



Solutions for Logistics & Industrial cranes

Logistics



MARKETS &
APPLICATIONS





Logistics & Industrial cranes



The broadest range of solutions for Logistics & Industrial cranes

Bonfiglioli has been providing its solutions for several applications in the Industrial cranes sector all around the world. Overhead, gantry, vessel handling cranes, jib cranes are the main pillars of the logistics chain and heavy-duty industrial processes such as loading and transportation of containers.

Bonfiglioli's range of products perfectly meets requirements for cranes thanks to the extensive experience in the sector for gearmotors and frequency inverters ensuring reliable solutions for both indoor and outdoor installations.

Our dedicated frequency inverters provide the flexibility and high-level performance to support our customers in their daily challenge of moving workloads quickly and safely. Bonfiglioli offers complete drive solutions for hoist, trolley and travel drives that can improve operations safety and increase productivity.

Thanks to our long partnership with global leading manufacturers in lifting equipment, we have developed a deep expertise in the sector, which allows us to offer optimal solutions responding to a wide range of requirements in this sector.

Bonfiglioli also provides solutions for:



ACCESS & AERIAL PLATFORMS



WAREHOUSE & MATERIAL HANDLING

www.bonfiglioli.com

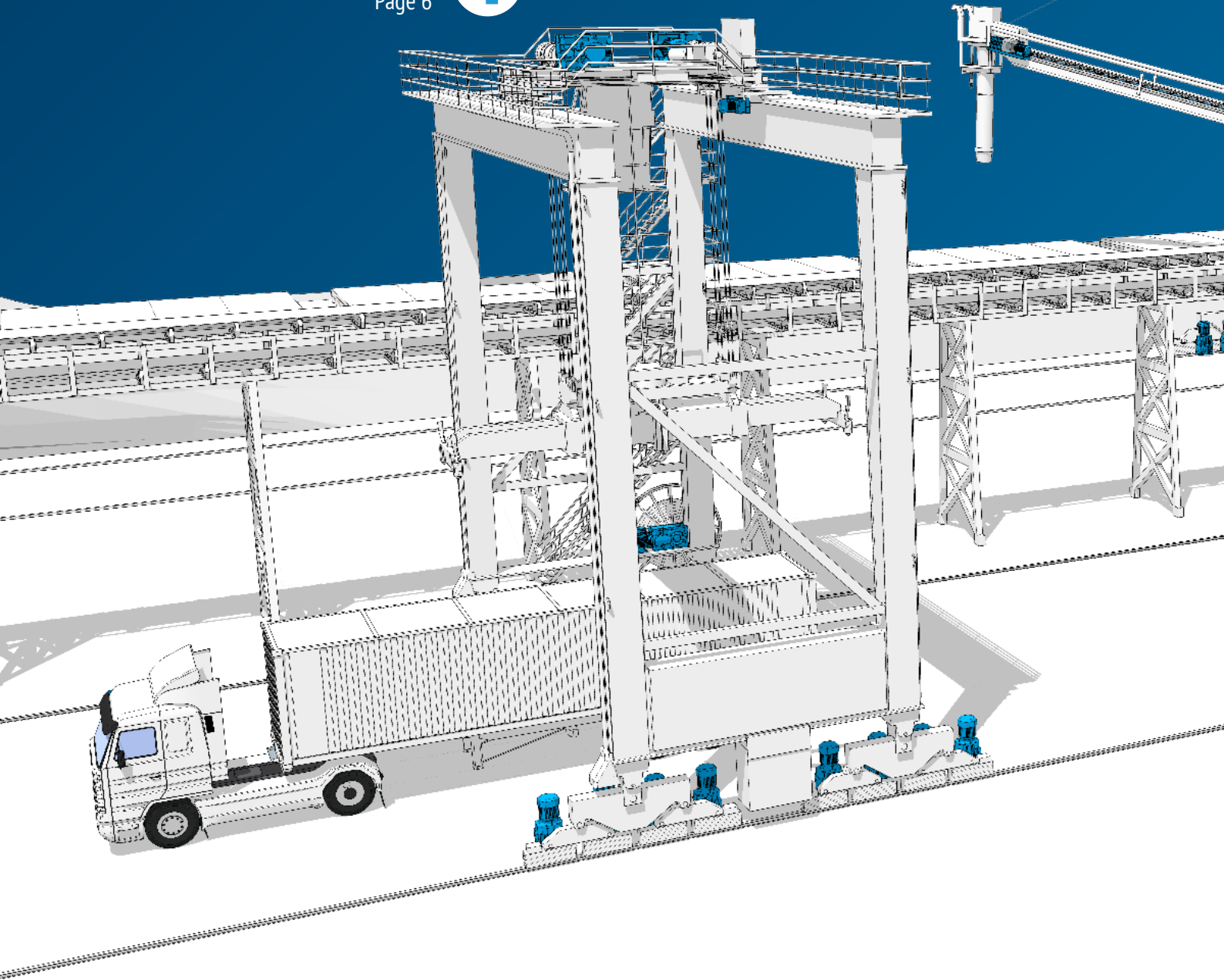
Products for all types of industrial and logistics cranes:

