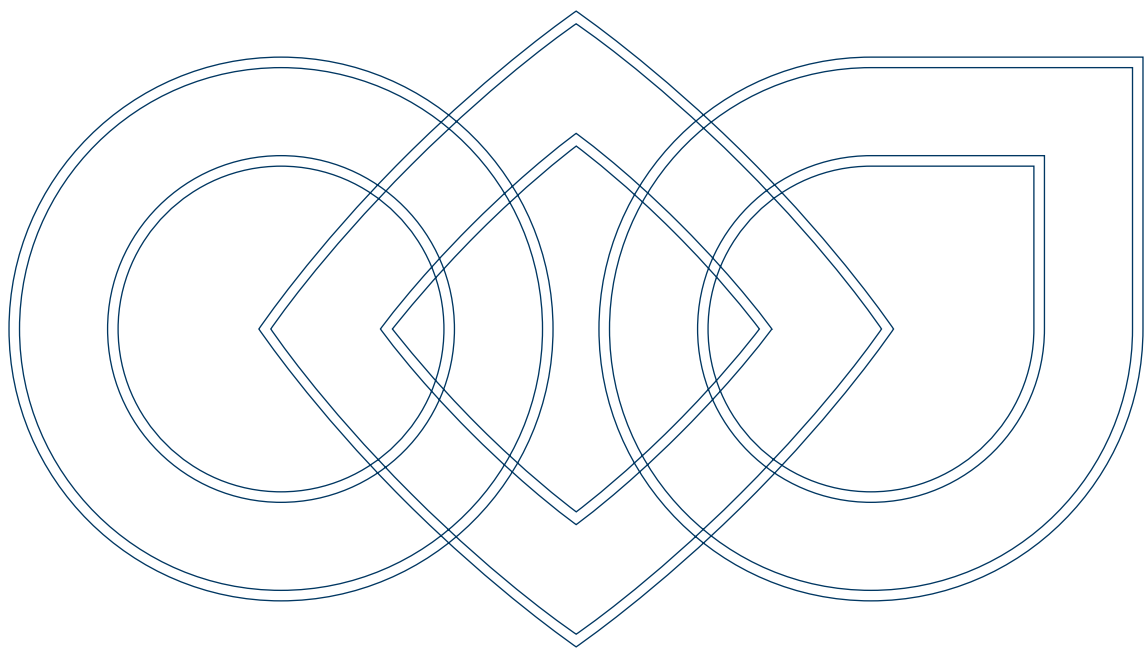


Solutions for
Textiles



SECTOR



Solutions for **Textile Applications**

With over 15 years of experience in creating dedicated motion control systems, Bonfiglioli has gained an enviable reputation in the world of industrial automation. Bonfiglioli offers customers' machines the highest possible level of precision, efficiency and energy optimization.

Our two Centers of Excellence, in Italy and in Germany, are driving our mechatronics solutions' abilities by developing breakthrough innovations and make us the ideal partner to create dedicated solutions for textile applications.

Our drive system portfolio has been developed and optimized for the needs of the most demanding environments (air polluted by fibers, high ambient temperatures, energy efficiency and power failure) to match the robustness and duration that are typical of the textile sector.

