



SOLUTIONS FOR

Woodworking





*We engineer dreams*



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# Engineering Solutions



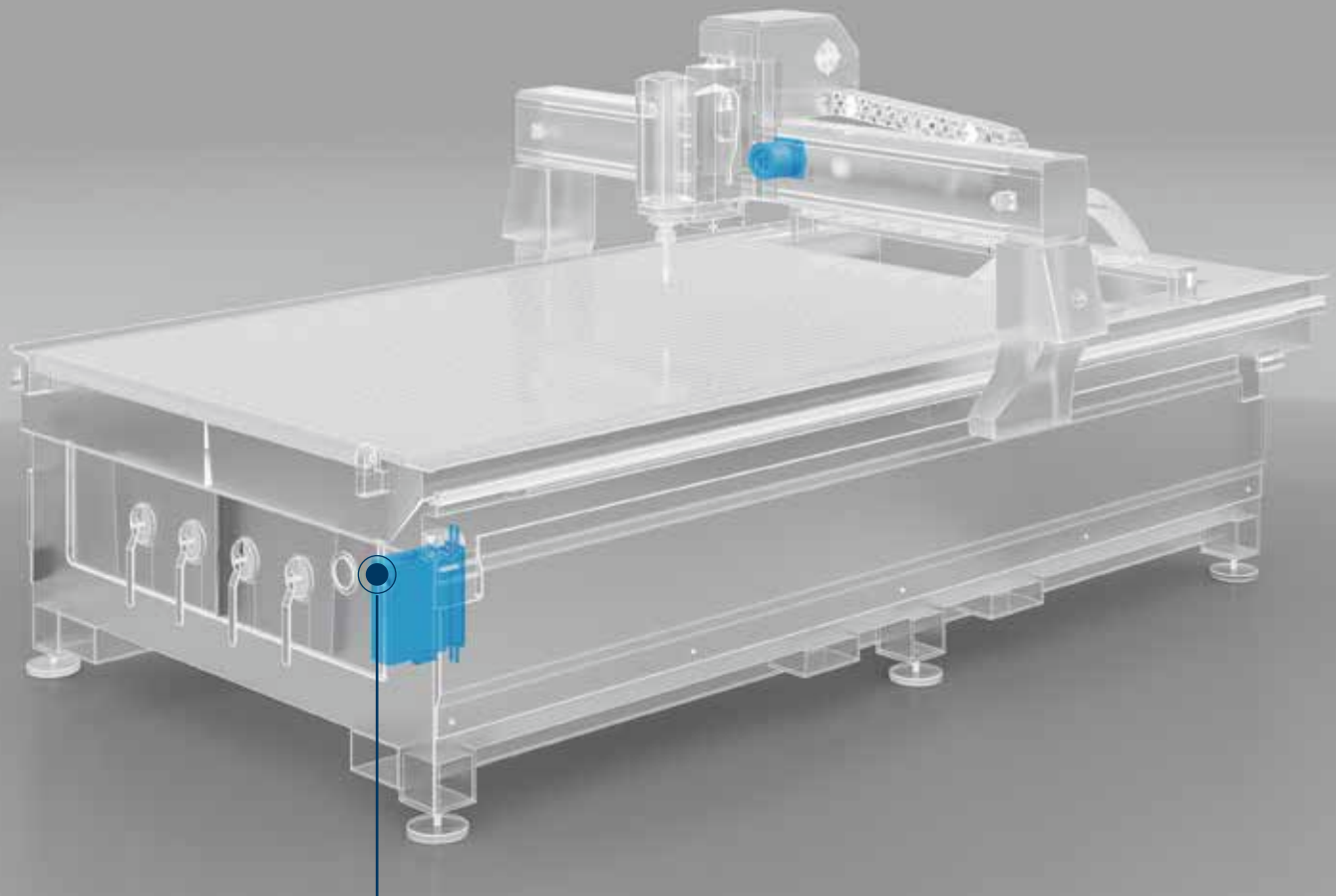
[WWW.BONFIGLIOLI.COM](http://WWW.BONFIGLIOLI.COM)

# Woodworking

Bonfiglioli is a longstanding leading manufacturer of mechatronic solutions for the woodworking industry, supplying excellence and innovation by keeping focus on our customers and their needs.

Thanks to our know-how and long-term co-design with key players in this industry, we supply bespoke solutions by integrating specific sector features into our products, including both industrial and precision gearboxes, motors and servomotors up to IE5, as well as frequency inverters for spindle control.

