



SOLUTIONS FOR

Packaging





We engineer dreams

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Engineering Solutions



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Packaging

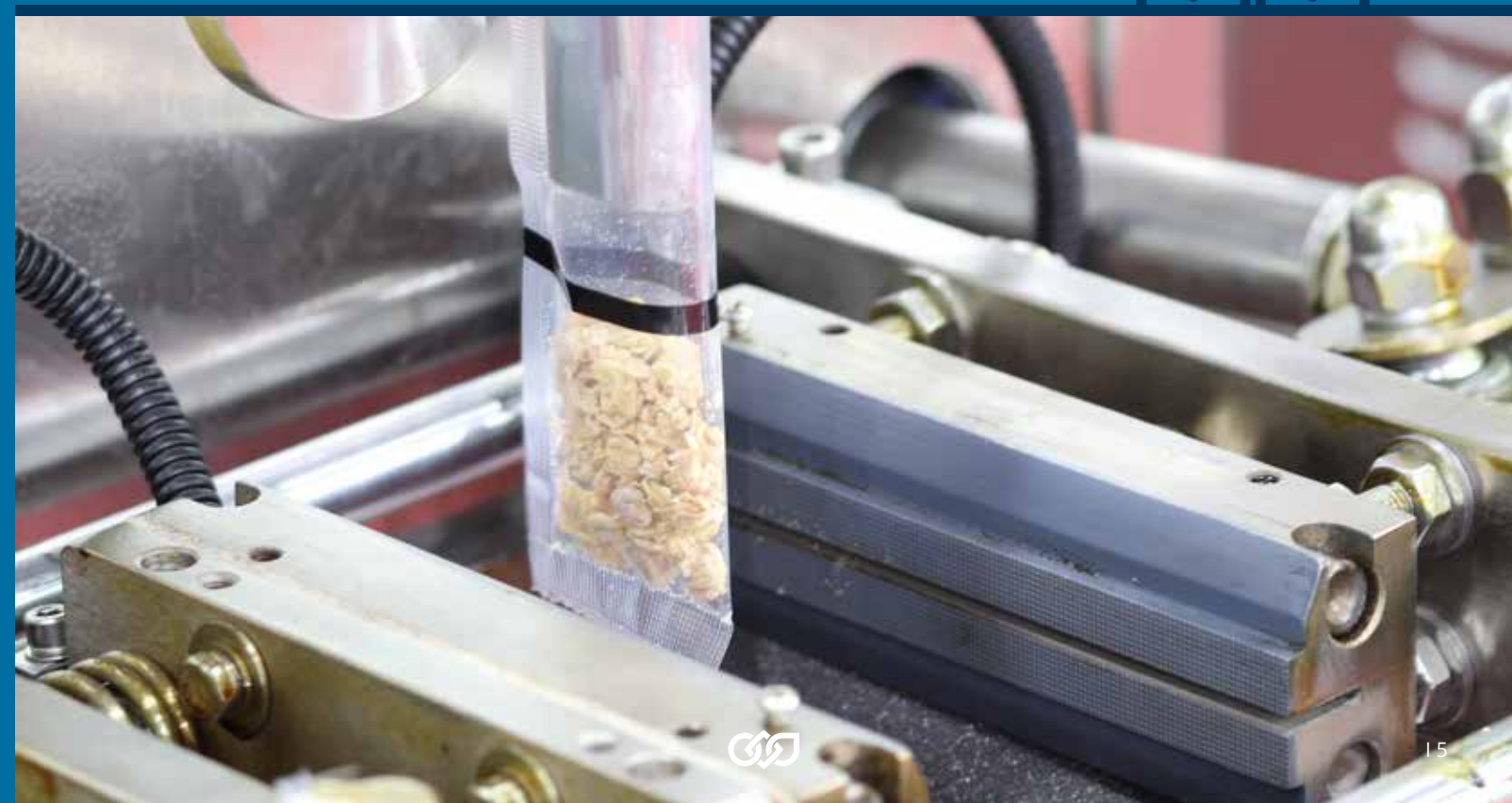
THE MOST RELIABLE SOLUTIONS FOR PACKAGING PROCESSES

