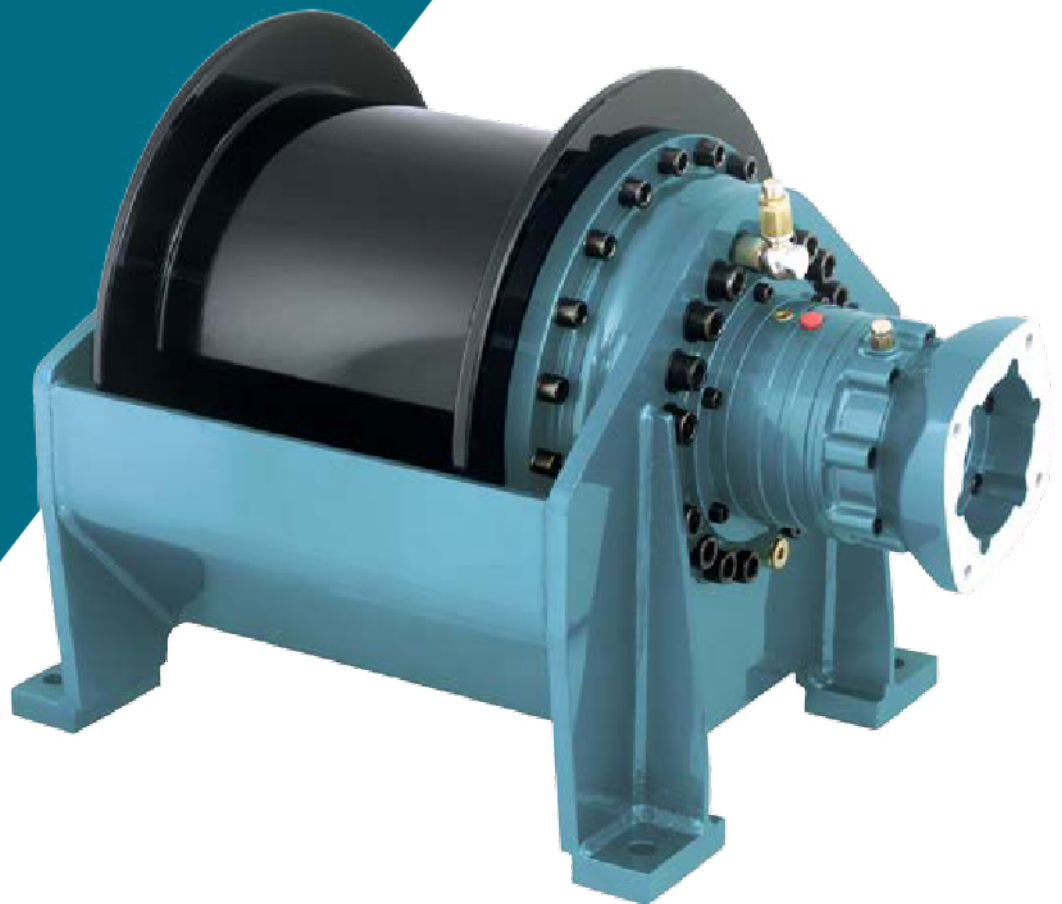


WINCHES

BROCHURE



HISTORY

PRODUCTION

CATALOGUE WINCHES

SPECIAL WINCHES

BREVINI WORLD





Brevini: a history spanning 55 years

Brevini, with its power transmission division, is among the world's top five manufacturers in the sector of mechanical transmissions and gear drives, thanks to growing market shares in industrial applications (steel industry, plastics production, materials handling) and in innovative systems such as wind turbines, waste recycling plants, and energy production. Brevini is a major player also in the mining sector and in marine technologies. Established in 1960 by the brothers Renato, Luciano and Corrado, Brevini was the first Italian company to manufacture planetary gearboxes. The acquisition of PIV Drives GmbH in the 2002 has widened the portfolio with helical and bevel-helical products.

Many ingredients can change overtime to make a recipe more and more tasty, but some others need to stay. For Brevini, those are passion for products and people. The evolution of the core technologies and the related know-how spread around the world have had a key role in transforming in few decades an idea in a global multinational manufacturing and selling more than 150.000 gearboxes and 1 million hydraulic components per year. Moreover, the 2 divisions together are able to provide fully integrated solutions.