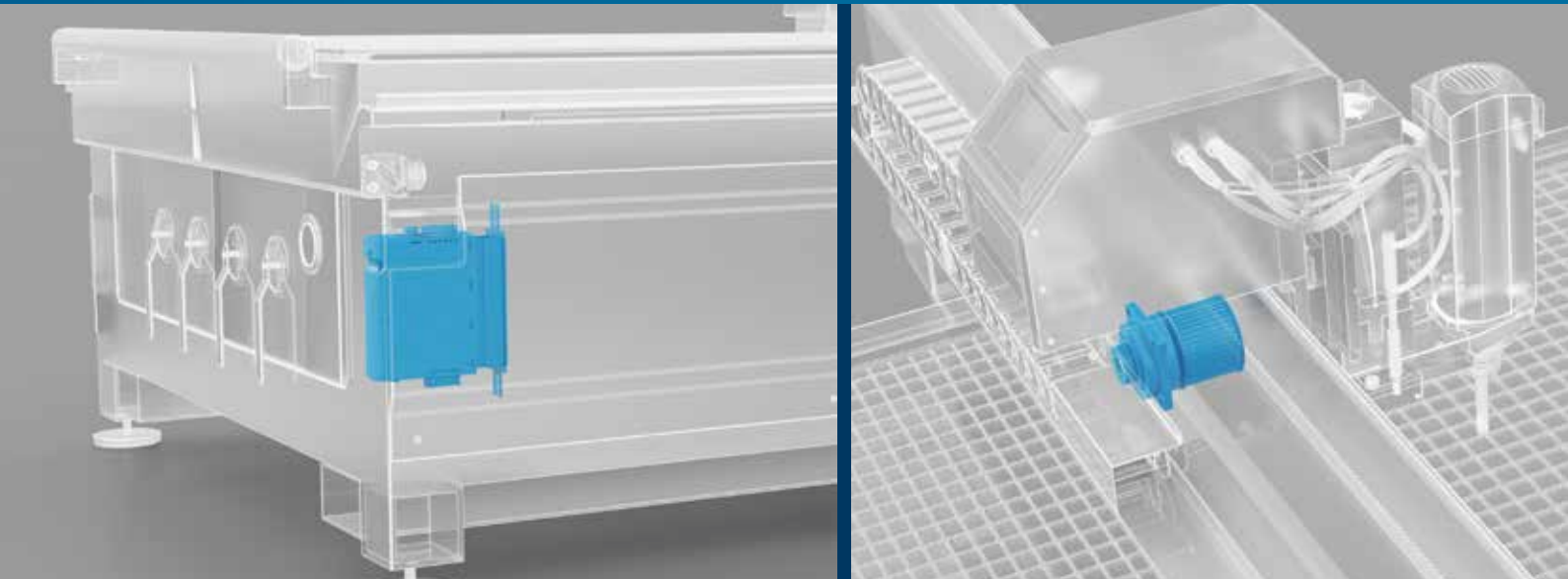




## CNC MACHINING CENTERS

CNC Machining Centers are processing machines for manufacture furniture, windows and doors and are able to create complex shaped items thanks to their multi-axis operating section. Bonfiglioli supplies application-specific solutions for both synchronous and asynchronous spindle control, with a wide range of dedicated functions. In addition, our precision planetary gearboxes designed for timing belt pulleys are the perfect fit when a combination of compactness and performance is required.





## AxiaVert Series

Inverter for synchronous spindle control, delivering high performance on a wide range of functions and with different tools

### BENEFITS

- No sine filter required + Reduced Heat
- Online control switch from asy. to syn. spindle motor
- Emergency ramp to stop the spindle
- Tapping function
- Space saving
- Saving on 3<sup>rd</sup> party safety components and cabling
- Less sensors and less cabling

### FEATURES

- High Switching Frequency
- Up to 12 data sets
- Grid Power-off Control
- Sin/Cos interface for Sin/Cos encoders
- Power density
- Safety functions integrated in Axia
- Functional safety