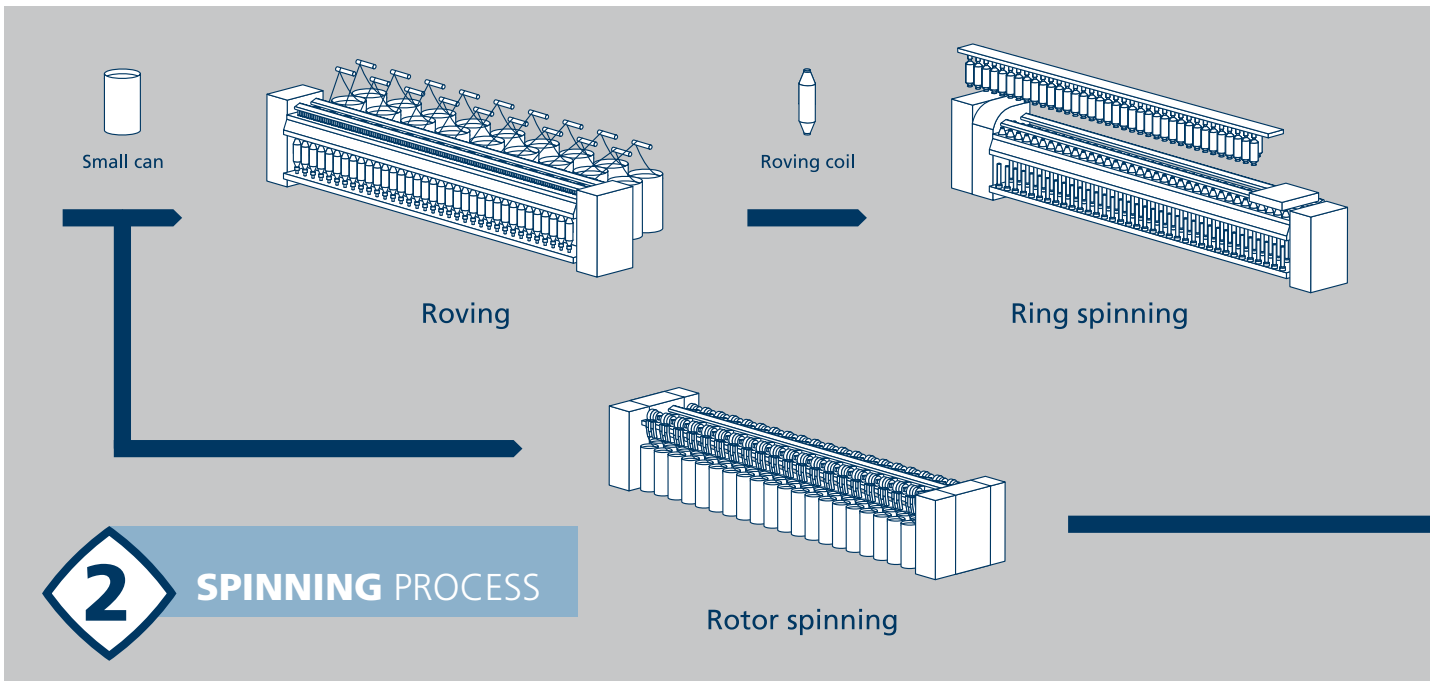
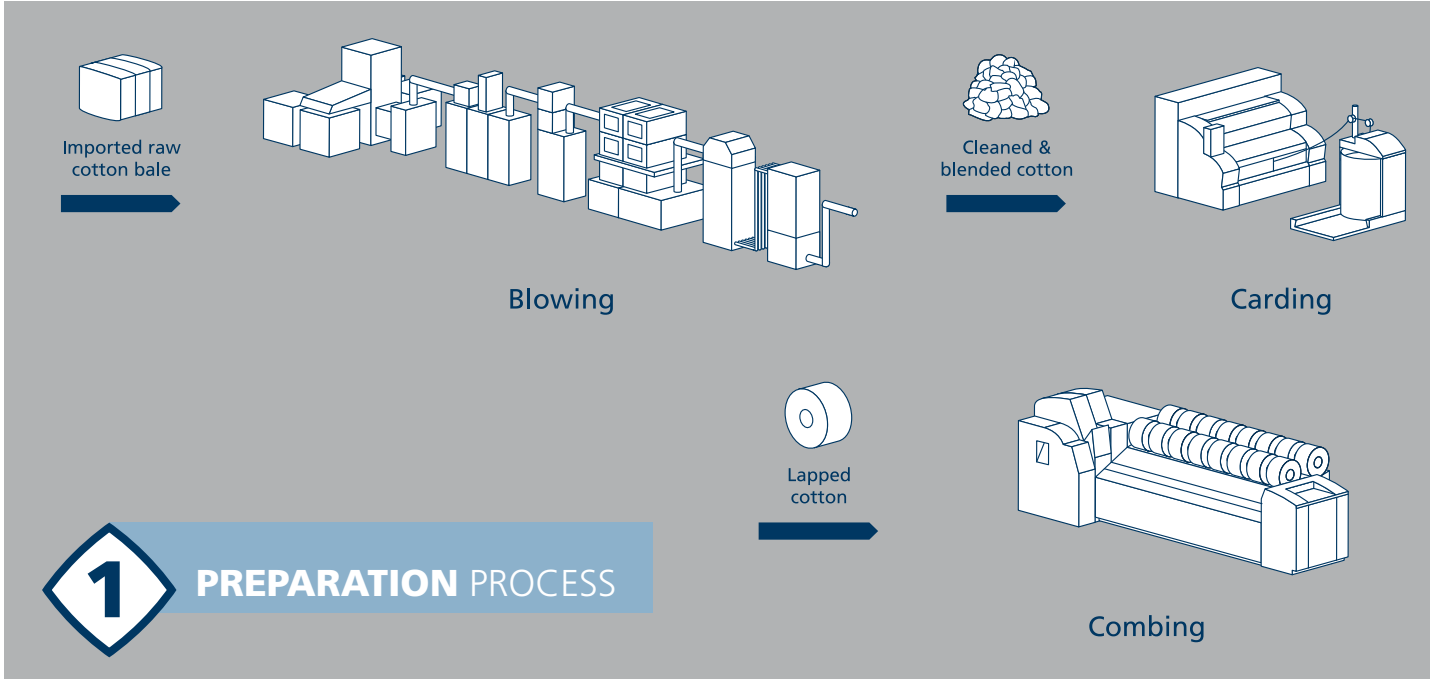
Bonfiglioli's smart solutions, together with the well-known robustness and reliability of our products, help customers worldwide to minimize Total Cost of Ownership (TCO) of plants, through dramatic reduction of maintenance efforts, energy consumption, and process downtimes.