Brevini has enlarged its business scope to hydraulic components since the 70s.

The fluid power division has been established by the merge of companies from the fluid power sector with over forty years of experience. It is a main hub for made-in-Italy businesses in the mechatronics sector which includes, besides Brevini Fluid Power in Reggio Emilia, OT Oil Technology in Parma, as well as BPE Electronics in Novellara and VPS Brevini in Bologna.



Last but not least customer proximity comes.

The closeness to the customer, in the double meaning of geography and deep understanding of dilemmas and needs, has always been a leitmotif in our values.

The coverage is ensured by a footprint of 40 subsidiaries, a strong distributors network and production plants in 4 continents.

Brevini Winches - Our History

1970 - RAF Series

Brevini Riduttori



1980 - Winches

Brevini Engineering Products

1990 - BW Series

Brevini Winches

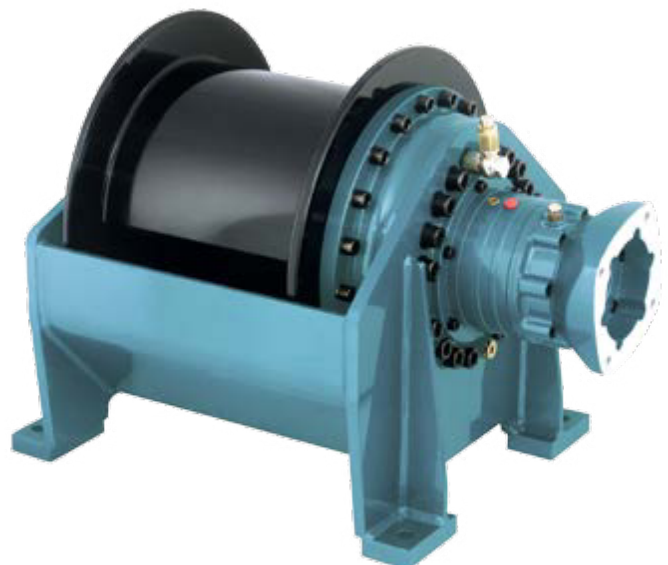
2007

Brevini Power Transmission

2016

INTEGRATED SYSTEM

Brevini





Since 1970

Over the years, our **reliability and technological evolution** have always been at the service of our costumers.

We will continue along this path in the **future** to ensure even greater customer satisfaction.

Winches: a pillar over the years

Brevini Riduttori, thanks to its wide experience in gearboxes development, began designing and manufacturing its first range of "RAF" winch drives in the seventies. In the eighties, the company started producing complete winches. The design was handled initially by BEP, Brevini Engineering Products, Brevini Riduttori's engineering firm responsible for testing and the development of special projects. The products were such a success that it was decided to establish a company called Brevini Winches dedicated to the development of these devices. Led by Stefano Brevini, the son of the President of Brevini Riduttori, the new company presented its first winch range – the BW – in the nineties, confirming the success of the predecessors.

The characteristics that made this range so successful were its easy installation and compact footprint, made possible thanks to the use of integrated piston motors. The geometry of the winch structure ensured multiple installation options that customers immediately appreciated. Brevini Winches S.p.A. was also a pioneer in the testing area: it had several test benches and a testing tower simulating real working conditions. The company turnover grew each year, and the customized projects designed in cooperation with customers became the company battle horse. A well-organized warehouse ensured fast response times to satisfy market demands.

In early 2007, Brevini Winches S.p.A. was merged into Brevini Power Transmission S.p.A., becoming a vital part of the mother organization and the related product portfolio.

Even further towards integrated systems

Brevini's winch development potential has grown over the years substantially due to the synergies and collaboration established between the power transmission unit with the hydraulic and electronics units.

In the recent past, Brevini started a program to merge its daughter divisions Brevini Power Transmission and Brevini Fluid Power and to propose to the market 360° integrated solutions. Thanks to this union within a single group, the company know-how will be exploited at 100% and the worldwide market presence even strengthened.