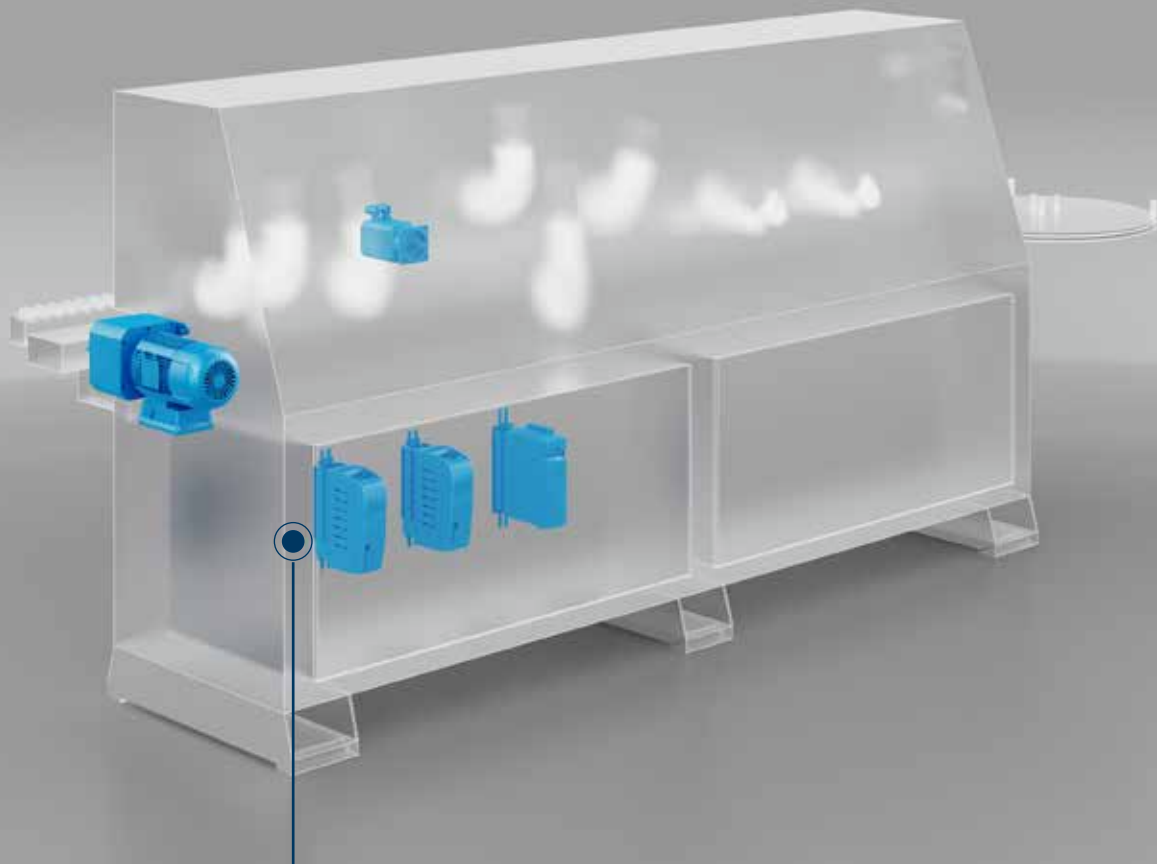


## SL Series

Precision Planetary Gearbox to drive tool change pulley

- Highly compact solution
- Precise positioning

- Gears within pulley interface
- Planetary solution

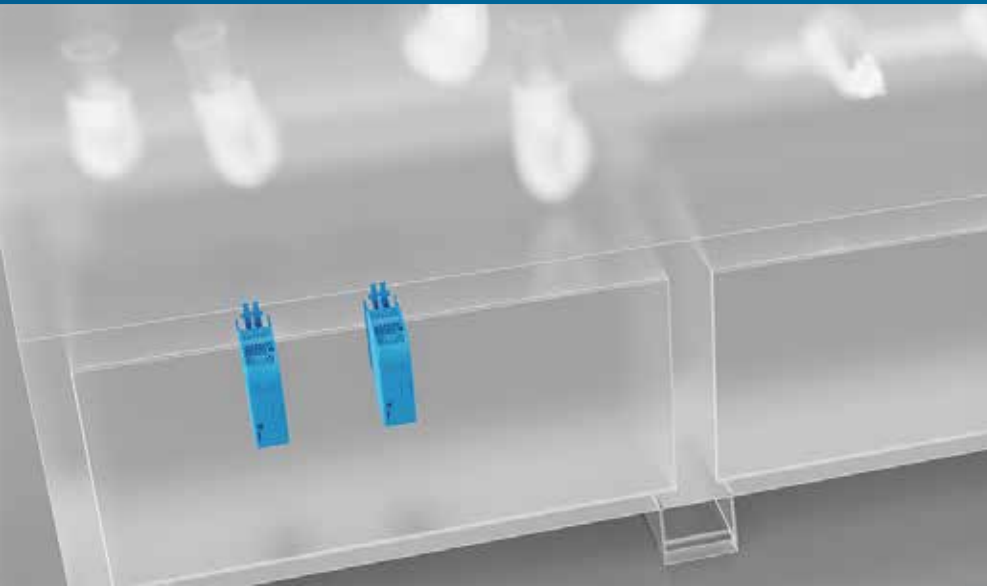


## EDGE BANDING MACHINES

Edgebanders are designed to process edges with both coiled and strip material. This process is often coupled with squaring operations on the same machine.

Bonfiglioli solutions for edgebanders vary from spindle control inverters to complete drive trains for the pull axis, as well as the rounding unit. They are manufactured with top class efficiency, reliability and noise level. Furthermore, the main axis can be sensorized for IoT services.





## Agile Series

Inverter for asynchronous spindle control, delivering high performance on a wide range of functions and with different tools



## BMD Series

For rounding units



## EVOX CP Series

Driving the pull axis

### BENEFITS

- Price/Performance Effectiveness with Agile series
- No sine filter required + Reduced Heat
- Emergency ramp to stop the spindle
- Simplified PLC mgmt