- Gantry Cranes
- Overhead Cranes
- Ship Loader/Unloaders
- Boom Cranes
- Jib Cranes
- Vessel handling cranes



Logistics & Industrial cranes

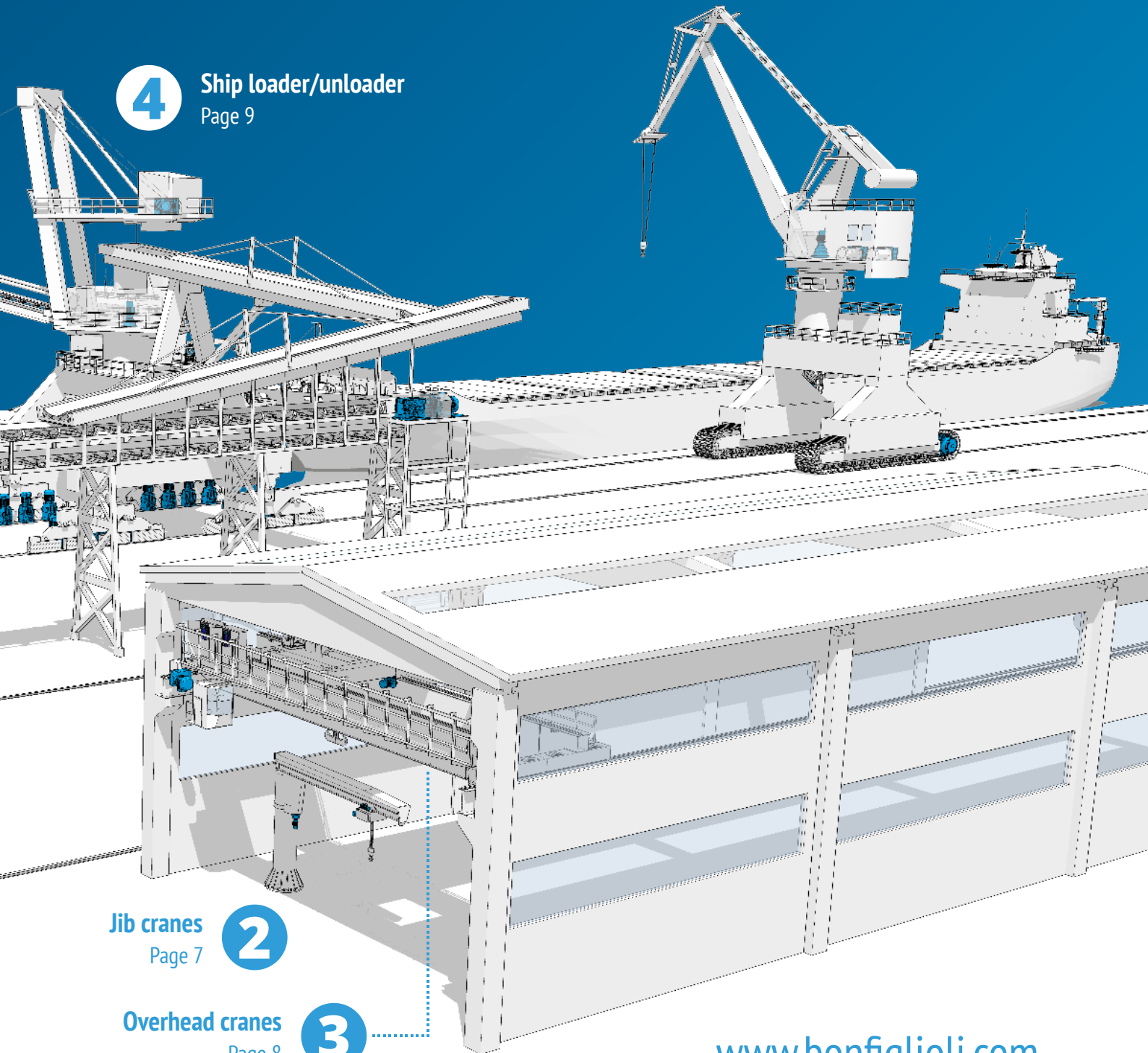
Gantry cranes
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Jib cranes
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Overhead cranes
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Logistics & Industrial cranes



