

#### LINEAR ACTUATOR TECHNOLOGY

# FOCUS ON CONSTRUCTION

LINAK designs products that make your machines more efficient.

www.techline.linak.com



#### UNDERSTANDING YOUR NEEDS

Today's construction OEM's create some of the most versatile, agile, and robust equipment that needs to work day after day under extreme conditions.

Our TECHLINE actuators are developed to fit these needs and ensure a competitive edge for our products.

We offer:

- A wide range of actuator systems for all needs
- Smooth motion control with the possibility of position feedback
- Long lifetime
- Environmentally safe products (no oil leaks)
- Excellent price performance ratio no maintenance and easy mounting
- Improved ergonomics and ease of operation to increase the operators' comfort and productivity

# **A Knowledgeable Partnership**

Multilevel cooperation with our customers is extremely important, for the benefit of both LINAK and customer. Partnership is the driving force behind R&D, aftersales, logistics, manufacturing and marketing.



# **Endless possibilities**

TECHLINE<sup>™</sup> actuator systems provide adjustments for a myriade of applications in the industrial environment including construction.



## **Global Presence**

LINAK has a well-developed sales and service organisation in Europe, America, Asia and Australia. Therefore, we can assist you and your customers locally, under the global sales concept idea: Be global, act local



TECHLINE



#### WHAT THE LINAK ACTUATORS DOES FOR THE CONSTRUCTION INDUSTRY

**Folding Lights** 

Swivel as well as fold lights down while the vehicle is in motion.

#### Aerial workstation

Adjustment of the work area and tilting of the platform

#### Asphalt Paver

Raise and lower the deck to release the amount of asphalt being laid down.

### Choose LINAK for... Robust and powerful

LINAK products are reliable products, made to last! High quality is the trademark of LINAK, and an element of the highest importance to us.



#### Truck Sign





#### Concrete Saw

Raise and lower guide wheel on a concrete saw cutter.

#### Lifts

Extend and retract the deck on an aerial work platform.

#### Front-end Loader

Make routine service easier with an electric actuator powered hood lift.



## Give your sales a lift...

Use a LINAK<sup>®</sup> actuator for current manual operations or even to replace gas springs and hydraulics. Our products provide movement for a myriad of applications within the construction and off-highway industry.

#### WHAT THE LINAK ACTUATORS DO FOR THE FRONT-END LOADER

#### Positioning of the steering wheel

For easy access and comfort during operation

#### Throttle adjustment

Depending on the type of operation the no. of revolutions and thereby the diesel consumption is adjusted to ensure economic operation

#### Hood lift

Easy access for maintenance and routine service

#### **Steps**

Extension and extraction of the footboard

#### Natural ventilation

Electrical operation of the sun roof for ventilation purposes

#### Seat height adjustment

For improved comfort and ergonomics during operation



#### **RELIABLE AND TOUGH**

- Max thrust up to 10,000 N
- Max speed up to 160 mm/sec
- Standard stroke 100-999 mm
- Heavy-duty aluminum housing for harsh conditions
- Protection class IP 66 / IP 69K
- Integrated brake, high self-locking ability
- Voltage 12, 24 or 36 V DC
- Hall sensors or potentiometer for relative or absolute feedback
- End stops: slip clutch or built-in limit switches
- Solid metal construction
- Hand crank for manual operation
- Salt and chemical tested
- High pressure cleaning-resistant

The LA36 actuator is our most solid and powerful actuator designed to operate under extreme conditions. A very strong alternative to hydraulic solutions and ideal for construction applications.

LA36

#### FLEXIBLE AND POWERFUL

- Max thrust up to 6,000 N in push and up to 4,000 N in pull
- Heavy-duty aluminium housing for harsh conditions
- Protection class IP 66 dynamic, IP 69K static
- Stroke up to 600 mm
- Easy to use interface with integrated power electronics for direct connection to control system
- Potential free limit switches as an option
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length.
- Built-in limit switches and brake

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• Voltage 12 or 24 V DC

The LA35 actuator is a new member of the TECHLINE<sup>™</sup> family. It is characterised by its robust design allowing the actuators to be used in harsh and extreme conditions. The LA35 actuator is designed to meet the challenge, based on the philosophy that it must be able to operate on off-highway equipment such as agriculture, forestry and construction machines.

LA35



LIGHT AND COMPACT	
LA12	<ul> <li>Max thrust: 750 N</li> <li>Max speed: 50 mm/sec</li> <li>Standard stroke: 40-130 mm</li> <li>High quality reinforced plastic housing protects motor and gear</li> <li>Built-in limit switches and EOP</li> <li>Voltage 12-24 V</li> <li>Protection class IP 51 or IP 66</li> </ul>
LA28	<ul> <li>Max thrust up to: 3,500 N</li> <li>Max speed: 46 mm/sec</li> <li>Standard stroke: 100-600 mm</li> <li>High quality reinforced plastic housing protects motor and gear</li> <li>Voltage 12 or 24 V DC</li> <li>Protection class IP 51 or IP 66</li> </ul>

#### RUGGED

- Max thrust up to: 6,000 N
- Max speed up to: 65 mm/sec
- Standard stroke: 50-600 mm
- Stainless steel piston rod
- Protection class IP 66
- Potentiometer for positioning
- Elegant and compact construction with small installation dimensions