The experience accumulated by focusing on textile applications, the long-term collaboration with key customers and worldwide capacity enable Bonfiglioli to work as a day-to-day partner alongside its customers and to ensure their individual needs.

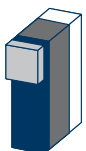


Textile process

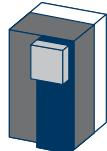
Overview



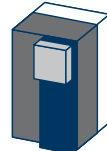
AGL series



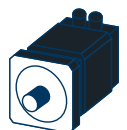
ACU series

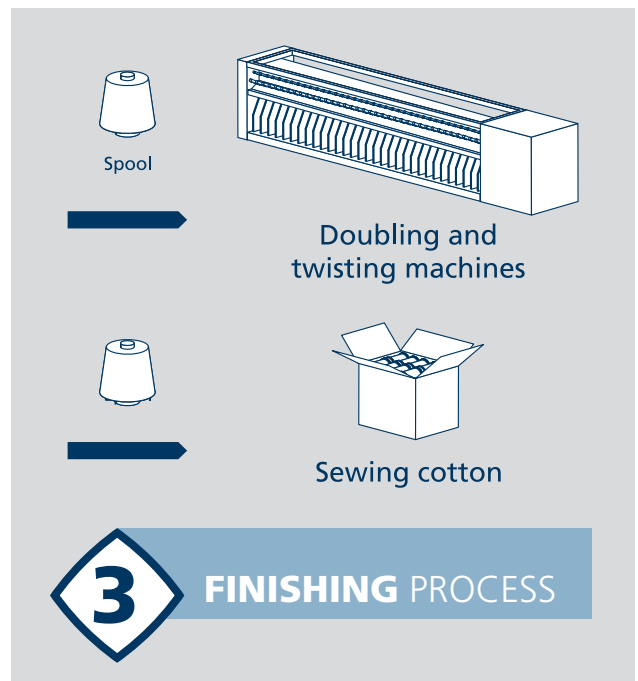
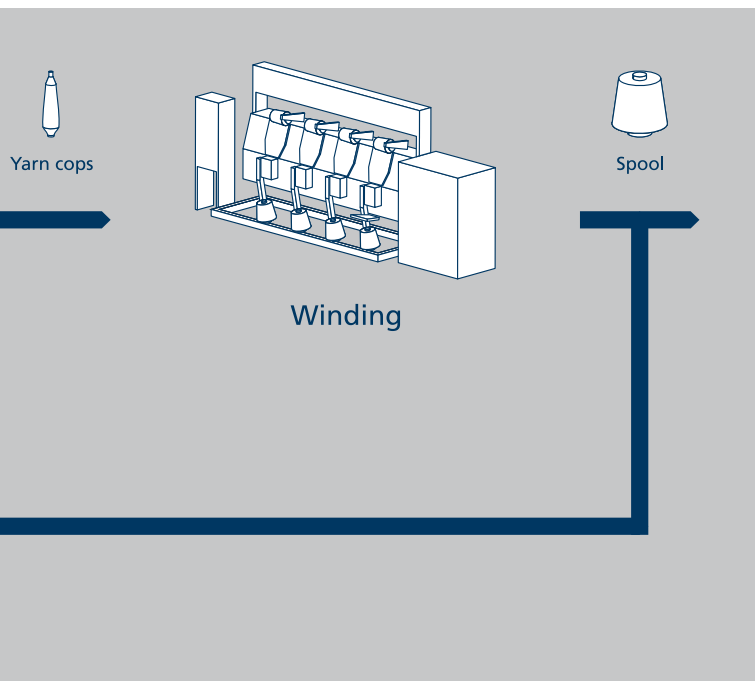
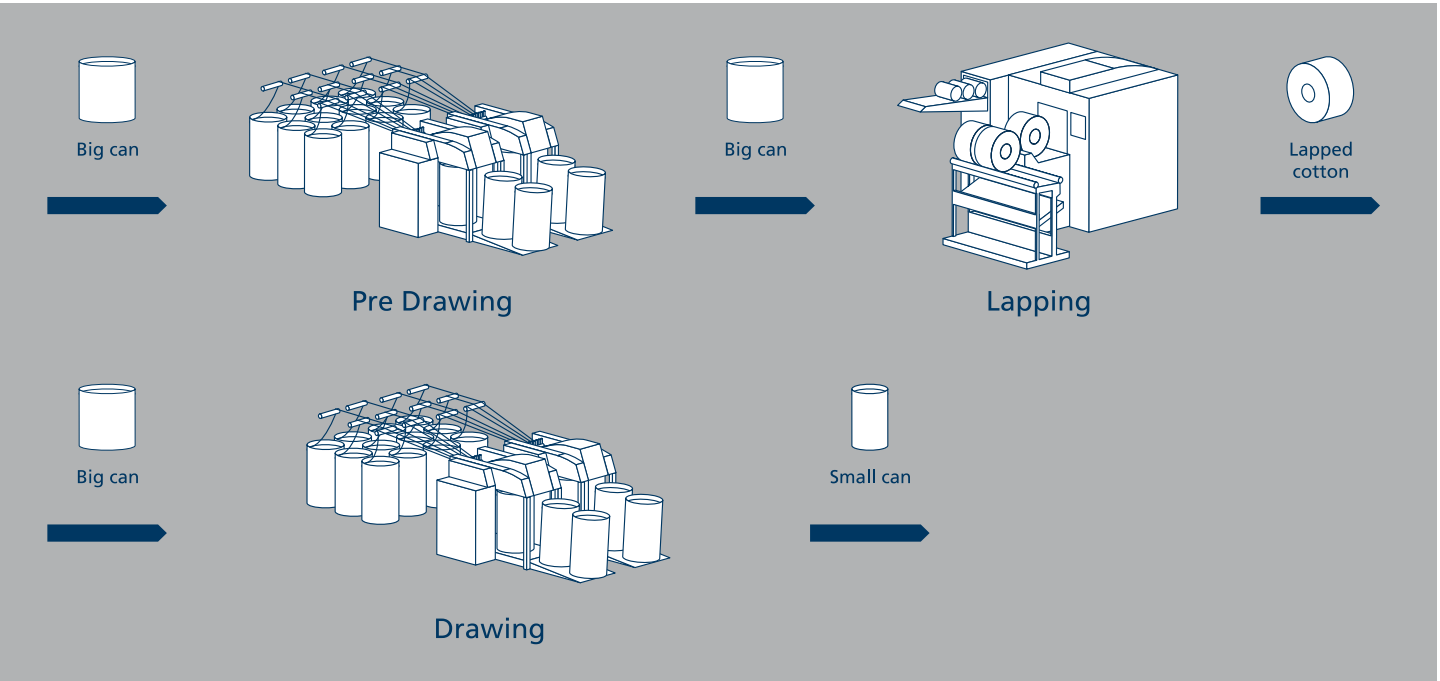