Hoist drive

HDP Series

Heavy duty geared motor (Helical-Parallel)

Benefits

- Robustness
- Wide range of temperature and working condition
- Space effective U-shape E-Motor-Reducer-Hoist Drum Arrangement
- Safety brake easy Inspection & maintenance

Features

- Double Input
- Electro-mechanical negative brake system
- Servo Fan



Long travel drive

A Series

Helical bevel geared motor

Benefits

- Space effective solution & ground clearance
- Easy Installation
- Reliable operation for vertical mounting E-motor

Features

- Shrink disk shaft coupling
- Brakemotor with microswitch monitoring system
- Up to IP 56 Protection & Rain Canopy



Gearboxes & geared motors options for logistic & industrial crane applications:

Quality documentations and certifications; Energy certified motors compliant with all MEPS (Minimum Efficiency Performance Standards); Fluoroelastomer, Taconite and double lip seals; Oil heaters and motor anti-condensation heaters; Protection Degree up to IP 56; Paintings up to C5MH & Marine according to ISO 12944-2; Quick Connector Terminal Box; Tropicalised motor winding.



1

Industrial cranes

Gantry cranes

The high reliability and robustness of Bonfiglioli's products ensure safety in vessel handling cranes. We can provide a complete solution for all the drives in these machines. Through our experience, we have developed gearmotors and frequency inverters with dedicated crane features that simplify machine systems' integration and design.

Cross travel drive

F Series

Shaft mounted gearbox

BSR Series

Synchronous reluctance motor

Benefits

- High energy efficiency of the drive system up to IES2
- Motor efficiency class up to IE4
- High accurate sensorless control
- Reliability and robustness
- High performance solution
- Retrofit solution thanks to IEC design
- Space Saving
- Optimized characterization for the whole package

Features

- Power Range: up to 18,5 kW
- Two packages available: high Efficiency and High Output
- Thermal protection: KTY, PTC, PT1000
- Forced ventilation
- Low rotor inertia
- Double extended shaft
- External mechanical protection
- Rotor balancing grade B
- Compact Gearmotor
- Small units sealed for life



Frequency inverters

Active Cube & AEC Series

Premium frequency inverters and Regenerative units

Benefits

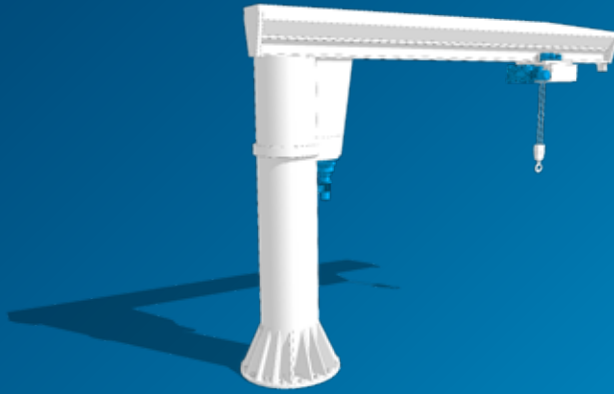
- Drive control highly customizable
- Great operational safety
- Higher productivity
- Increased service life of the crane
- Easy installation
- Lower Total Cost of Ownership

Features

- Power Range: 0.37...1200 kW
- Open & closed loop field oriented control
- Master/slave control and Communication protocols
- PLC with integrated functionalities
- Coated boards
- STO Functional Safety
- Multi drive synchronisation and torque control
- Advanced brake control
- Brake chopper
- DC link connection for energy sharing
- Energy recovery braking (Recovered electricity can be sent back to the grid)
- Energy consumption optimization (AEC/B)
- Mains unit (AEC/S)



Logistics & Industrial cranes



Slew drive 300M Series Planetary geared motor

Benefits

- Hydraulic or electric motor input solution
- Integration with negative brake
- High overload capacity
- Torque control
- Easy installation

