Market-leading Brevini® motion systems from Dana optimize machine performance while maximizing yields. Our products meet requirements for the most diverse marine applications.
Founded in 1904, Dana Incorporated is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, and off-highway markets, as well as industrial and stationary equipment applications.

We maintain a competitive advantage in the marketplace with a commitment to delivering on the five dimensions of our enterprise strategy—leveraging the core, strengthening customer centricity, expanding global markets, commercializing new technology, and accelerating hybridization and electrification.

Each day, in both large and small ways, Dana is defined as People Finding A Better Way®.

Corporation Business Units
Dana serves global light vehicle, medium/heavy vehicle, and off-highway markets through four business units—Light Vehicle Driveline Technologies (Light Vehicle), Commercial Vehicle Driveline Technologies (Commercial Vehicle), Off-Highway Drive and Motion Technologies (Off-Highway), and Power Technologies, which is the center of excellence for sealing and thermal management technologies that span all customers in our on-highway and off-highway markets.

Off-Highway Brands

Drivetrain Systems
- Spicer

Motion Systems
- Brevini
- PIV

Sealing
- Victor Reinz

Off-Highway Sectors

MOBILE

Agricultural
Our products are engineered to support increased crop yields, optimized harvesting operations, lower emissions, improved operator safety and comfort, and reduced total cost of ownership, while complying with evolving emissions standards.

Construction
Integrated drive and motion systems from Dana enhance construction equipment performance, efficiency, and productivity, with a range of solutions for vehicles ranging from 3 to 50 tonnes (4 to 55 tons), Spicer® axles, wheel drives, transmissions, pumps, and Brevini® motion products are integrated with the most advanced technologies for improved machine operation on any job site, in any condition.

Mining and Forestry
Dana designs complete drive and motion systems to meet increasing industry demands for automation and productivity, coupled with high safety standards. Our solutions are specially engineered to maximize vehicle performance in extremely harsh environments.

Material Handling
Our custom drive and motion systems enhance material handling and surface-mining vehicle performance, productivity, and power. Spicer® transmissions, axles, and drivelines are designed to work seamlessly in any vehicle to allow operators to engage, lift, and transport heavy loads with more precision.

INDUSTRIAL
Dana’s portfolio of advanced motion technologies has been engineered to support increased productivity and reliability, lower emissions, improved operator safety and comfort, and reduced total cost of ownership.
Marine Applications

Dana works with customers in the marine industry around the world, offering solutions for both industrial applications and self-propelled machines. Our wide range of Brevini® products for this sector include planetary gearboxes, helical and bevel helical gearboxes, winches, and other motion products that have been developed for high-efficiency working functions.

Whether a customer requires standard products or customized solutions engineered specifically for their needs, Dana can deliver.

Brevini planetary gearboxes have been used in the marine market for many years. For applications such as winches and cranes, Dana can support the required industry specifications and certifications. Combined with our range of fluid power solutions, we can provide customers with safe, reliable solutions for their unique applications.

Marine equipment varies from onshore port applications to offshore marine environments. Onshore includes ship-to-shore (STS) cranes, rubber tyre gantry (RTG) cranes, rail-mounted gantry (RMG) cranes, harbor cranes (MHC and GHC), ship lift systems, reach stackers, and straddle carriers. Offshore applications include cable- and pipe-laying vessels, cargo ships, subsea systems, oil platform equipment, remotely operated vehicle (ROV) launch and recovery systems, and more.

Dana’s offering includes consulting, systems design, engineering, procurement, manufacturing, and aftermarket support for turnkey projects, new equipment, upgrades, and modernizations.
Full-System Solutions for Deck Cranes

Deck cranes – cranes installed on the deck of a ship – come in a wide variety of types and sizes, and are often classified by the specific application for which they are designed. All deck cranes share similar basic functions – lifting, lowering, and positioning a load from one site to another. However, functionality varies greatly depending on where the crane is being used.

Deck cranes designed to move loads when a ship is docked in the quay handle much smaller loads than deck cranes for offshore applications, which need to manage several hundred tons, often while ships are floating in a stormy sea.

Customizable design options include hydraulic and electric drivelines; telescopic, knuckle, or lattice booms; a range of control system features to improve accuracy; and environmental features to optimize performance based on worksite conditions. Dana works with customers to ensure that all local standards are met, as well as regulations set by the International Association of Classification Societies (IACS).

Dana offers customized solutions to meet a range of customer needs, including modular designs and add-on accessories.
Cable- and Pipe-Laying **Tensioners** and **Azimuth Thrusters**

**Cable and Pipe Layer and Tensioner**

Cable-laying ships are designed for offshore applications. Cable-laying ships lay cable for electric power transmission and telecommunications. Pipe-laying ships are used in the construction of subsea infrastructure for the oil and gas industry. A grapple system (tensioner) assures that the cable or pipe is laid properly. It can also retrieve damaged or misplaced cable/pipe from the ocean floor.