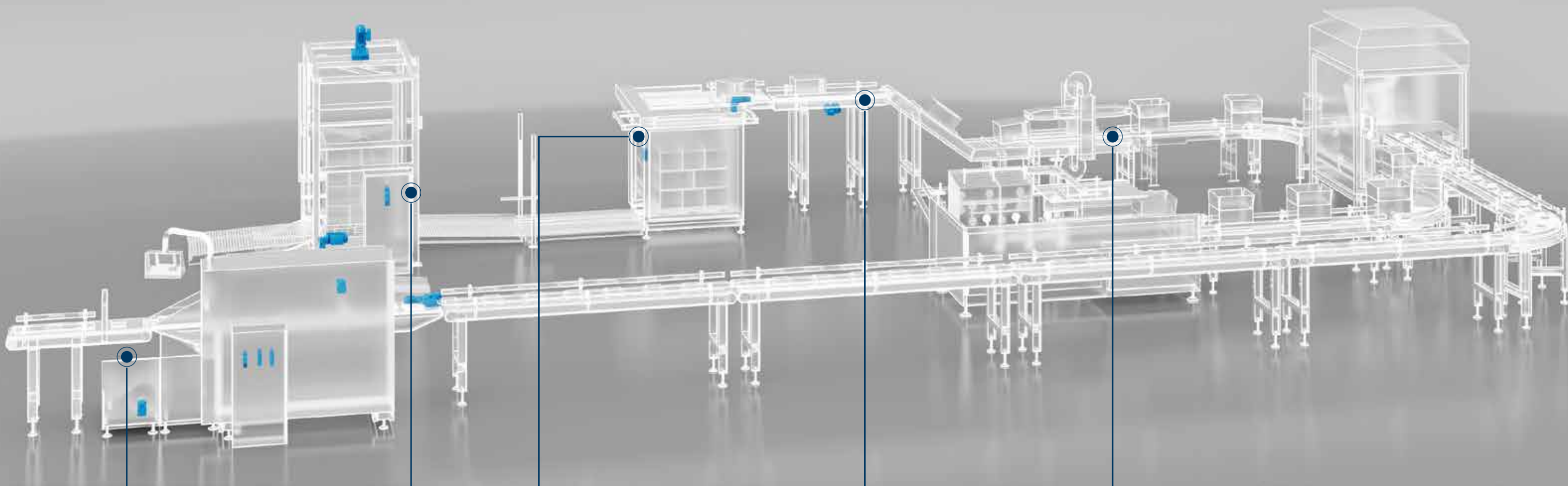
The diversity of packaging types and packaging machines makes performance requirements differ widely. From high overload specifications to parallel control of multiple motors, from high breakaway torque to continuous low speed functioning, and from synchronization to controlled braking, Bonfiglioli has created dedicated solutions to meet all machine requirements.

Reducing dimensions, increasing flexibility, resisting extreme load conditions and facilitating integration are the basic features offered by Bonfiglioli's solutions.

Our solutions satisfy even the strictest performance specifications imposed by customers and guarantee the highest levels of efficiency and energy savings.

Bonfiglioli guarantees high dynamic performances, compactness, high output, speed and efficiency from the production cycle.





1 PRIMARY PACKAGING
FLOW PACK MACHINES

4 TERTIARY PACKAGING
PALLETIZING MACHINES

5 TERTIARY PACKAGING
WRAPPING MACHINES

3 HANDLING
SMART CONVEYORS

2 SECONDARY PACKAGING
• CARTON FORMING MACHINE
• CARTON FILLING MACHINE (PICK & PLACE)
• CARTON CLOSING MACHINE

1

**PRIMARY PACKAGING
FLOW PACK MACHINES**

The Flow Pack (HFFS) process involves automatic machines working at a high production rate. Compact, modular, dynamic, high-precision solutions allow us to supply drive and control systems for both Horizontal Fill Form Seal (HFFS) and Vertical Fill Form Seal (VFFS) machines that provide proper conveyor transfer of material to an unwinder for sealing with a single roll of film.