Features

- Reinforced bearing output shaft
- Eccentric mounting flange option for pinion /girth gear adjustment
- Shock load up to 2,000,000 Nm
- Encoder and integrated load cell
- Base frame, coupling, brake, motor
- Oil expansion tank & oil level switch



Gearboxes & geared motors options for logistic & industrial crane applications:

Quality documentations and certifications; Energy certified motors compliant with all MEPS (Minimum Efficiency Performance Standards); Fluoroelastomer, Taconite and double lip seals; Oil heaters and motor anti-condensation heaters; Protection Degree up to IP 56; Paintings up to C5MH & Marine according to ISO 12944-2; Quick Connector Terminal Box; Tropicalised motor winding.



2

Horizontal & Low handlings

Jib cranes

Bonfiglioli solutions for horizontal and low handling applications are cost-effective, compact and reliable. Our products are designed to meet and exceed the demanding requirements placed on these cranes: from the high radial loads of the slew drive to the precision necessary in the hoisting speed control and finally to the dynamics of the cross travel drive.

Hoist drive BX Series Asynchronous IE3 Three Phase Motor

Benefits

- Motor efficiency class up to IE3
- Reliable, balanced and robust
- Complete solution (Gear unit + Motor)
- Energy saving solution
- Compliant with the most of the efficiency standards

Features

- Power Range: up to 355 kW
- Built in brakes available for all power/sizes
- Thermal protection: KTY, PTC, bimetal switches
- Forced ventilation
- Anti-condensate heaters
- Rotor balancing
- Second shaft extension
- Anti corrosive paintings up to C5M
- Tropicalization
- Degree of protection up to IP56



Frequency inverters Agile Standard frequency inverters

Benefits

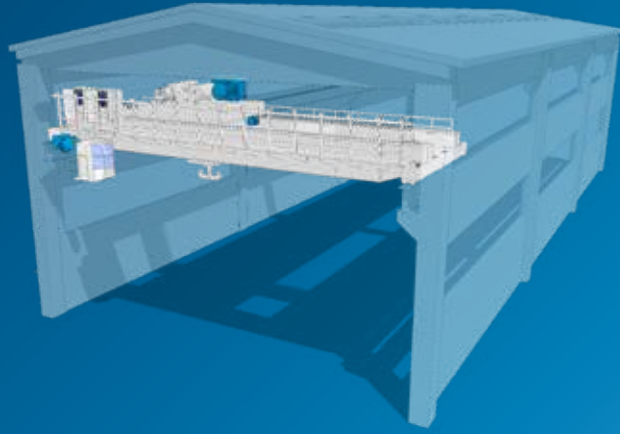
- Higher productivity
- High control flexibility
- Increased service life of the machine
- Energy efficient and costs effective

Features

- Power Range: 0.25...15 kW
- V/F and Vector sensorless control for asynchronous and brushless motors
- Maintenance service messages
- Coated boards
- Energy efficiency functions
- Software VPLC with integrated functionalities



Logistics & Industrial cranes



Hoist drive

HDP Series

Heavy duty geared motor (Helical-Parallel)

Benefits

- Robustness
- Wide range of temperature and working condition
- Space effective U-shape E-Motor-Reducer-Hoist Drum Arrangement
- Safety brake easy Inspection & maintenance

Features

- Double Input
- Electro-mechanical negative brake system
- Servo Fan



Long travel drive

A Series

Helical bevel geared motor

Benefits

- Space effective solution & ground clearance
- Easy Installation
- Reliable operation for vertical mounting E-motor

Features

- Shrink disk shaft coupling
- Brakemotor with microswitch monitoring system
- Up to IP 56 Protection & Rain Canopy



Gearboxes & geared motors options for logistic & industrial crane applications:

Quality documentations and certifications; Energy certified motors compliant with all MEPS (Minimum Efficiency Performance Standards); Fluoroelastomer, Taconite and double lip seals; Oil heaters and motor anti-condensation heaters; Protection Degree up to IP 56; Paintings up to C5MH & Marine according to ISO 12944-2; Quick Connector Terminal Box; Tropicalised motor winding.



3

Warehouse lift & low process Overhead cranes

Components in overhead indoor cranes have stringent requirements for space-optimization. Thanks to our products' mounting flexibility and compactness, our customers will always find the solution that optimally meets their space requirements. To further increase efficiency, Bonfiglioli can also provide regenerative units to save the energy generated when lowering loads.

