Our History

Christian Jensen founds his workshop

Grandson Bent Jensen takes over

The first actuator was developed

First ever actuator system for hospital and care developed

US factory opens

About LINAK

Family-owned company (since 1907)

<table>
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<tr>
<th>Subsidiaries</th>
<th>Factories</th>
<th>Distributors</th>
<th>Employees</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>4</td>
<td>15</td>
<td>2,500</td>
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</table>

**HQ:** Guderup, Denmark

**R&D:** Denmark, the USA and China

<table>
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<tr>
<th>Patents</th>
<th>Customers</th>
<th>Special item numbers</th>
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<td>1,200</td>
<td>12,000</td>
<td>28,000</td>
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</table>
Global Presence

30 Subsidiaries

4 Factories

15 Distributors
LINAK U.S. – Louisville, KY

• North & South Campuses:
  • Manufacturing
  • Warehouse
  • Office

• Our Team:
  • Application Engineers
  • R&D
  • Sales Managers
LINAK Segments

The LINAK Group is divided into four individual segments or Strategic Business Units (SBUs):

- **MEDLINE® & CARELINE®**
- **TECHLINE®**
- **DESKLINE®**
- **HOMELINE®**
What is TECHLINE®?

- TECHLINE® improves your life by reassuring and helping you to succeed with reliable and precise movement designed for heavy-duty industrial work situations.
- We do this by paying keen attention to your needs and specifications, and by performing rigorous testing.

Construction  Agriculture  Outdoor Power Equipment

Marine  Grain
What is an actuator?

- Ingress protection is very high (IP69K) which allows for cleaning of unit with a high pressure washer.
- Highly efficient acme thread spindle.
- Non rotating piston rod eye, optional safety nut.
- Exchangeable cables. Change of cables can be done by dealer or end-user without compromising the IP rating of the actuator = cost and time savings.
- Built-in endstop switches. Numerous feedback options for precise positioning. Integrated power switching (IC).
- Thrust from 500N – 10,000N depending on gear ratio and spindle pitch.
- Permanent magnetic motor 12, 24 or 36VDC.
- Mechanical overload protection through integrated slip clutch.
- Hand crank for manual operation in case of loss of power.
- Integrated brake.
TECHLINE® - Primary Products

LA12  LA14  LA23  LA25  LA31  LA33  LA36
LA12 Actuator

LA12 – reliable and compact
• Max thrust up to 750 N
• Max speed up to 40 mm/sec
• Standard stroke 40-130 mm
• Protection class IP66
• Voltage 12 or 24 V DC
• High-quality reinforced plastic housing protects motor and gear
• Built-in limit switches and EOP
• Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
• Operation temperatures: – 20°C to + 60°C
LA14 Actuator

LA14 – robust and reliable

- Max thrust up to 750 N
- Max speed up to 40 mm/sec
- Standard stroke 20-130 mm
- Protection class IP66 dynamic / IP69K static
- Stainless steel inner tube and piston rod
- Voltage 12 or 24 V DC
- Heavy-duty aluminium housing for harsh conditions
- Built-in limit switches
- Wide range of customised feedback options
- Operation temperatures: –40°C to +85°C
LA25 Actuator

LA25 – tough and compact

- Max thrust up to 2,500 N
- Max speed 13 mm/sec
- Standard stroke 20-300 mm
- Protection class IP66/IP69K
- Voltage 12 or 24 V DC
- Built-in endstop
- Operation temperatures: – 40°C to + 85°C
LA33 Actuator

LA33 – tough and powerful

- Max thrust up to 5,000 N
- Max speed up to 35 mm/sec
- Standard stroke 100-600 mm
- Protection class IP66/IP69K
- Voltage 12 or 24 V DC
- Heavy-duty aluminium housing for harsh conditions
- Integrated brake, high self-locking ability
- Hall sensors for relative or absolute feedback, regardless of the stroke length
- Built-in endstop
- Solid metal construction
- Hand crank for manual operation
- Salt and chemical tested
- High pressure cleaning resistant
- Operation temperatures: –40°C to +85°C
LA36 Actuator

LA36 – reliable and tough

• Max thrust up to 10,000 N
• Max speed up to 160 mm/sec
• Standard stroke 100-999 mm
• Protection class IP66/IP69K
• Voltage 12, 24, 36 or 48 V DC
• Heavy-duty aluminum housing for harsh conditions
• Integrated brake, high self-locking ability
• Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
• Endstops: slip clutch or built-in limit switches
• Solid metal construction
• Hand crank for manual operation
• Salt and chemical tested
• High pressure cleaning resistant
• Operation temperatures: –30°C to +65°C
Actuator Academy

• Check out our video series for an in-depth look at our technology options:
  - BusLink
  - Integrated Controller
  - Feedback
Controls

• Integrated Controller (IC)
  • Basic
  • Advanced
  • Parallel

• BUS platforms:
  • CAN bus, CAN Open, MOD bus, LIN bus
IC capabilities

**Local control**
- Switch
- PLC
- BusLink
- Other

**Remote control**
- Bluetooth
- RF Receiver

**Reliability**
- Automatic monitoring of temperature and current
- Automatic adjustment of amp. level (below zero degrees)

**12 or 24 V DC**

**Adjustment**
- Current limit
- Virtual endstop
- Soft start/stop
- Speed

**Feedback**
- Read out:
  - Reason for last stop
  - Temperature
  - Stays/stops
  - End of strokes
  - Voltage/current
TECHLINE® - Applications

John Deere 600 Combine
Disengagement of Straw Chopper – (2) LA36
TECHLINE® - Applications

AGCO Combine Ladder Adjustment – LA36
TECHLINE® - Applications

CNH Unloading Spout - LA36
TECHLINE® - Applications

Wheel Loader Hood Lift – LA36
TECHLINE® - Applications

Wheel Loader Hood Lift – LA36
TECHLINE® - Applications

Crop-Sensing Monitor – (2) LA36
TECHLINE® - Applications

New Holland – Dual Rotor Material Control Fins – (2) LA36
TECHLINE® - Applications

Computer-Controlled Fertilizer Spreader - LA12
TECHLINE® - Applications

Mower Deck Lift – LA36
Additional Information

• [www.linak-us.com](http://www.linak-us.com)
  • Data sheets/User manuals

We would be happy to support your project by supplying actuators for your build. Reach out to us to get started on building an actuator for your tractor:

• Jud Harten – Sales Manager
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  • 502-318-2112

• Ryan Penty – Sales Manager (Canada)
  • [rpenty@linak-us.com](mailto:rpenty@linak-us.com)
  • 502-318-2180

• Brent Gettelfinger – Application Engineer
  • [bgettelfinger@linak-us.com](mailto:bgettelfinger@linak-us.com)
  • 502-318-2165