A Series
Helical Bevel Gearbox



EVOX MXN Series
Asynchronous Motors



Agile Series
Smart inverter



TQ Series
Precision Planetary
Gearbox



MP Series
Permanent Magnet
Servo Motor



Serie BMD
Permanent Magnet
Servo Motor



AxiaVert Series
High Performance
Cabinet Inverter

BENEFITS

- Reduced installation space
- Wide output speed range
- High stiffness for dynamic application
- Safe operation in potentially explosive atmospheres

FEATURES

- Shaft mounting with hollow shaft and torque arm or shrink disk
- Reinforced bearings available as an option
- Reduced backlash as an option

- One motor for different markets
- Simplify installation complexities and inventory management
- Uncompromised Efficiency
- Modular electric motor

- IE3 Efficiency level
- Power range up to 7,5kW
- Built in DC brake
- Thermal protection
- Anti-condensate heaters
- Second shaft extension
- Anti corrosive painting up to C5M
- Tropicalization
- Degree of protection up to IP56

- Smooth start
- Variable “cut position” for smaller particles
- Energy saving function: current consumption redirection during start phase

- Series optionally extendable for field bus communication
- Sensorless control of synchronous and asynchronous motors
- Modbus and Systembus onboard
- DC link connection
- Integrated brake chopper
- Power failure control
- Programmable PI Controller
- Integrated VPLC
- Master/slave function with electronic gear
- Integrated safe torque off STO (SIL 2 / PL d) function
- Energy Saving function
- Intelligent current limits
- Output frequency 0...599 Hz, higher frequencies on request
- Diagnosis and setup via integrated keypad and integrated Service interface for PC connection

BENEFITS

- Maximum torque density
- Ideal for applications requiring demanding duty cycles, high precision, and outstanding dynamic performance
- Robust design ensuring reliability and efficiency even under the most demanding operating conditions

FEATURES

- Reinforced bearing option for applications with heavy external loads
- Easy retrofit
- IP65 protection rating

- For applications requiring minimal backlash and medium dynamic performance
- Ensured by a wide range of design configurations
- Optimized lubrication system

- Wide range of reduction ratios and design configurations
- Multiple input and output configurations
- IP65 protection rating

- Higher torque and power density compared to asynchronous motors
- Sensorless operation with Bonfiglioli inverters
- Reduced cogging torque
- Easy maintenance

- Multiple output interfaces for each size and various connector types
- 14 feedback options available

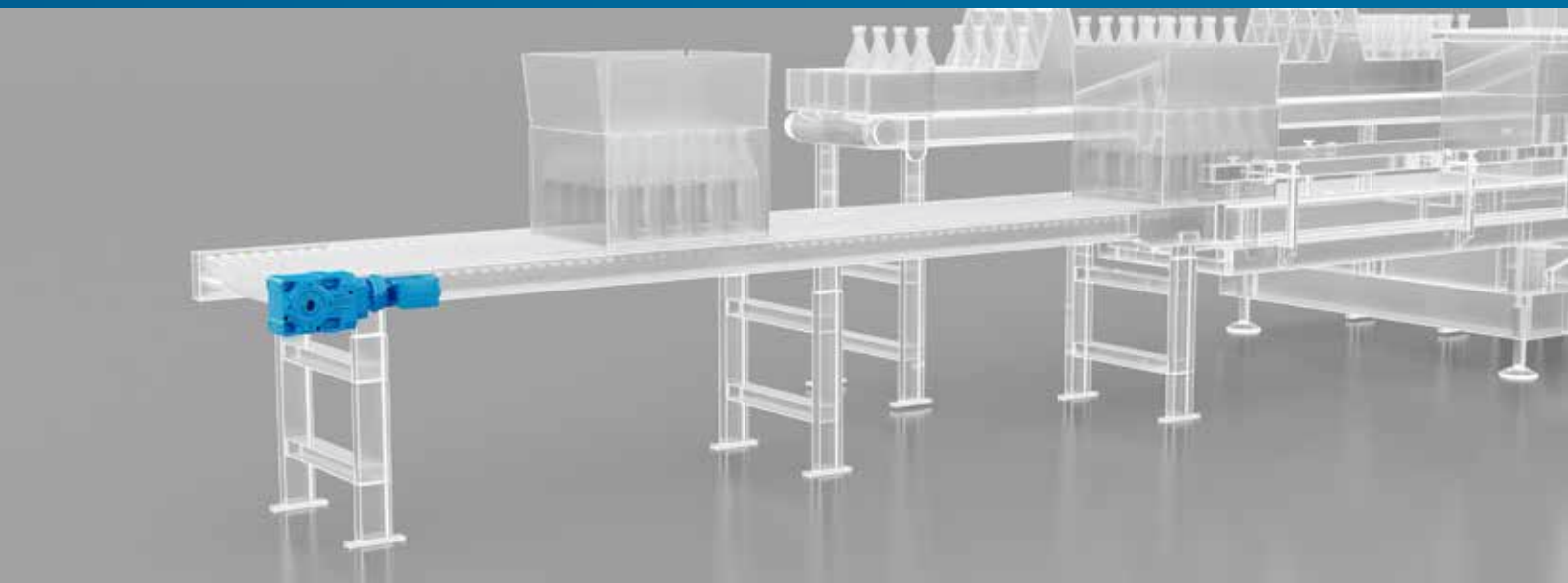
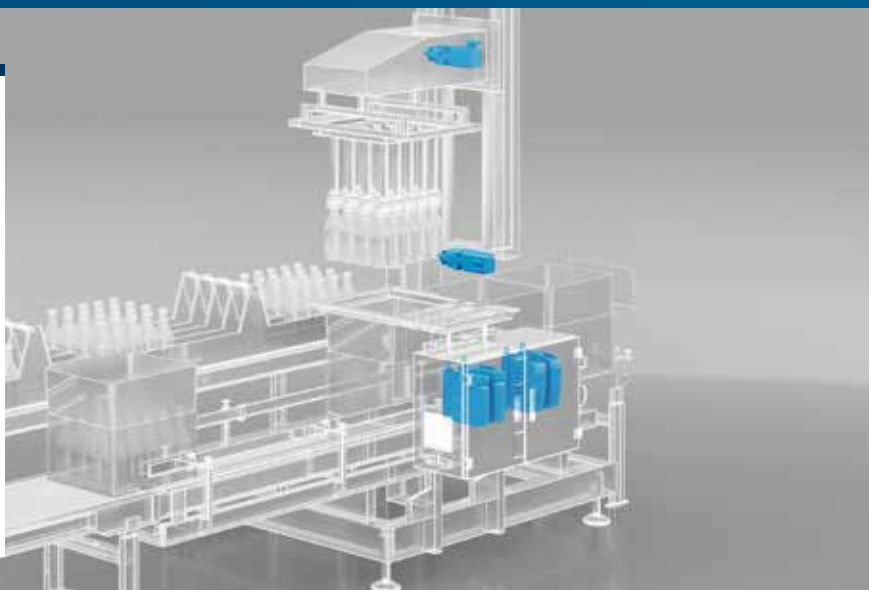
- Modular system
- Wide power range
- Versatile Communication
- High mounting flexibility