**Azimuth Thrusters**

A propulsion system with a rudder steering function, an azimuth thruster delivers precise accuracy and maneuverability combined with efficient speed control. These advantages make the thruster a perfect propulsion solution for cruise ships, mega yachts, ferries, and other offshore vessels. The thruster is also one of the most important systems for safe and reliable navigation. Consequently, all components must comply with stringent IACS requirements.

**Brevini® Helical and Bevel Helical Gearboxes**

- Carousel drives
- Supports torque range up to 2200 kNm
- Extensive ratio range
- Special output shaft and bearing
- Forced lubrication system with double motor pump and bypass
- Integrated electromagnetic brake

**Brevini® Industrial Planetary Gearboxes – S Series**

- Tensioner drive with integrated output support
- Nominal torques up to 2,170 kNm
- Multiple output shaft options
- Inline and right angle configurations available
- Suitable for both hydraulic and electric motors
- Negative multidiode brake

**Brevini® Winch Drives**

- Winch drive for auxiliary hoist system
- Ratio range up to 6,000:1
- Maximum torque up to 850 kNm
- Inline and right angle configuration versions available
- Electric motor connection available
- ATEX certification
- Integrated hydraulic failsafe negative brake and electromagnetics brake available
- Safety devices available as back stop, torque limiter, and sensors

**Brevini® Axial Piston Motor**

- Main hoist drive motor
- Fixed and variable displacement up to 216 cc/rev
- Seven or nine piston options
- Wide control valve range
- ATEX certification
- Environmentally Acceptable Lubricants (EAL fluids)
- Suitable for working in harsh and aggressive environments

**Brevini® Planetary Gearboxes – Slewing Drives**

- Steering drive with integrated output pinion; high quality and special toothing profile
- Output support with eccentricity for a very accurate teeth backlash adjustment
- Integrated safety device options (torque limiters, switches, sensors)
- Environmentally Acceptable Lubricants (EAL fluids)
- Pollution free regulations

**Dana offers customized solutions to meet a range of customer needs, including modular designs and add-on accessories, marine painting cycle and full third party marine certification.**
Offshore Marine

Brevini® motion systems from Dana include a wide portfolio of products for lifting, pulling, and slewing machinery. These solutions are designed for marine and offshore applications including cranes, dredgers, gangways, anchor and mooring winches, and hatch covers. Dana also offers Brevini gearboxes designed for the life-saving equipment used on life boats. These products allow the equipment to be lifted and dropped into the water.

The proven reliability and strength of Brevini planetary gearboxes is matched by Brevini slewing gear drives that deliver optimal performance in all temperatures and climatic conditions. In addition to gearboxes, slewing drives, winches, and winch drives, Dana offers additional Brevini motion products such as axial piston motors and pumps, and proportional valves developed to perform with high-efficiency working functions.

- Dredgers
- Embarking gangways
- Embarking stairs
- Anchor and mooring winches/windlasses
- Capstans for cable-laying equipment
- Deck cranes and machinery
- Jack-up systems
- Hatch covers
- Winches for life boats/pipe handling davits
- Pods/azimuts/thrusters
- Trawling winches
- Umbilical reel winches
- Pilot house/steering equipment
- Offshore machinery
- Offshore platform cranes
Rubber Tyred Gantry (RTG) Cranes

With the advantage of wheels providing easy mobility, RTG cranes are harbour cranes used in intermodal operations to ground or stack containers. They are located in the stock-handling areas of the terminal. With RTG cranes, inbound containers are stored for future pickup and outbound containers are stored for future loading onto vessels. These cranes typically straddle multiple lanes, with one lane reserved for container transfers.

Brevini® Industrial Planetary Gearboxes – S Series
- Wheels steering system drive
- Ratio range up to 5,000:1
- Modular design
- Marine painting cycle
- Others options solution on request also for 16W

Brevini® Helical Bevel Helical Gearboxes – Posired 2 Series
- Main host
- Dedicated design for single-drum drive
- Shape and cost customization
- Auxiliary drive system on board
- Marine painting
- Extensive ratio range
- Supports torque range up to 1300kNm
- Spheroidal graphite cast iron housing
- High efficiency
- Diverse low speed shaft options
- Premium sealing
- Reliable operation
- Low noise

Dana offers customized solutions to meet a range of customer needs, including modular designs and add-on accessories.
Located near the sea or tidal rivers for easy access, a shipyard is a place where ships are built and repaired including yachts, military vessels, cruise liners, and other cargo or passenger ships. Many specialized cranes are used in large shipyards for lifting – mostly ship-lifting and ship transport. These cranes may also be used in dry docks, slipways, dust-free warehouses, painting facilities, and extremely large areas for ship fabrication.