Cross travel drive

F Series

Shaft mounted gearbox

BSR Series

Synchronous reluctance motor

Benefits

- High energy efficiency of the drive system up to IES2
- Motor efficiency class up to IE4
- High accurate sensorless control
- Reliability and robustness
- High performance solution
- Retrofit solution thanks to IEC design
- Space Saving
- Optimized characterization for the whole package

Features

- Power Range: up to 18,5 kW
- Two packages available: high Efficiency and High Output
- Thermal protection: KTY, PTC, PT1000
- Forced ventilation
- Low rotor inertia
- Double extended shaft
- External mechanical protection
- Rotor balancing grade B
- Compact Gearmotor
- Small units sealed for life



Frequency inverters

Active Cube & AEC Series

Premium frequency inverters and Regenerative units

Benefits

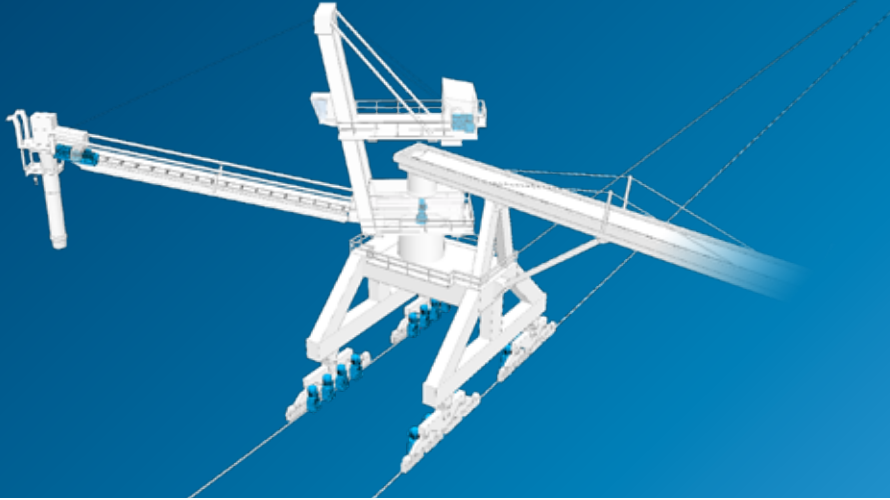
- Drive control highly customizable
- Great operational safety
- Higher productivity
- Increased service life of the crane
- Easy installation
- Lower Total Cost of Ownership

Features

- Power Range: 0.37...1200 kW
- Open & closed loop field oriented control
- Master/slave control and Communication protocols
- PLC with integrated functionalities
- Coated boards
- STO Functional Safety
- Multi drive synchronisation and torque control
- Advanced brake control
- Brake chopper
- DC link connection for energy sharing
- Energy recovery braking (Recovered electricity can be sent back to the grid)
- Energy consumption optimization (AEC/B)
- Mains unit (AEC/S)



Logistics & Industrial cranes



Slew drive 300M Series Planetary geared motor

Benefits

- Hydraulic or electric motor input solution
- Integration with negative brake
- High overload capacity
- Torque control
- Easy installation
- Backlash control

Features

- Reinforced bearing output shaft
- Eccentric mounting flange option for pinion /girth gear adjustment
- Shock load up to 2,000,000 Nm
- Encoder and integrated load cell
- Base frame, coupling, brake, motor
- Oil expansion tank & oil level switch
- Plug-in pinion
- Wide Torque & Ratio Range



Boom conveyor drive HDO Series Heavy duty geared motor (Bevel-Helical)

Benefits

- One-stop-shop for a complete drive solution
- E-motor alignment free solution & free base frame
- Reliable, free maintenance and integrated cooling system
- Extended lifetime & reliability
- Highly transmissible power
- Reliable operation during boom tilting

Features

- Extended bearing lifetime
- Torque range up to 210,000 Nm
- Strengthened E-motor input flange with integrated fan and coupling
- Wide range of options
- Integrated forced oil lubrication option
- Torque arm, coupling, brake, motor



Gearboxes & geared motors options for logistic & industrial crane applications:

Quality documentations and certifications; Energy certified motors compliant with all MEPS (Minimum Efficiency Performance Standards); Fluoroelastomer, Taconite and double lip seals; Oil heaters and motor anti-condensation heaters; Protection Degree up to IP 56; Paintings up to C5MH & Marine according to ISO 12944-2; Quick Connector Terminal Box; Tropicalised motor winding.