Besides manufacturing winches, Brevini also designs and produces orbital and axial hydraulic motors, valves, manifolds and electronic devices. All the expertise acquired by BPE (electronic branch within the group) is used to monitor machinery functioning for controlling load, speed, positioning, pressure, etc.



HQ Production phases

Reggio Emilia Production Plant

Brevini HeadQuarters (HQ) is located in Reggio Emilia, Italy, where the entire production process takes place inside the production plant. Our technical office - Winches department - handles the engineering; once the customer approves the project, production begins. Every phase – assembly, painting, testing, and rope winding – is performed in our plant, certificated by our quality control. In-house management of the process means that the project manager can follow each step. The following photos offer a brief tour of our plant.



Painting phase

To paint all surfaces correctly, the first coat is applied to the various parts before assembly. The final coat is applied after the winch has been assembled. Marine painting is available for all the products.

Testing phase

All winches are tested after production. Standard tests include: functional test and brake test at maximum load up to 17 ton. Additional tests and endurance test are available if requested by the customer.



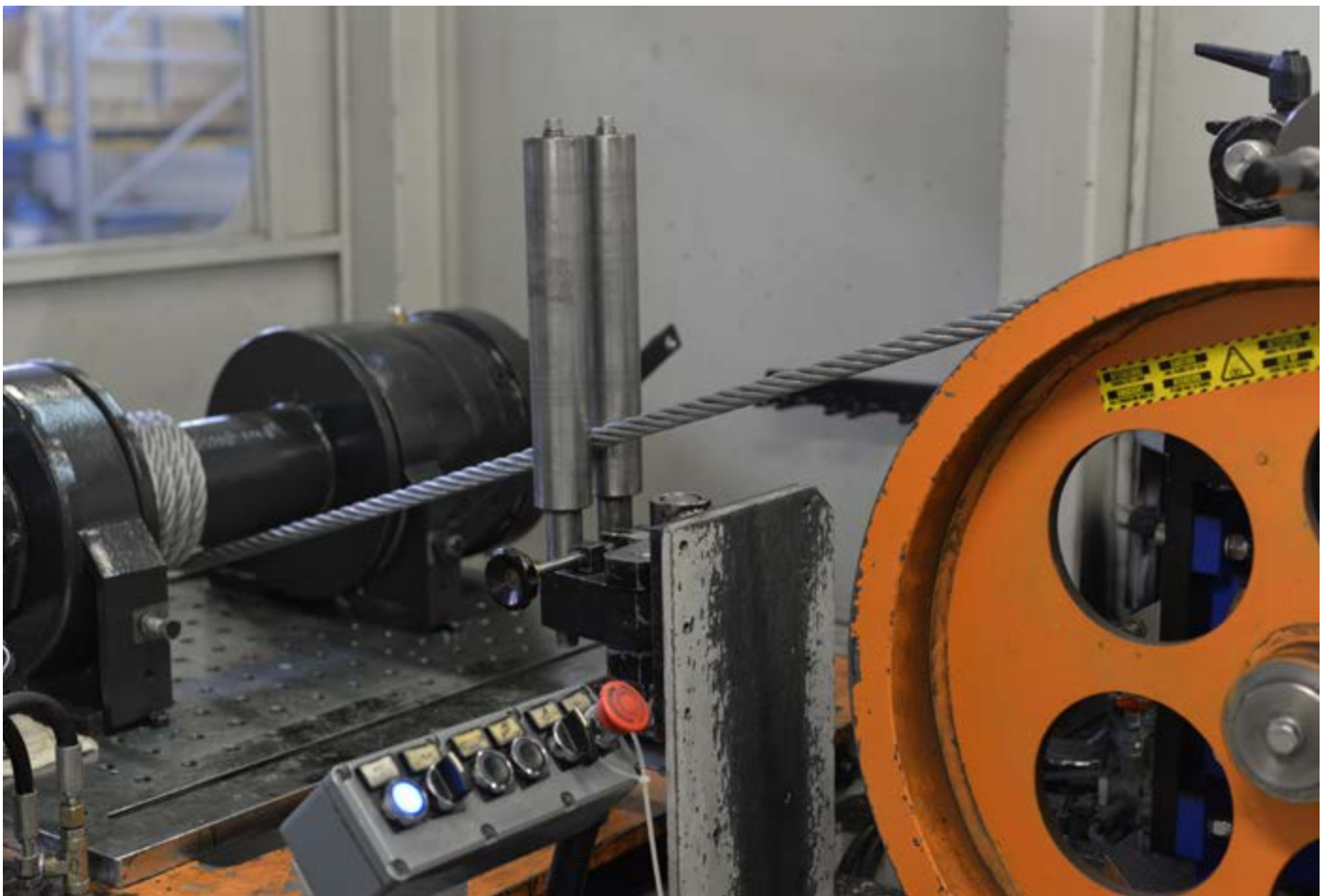


Technical features of the Test Tower for Winch testing

- Maximum line pull: 17 ton
- Maximum oil pressure: 450 bar (6480 psi)
- Maximum oil flow: 120 l/min
- Installed power: 110 kW
- Lifting height/stroke: 3,500 mm

Rope machine

Brevini also provides winches with installed rope. In compliance with regulations, the cable winding machinery ensures the pre-tensioning of cables up to a diameter of 26 mm. Correct cable winding and functioning of the limit switch, if present, are verified during this phase.



Standard Winches Line

The range is divided into hoisting and recovery winches.

