

Press Release

Sumitomo Drive Technologies presents new DA10 at SPS 2024

Smallest single-stage gearbox with high power density for precision applications

Markt Indersdorf (Germany), October 28, 2024

Sumitomo Drive Technologies is expanding its precision gearbox portfolio in the DA series with the new size 10 – the smallest single-stage gearbox in the series with an outer diameter of just 110 mm. For the first time, the drive systems provider will showcase the new variant of its DA gearbox series at SPS 2024 from November 12 to 14 in Nuremberg at booth 368 in Hall 3.

Other highlights of the joint exhibition with the Lafert Group and Invertek Drives include the Tuaka actuator series, a fully integrated drive for robots and cobots, as well as Smartris, a drive solution combining a gearbox, servo motor, and drive controller for automated guided vehicles (AGVs) and autonomous mobile robots (AMRs). Visitors will also have the chance to experience the Cyclo principle interactively with a model. The invention of the cycloidal drive by Lorenz Braren nearly 100 years ago, which laid the foundation for gearbox technology, remains a cornerstone of Sumitomo Drive Technologies' key products, confirming the company's ongoing leadership in technology.

Compact Power: New DA10 Gearbox

With an outer diameter of 110 mm, the DA10 is the smallest model in the series, offering a compact design and high power density. It was specifically developed for applications that require zero-backlash operation, compactness, high torque density, and precision, such as in robotics, machine tools, or medical technology.

The DA10 is available with gear ratios of 41:1, 59:1, and 89:1 and features an angular contact ball bearing integrated directly into the gearbox housing. The gearbox delivers acceleration torques of up to 300 Nm and emergency stop torques of up to 600 Nm. This product line has no mechanical backlash, and the lost motion is specified at less than 1 arcmin.

Custom Solutions with Modularity

Like all gearboxes in the DA series, the DA10 can be mounted to nearly any motor thanks to a modular system, offering shorter delivery times and flexibility in motor combination choices. The base gearbox is available from stock, and flange mounting is made easy with a wide range of motor adapters. In true plug-and-play style: mount the gearbox, screw on the motor, and you're done – gearbox installation doesn't get any simpler.

The DA10 is characterized by its extremely quiet operation and long service life. Thanks to its fully sealed design, it is maintenance-free and requires no additional lubrication.

German-Japanese Development Alliance

The DA10 is the latest result of close collaboration between Sumitomo Drive Technologies teams in Japan and Germany. The modular concept was developed at the Markt Indersdorf location and is based on the knowledge and innovations from Japanese gearbox development. This new gearbox variant will be distributed worldwide and will be available from stock starting in January 2025.

Cycloid Principle to Touch

At the booth in Hall 3, Stand 368, visitors will also have the opportunity to experience the Cyclo principle firsthand by interacting with a model.

Although cycloidal gearboxes may seem complex at first glance, their design is remarkably simple: they are eccentric gear mechanisms without gears. A motor drives the input shaft, on which an eccentric bearing is mounted. As the eccentric rotates, it rolls the cam disks along the inner circumference of the fixed bolt ring. The resulting motion is similar to a disc rotating inside a ring. The cam sections sequentially engage with the bolts of the bolt ring, generating a reversed rotation at a reduced speed. This reduced rotational movement of the cam disks is transferred to the output shaft through bolts engaging in the cam disk holes. This principle enables high torque with smooth, vibration-free operation.

For nearly 100 years, these gearboxes have stood for utmost precision and durability, particularly in automation and robotics. What began in 1925 with the groundbreaking patent of the Cyclo principle by Munich engineer Lorenz Braren in Europe has grown into a symbol of German engineering excellence and an international manufacturer of drive solutions, with its European headquarters near Munich. The unique Cyclo principle behind the cycloidal gearbox still shapes Sumitomo Drive Technologies' product range today.

Thus, Sumitomo Drive Technologies is a pioneer of cycloid technology, having developed trailblazing products over nearly a century of company history: from compact and reliable precision gearboxes to industrial gear units and complete drive solutions.

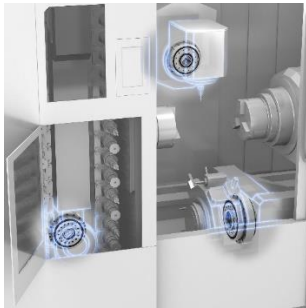
Available Image Material

You can download images at: <https://emeia.sumitomodrive.com/en-gb/press-material>



Source: Sumitomo Drive Technologies

The new DA10 gearbox: Compact design and high power density



Source: Sumitomo Drive Technologies

Machine tools: Maintenance-free due to fully sealed design



Source: Sumitomo Drive Technologies

Medical technology (e.g., MRI): Notable for exceptionally quiet operation



Source: Sumitomo Drive Technologies

Robotics: Specifically designed for precision applications

About Sumitomo Drive Technologies

Sumitomo Drive Technologies' products and solutions drive and sustain processes, facilities, and machinery across various industries. With its global product and service portfolio, the company has been combining tradition and innovation for over 140 years, ensuring that drives perform their work precisely and reliably. The offering includes precision drives, standard drives, industrial gearboxes, centrifuges, as well as complete drive packages and connected solutions for the automation of Industry 4.0 – ranging from standard products to highly specialized developments and individual adaptations.

Drive Technology Globally Close to the Customer

With ten production facilities, over 30 assembly plants, 250 sales offices, and around 7,000 employees on five continents, Sumitomo Drive Technologies has an extensive network to be close to regional customer requirements worldwide.

Sumitomo Drive Technologies is part of Sumitomo Heavy Industries Ltd., one of the largest corporate groups in Japan and the world, with an annual revenue of around 7 billion euros in 2023.

For more information, visit: www.sumitomodrive.com

Press contact:

Sumitomo Drive Technologies
Lisa Kaltwasser
Cyclostraße 92
85229 Markt Indersdorf
Germany
Telephone: +49 8136 66 168
Email: lisa.kaltwasser@shi-g.com
Website: www.sumitomodrive.com