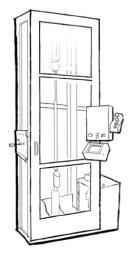
In each industrial application, the actuator is just one component of many, but at LINAK® we fully appreciate that it is of utmost importance to you and your customers. Not a single actuator leaves the factory until it has undergone a 100% function test.

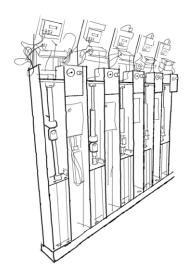
Depending on the actuator type, various tests have been carried through. Please consult your local LINAK office or take a look at the actuator data sheet in question to get a thorough test overview.

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



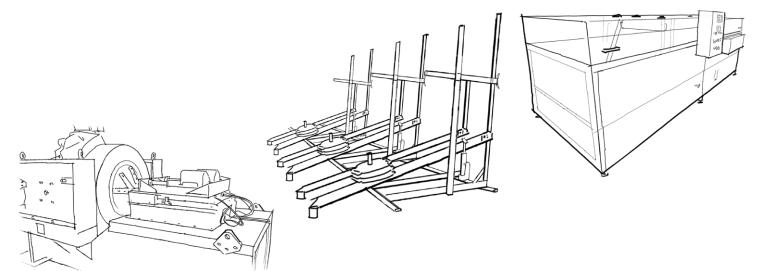


Climatic tests:

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 EN60529-IPX6 ISO16750- IP69K IEC60068-2-3 IEC60068-2-30 ISO16750-4:2010 EN60068-2-52 BS7691 Section 6.11.2.4 - Chemicals

- Dust
- Water
- High pressure cleaning
- Moisture storage
- Operation in moisture
- Dunk test
- Salt spray



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

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



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



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



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