- Compactness
- Flexible design and range of options

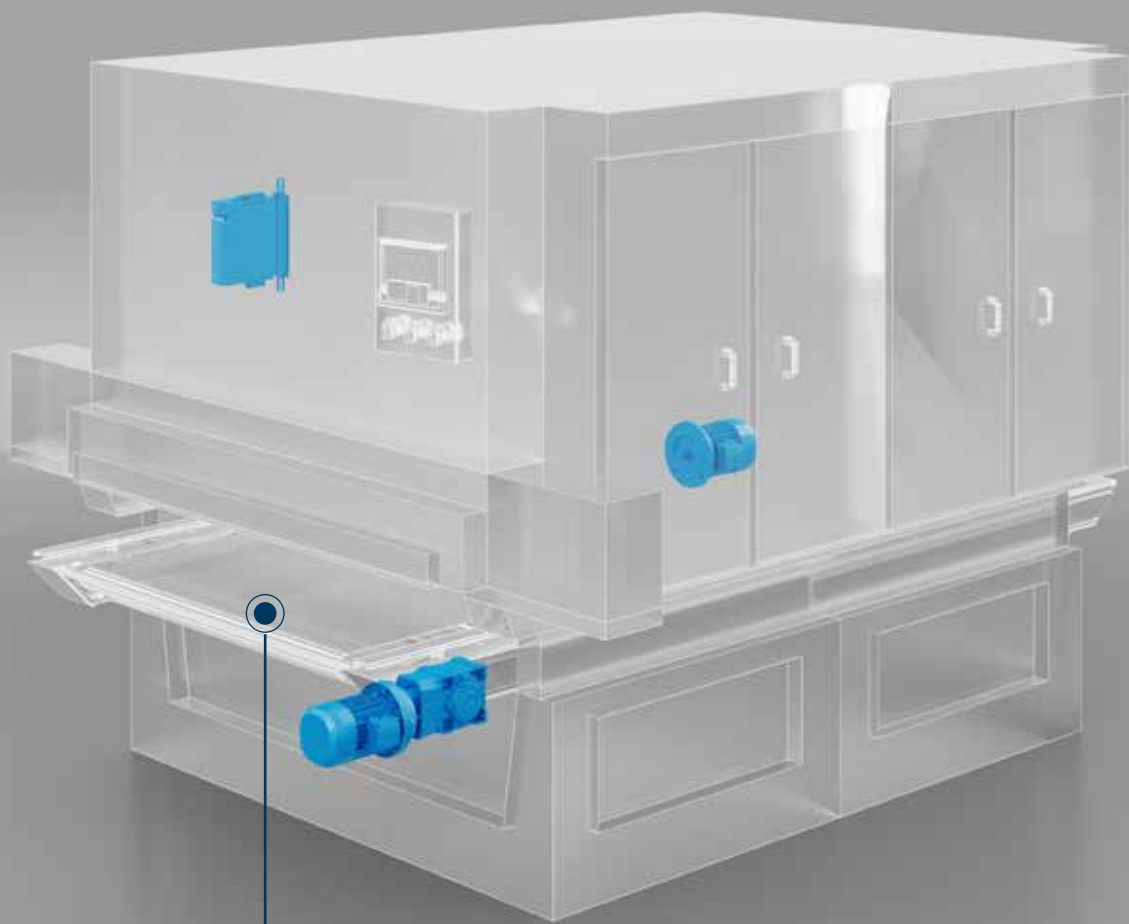
- IoT Services
- Low energy consumption for End-User
- Minimum machine downtime
- Comfortable operation at End-user side

### FEATURES

- Speed feedback management with on-fly open loop
- High Switching Frequency
- Grid Power-off Control
- Repetitive movement managed by inverter

- High torque density and efficiency
- Wide range of feedback types

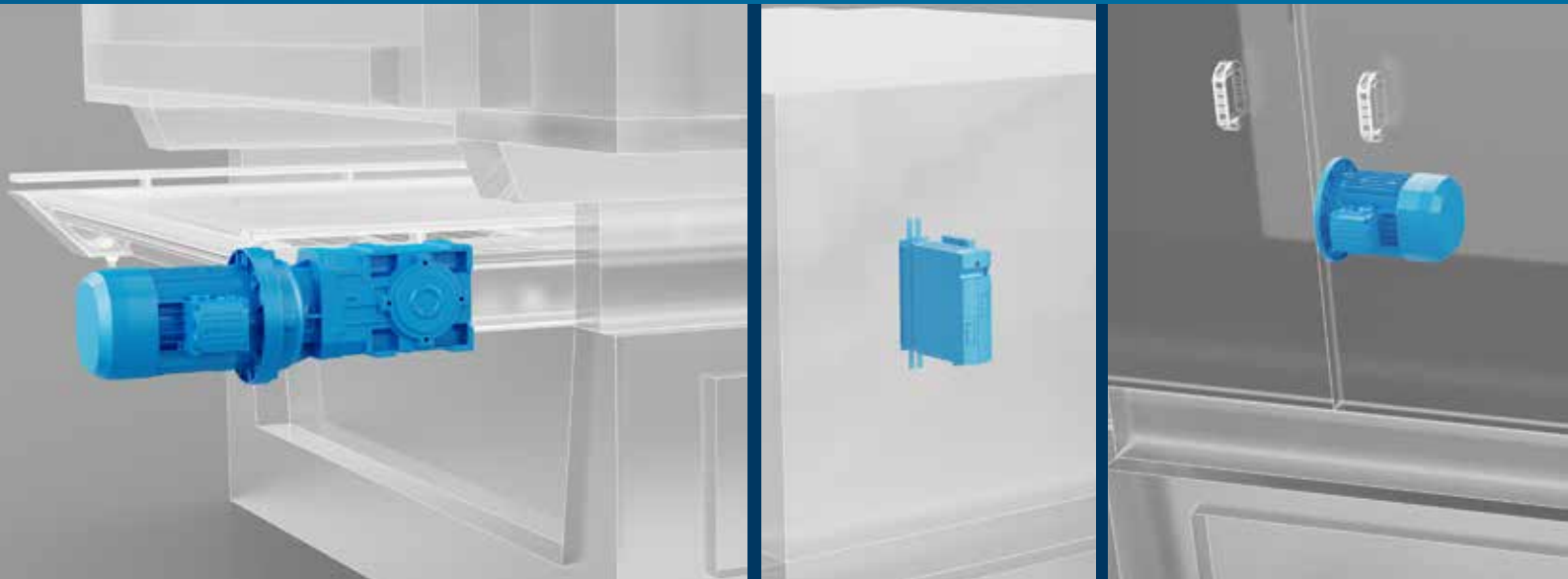
- Sensorization of Pull Axis
- Efficiency
- Reliability
- Low Noise



