



Solutions for
PACKAGING



Bonfiglioli



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Complete Solution Provider



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PACKAGING

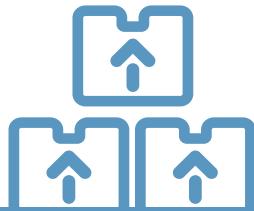
THE MOST RELIABLE SOLUTIONS FOR PACKAGING PROCESSES

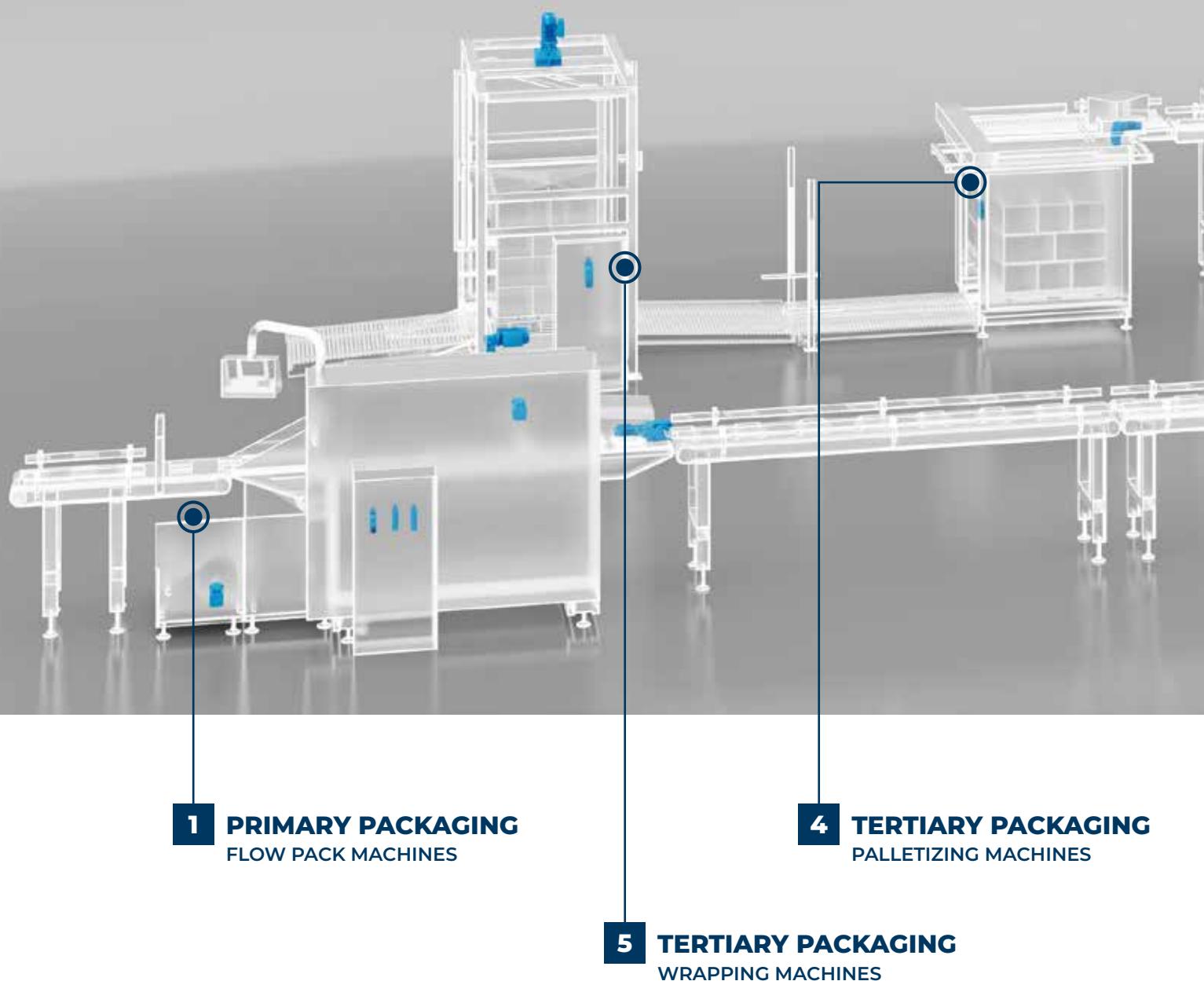
The diversity of packaging types and packaging machines makes performance requirements differ widely. From high overload specifications to parallel control of multiple motors, from high breakaway torque to continuous low speed functioning, and from synchronization to controlled braking, Bonfiglioli has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