ANG series

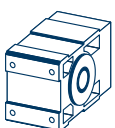


BMD series

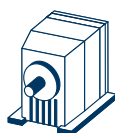




A series



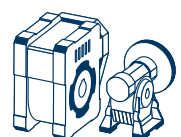
C series



F series



VF-W series



Bonfiglioli Products

Selection for textile applications

AGL series

Sensorless vector control inverter

Power range

AGL402: 0.25 ... 11 kW
AGL202: 0.12 ... 7.5 kW

Additional benefits

- Highest power density in the market
- "Safe Torque Off" function
- PLC as integrated functionality
- Advanced motor brake control
- Various communication fieldbus



BMD series

Servo motors

Main data

BMD 230V: 0.85 ... 45 Nm
BMD 400V: 0.85 ... 34 Nm
Speed: 1600 ... 6000 rpm

Main features

- PTC/KTY Protection
- Resolver/absolute Encoder feedback
- Electromechanical holding break
- Additional inertia feature



ACU 410 series

High-performance inverter

Power range

ACU410: 0.25 ... 400 kW*
ACU210: 0.25 ... 9.2 kW
(*1200 kW in parallel connection)

Additional benefits

- Highest power density in the market
- "Safe Torque Off" function
- PLC as integrated functionality
- Open/Closed speed loop control
- Integrated positioning control
- Advanced motor brake control
- Various communication fieldbus
- Availability of additional I/Os



M/BN series

AC break motors

Pole numbers

2, 4, 6, 8, 2/4, 2/6,
2/8, 2/12, 4/6, 4/8

Main features

- DC brake [FD]
- Separate brake supply
- Microswitch
- Protection degree up to IP55
- Incremental and absolute Encoder availability
- Thermal protection (Bi-metallic or PTC)
- Heater and tropicalization
- Anti-condensate drain



ANG series

Maximum performance inverter

Power range

ANG410: 0.25 ... 400 kW
ANG210: 0.25 ... 9.2 kW

Additional benefits

- Highest power density in the market
- "Safe Torque Off" (**SIL3**)
- PLC as integrated functionality
- **Fast Closed Loop control for High Cyclic machine rates**
- Integrated positioning control
- Advanced motor brake control
- Various communication fieldbus
- **Multiple feedback options absolute encoder / Resolver**
- Fast Closed Loop control for High Cyclic machine rates
- **Cubic Interpolation for Hi-tech Motion control**
- Multi-Protocol Communications
- Two Position sensors inputs for fast synchronization
- High Resolution for Motor feedback



