



**BREVINI<sup>®</sup>**

*Motion Systems*



The New King of Power

# Brevini EvoMax<sup>TM</sup>

More torque, greater efficiency, longer service.

# Technical value proposition

**More torque, greater efficiency, longer service.**

Brevini EvoMax™ brings you best-in-class torque density, higher efficiency, less noise and low-temperature operation. With an even greater range, rationalized design and improved gearing profiles, Brevini EvoMax™ is the new King of Power.



## 5 New Sizes

Split housing new sizes: 36 - 43 - 48  
Monoblock new sizes: 19 - 26

## 14 Gearbox Redesigns

Watch the technical video.



### Optimized Housing Design

- Reduced weight
- Improved acoustic isolation
- Optimized internal oil flow
- Increased structural strength
- Better thermal efficiency
- Compact one piece up to size 31
- Optimized mounting surfaces for Plano-helical solutions and single screw injector drives

### Low Noise Levels

- Optimized gearing enables smoother running
- Helical gears are case-hardened and ground

### Low Temperature Operation

- Housing material
- Seals (optional NBR and PTFE)

### Best-In-Class Torque Density

- Range increased with 5 new sizes for more targeted solutions
- Higher torque ratings from existing gears
- Less weight per gearbox
- Smaller physical envelope

### High-Efficiency Gearbox

- Optimized gearing profiles
- Improved seals (contactless if needed)

# Sustainability

## How does Brevini EvoMax™ improve sustainability for you?

Sustainability is not a single concept. Traditionally it is seen as a benefit to the environment, yet a sustainable solution will also be beneficial to the people working around the equipment. It will also refer to the economic question: does this product represent a sustainable cost?

- Better torque distribution curve
- Best-in-class torque density
- High efficiency
- Optimized oil levels
- Low noise

### How we do it and what the benefits are

The new Brevini EvoMax™ has been developed to provide greater efficiency. This is achieved through optimized gearing profiles, using high-efficiency bearings and with the option of contactless mechanical seals. Together with optimized oil levels and a new housing design, the result is a product that is quieter to run responding to environmental issues when operating near urban areas.



# Lower Acquisition Cost

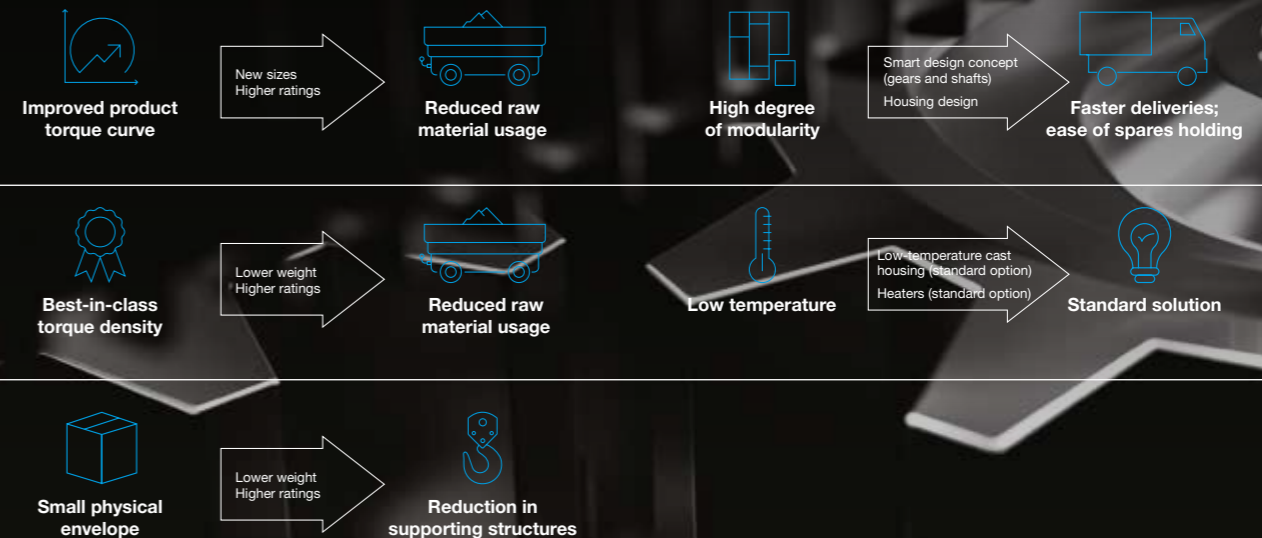
## How does Brevini EvoMax™ ensure a lower acquisition cost?