- Selectable Functional safety features (up to SIL 3 / PL e / CAT. 4)
- Wide range of Encoder supports for various systems
- Customizable logic functions with internal optional PLC (IEC61131)
- Integrated PID control system
- Various Control modes incl. Position, Speed or Torque Control & CiA402-compatible Motion Control
- Easy wiring with detachable signal and power terminals (up to 15 kW)

2

SECONDARY PACKAGING
CARTON FORMING MACHINES, PICK & PLACE, CARTON CLOSING MACHINE

Secondary packaging involves machines that perform a variety of jobs, from building boxes, to placing products inside them, and closing them. Bonfiglioli knows the challenges of these gluing and closing applications and provides solutions to meet them all. From maximally space-saving precision gearboxes to inverters, our customers can rely on Bonfiglioli as full line supplier.



TQ Series
Precision Planetary
Gearbox



Serie BMD
Permanent Magnet Servo
Motor



AxiaVert Series
High Performance Cabinet
Inverter



A Series
Helical Bevel Gearbox



EVOX MXN Series
Asynchronous Motors



AxiaVert Series
High Performance Cabinet
Inverter

BENEFITS

- Maximum torque density
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- Robust design ensuring reliability and efficiency even under the most demanding operating conditions

FEATURES

- Reinforced bearing option for applications with heavy external loads
- Easy retrofit
- IP65 protection rating

- For applications requiring minimal backlash and medium dynamic performance
- Ensured by a wide range of design configurations
- Optimized lubrication system

- Wide range of reduction ratios and design configurations
- Multiple input and output configurations
- IP65 protection rating

- Modular system
- Wide power range
- Versatile Communication
- High mounting flexibility

- Selectable Functional safety features (up to SIL 3 / PL e / CAT. 4)
- Wide range of Encoder supports for various systems
- Customizable logic functions with internal optional PLC (IEC61131)
- Integrated PID control system
- Various Control modes incl. Position, Speed or Torque Control & CiA402-compatible Motion Control
- Easy wiring with detachable signal and power terminals (up to 15 kW)

BENEFITS

- Reduced installation space
- Wide output speed range
- High stiffness for dynamic application
- Safe operation in potentially explosive atmospheres