ME/BE-MX/BX series

AC motors

kW rating (4 pole)

0.75 ... 22 kW

Pole numbers

2, 4, 6
(MX/BX 4 poles only)

Main features

- High efficiency motors
- Protection degree up to IP65
- Incremental and absolute Encoder availability
- Thermal protection (Bi-metallic or PTC)
- Heater and tropicalization
- Anti-condensate drain



F series

Shaft mounted

Torque Range

140 Nm... 14,000 Nm

Mechanical Rating

($n_1 = 1400 \text{ min}^{-1}$)
0.17 ... 125 kW

Gear ratios

6.4 ... 2099

Output Configuration

Keyed Hollow Shaft - Two Bore Options per Size



TQ series

Low backlash & high precision

Torque Range

30 ... 800 Nm

Maximum acceleration torque

45 ... 1200 Nm

Transmission ratios

3 ... 100

Output Configuration

Square flange mounting



A series

Helical bevel

Torque Range

100 Nm... 14,000 Nm

Mechanical Rating

($n_1 = 1400 \text{ min}^{-1}$)
0.22 ... 150 kW

Gear ratios

5.4 ... 1715

Output Configuration

Foot and Shaft mount - Two Bore Options per Size



TQF series

Low backlash & high precision belt drive systems

Backlash

$\varphi < 3$ arcminutes

Norminal Torque

30 ... 800 Nm

Acceleration Torque

30 ... 1200 Nm

Additional benefits

- Highest Torsional stiffness
- High cycle rates
- Compact volume
- IP65
- Low inertia
- 2 Stages



VF/W series

Worm gearmotors

Torque Range

13 Nm... 7,100 Nm

Mechanical Rating

($n_1 = 1400 \text{ min}^{-1}$)
0.04 ... 75 kW

Gear ratios

7 ... 10000

Output Configuration

Keyed Hollow Shaft



SL series

Belt drive systems

Backlash

Standard $\varphi = 12$ arcminutes
Reduced $\varphi = 6$ arcminutes

Transmission ratios

1 stage: $i = 3, 4, 5, 7, 10$
2 stages: $i = 9, 12, 15, 16, 20, 25, 28, 30, 35, 36, 40, 45, 50, 70, 81, 100$



Bonfiglioli motion control solutions

BMI series

The BMI series offers the machine a complete cost-effective automation solution fully customizable depending on the customer's needs. Combined with Bonfiglioli drives system, the BMI series is a powerful solution dedicated to a wide range of applications.

Main features

- 7" and 10.1" Display
- Front Panel IP 65
- ABS Plastic Chassis
- 65,536 Colors
- High Resolution up to 1024 X 600
- Ethernet and RS232/485 standard
- CE conformity



BMS Compact solution

Using an integrated solution rather than a traditional gearhead / motor combination saves valuable space and gives machine designers a wider range of options and higher performance due to the synergies between permanent magnet synchronous motor and precision planetary gearbox technologies.