In developing the new gearbox range we have implemented strategies to generate savings and improve quality. Intelligent design and the increased range of available gearbox sizes with higher ratings have led to a lower acquisition cost.

- Better torque distribution curve
- Best-in-class torque density
- Smaller physical envelope
- High degree of modularity
- Low temperature operation as a standard option

### How we do it and what the benefits are

The new Brevini EvoMax™ exploits a smart modular concept design which allows for common parts between different stages and sizes meaning fewer parts, lower costs, and faster deliveries. For low temperature environments, the gearbox is designed with a standard low-temperature cast housing as optional, thus avoiding the need for a custom-built casing and accommodates low-temperature accessories such as heaters. Together, these new features mean lower acquisition costs when using the Brevini EvoMax™ gearbox.



# Lower TCO

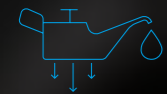
## How does Brevini EvoMax™ enable a Lower Total Cost of Ownership?

Lower Total Cost of Ownership is a key aspect for customers whose machinery integrates one of these gearboxes, and it is important to evaluate the overall impact when selecting a solution. As a manufacturer and partner to many industries, we consider this a priority.

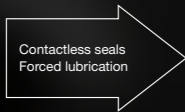
- Optimized oil levels
- High efficiency
- High degree of modularity
- Smaller physical envelope
- Facilitates maintenance

### How we do it and what the benefits are

By implementing clever design features and engineering the gearboxes to allow for less energy and optimized oil consumption, we have been able to guarantee customers a lower overall cost of ownership. Beyond the simple reduction in operating costs, uptime is increased leading to better productivity. The modular design allows for a smaller stock of spares and faster maintenance when needed. Lastly, a smaller, safer-to-handle product also contributes to lowering the TCO.



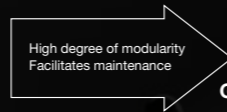
Optimized oil consumption



Reduced maintenance costs



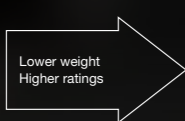
Increased uptime



Greater productivity



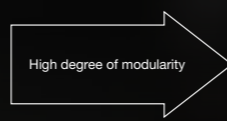
Lower energy consumption



Lower operating costs



Reduced stock requirements



Lower spare parts budget;  
less downtime


# Applications


# Bulk Material Handling Steel and Cement Works


## Conveyor Drives


Often operating in demanding environmental conditions, in almost all cases conveyors run continuously and have a high power demand. Conveyor installations are usually found in areas where it is impossible to implement external cooling solutions such as water/oil coolers or electric fans. Featuring an integrated fan in the motor bell housing, Brevini EvoMax™ gearboxes ensure improved overall thermal capacity allowing for improved heat dissipation without increasing the gearbox size.