## FINISHING MACHINING CENTERS

Finishing machines are designed to process panels, on single or both sides, with multiple operations, such as calibrating, sanding and brushing.

Bonfiglioli solutions for this part of the woodworking process are centered around our synchronous reluctance technology, which guarantees IE4 efficiency on the roller axis, good dynamics on panel positioning and lifting, as well as high quality control at low speed when required.



## **AxiaVert + BSR + A**

Power drive system to control panel conveyor and AXV + BSR to power the main roller

- Low energy consumption for End-User on roller
- High productivity
- Easy to fit
- Replaceable with standard asyn. motors
- Good control for different operating modes
- Less sensors and less cabling



## **AxiaVert + BX + VF/W**

To control the panel positioning and the lifting mechanism

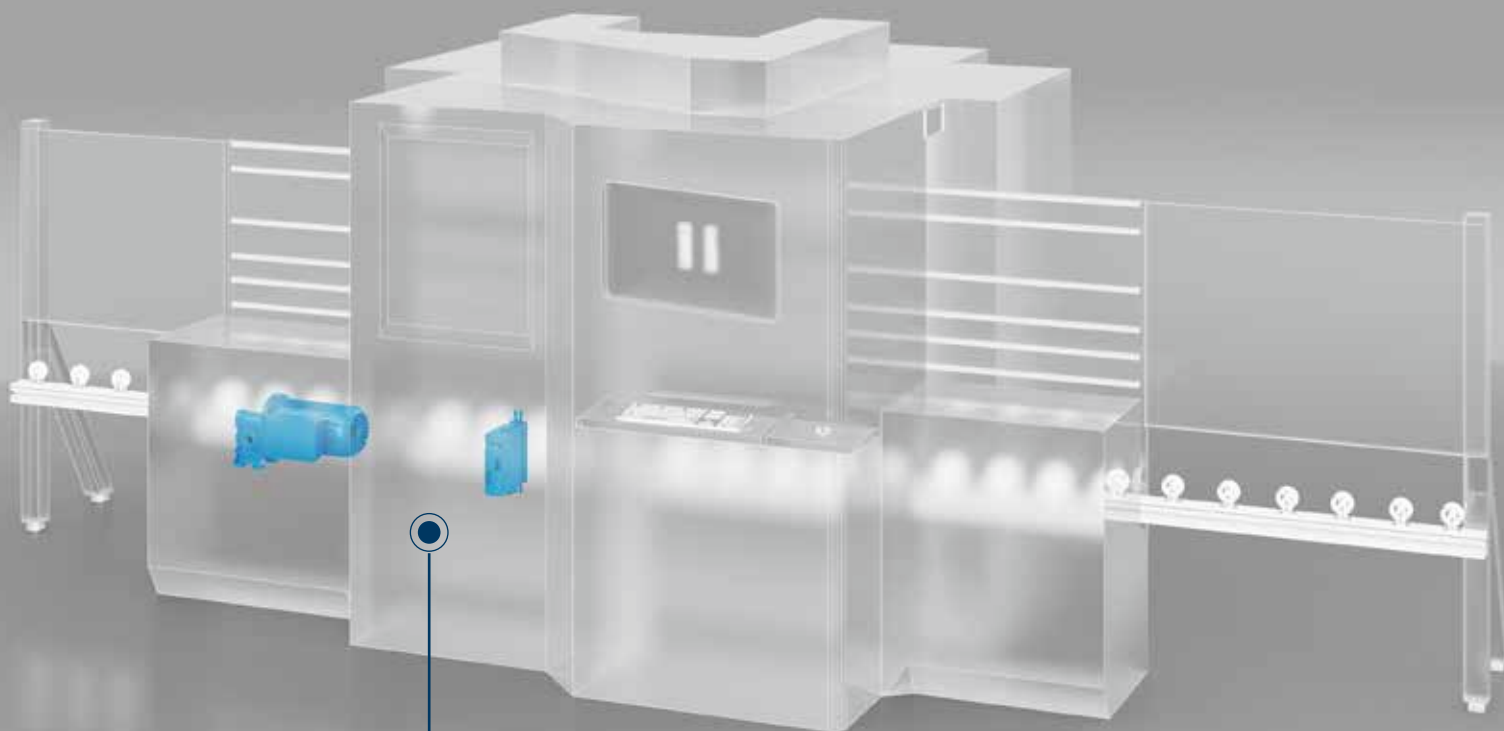
- Price/Performance Effectiveness

### BENEFITS

### FEATURES

- High efficiency
- High dynamics
- Compactness
- IEC frame
- High performance @low speed
- Functional safety

- Top-class manufacturing technology