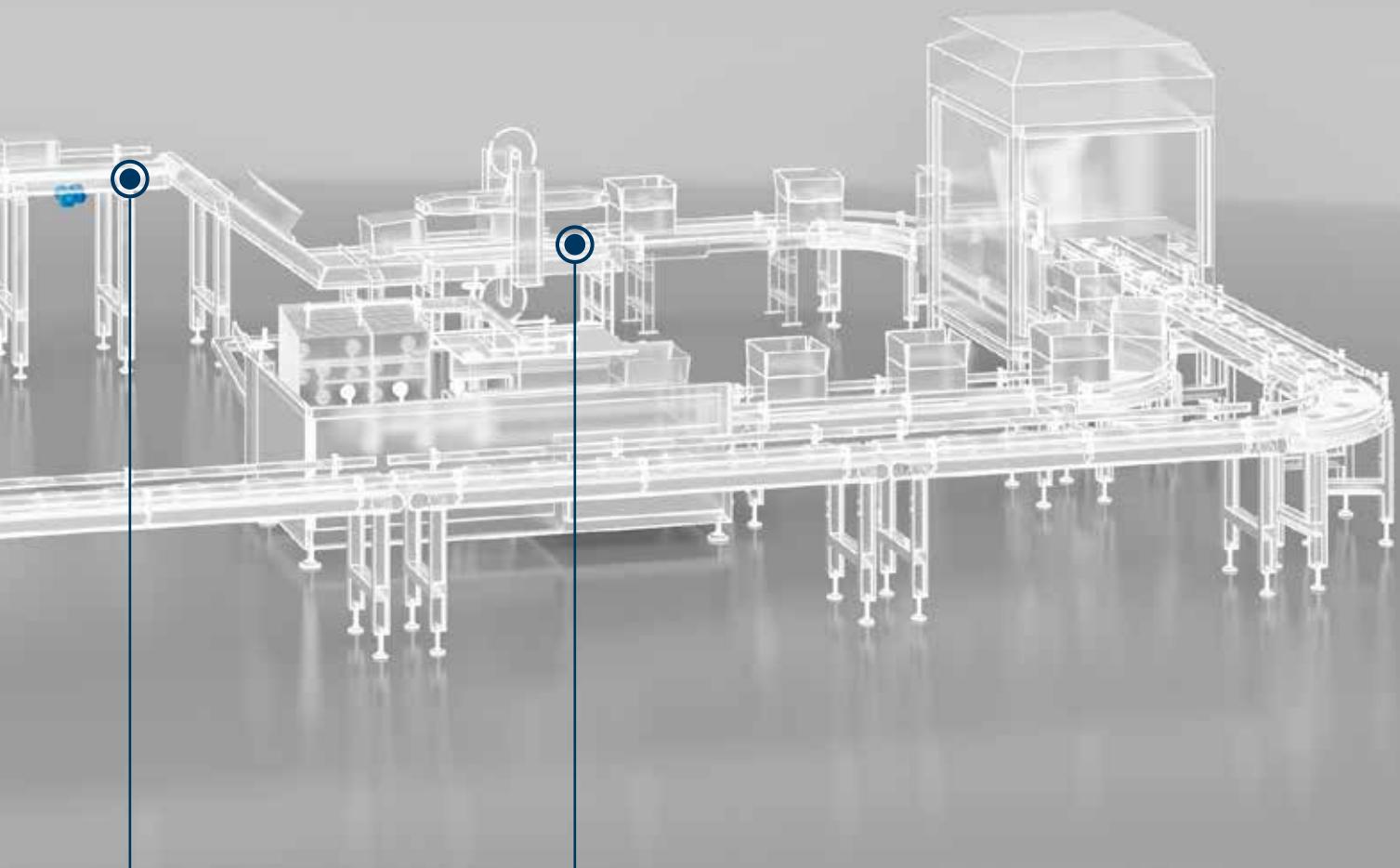
Reducing dimensions, increasing flexibility, resisting extreme load conditions and facilitating integration are the basic features offered by Bonfiglioli's solutions.

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.