FEATURES

- Shaft mounting with hollow shaft and torque arm or shrink disk
- Reinforced bearings available as an option
- Reduced backlash as an option

- One motor for different markets
- Simplify installation complexities and inventory management
- Uncompromised Efficiency
- Modular electric motor

- IE3 Efficiency level
- Power range up to 7,5kW
- Built in DC brake
- Thermal protection
- Anti-condensate heaters
- Second shaft extension
- Anti corrosive painting up to C5M
- Tropicalization
- Degree of protection up to IP56

- Modular system
- Wide power range
- Versatile Communication
- High mounting flexibility

- Selectable Functional safety features (up to SIL 3 / PL e / CAT. 4)
- Wide range of Encoder supports for various systems
- Customizable logic functions with internal optional PLC (IEC61131)
- Integrated PID control system
- Various Control modes incl. Position, Speed or Torque Control & CiA402-compatible Motion Control
- Easy wiring with detachable signal and power terminals (up to 15 kW)

3

**HANDLING
SMART CONVEYORS**

Smart conveyors are key elements that drive the packaging process from beginning to end. Our drives provide smooth, quiet operations and, thanks to our inverters, our solutions provide unsurpassed control of conveyor speed and motion.

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**TERTIARY PACKAGING
PALLETIZING MACHINES**

Last but not least, the tertiary phase includes both palletizing and wrapping machines to prepare the product for shipment. We provide solutions that can handle high speeds and precise movement, while stabilizing and properly aligning the material.



A Series
Right angle Helical Bevel
Gearmotor



MXN/BSR Series
Asynchronous Motor /
Reluctance motor



DGM MPM Series
Decentralized Inverter



**CP+MXN+DGM
MPM Series**
In-Line Gearbox +
Asynchronous Motor
+ Decentralized
Inverter



F Series
Shaft Mounted
Gearbox



MXN Series
Asynchronous
Motors



AxiaVert Series
High Performance
Cabinet Inverter

BENEFITS

- Torque density
- Compact design
- Wide speed choice

- Torque density
- Compact design
- Wide speed choice
- Universal mounting position

- Wide range of kW from 0.55 to 30kW
- Ethernet stack to manage with 1 product code: Profinet, Ethernet IP, Sercos3, Ethercat
- Motor's brake management

BENEFITS

- Reliability and robustness
- Reduced standard backlash
- Minimized mounting space
- IE3 motor efficiency
- Torque density
- Wide speed choice

- High efficiency
- Reliability and robustness
- Compactness
- Low maintenance

- One motor for different markets
- Simplify installation complexities and inventory management
- Uncompromised Efficiency
- Modular electric motor

- Modular system
- Wide power range
- Versatile Communication
- High mounting flexibility

FEATURES

- Shaft mounting with hollow shaft and torque arm or shrink disk
- Horizontal or vertical mounting position
- Motor power from 0.37 to 11 kW
- Reinforced bearings available as option
- Reduced backlash as option

- IE3/IE4 green solution
- High level of torque
- Wide range of options and flanges

- IP65 Inverter
- Reduction of electrical wiring
- Management of Asynchronous motor, Reluctance Synchronous

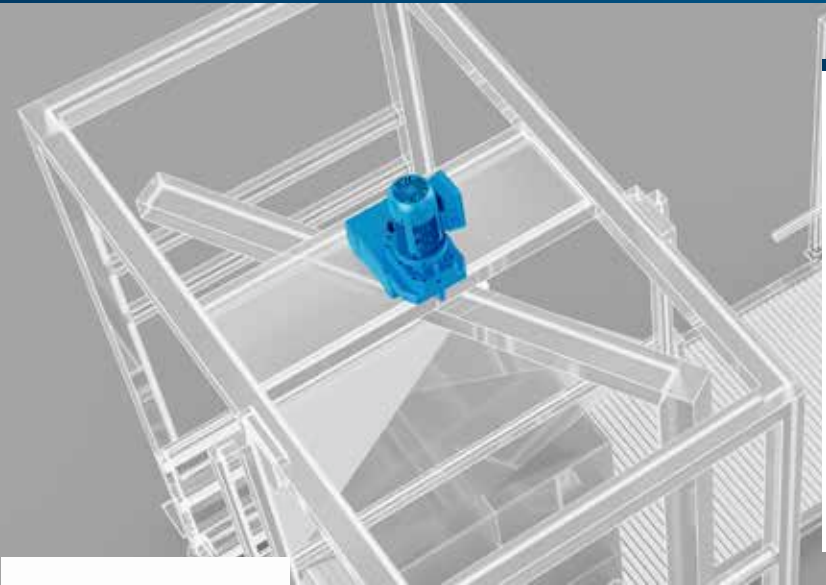
FEATURES

- IE3 green solution
- High level of torque
- Wide range of options and flanges
- Wide range of field buses (Ethernet base or/and CANopen)
- STO operating safety option

