

AUTOMATED GUIDED VEHICLES (AGV)

At BJ-Gear A/S, we specialize in delivering customized transmission and linear solutions for the AGV/AMR industry. Our compact and robust cast iron worm gearboxes are designed for high performance, energy efficiency, and reliability. They are already implemented in a wide range of applications such as automated guided carts, robotic forklifts and unit load AGVs.

Expertise and Partnership

Through close and long-term collaboration with our customers, we have developed deep expertise in the central role of gears and the high demands placed on them within the AGV industry. Our experience shows that combining engineering expertise with standard gears, customized gears, and specially developed transmission components is the key to achieving the optimal solution.

We offer flexibility and innovation throughout the entire process - from development and design to implementation and continuous adaptation - ensuring that our products always meet the industry's evolving needs.

OUR KEY STRENGTHS:

In-house engineering Traceability

Customization Test and analysis facilities

Compact design Lifetime spare parts

Online configuration Short delivery Quality assurance Logistic services

INDEPENDENT MANUFACTURER WITH FLEXIBILITY

As an independent manufacturer, BJ-Gear A/S offers unparalleled flexibility and tailored solutions. Our independence ensures that we can meet specific customer needs without compromise - delivering solutions that integrate seamlessly into existing systems and support universal compatibilitv.

At BJ-Gear A/S, we are committed to delivering the highest standards of quality and innovation, ensuring our customers receive reliable and efficient gear solutions that add value and stability to their AGV applications.

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BJ-Gear has delivered a comprehensive solution to Elektroautomatik AB, consisting of two key functions: a dual spindle system and a drive for a load turning system.

The dual spindle system is an integrated assembly comprising three series 52 worm gears, a motor, a brake, a ballscrew spindle, and a connecting shaft. This system is specifically designed for a lifting function, offering precise and reliable operation in demanding industrial environments.

The load turning system drive is built using a combination of series 42 and series 61 worm gears, equipped with a motor and a flange encoder. This configuration ensures efficient and accurate control, providing optimal maneuverability and precision in Elektroautomatik AB's advanced systems.

Together, these solutions highlight BJ-Gear's expertise in delivering customized and innovative gear solutions tailored to the specific demands of automated applications.



BJ-Gear has delivered a customized solution to Elektroautomatik AB, featuring a series 42 worm gear combined with a planetary gear and a 48V AC motor. This solution is specifically designed as a drive for a steering wheel.

The integrated system is engineered to deliver reliable and precise performance in demanding industrial applications. By combining the worm gear with a planetary gear, the drive achieves high efficiency and torque transmission in a compact design, making it ideal for automated

systems requiring precise steering functionality.

In this case, Elektroautomatik AB supplies the encoder themselves, allowing them to further adapt the solution to their specific requirements. This collaboration highlights BJ-Gear's ability to provide flexible and tailored gear solutions that seamlessly integrate with customer components.



BJ-Gear has provided a customized solution in the form of a gear unit with an integrated brake. This solution is supplied to the company AGVE for use in their advanced automated transport systems.

The gear unit is designed to ensure precise and reliable performance in demanding industrial environments. With the integrated brake, it offers a compact and efficient solution that

meets the high requirements for automated vehicles, where accuracy, durability, and space optimization are essential.

In this case, AGVE integrates their own motor with the gear unit, allowing them to tailor the solution to their specific performance and application needs, further enhancing the flexibility of their automated systems.



BJ-Gear has delivered a customized solution in the form of a series 42 worm gear with an integrated 24V DC motor and brake. This solution is used as a steering wheel on an advanced AGV (Automated Guided Vehicle) developed by the Swedish company
Flektroautomatik AB





ROBUST AND RELIABLE WORM GEARBOXES

BJ-Gear's worm gearboxes are developed with a focus on durability and long service life. The gearboxes are made from high-quality materials such as cast iron, aluminum, and stainless steel, featuring hardened steel worms and high-performance bronze worm wheels. The gearboxes are extremely quiet due to precision manufacturing and the smooth operation of the worm gear system.

FEATURES AND ADVANTAGES

- · Sturdy and reliable
- Strong bearings in solid housing
- · High efficiency or self locking
- · Aluminium, stainless steel or cast iron
- · Custom design
- Can be fitted with AC, DC or servo motors, encoders and brakes

- · High loads
- · High speed range
- Extremely robust
- · Simple and compact design
- · Modular design with great flexibility

Customisation is our standard

BJ-Gear A/S is one of the leading companies within developing, manufacturing and assembling gearboxes, geared motors, linear products, special gearboxes and complete transmission solutions.

We benefit from modern production facilities and highly qualified staff, which enable us to offer a wide product range with a consistently high quality. Our combination of innovation,

know-how, modern production facilities and our focus on customers' needs make us a competent partner.

Flexible production and fast delivery

Our flexible production machinery and our modular designed product range ensure short delivery times, also for special products. The flexibility also enables us to produce standard or special products in smaller numbers.

We have more than 25,000 components in our warehouse and we stock most spare parts to be dispatched immediately.

Alternatively, our flexible production system enables us to swiftly manufacture desired parts. We are certified to the EN ISO 9001 standard for quality management.

CSR - Investing in the environment

BJ-Gear A/S takes responsibility for the environment. Our aim is to help reduce the CO2 impact on the climate, while also strengthening employee welfare. Therefore, we prioritise sustainability and decent working conditions in our investments and activities