## BORING & DRILLING MACHINES

Boring and Drilling machines are designed to carry out boring, milling, glue and dowel insertion operations on the wood panel. Together with the solutions highlighted for other woodworking machines, Bonfiglioli offers a tapping function for boring and drilling machines thanks to the logic embedded in our ANG drives.



## ANG Series

Inverter for synchronous spindle control with tapping function

### BENEFITS

- Tapping
- No sine filter required + Reduced Heat
- Emergency ramp to stop the spindle



## W/VF + BXN

Gearmotor for pulling

### FEATURES

- EtherCAT interpolation and positioning mode
- High Switching Frequency
- Grid Power-off Control

- Speed feedback management with on-fly open loop
- High Switching Frequency
- Grid Power-off Control

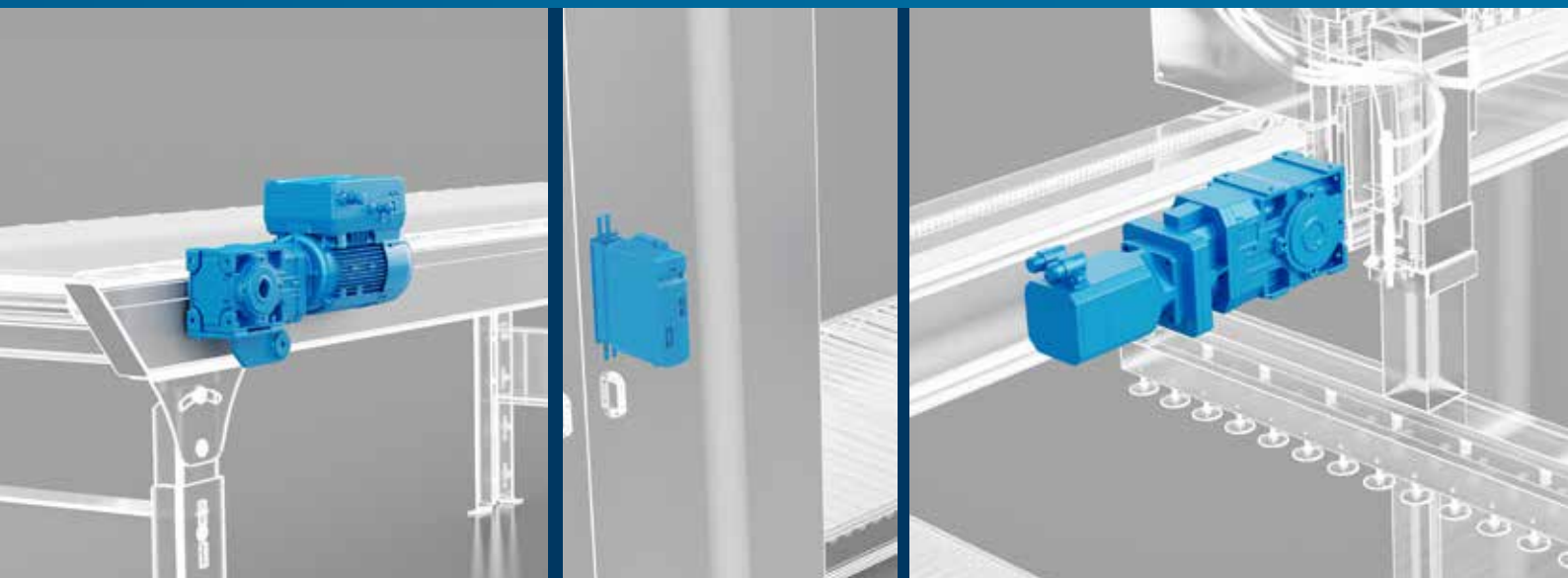


## HANDLING SYSTEMS

Panel Handling systems are designed to be integrated in machining cells, to load and unload panels on high-performance automated lines.

Thanks to its extensive experience in the intralogistic sector, Bonfiglioli couples industrial gearboxes with servomotors to offer compact gearmotors with the right amount of dynamics for highly productive machining lines.