4

Loading/unloading material

Ship loader/unloader

Ship loaders/unloaders need to operate in the most demanding and corrosive environments and under all weather conditions.

Our solutions are specifically developed to ensure long resistance and safe operation in every environment conditions.

Long travel drive

A Series

Helical bevel geared motor

Benefits

- Space effective solution & ground clearance
- Easy Installation
- Reliable operation for vertical mounting E-motor

Features

- Shrink disk shaft coupling
- Brakemotor with microswitch monitoring system
- Up to IP 56 Protection & Rain Canopy



Frequency inverters

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- Power Range: 0.37...1200 kW
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- Energy recovery braking (Recovered electricity can be sent back to the grid)
- Energy consumption optimization (AEC/B)
- Mains unit (AEC/S)



Logistics & Industrial cranes



Hoist & Luffing drive HDP Series Heavy duty geared motor (Helical-Parallel)

Benefits

- Robustness
- Wide range of temperature and working condition
- Space effective U-shape E-Motor Reducer-Hoist Drum Arrangement
- Safety brake easy Inspection & maintenance

Features

- Double Input
- Electro-mechanical negative brake system
- Servo Fan

Travel drives 700C Series Geared motor

Output torque

- 1 ... 625 kNm

Gear ratios

- 5.3 ... 492

Benefits

- Power shift capability
- Compact solution
- High performance

Features

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations

F Series Geared motor

Output torque

- 620 ... 2,916 kNm

Gear ratios

- 249 ... 989

Benefits

- Power shift capability
- Compact solution
- High performance

Features

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations



Gearboxes & geared motors options for logistic & industrial crane applications:

Quality documentations and certifications; Energy certified motors compliant with all MEPS (Minimum Efficiency Performance Standards); Fluoroelastomer, Taconite and double lip seals; Oil heaters and motor anti-condensation heaters; Protection Degree up to IP 56; Paintings up to C5MH & Marine according to ISO 12944-2; Quick Connector Terminal Box; Tropicalised motor winding.



5

Ship to shore handlings

Vessel handling cranes

Bonfiglioli provides vessel handling crane with high torque and robustness that allow smooth and easy handling from shore to ship under the most demanding conditions.

Slew drives

700T Series

Geared motor

Output torque

- 1 ... 80 kNm

Gear ratios

- 3.4 ... 2,000

Benefits

- Compact structure
- Suitable for various hydraulic motors
- High performance

Features

- Notch-less ground tooth root
- Integrated disc-brake
- Ready availability with highest teeth and production quality

S Series

Geared motor

Output torque

- 5.5 ... 130 kNm

Gear ratios

- 23 ... 67

Benefits

- Compact structure
- Suitable for various hydraulic motors
- High performance

Features

- Notch-less ground tooth root
- Integrated disc-brake
- Ready availability with highest teeth and production quality



Frequency inverters

Active Cube & AEC Series

Premium frequency inverters and Regenerative units

Benefits

- Drive control highly customizable
- Great operational safety
- Higher productivity
- Increased service life of the crane
- Easy installation
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Features

- Power Range: 0.37...1200 kW
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- Mains unit (AEC/S)



Specific functions for Logistics & Industrial cranes

Mechatronic tailor made solutions for cranes, made easy

For different application purposes the Bonfiglioli frequency inverters offer fitting software functions:

- Anti-sway, which enables precise regulation through an encoder and without additional sensors.
- Load detection, to minimize mechanical efforts detecting the right weight of the load and applying only the necessary torque.
- Synchronism for Gantry axis.
- Broken cable detection, to identify breakage or partial loss of the lifting cable.
- Anti-rollback to ensure the correct movement of the load in the direction of rotation.
- Anti-crossover, to ensure for example on a gantry on wheels, the ideal wheel alignment is constantly maintained for easy movement.
- Heavy duty work, designed to work according to the highest requirements of the Industry.
- Brake control for a total control during the breaking with different options.
- Floating load to allow suspended loads to stay in position even with the brake open.
- Sling mode to provide several speed options before lifting a load on the ground.
- Overload and overspeed control to maintain the maximum operating speed and load values within the optimal working ranges.
- Levelling control to assure a balanced load during synchronization of hoists axis.
- Over travel management to manage a stopping behavior at a defined position of the trolley.