- Shaft mounted solution with different output configurations
- Housing integrated torque arm design and anti-vibration kits
- Wide range of ratios
- Availability of different grade of protection
- Compact or IEC/NEMA flanged motor adaptors

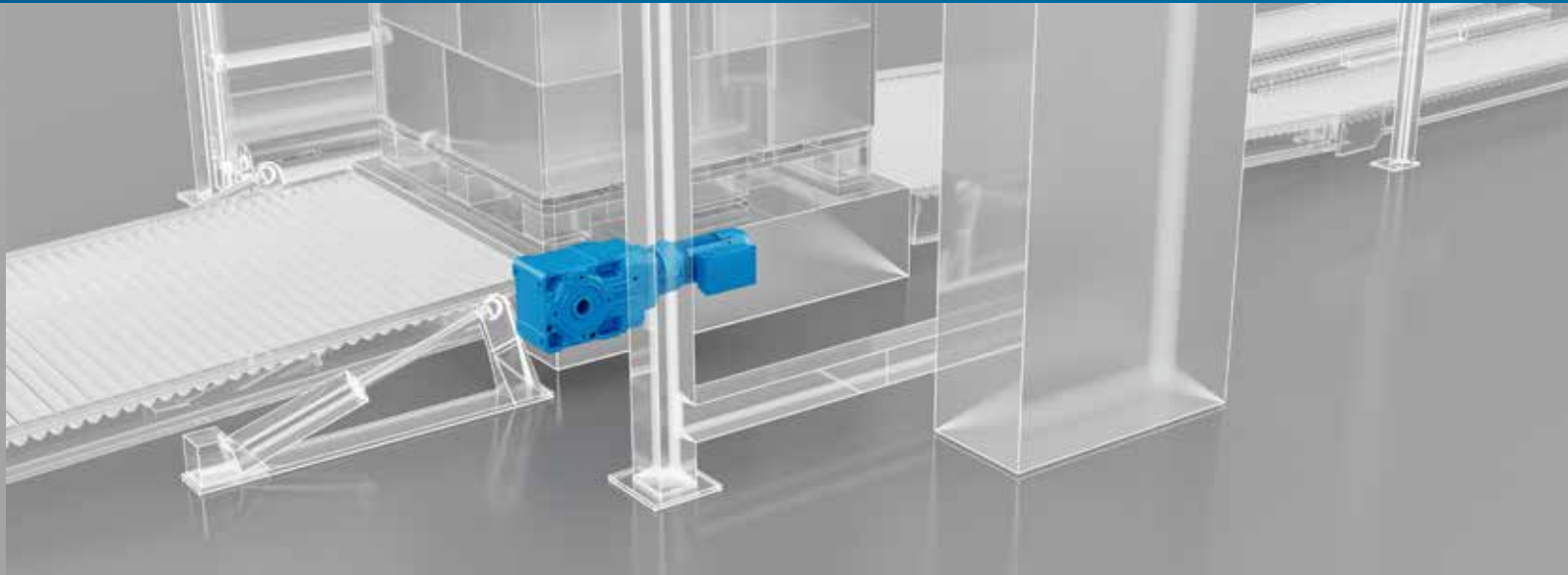
- IE3 Efficiency level
- Power range up to 7,5kW
- Built in DC brake
- Thermal protection
- Anti-condensate heaters
- Second shaft extension
- Anti corrosive painting up to C5M
- Tropicalization
- Degree of protection up to IP56

- Selectable Functional safety features (up to SIL 3 / PL e / CAT. 4)
- Wide range of Encoder supports for various systems
- Customizable logic functions with internal optional PLC (IEC61131)
- Integrated PID control system
- Various Control modes incl. Position, Speed or Torque Control & CiA402-compatible Motion Control
- Easy wiring with detachable signal and power terminals (up to 15 kW)



5
**TERTIARY PACKAGING
WRAPPING MACHINES**

Last but not least, the tertiary phase includes both palletizing and wrapping machines to prepare the product for shipment. We provide solutions that can handle high speeds and precise movement, while stabilizing and properly aligning the material.