### More key benefits

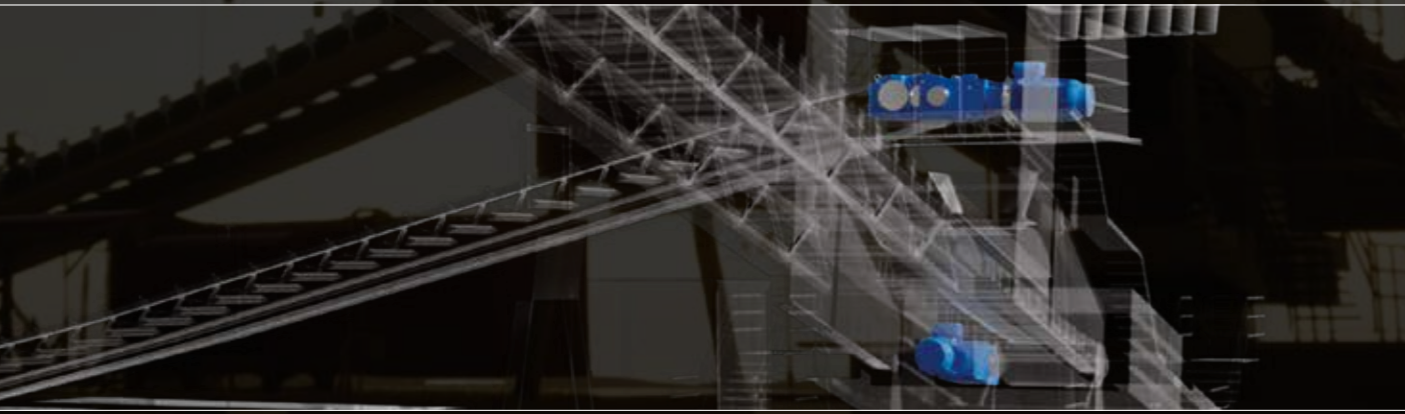
- 
  - Reduction in supporting structure
  - Lower installation costs
  - Easy to fit into space-limited equipment envelopes

**Small physical envelope**
- 
  - Lower power consumption → reduced carbon footprint
  - Lower power consumption → lower operating costs

**Improved gearbox efficiency**
- 
  - Lower weight and higher torque ratings → less material helping to lower carbon footprint
  - Smaller gearbox means lower capital investment

**Improved torque density**
- 
  - Reduction in supporting structure
  - Lower installation costs
  - Easy to fit into space-limited equipment envelopes

**New sizes improve overall torque distribution curve**




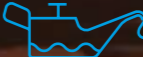
# Waste Management & Water Treatment

## Archimedes Screw

Archimedes Screw Pumps are used for pumping fluids from low-level areas to higher ground. Typically, applications include sewage plants, flood defence, drainage and irrigation systems. The Brevini EvoMax™ offers improved gearing profiles meaning lower noise, a strict requirement particularly near urban areas. The Brevini EvoMax™ also offers higher efficiency making it an excellent option when using the Archimedes Pump as a generator by reversing the flow.

### More key benefits

- 
  - Ensures faster lead times
  - Ease of maintenance
  - Increased reliability

**High degree of modularity**
- 
  - Optimized oil consumption
  - Increased efficiency → lower energy consumption
  - Lower risk of environmental impact
  - Lower operational costs

**Optimized oil levels**



# Port Equipment

## Hoist Drive – STS Crane

With the rise in global trade, demand on Ship to Shore cranes has grown. This has led to larger and faster cranes to cope with increased throughput at ports. Consequently there is a greater demand for power and speed made on the gearboxes. With improved torque density, the Brevini EvoMax™ provides more torque and more power without compromising weight and size. This is achieved by the flexibility that comes from offering an asymmetrically shaped housing, optimized to best fit hoisting applications.

### More key benefits



- More sizes allowing for optimized product selection
- Lower capital investment
- Improved torque density

#### Torque distribution curve



- Reduced power loss
- Improved thermal capacity
- Lower energy consumption

#### Improved gearbox efficiency



- Improved torque density
- Optimized weight and size allowing for easier installation
- Fits easily into limited application envelopes

#### Small physical envelope



# Off-shore Marine Industry

## Carousel Drives

Typically, a carousel basket is located on a ship storing large amounts of cable which will be laid subsea. The marine environment can be harsh, with ambient temperatures varying from location to location. Reliability is key. After long periods during which the drives are inactive, when cable-laying operations start, the basket will run continuously for long periods of time. The Brevini EvoMax™ can be supplied with materials suitable for low temperatures, as well as features that can be used to optimize the thermal ratings in high-temperature conditions.