Connectivity open standards

Fieldbus connectivity like CANopen, EtherCAT, PROFINET, Ethernet IP, PROFIBUS links the frequency inverter to the preferred PLC system.

The Ethernet based systems EtherCAT & PROFINET allow also simultaneous access for the diagnosis (and also parameter setup) via VPlus on the PC.

Field bus
CANopen
Profibus DP V1
RS-232
RS-485 Modbus
DeviceNet
EtherCAT
Profinet
Ethernet IP
Modbus/TCP
VABus/TCP







IIoT solutions

With our remote diagnostic & troubleshooting services, we are able to remotely monitor the state of our customers' equipment, allowing the anticipation of possible problems or breakdowns before they become critical, and plan activities to avoid them.

In addition, we offer tailor-made IIoT solutions to maximize the productivity and efficiency of our customers' machines. From application engineering to condition monitoring and data collection, our team of experts provides supports with the aim of making data valuable and speeding up development.

Energy efficiency

For a responsible resource usage, energy efficiency is a major task today for every production machine to reduce the ecological impact and saving operation costs at the same time.

The following approaches help to increase the energy efficiency of the drives and therefore for the whole machine:

- Smart energy usage
- Converting energy with high efficiency
- Using kinetic energy during braking
- Reducing energy consumption through energy saving functions in the frequency inverter

The full Bonfiglioli axis (inverter + gearbox + motor) offers a complete package of highly dynamic drive systems for increasing production efficiency.

Research & Development



Bonfiglioli is pleased to announce that it has signed a license agreement with the University of Ferrara to carry out research and development activities in the field of electric motors. The agreement will allow the company to benefit from the university's expertise in the field of electric motors.

Since 2010, Bonfiglioli has been involved in the group research and development activities.



We support our customers' projects from beginning to end.

At Bonfiglioli, we have the product development, design, engineering, efficient processes, and flexibility to understand our customers' needs and create the most effective solutions for them.

That's why we identify the customer's needs and develop projects that are specific to their application.

Through detailed calculations, we can provide the most reliable solutions and performance-related testing development.

The development of our products is always supported by cutting-edge technical performance, reliability, and efficiency.

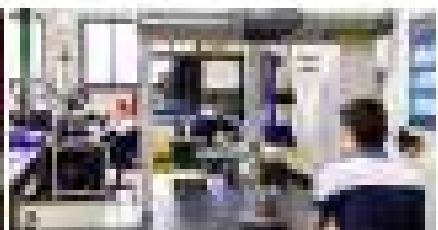
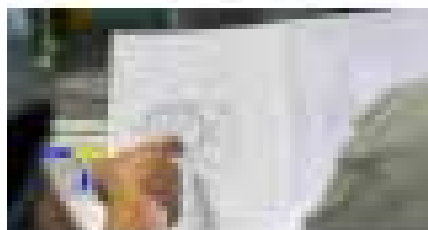


The test centers at Bonfiglioli

Bonfiglioli test laboratories support the development of the product lifecycle, including development, validation and the production of solutions developed and manufactured in our plants around the world.

Our specialists are working in the R&D, technical and quality departments. They help realize each Bonfiglioli product from the prototypical components to the overall solution.

The test centers regularly conduct additional tests to ensure the product durability and confirm the qualifications declared during the official approval stage.



Global Presence



Bonfiglioli is a market force with a presence spanning 22 countries on 5 continents. Our organization makes the most of geographic proximity to offer complete solutions combining efficiency and competence.



3804
EMPLOYEES



20
BRANCHES



13
PLANTS



550
DISTRIBUTORS



80
COUNTRIES

We Are a Global Company

Thanks to an international network of sales branches and closely interconnecting production plants, we can guarantee the same high standards of Bonfiglioli quality anywhere at any given time. Aware that our direct presence in local markets is the key to long-lasting success, our family includes 20 sales branches, 13 production plants and more than 500 distributors around the world.

Our organization is always close by, offering complete and efficient solutions and supporting our customers with dedicated services, such as co-engineering or after-sales assistance.



Bonfiglioli Worldwide Locations

Australia

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Discrete Manufacturing & Process Industries - Motion & Robotics

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Motion & Robotics

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 PRODUCTION

 ASSEMBLY

 SALES

 SERVICE



We have a relentless commitment to excellence, innovation & sustainability. Our team creates, distributes and services world-class power transmission & drive solutions to keep the world in motion.

HEADQUARTERS

Bonfiglioli S.p.A

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