





LINAK as your partner

We do not want to be merely another supplier to our customers. We want to be your partner.

When partnering with LINAK® you get more than just a product in your hands. Our goal is to create added value to our customers by offering innovative solutions, extensive knowledge, world-class production and global presence.

LINAK offers service worldwide

Please contact your local LINAK office with your enquiry







Added comfort with automated cleaning systems

During the past years, heat production with wood energy has increased considerably. More and more domestic homes heat with wood pellets while industries mainly use woodchips. Wood pellets are a favourable alternative to oil or gas. Another factor is the CO2 emissions. Wood is a CO2 neutral combustible material as it only releases the CO2, which the tree has absorbed from the air previously.

Not only the ecological aspects are important to the end-user when buying a pellet heater. Ease of use and maintenance of the pellet heating system must be exactly as simply as they are for oil and gas systems.

With linear actuators from LINAK®, you can optimise the ease of use with an automated cleaning process. The actuators dislocate the combustion grate and with this movement, it brushes across a cleaning device. The ash falls down into an ashpan, which is easy to empty without interrupting the operation.

This reduced time required for the cleaning process considerably. By means of a position feedback in the actuator, the position of the ash brush can be transferred to the control system of the pellet heater.

The actuators of the TECHLINE® product range offer following advantages:

- Position feedback
- Precise movement
- Reliability
- Protection class IP66 for high resis-tance towards dusty environments and high pressure cleaning
- Space-saving installation
- Problem-free and simple operation

"LINAK actuators optimise use by automating the cleaning process. The position of the ash brush is controlled by position feedback from the actuator."



Explore the rich technology behind actuators



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

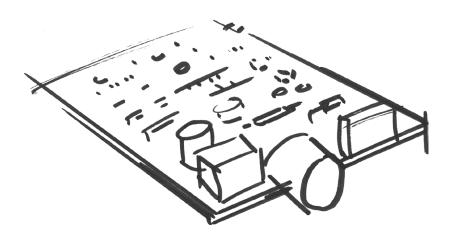
Find out what you should expect of a good industrial actuator, what affects its performance and efficiency, and how to best utilise your linear motion actuator.

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 pellet heaters



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 Pellet heaters

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

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 LA25

Actuator LA23

Actuator LA14

Actuator LA12









We understand your business



On the cooperational side, it must be easy for our customers to do business with LINAK $^{\otimes}$. Therefore, we offer both standard components and customised solutions according to demand. In close cooperation with our sales engineering team you can develop an optimal solution that fits perfectly to your task and demands.

Our LINAK TECHLINE® division is committed to offering innovative solutions that help improve life for you and for the end-user of the system.



In-depth knowledge of the market and the market trends makes LINAK a true solutions provider.

Testing programme

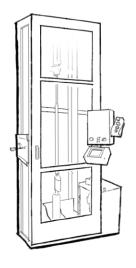
In each industrial application, the actuator is just one component of many, but at LINAK® we fully appreciate that it is of utmost importance to you and your customers. Not a single actuator leaves the factory until it has undergone a 100% function test.

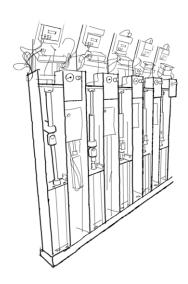
Depending on the actuator type, various tests have been carried through. Please consult your local LINAK office or take a look at the actuator data sheet in question to get a thorough test overview.

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





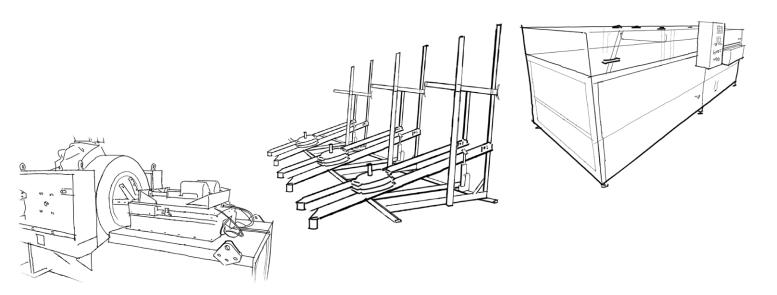
Climatic tests:

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 - Generi **EN/IEC 60204** - Electric

Generic standard emission industryElectrical equipment of machinery

EN 50121-3-2

- Railway applications - Rolling stock apparatus

94/25/EC EN/ISO 13766

Recreational crafts directiveEarth 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

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/



 $^{^{\}star}$ These tests do not apply to third party products!



For further information, please visit our website: LINAK.COM/BUSINESS-AREAS/ENERGY/PELLET-HEATING/

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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.