Additional benefits

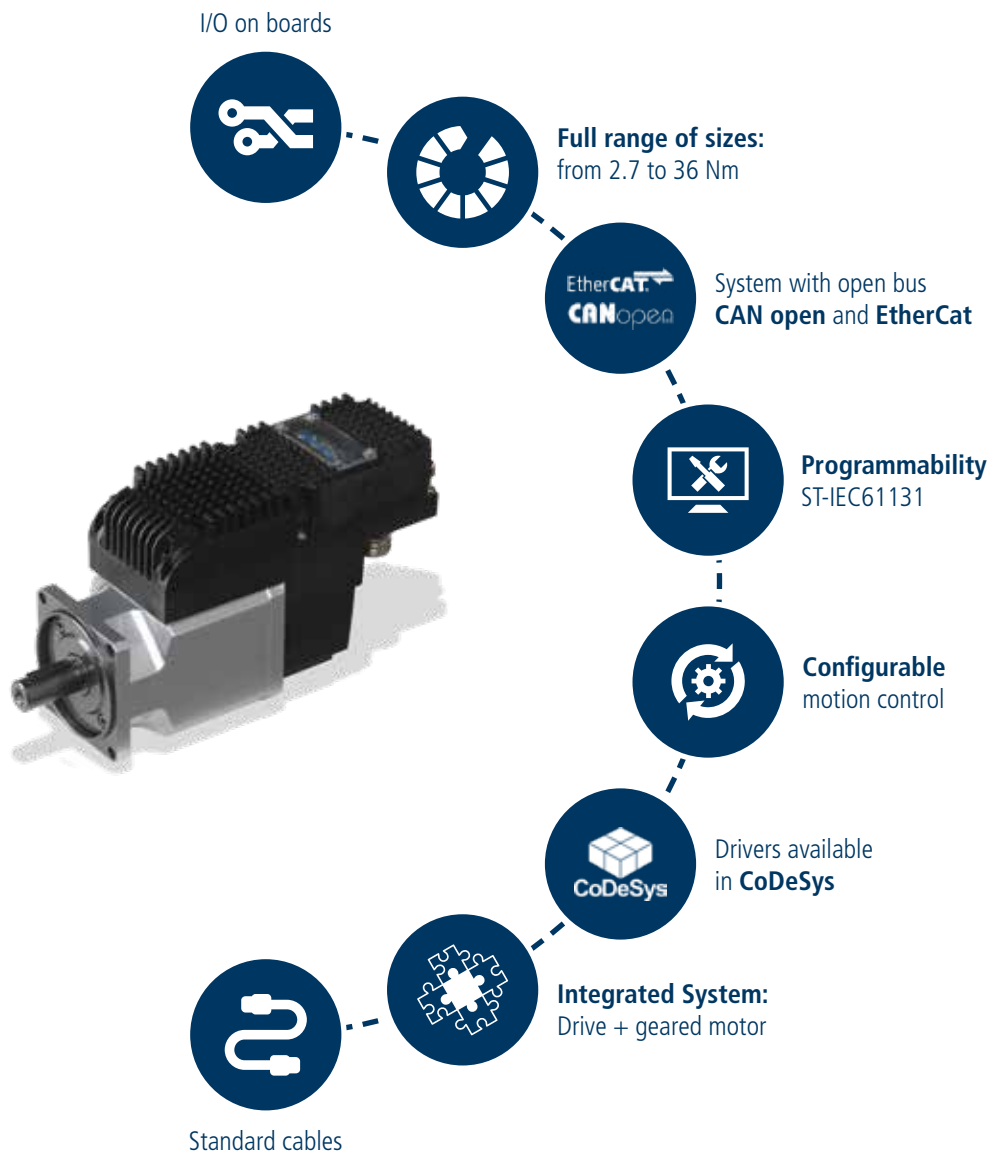
- Optimized Gear train
- Lowest Moment of Inertia
- Highest Torsional Stiffness
- Reduced Backlash



Bonfiglioli motion control solutions

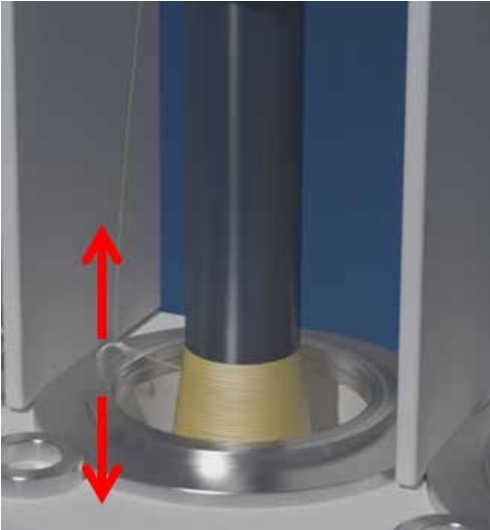
iBMD - Servomotor with integrated drive

Bonfiglioli's compact and complete drive, the iBMD, is an integrated drive with a broad torque range from 2.7 to 36 Newton meters. It has all the features of a highly dynamic servo motor as well as those of a modern drive controller. The iBMD can be used as a stand-alone drive or as part of a control system. Motion control functions such as positioning, cam profile, electronic gears and an interpolated mode are just as central to it as open communication via CANopen and EtherCAT (CoE). Additional features include a broad range of digital and analog inputs and outputs.

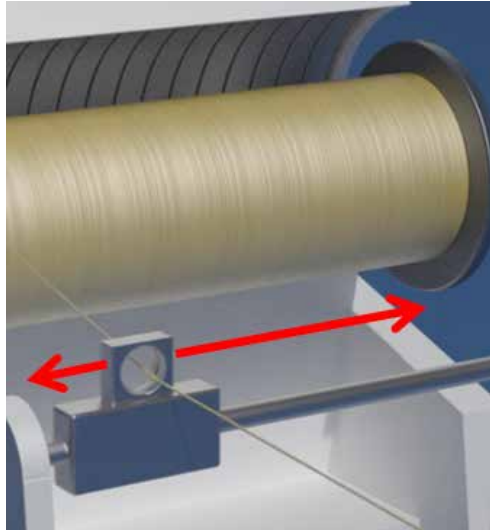


Traversing functions

Traversing functions are important to ensure high material quality of the final product. The full Bonfiglioli axis (Inverter + gearbox + motor) offers a complete package of highly dynamic drive systems for increasing production efficiency.