A shiplift is used to dry dock and launch ships. It consists of a structural platform that is lifted and lowered vertically by a number of hoists. First, the platform is lowered underwater, then the ship is floated above the support, and finally the platform and ship are lifted and the ship is brought to the level of the quay. A ship transport is the main way to move the ship into the dry dock, by wheel or rail trolleys and mobile boatlift.

Dana offers customized solutions to meet a range of customer needs, including modular designs and add-on accessories.
Brevini® planetary drives and helical gearboxes, along with Spicer® cardan driveshafts, are operating around the clock in ports all over the world, loading and handling enormous containers onto ships.

In many ports, harbor cranes are the pillars of the logistics chain. These cranes are used in heavy-duty industrial processes such as loading and transportation of containers. Brevini gearboxes and slewing gear drives operate smoothly and accurately to rotate the fully loaded cranes.

With global expertise in the design and manufacturing of highly efficient technologies, Dana’s portfolio of Brevini products includes planetary and helical gears units, winches, and winch drives along with hydraulic solutions such as axial piston pumps and motors, proportional directional valves, and electronics.
Global Strength

One of the ways we create value is by positioning our technical and manufacturing resources where customers need us globally. Today, that’s 33 countries on six continents.

To help customers achieve success, top-tier suppliers must have a global perspective that can be adapted to meet local requirements and end-user expectations. Dana’s worldwide leadership, strengthened by the international presence of Brevini®, is the key to serving over 5,000 clients around the world. We bring our global expertise to the local level with technologies customized to individual requirements through a network of strategically placed technology centers, manufacturing locations, and distribution facilities.

Our global logistics network covers six continents, delivering strength and reliability to customers around the world.

Brevini® for Marine Applications

For more than 50 years, customers have used Brevini products to operate efficiently in the marine industry. With a deep understanding of market requirements, Dana adds value by ensuring that the right equipment is specified before any project begins.

Brevini products from Dana deliver quality, modularity, reliability, and dedicated features for marine applications. We value collaborative partnerships that allow us to develop strong, long-lasting relationships with original-equipment manufacturers (OEM) and end-users.

Global Presence

We have the ability to deliver products that meet specific regional requirements through our vast network of nearly 100 engineering, manufacturing, and distribution facilities covering six continents. This global logistic network ensures maximum flexibility and punctuality in the delivery of the products.

Dana Service and Assembly Centers

Customers can capitalize on the specific market knowledge and engineering expertise of 30 regional former Brevini subsidiaries—now known as Dana Service and Assembly Centers—to provide product customization and service.

Engineering and Research and Development

We engage in ongoing engineering activities as well as research and development to improve the reliability, performance, and cost-effectiveness of our existing products. We are also focused on the design and development of innovative products that meet customer requirements for new applications. Our objective is to be an essential partner to our customers and we remain highly committed to offering superior product quality, technologically advanced solutions, world-class service, and competitive prices.

Culture of innovation

Since our introduction of the automotive universal joint in 1904, we have been focused on technological innovation. Every day, Dana employees around the world work together to leverage our shared insights, developing the most innovative technologies that provide more value for our customers and solve their biggest challenges.

Innovation drives growth, and our ever-evolving products and technologies provide customers with cutting-edge solutions, address user needs, and capitalize on key market trends. In 2017, Dana engineers achieved a new milestone: the company’s 10,000th patent, granted for a Long®-brand heat exchanger with an integrated thermal bypass valve.

Electrification

Dana’s comprehensive strategy for electrification in off-highway markets begins with a foundation of enabling OEMs to accelerate their hybrid- and electric-vehicle development programs. We offer a series of market-ready modular hybrid- and electric-drive systems that can fit into existing vehicle design envelopes and provide OEMs with effective, low-risk, quick-to-market solutions. These products can be integrated into traditional Spicer® wheel drives, track drives, axles, and transmissions to deliver hybrid or electric functionality. A wide selection of Brevini® motion products to support the unique power distribution requirements of hybrid and electric off-highway vehicles is also currently available.
Technologies Customized to Every Part of the Globe

With a global presence in 33 countries, Dana Incorporated boasts more than 100 engineering, manufacturing, and distribution facilities. Our worldwide network of local service centers provides assurance that each customer will benefit from the local proximity and responsiveness that they need.

About Dana Incorporated
Dana is an integral partner for virtually every major vehicle and engine manufacturer worldwide. We are a leading supplier of drivetrain, sealing, and thermal technologies to the global automotive, commercial-vehicle, and off-highway markets. Founded in 1904, we employ thousands of people across six continents.

About Dana Off-Highway Drive and Motion Technologies
Dana delivers fully optimized Spicer® drivetrain systems and individual product solutions to customers in construction, agriculture, material-handling, underground mining, and forestry markets, plus Brevini® motion systems for machine working functions.

Learn more about Dana’s drivetrain and motion systems at dana.com/offhighway.