Development of standard winches line takes place in Reggio Emilia HeadQuarters. Depending on the type of application, winches can be supplied with accessories such as pressure roller, electric or hydraulic limit switch, torque limiter, encoder, etc.



A.

- A. Hoisting Winch, Motor Drum - Drilling Rig Application
- B. Recovery Winch - Recovery Truck Application
- C. Hoisting Winch, Motor Drum - Knuckle Boom Crane Application
- D. Hoisting Winch, Hydraulic Limit Switch - Marine Crane Application
- E. Hoisting Winch, Electric Limit Switch - Marine Crane Application



B.



C.



D.



E.

Special Winches Overview

Brevini technical office - Winches department - in Reggio Emilia and all the Competence Centers Winches located in some Brevini subsidiaries around the world, have engineered numerous customized projects:

Mining Sector



Technical features

- A. 5 ton Take Up, Maintenance Winch for a belt conveyor application
- B. 18 ton Line pull 1st layer, Take up Winches - Grooved Drum - Hydraulic disk brakes - Electric panel with PLC - Load cell
- C. 6 ton Take up, Winch with Ratchet and Pawl - Air motor
- D. 50 ton Line pull at 1st layer, Recovery Winch for underground coal mines - Input power: 3 Hydraulic motors



Maritime Port Application



E.



F.

- E. Two independent 17 ton electric Winches used to lift the ship loader boom
- F. 10 ton Hydraulic Winch Rubber tyred gantry crane - 70 ton main lift

Marine and Off-Shore sector



- G. 5 ton Winch, Marine crane
- H. 7.5 ton line pull 1st layer, Spooling device, Marine painting
- I. 9 ton line pull 1st layer, Hydraulic or manual handbrake - Drum disengagement
- L. 35 ton line pull 1st layer, 2 cable storage in 1st layer, grooved drum - Hydraulic variable axial piston motor



Mobile Crane sector



M.



N.



O.

M.8 ton Winch, Grooved Drum
"Lebus style", Sprag clutch
New E-Series gears - Dedicated
multidisc fail safe parking
brake
N. 6 ton Winch - Pick and Carry
Crane
O. 5 ton Winch, protection cover,
Mobile crane