Bench traversing



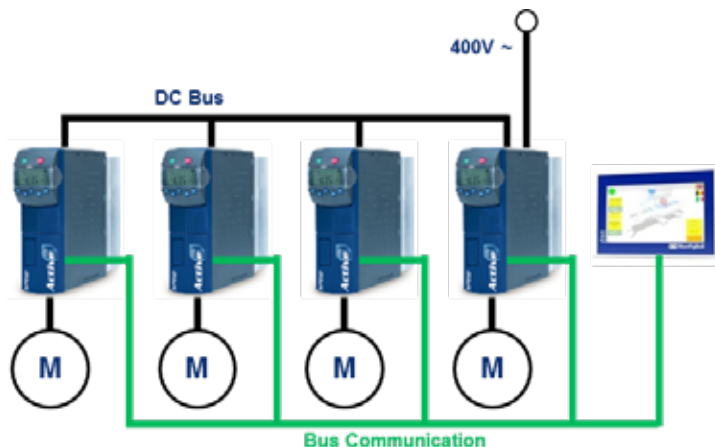
Yarn guide traversing

DC-Bus & Mains failure

With DC Bus connection we ensure that the machine can react with power failure regulation and additional mains failure shut down.

For short periods of mains failure, the system is able to run with lower speed without losing drive synchronization between any axes.

For long periods of mains failure, the system is able to stop the whole machine without losing the synchronization between any axes. Thanks to this functionality the machine will not be damaged and will be ready to restart after power recovery.

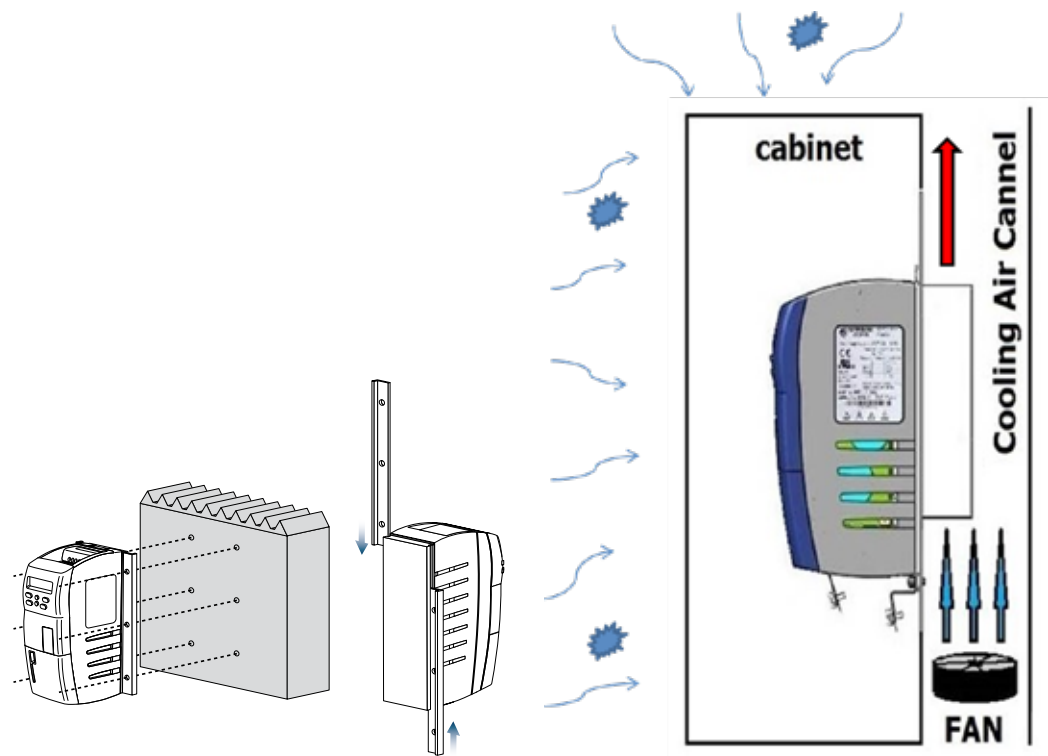


Harsh environments

Polluted cooling air with fibers

Thanks to the cold plate and the feedthrough solutions, the heat losses are outside the cabinet, allowing space savings. The main benefit of this system is the extension of the life cycle.

Moreover, the absence of fans and electrolyte capacitors allows the inverter to work in harsh environments (high temperature).



Cold plate

Feedthrough

Always by our customer's side, all over the world

Bonfiglioli has globalized production over the years. Today, we operate 14 manufacturing plants around the world to serve customers in local markets more effectively. Our plants in Italy, Germany, USA, Brazil, India, China, Vietnam, and Slovakia form a truly efficient distribution network.

Excellence is our number one priority.

We use the latest technologies to optimize our daily production. Bonfiglioli is fully committed to a more sustainable workplace and supports various local initiatives.

Every Bonfiglioli employee pays the closest attention to even the smallest details to ensure that our customers receive products with unrivaled quality.