### More key benefits



- Ease of installation in confined spaces
- Lower installation costs
- Improved torque density

#### Small physical envelope



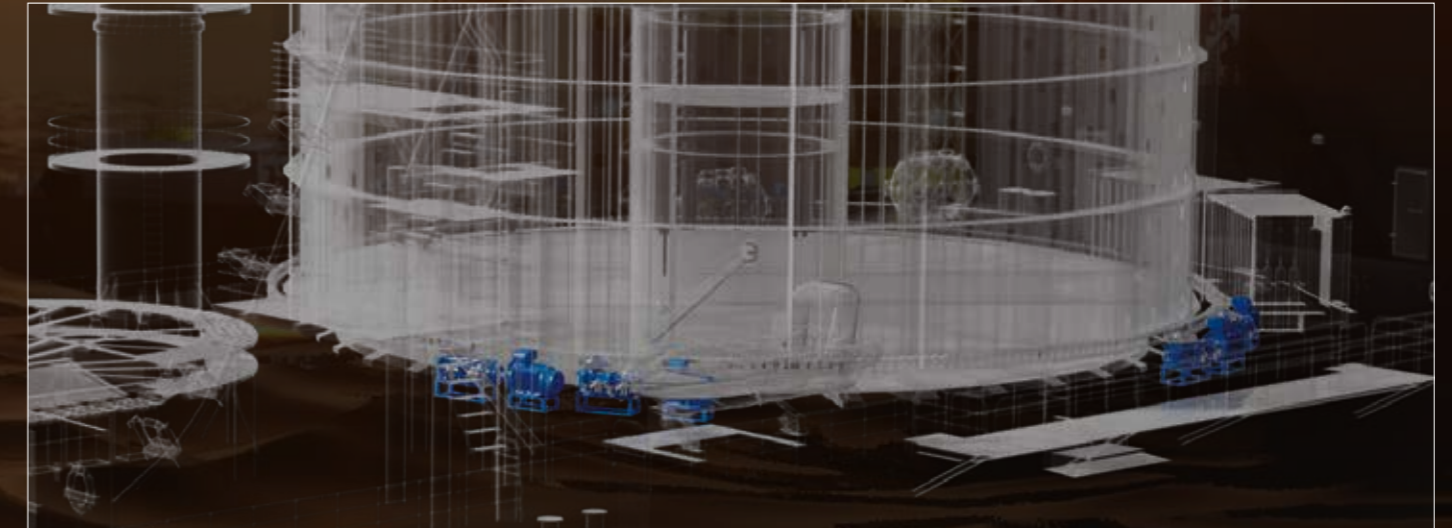
- Optimized oil consumption
- Increased efficiency → lower energy consumption
- Lower risk of environmental impact
- Lower operational costs

#### Optimized oil levels



- Ensures faster lead times
- Ease of maintenance
- Increased reliability

#### High degree of modularity





*People Finding A Better Way<sup>®</sup>*

Dana is a leader in the design and manufacture of highly efficient propulsion and energy-management solutions that power vehicles and machines in all mobility markets across the globe. The company is shaping sustainable progress through its conventional and clean-energy solutions that support nearly every vehicle manufacturer with drive and motion systems; electrodynamic technologies, including software and controls; and thermal, sealing, and digital solutions.

Based in Maumee, Ohio, USA, the company reported sales of \$8.9 billion in 2021 with 40,000 people in 31 countries across six continents. Founded in 1904, Dana was named one of “America’s Most Responsible Companies 2022” by Newsweek for its emphasis on sustainability and social responsibility. The company is driven by a high-performance culture that focuses on valuing others, inspiring innovation, growing responsibly, and winning together, earning it global recognition as a top employer.

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### Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.

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