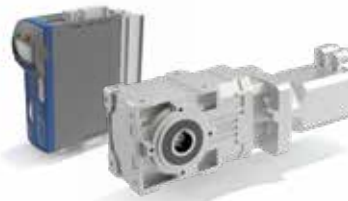




## **DGM + BXN + A**

To drive rollers and conveyors

- Easy to fit and install, limited cabling



## **ANG + BMD + A**

To drive 3D panel handling systems

- High dynamics for 3D panel handling, compactness
- Complete axis control

BENEFITS

FEATURES

- Very compact decentralized solution

- Brushless motor coupled with ind. gearbox
- Integrated communication and feedback into the inverter



## GEARBOXES & GEARED MOTORS

HEAVY DUTY

### Heavy duty parallel/right angle shaft geared motors **HDP/HDO Series**

- **Torque range:** 5,190 to 210,000 Nm
- **Gear ratios:** 5.6 to 500

### Planetary geared motors | **300 Series**

- **Torque range:** 1,250 to 1,287,000 Nm
- **Gear ratios:** 3.4 ... 2,916

LIGHT DUTY

### Worm geared motors | **W/VF Series**

- **Torque range:** 13 to 7,100 Nm
- **Gear ratios:** 5.6 to 500

### Helical geared motors | **C Series**

- **Torque range:** 45 to 12,000 Nm
- **Gear ratios:** 5.6 to 500

### Bevel-helical geared motors | **A Series**

- **Torque range:** 100 to 14,000 Nm
- **Gear ratios:** 5.6 to 500

### Shaft-mounted geared motors | **F Series**

- **Torque range:** 140 to 14,000 Nm
- **Gear ratios:** 5.6 to 500

SERVO

### Precision planetary servo geared motors **TQ, TQK, TQF, TR, MP, LC, LCK, SL, KR Series**

- **Torque range:** up to 1,000 Nm
- **Gear ratios:** up to 1,000
- **Backlash:** lower than 2 and 17 arcmin

## MOTORS

### Asynchronous IEC motors | **BN, BE, BX Series**

### Asynchronous compact motors | **MN, ME, MX series**

A complete range of AC motors, meeting worldwide MEPS (e.g. IE3)

- **Power range:** 0.06 to 355 kW
- **Poles:** from 2 to 8 and multiple poles

IE3

### Asynchronous motors | **BN, BE, BX, M, ME, MX Series**

A complete range of AC motors, meeting worldwide MEPS (e.g. IE3)

- **Power range:** 0.06 to 355 kW
- **Poles:** from 2 to 8 and multiple poles

IE3

### Synchronous motors | **BMD Series**

- **Stall torque:** 0.85 to 60 Nm
- **Rated speed:** from 1,600 to 6,000 min<sup>-1</sup>
- **Power supply:** 230, 400 VAC

### Synchronous reluctance motors | **BSR Series**

Two different versions for different needs: High efficiency IE4 and high output

- **Power range:** 0.37 to 18.5 kW

IE4

### Synchronous motors | **BMD, BCR Series**

- **Stall torque BMD:** 0.85 to 60 Nm
- **Stall torque BCR:** 0.2 to 115 Nm
- **Rated speed BMD:** from 1,600 to 6,000 min<sup>-1</sup>
- **Rated speed BCR:** from 2,000 to 4,500 min<sup>-1</sup>
- **Power supply:** 230, 400 VAC

### Synchronous motors with integrated drives | **iBMD Series**

- **Stall torque:** 2.7 to 36 Nm
- **Rated speed:** 3,000 min<sup>-1</sup>
- **Power supply:** 560 VDC



## CABINET INVERTERS

HEAVY DUTY

### Cabinet solution | **Active Cube 8 IP54**

- **Power range:** 200 up to 1,200 kW
- **Voltage:** 400 V, 525V, 690V

### Premium inverter | **Active Cube Series**

- **ACU210:** 0.25 - 9.2 kW / 1- or 3-phase
- **ACU410\*:** 0.25 - 400 kW / 3-phase
- **ACU510\*:** 160 - 400 kW / 3-phase
- **ACU610\*:** 0.25 - 400 kW / 3-phase

LIGHT DUTY

### High performance frequency inverter | **AxiaVert Series**

- **AXV20:** 0.25 - 9.2 kW / 3-phase
- **AXV40:** 0.25 - 15 kW / 3-phase

### Premium inverter | **Active Cube Series**

- **ACU210:** 0.25 - 9.2 kW / 1- or 3-phase
- **ACU410\*:** 0.25 - 400 kW / 3-phase
- **ACU510\*:** 160 - 400 kW / 3-phase
- **ACU610\*:** 0.25 - 400 kW / 3-phase

### Smart inverter | **Agile Series**

- **AGL202:** 0.12 - 3 kW / 1-phase | 0.25 - 7.5 kW / 3-phase
- **AGL402:** 0.25 - 11 kW / 3-phase

### Compact inverter | **S2U Series**

- **S2U230S---(F) IP66:** 0.25 - 400 kW / 3-phase

SERVO

### Servo inverter | **ANG Series**

- **ANG210:** 0.25 - 9.2 kW / 1- or 3-phase
- **ANG410\*:** 0.25 - 400 kW / 3-phase
- **ACU510\*:** 160 - 400 kW / 3-phase
- **ANG610\*:** 0.25 - 400 kW / 3-phase