LEAN
MANUFACTURING



INDUSTRY
4.0



FAST DELIVERY
TIMES



WORLDWIDE
PRESENCE



Sharing the value of our work with you

Our team is fully dedicated to continuous improvement in the fields of quality, safety and protecting the environment, across the entire value chain, from the smallest supplier to the end customer.

Bonfiglioli management systems are certified to ISO 9001:2015, ISO 14001 and OHSAS 18001 while our products are covered by 7 international certifications.

Responsibility, excellence and continuous improvement are some of the basic elements that make Bonfiglioli a preferred partner.

SYSTEM CERTIFICATIONS:

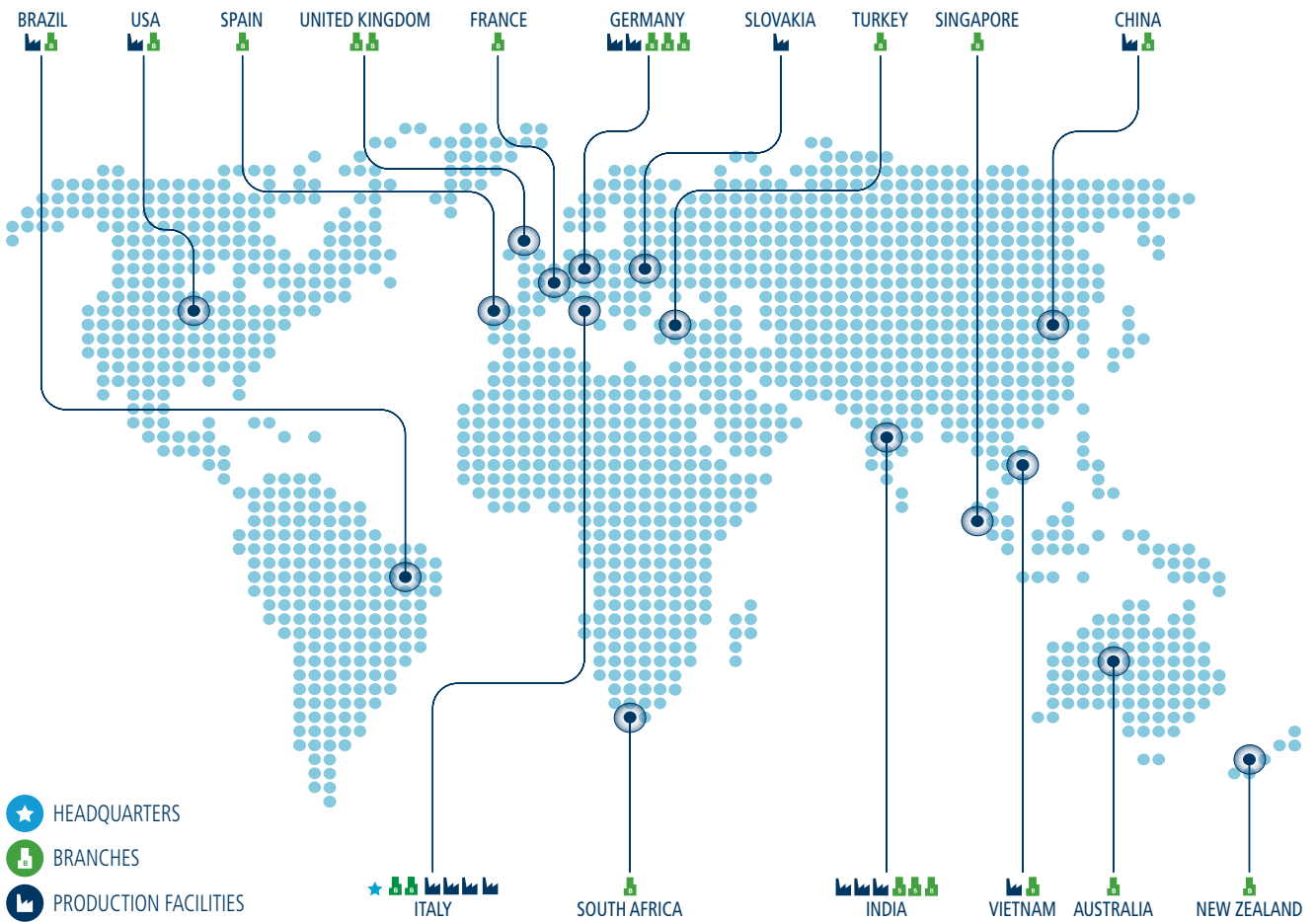


PRODUCT CERTIFICATIONS:



Bonfiglioli worldwide presence

Bonfiglioli is located in regions and countries around the world that enable us to provide faster sales and service to customers.
We are around the world, and around the corner.



LOCAL SUPPORT
 Sales, Customer Service,
 Warranty, Tech support,
 Spare parts



**21 BRANCH OFFICES
 IN 15 COUNTRIES**



**WORLDWIDE
 DISTRIBUTION
 NETWORK**

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



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