Brevini Winches - Worldwide

Brevini Head Quarter

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Manufacturing Plant



Competence Center Winches



Engineering & Service Center



Sales & Assembly Subsidiary



Sales Regional Office



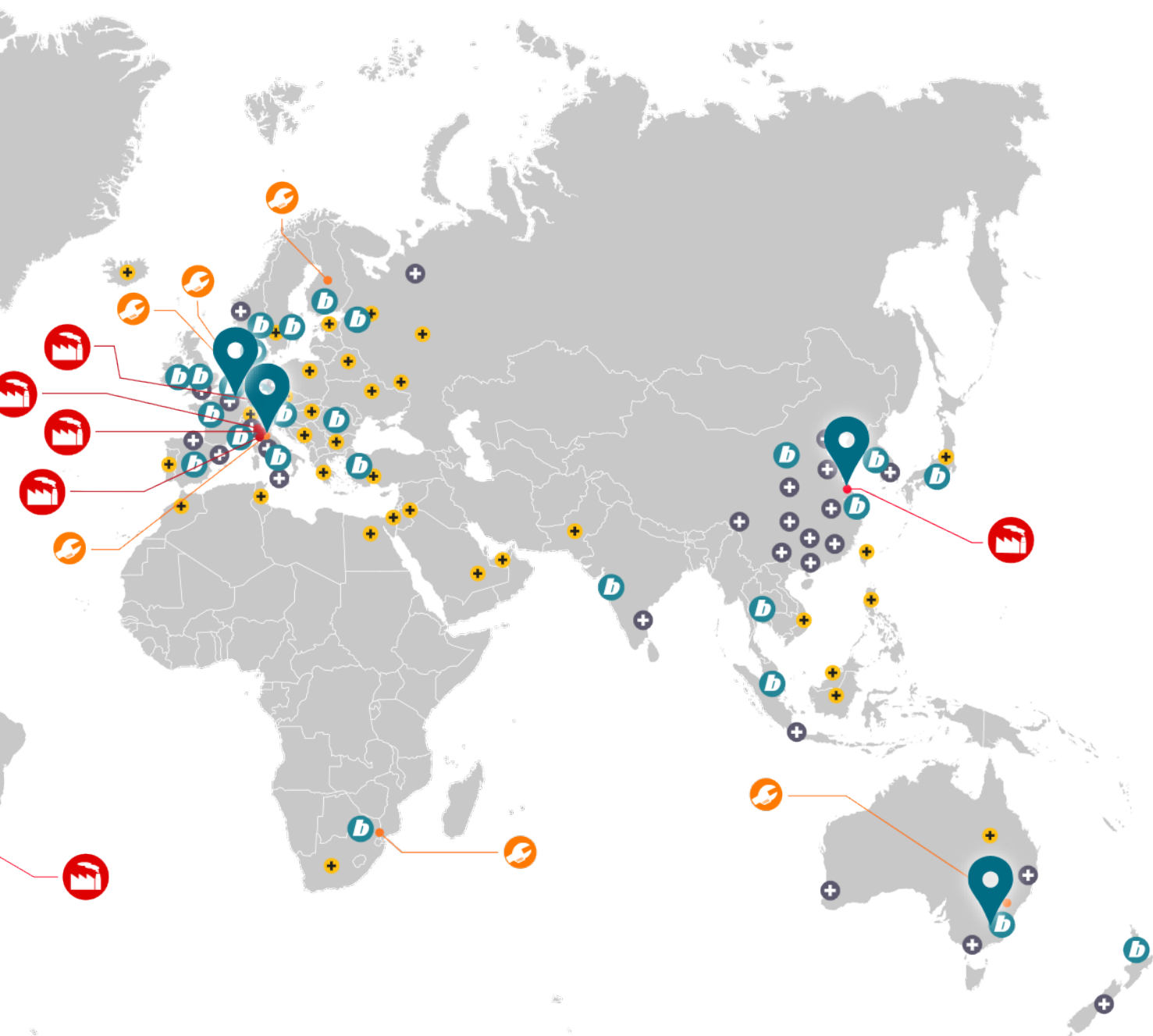
Authorized Distributor

Global Winch Expertise

The global **network** of Brevini production sites is composed by eleven plants, with the headquarters and main facilities in Italy (Reggio Emilia), the German company PIV, two sites in China (Brevini Power Transmission and Brevini Fluid Power in Yancheng), the American site in Yorktown and the one in Brazil, in Limeira.

BHQ (Brevini Head Quarter), Brevini USA, Brevini Benelux, Brevini Latino Americana, Brevini Shanghai and Brevini Australia are the main subsidiary specialized in the design and production of **winches**.

The worldwide direct presence is our strength, with “centers of expertise”, capable to ensure engineering know-how, product customization, widespread sales support and after-sales services.



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