

**MEDLINE®**  
IMPROVING EFFICIENCY

**CARELINE®**  
IMPROVING EFFICIENCY



# Actuator systems for dental chairs

Fast, smooth, and low-noise movement for optimal performance



# Improve modern dental chairs with smooth, fast, and powerful actuators

High performance and comfort are essential keywords for dentists and their patients everywhere. By integrating electric actuator solutions from LINAK®, your dental chair will be able to deliver smooth, fast, and reliable movement – accommodating both groups. This will help you promote a higher level of efficiency, improved ergonomics for dentists, and far better comfort for patients.

## Easy integration of fast and elegant movement

Through decades LINAK has designed, developed, and manufactured actuators for healthcare applications. We listen to developers as well as to end-users, and this has enabled us to customise solutions accommodating a variety of requests for multiple stakeholders at the same time.

Linear actuators, such as LA40 HP, LA31, LA34 and LA44, all deliver compelling movement with low noise levels, and they are made easy to mount and quick to integrate with your overall control system. They support advanced position memory functions and preset movement patterns, and they are tested to perform flawlessly throughout their service life.

## Enjoy local support by a global partner

Quality, however, is not limited to state-of-the-art products. Large investments in future technology rest upon a good deal of trust – not least in your suppliers. With full-scale manufacturing facilities and represented in 35 countries across the world, we are able to offer local service, support, and market insights, as well as an agile supply chain.

We know, that success is created in collaboration. That is why we proudly offer our knowledge, experience, and our extensive product range as a partner in your next project. To us that is quality too.

*"By offering powerful actuator solutions, cutting edge technology, and a good deal of experience, we can help provide smooth and efficient movement for all types of dental chairs. It truly is a win-win outcome for everybody – dentists and patients alike."*

- Mette F. Fink, Business Development Manager,  
LINAK

## LINAK offers service worldwide

Please contact your local LINAK office with your enquiry.



# Developing today to prepare for tomorrow

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Recently, LINAK® launched a new version of the popular linear actuator LA40. The LA40 HP (High Performance) delivers the characteristic smooth LINAK movement. It is flanked by all the familiar safety features, such as ratchet spline, and comply with all necessary international standards and norms. It is also remarkably low-noise (<50dB) considering the fact that it delivers a thorough full-stroke push of up to 8,000 N.

Through tireless research, development, and constant technological innovation, we have refined movement building on information gathered from dental professionals. The result is highly adaptable and flexible dental chair solutions with position memory, enabling you to help dentists stay efficient all day every day, and provide great comfort for the patients.

## The linear actuator series

LINAK has a broad range of electric actuators ideal for dental chairs. The LA40 HP is the latest in a series also covering actuators such as the LA31, the LA34 and the LA44 – delivering high-power movement in both push and pull.

Development in inline actuators continues to be a focus area too. Integrating movement where physical space is limited requires products like the LA20 that, though small and elegant, push up to 2,500 N.

No matter what LINAK actuator you need to perfect your dental chair application, you can rest assured that everything merges easily with your overall control system. Mounting is easy and service life, even with little or no maintenance, is long and flawless.

Adding a LINAK foot switch FS3, you include an intuitive control, allowing users to adjust the chair while keeping both hands free to care for the patient and improve overall ergonomics. The FS3 is equally easy to integrate and it is designed to match all LINAK set-ups.

Go to our website for more information about our products for the dental chair solution.





# Actuators

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## LA20



- Max thrust: 2,500 N
- Max speed: 8.9 mm/s
- IPX6

## LA31 CARELINE®



- Max thrust: 6,000 N push  
(4,000 N pull)
- Max speed: 32.0 mm/s
- IPX6

## LA34



- Max thrust: 10,000 N
- Max speed: 18.0 mm/s
- IPX6

## LA40



- Max thrust: 8,000 N
- Max speed: 16.0 mm/s
- IPX6 Washable DURA™



# Actuators

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## LA40 High Performance



- Max thrust: 8,000 N
- Max speed: 20.0 mm/s
- IPX6 Washable DURA™

## LA44



- Max thrust: 12,000 N
- Max speed: 14.0 mm/s
- IPX6 Washable



# Controls

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## FS3



- Analogue or OpenBus™
- 1 channel per foot switch
- IPX6

# Optimise efficiency, ergonomics, and comfort in the clinic

As a dentist the well-being of your patient is literally in your hands. To be able to provide both comfort and professional dental care for the patient, a number of things need to be optimal.

A comfortable dental chair with smooth movement patterns powered by LINAK® actuator technology enables you to offer the patient solid support for legs and the lumbar region, as well as a precise neck support.

At the same time, you will have a chair with fast and durable movement for years, requiring a minimum of service. You will be able to optimise ergonomics around the chair making your workday pleasant. All-in all, you will increase the level of efficiency – benefitting the patient as well as yourself and your staff.

## With LINAK comes several safety features

Quality movement in dental chairs include a number of safety features. These are primarily designed to protect the users. However, they also work as protection of the equipment, preventing it from underperforming, operating hazardously, or simply breaking down.

Examples of specific features include our patented safety nut that acts as a precaution against potential failure of the main nut. Another feature is the ratchet spline function. This prevents accidental squeezing of limbs between moving parts in an application and prevents the application from being damaged.

Generally, LINAK works closely together with dental chair manufacturers to include as many safety features as possible. Some features are optional, while others are standard in systems powered by LINAK actuators.



## Did you know?

- that Brazil has the largest number of registered dentists in the world? 242,266 in total<sup>1</sup>. The Pacific country of Nauru has just one.
- that the Polynesian island of Niue, however, has the best dental coverage. 2.45 dentists per 1,000 inhabitants. In Benin the figure is 0.001 per 1000 (in Brazil it is 1.22)<sup>1</sup>
- in 2014, a study at Yale University showed that US-counties with a higher number of dentists per capita have strikingly lower rates of obesity<sup>2</sup>.
- that 'dental tourism' is a growing business. The US-based organisation Patients Beyond Borders estimated that some 400,000 Americans crossed the border during 2012 to have dental service<sup>3</sup> – expecting a growth of 20 % annually. In Europe, Hungary has earned the name "dental capital of Europe", while Thailand and Malaysia hold a similar status in Asia.

<sup>1</sup> WHO Global Health Observatory, February 2018

<sup>2</sup> SciTech Daily, 4 September 2014

<sup>3</sup> Fox News Travel, November 2013

# Resting on the pillars of the LINAK values

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Due to modern production automation and a thorough testing programme, LINAK® is decades of experience, a broad product range, and a consistent high quality. Combined with our global presence and our comprehensive local market insights, these assets form your shortcut to full compliance in your market.

We have a well-developed sales and service set-up covering Europe, the Americas, Asia, and Australia. This enables us to assist you locally, following our sales concept: Be global, act local!



Built on state-of-the-art technologies and refined processes by competent people, you can expect the same quality worldwide.



Innovation is in our core. We have the curiosity to think innovatively and the power to make it real on all levels.



We are responsible in what we do – towards customers, employees and environment. Creating trust and taking care is in our DNA.



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

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