### Premium inverter | **Active Cube Series**

- **ACU210:** 0.25 - 9.2 kW / 1- or 3-phase
- **ACU410\*:** 0.25 - 400 kW / 3-phase
- **ACU510\*:** 160 - 400 kW / 3-phase
- **ACU610\*:** 0.25 - 400 kW / 3-phase

### Smart inverter | **Agile Series**

- **AGL202:** 0.12 - 3 kW / 1-phase | 0.25 - 7.5 kW / 3-phase
- **AGL402:** 0.25 - 11 kW / 3-phase

## DECENTRALIZED INVERTERS

### **DGM1**

- **Size A:** 0.37 - 1.1 kW / 1-phase
- **Voltage:** 230 V
- **Motor type:** Asynchronous

### **DGM3**

- **Size A:** 0.55 - 1.5 kW / 3-phase
- **Size B:** 2.2 - 4 kW / 3-phase
- **Size C:** 5.5 - 7.5 Kw / 3-phase
- **Size D:** 11 - 22 kW / 3-phase
- **Voltage:** 3 x 200 Vac -10%... 480 Vac +10%  
280 Vdc -10%... 680 Vdc +10%
- **Motor type:** Asynchronous

### **DGM MPM**

- **Size A:** 0.55 - 1.5 kW / 3-phase
- **Size B:** 2.2 - 4 kW / 3-phase
- **Size C:** 5.5 - 7.5 Kw / 3-phase
- **Size D:** 11 - 30 kW / 3-phase
- **Voltage:** 3 x 200 Vac -10%... 480 Vac +10%  
280 Vdc -10%... 680 Vdc +10%
- **Motor type:** Asynchronous & Synchronous

\* up to 1200 kW with parallel connection

# Our worldwide presence

Thanks to an international network of closely interconnected commercial and production sites, we can guarantee the same high standards of Bonfiglioli quality anywhere at any given time. We know that our direct presence in local markets is the key to long-lasting success, so our family includes 17 production sites, 23 commercial sites and more than 550 distributors around the world.

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

18  PRODUCTION SITES

24  COMMERCIAL SITES

80  COUNTRIES

550  DISTRIBUTORS

~5,000  PEOPLE



# Bonfiglioli global locations

## AUSTRALIA

**Bonfiglioli Transmission (Aust.) Pty Ltd**  
Plumpton NSW



## BRAZIL

**Bonfiglioli Redutores do Brasil Ltda**  
São Bernardo do Campo - São Paulo



## CHINA

**Bonfiglioli Drives (Shanghai) Co. Ltd.**  
Shanghai



**Selcom Electronics (Shanghai) Co., Ltd**  
Shanghai



Shanghai



## FRANCE

**Bonfiglioli Transmission S.A.S.**  
Marly la Ville



## GERMANY

**Bonfiglioli Deutschland GmbH**  
Neuss



**Bonfiglioli Deutschland GmbH**  
Krefeld



**O&K Antriebstechnik GmbH**  
Hattingen



## INDIA

**Bonfiglioli Transmission Ltd.**  
**Mobility & Wind Industries**  
Thirumudivakkam  
Kancheepuram - Tamil Nadu



**Industry & Automation Solutions**  
Mannur Village, Sriperumbudur Taluk  
Kancheepuram - Tamil Nadu



**Industry & Automation Solutions**  
Pune - Maharashtra



## ITALY

**Bonfiglioli Riduttori S.p.A.**  
**Industry & Automation Solutions**  
Calderara di Reno (BO)



**Industry & Automation Solutions**  
Carpiano



**Mobility & Wind Industries**  
Forlì



**Industry & Automation Solutions**  
Rovereto



**Selcom Group S.p.A.**  
Castel Maggiore (BO)



Castel Maggiore (BO)



Cadriano (BO)



## NEW ZEALAND

**Bonfiglioli Transmission (Aust.) Pty Ltd**  
Auckland - Ellerslie



## SINGAPORE

**Bonfiglioli South East Asia Pte Ltd**  
Singapore



## SLOVAKIA

**Bonfiglioli Slovakia s.r.o.**  
Považská Bystrica



## SOUTH AFRICA

**Bonfiglioli South Africa Pty Ltd.**  
Johannesburg



## SOUTH KOREA

**Bonfiglioli Korea Co., Ltd.**  
Busan



## SPAIN

**Tecnotrans Bonfiglioli S.A**  
Castellbisbal - Barcelona



## TURKEY

**Bonfiglioli Türkiye Jsc**  
Çiğli - Izmir



## UNITED KINGDOM

**Bonfiglioli UK Ltd.**  
Warrington - Cheshire



## USA

**Bonfiglioli USA Inc.**  
Hebron - Kentucky



## VIETNAM

**Bonfiglioli Vietnam Co. Ltd.**  
Ben Cat city, Binh Duong province





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**

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