F Series
Shaft Mounted
Gearbox



MXN Series
Asynchronous
Motors



Agile Series
Smart inverter



A Series
Helical Bevel Gearbox



EVOX MXN Series
Asynchronous Motors



AxiaVert Series
High Performance Cabinet
Inverter

BENEFITS

- High efficiency
- Reliability and robustness
- Compactness
- Low maintenance

- One motor for different markets
- Simplify installation complexities and inventory management
- Uncompromised Efficiency
- Modular electric motor

- Smooth start
- Feed roll control
- Low energy consumption

BENEFITS

- Reduced installation space
- Wide output speed range
- High stiffness for dynamic application
- Safe operation in potentially explosive atmospheres

- One motor for different markets
- Simplify installation complexities and inventory management
- Uncompromised Efficiency
- Modular electric motor

- Modular system
- Wide power range
- Versatile Communication
- High mounting flexibility

FEATURES

- Shaft mounted solution with different output configurations
- Housing integrated torque arm design and anti-vibration kits
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- IE3 Efficiency level
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- Anti-condensate heaters
- Second shaft extension
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- Tropicalization
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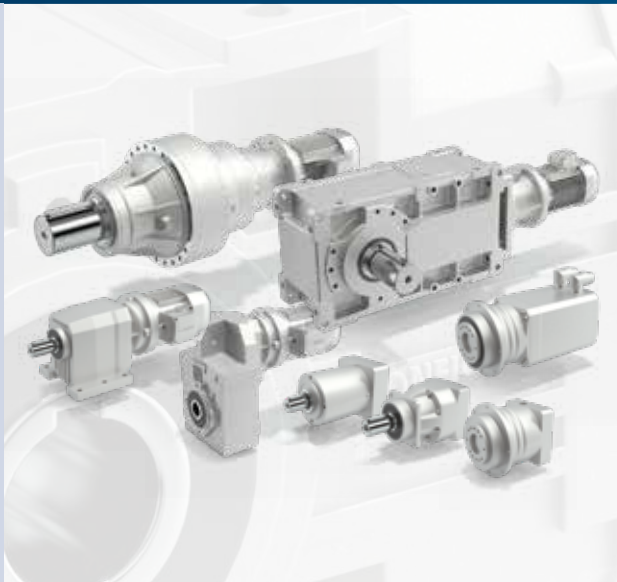
- Series optionally extendable for field bus communication
- Sensorless synchronous and asynchronous motor control
- Modbus and Systembus onboard
- DC link connection
- Integrated brake chopper
- Power failure control
- Programmable PI controller
- Integrated VPLC
- Master/slave function with electronic gear
- Integrated safe torque off STO (SIL 2 / PL d) function
- Energy saving function
- Smart current limits
- Output frequency 0...599 Hz, higher frequencies on request
- Diagnosis and setup via integrated keypad and integrated service interface for PC connection

FEATURES

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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

Synchronous motors | BMD Series

- **Stall torque:** 0.85 to 60 Nm
- **Rated speed:** from 1,600 to 6,000 min⁻¹
- **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⁻¹
- **Rated speed BCR:** from 2,000 to 4,500 min⁻¹
- **Power supply:** 230, 400 VAC

Synchronous motors with integrated drives | iBMD Series

- **Stall torque:** 2.7 to 36 Nm
- **Rated speed:** 3,000 min⁻¹
- **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

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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

* up to 1200 kW with parallel connection

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

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 18 production sites, 24 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   	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 	SINGAPORE Bonfiglioli South East Asia Pte Ltd Singapore  
BRAZIL Bonfiglioli Redutores do Brasil Ltda São Bernardo do Campo - São Paulo   		SLOVAKIA Bonfiglioli Slovakia s.r.o. Považská Bystrica   
CHINA Bonfiglioli Drives (Shanghai) Co. Ltd. Shanghai    Selcom Electronics (Shanghai) Co., Ltd Shanghai    Shanghai   		SOUTH AFRICA Bonfiglioli South Africa Pty Ltd. Johannesburg   
FRANCE Bonfiglioli Transmission S.A.S. Marly la Ville    GERMANY Bonfiglioli Deutschland GmbH Neuss    Bonfiglioli Deutschland GmbH Krefeld    O&K Antriebstechnik GmbH Hattingen   	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   	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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