# PROTECTIVE

**BELLOW** 

#### VERSATILE

- Max thrust up to: 6,000 N push and 4000 N pull
- Max speed up to: 33 mm/sec
- Standard stroke 100-300 mm
- Built-in limit switches
- Protection class IP 51, IP 54 or IP 66
- High quality reinforced plastic housing protects motor and gear
- Voltage 12 or 24 V DC



- Gives a better protection and therefore a higher liftetime of the actuator
- Protects the inner tube against dust and dirt
- Can be used for the actuators: LA22,
  - LA28, LA30, LA31, and LA32
- Does not change the IP rating
- Available in black

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#### ACCESSORIES

#### **COMPLETE CONTROL**

- Variable power supply 12-36 V DC
- Overload protection adjustable current limit 1-20 A
- Adjustable soft start and stop
- Several versions for different applications
- Integrated brake

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- For all actuators with limit switches
- Easy operation of actuators without use of further electronics
- IP 66 for outdoor use
- Easy to install
- Tested with an LA36 12 V DC for 50,000 operations

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#### **ROCKER SWITCH**

**COMPLETE CONTROL** 

MOTOR CONTROLLER

**TR-EM-208** 



PARALLEL CONTROLLER

- Synchronized parallel control for 2 actuators
- Operates with pulse feedback (Hall or Reed)
- Current and temperature limited
- soft start/stop
- Adjustable drive speed
- Accurate repeatability
- Easy setting via serial interface

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(\*) "The specified product is a third party product that is produced by third party and distributed by LINAK as a supplement to LINAK's existing product range. It is the responsibility of the product user to determine the suitability of the product for a specific application. LINAK will at point of delivery replace/repair defective products covered by the warranty if promptly returned to LINAK."

#### PERFORMANCE IN RUGGED AND HARSH ENVIRONMENTS

When it comes to performance in rugged and harsh environments, LINAK<sup>®</sup> actuators withstand the conditions.

One of our most robust actuators is the LA36. The design of the LA36 has been thoroughly tested to certify that it is durable and rugged enough to ensure a long, maintenance-free life in the most demanding of applications. It is highly engineered and offers safety features, IP 69K, and power to withstand the elements.

Whatever the requirement, the LA36 can successfully perform in the harshest environments and the most demanding situations.





#### LA36 TESTING

Our products undergo thorough climatic, electrical and mechanical testing.



#### **CLIMATIC TESTING:**

- Extreme Temperatures
- Rapid Temperature Changes
- Salt Spray
- Chemicals

#### **ELECTRICAL TESTING:**

- Power Supply
- Power & Signal Cables
- Control Signals
- Electrical Immunity

#### **MECHANICAL TESTING:**

- Vibration
- Shock
- Bump



As technology advances, LINAK will continue to develop products that improve the quality of people's lives and their working environment.

13

#### **OTHER CAPABILITIES**

TECHLINE<sup>™</sup> - FOR HARSH CONDITIONS The TECHLINE<sup>™</sup> systems ease the load and make work easier. The remarkably wide product range offers something for any imaginable type of movement i.e. in industrial and agricultural machinery. With these actuators you can easily reach inaccessible places, open or close sun blinds and roof windows, regulate ventilators, close gates automatically – and save yourself exertion.

- For harsh conditions
- High speeds
- Strong forces
- Long lifetime
- No maintenance

#### **Stationary applications**

Linear actuators make it possible to easily and economically adjust various functions in a wide number of stationary applications. LINAK TECHLINE<sup>™</sup> solutions can improve several facets of your company's working environment including ergonomic lifting, cost-effective automation, and ventilation. Our comprehensive product programme can be tailored to match your specific needs. LINAK TECHLINE<sup>™</sup> solutions allow

you to adapt your workplace to your workers rather than the other way round.



#### **Mobile applications**

Linear actuators from LINAK can be used for thousands of different applications. We offer big advantages compared to other linear movements in mobile equipment. Please contact your local LINAK office who has extensive experience in integrating our products into different applications. When LINAK develops and produces products, quality is the keyword for our employees. LINAK constantly strives to improve the quality and to reduce the risk of faults, which contributes to the fact that our customers experience LINAK as a supplier of high-quality products.

#### LINEAR ACTUATOR TECHNOLOGY



#### LINAK - many years of experience from the industry

LINAK has over 25 years' experience as a supplier of linear movement for a broad selection of mobile and stationary applications in the industrial sector.

Application examples are automation of machine plants, adjustment of agricultural equipment, regulation of roof light windows, ventilation systems, combine harvesters, assembly lines, kettles, valves, and throttles. In brief, any purpose in the industry where a linear movement is required and where LINAK TECHLINE™ can be used to facilitate working operations and maintenance.

#### **TERMS OF USE**

The user is responsible for determining the suitability of LINAK products for a specific application. LINAK takes great care in providing accurate and up-to-date information on its products. However, due to continuous development in order to improve its products, LINAK products are subject to frequent modifications and changes without prior notice. Therefore, LINAK cannot guarantee the correct and actual status of said information on its products. While LINAK uses its best efforts to fulfil orders, LINAK cannot, for the same reasons as mentioned above, guarantee the availability of any particular product. Therefore, LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or other written material drawn up by LINAK.

All sales are subject to the Standard Terms of Sale and Delivery for LINAK. For a copy hereof, please contact LINAK.

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