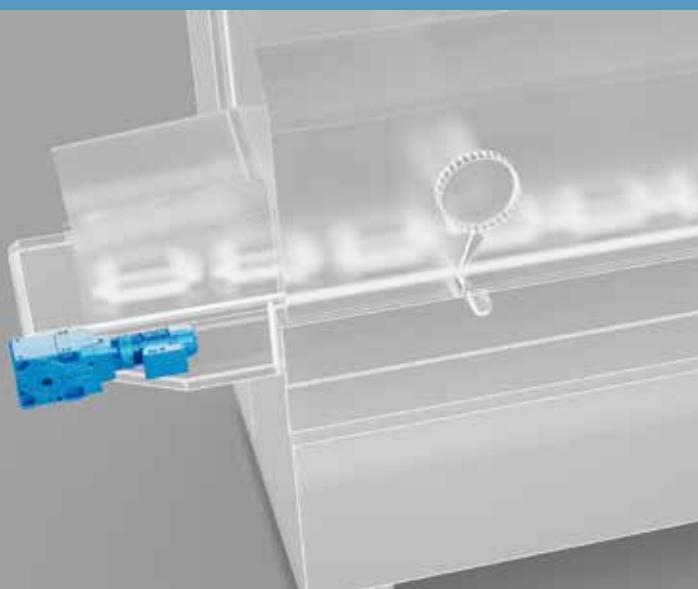




3 **HANDLING**
SMART CONVEYORS

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+MXN Series

Right angle Helical
Bevel Gearmotor +
Asynchronous Motor

BENEFITS

- Compact
- Universal mounting
- Modular design



Agile Series

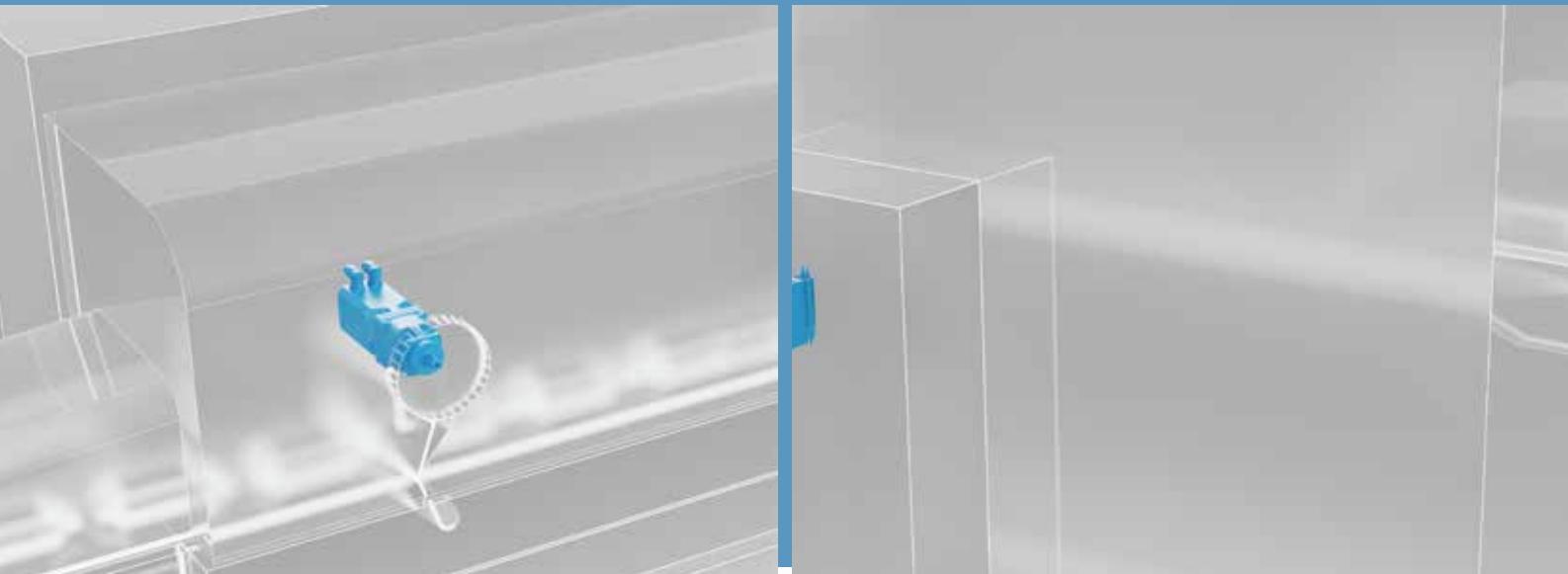
Smart Inverter

- Low energy consumption
- Flexibility
- Preset values for Bonfiglioli motors to decrease commissioning times
- Very high power density
- Compactness
- Smart mounting to save space into the cabinet

FEATURES

- Keyed hollow shaft (metric and inch series)
- Premium efficiency motors IE3
- Reduced backlash

- 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



TQ+BMD Series

Precision Planetary Gearbox + Permanent Magnet Servo Motor

BENEFITS

- High precision and dynamic
- Highly compact
- High stiffness
- Designed for continuous and intermittent duty

FEATURES

- Different feedback systems available
- Brake option
- Customized windings on request

BMD+MP Series

Synchronous Servomotors
+ In-Line Precision Planetary Gearboxes.

- Modularity due to multiple design configurations
- Different optimized lubrications
- High precision and dynamic
- Highly compact
- Sensorless control available

- Different feedback systems available
- Brake option
- Inertia flywheel
- Customized windings on request

AxiaVert Series

High Performance Cabinet Inverter

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

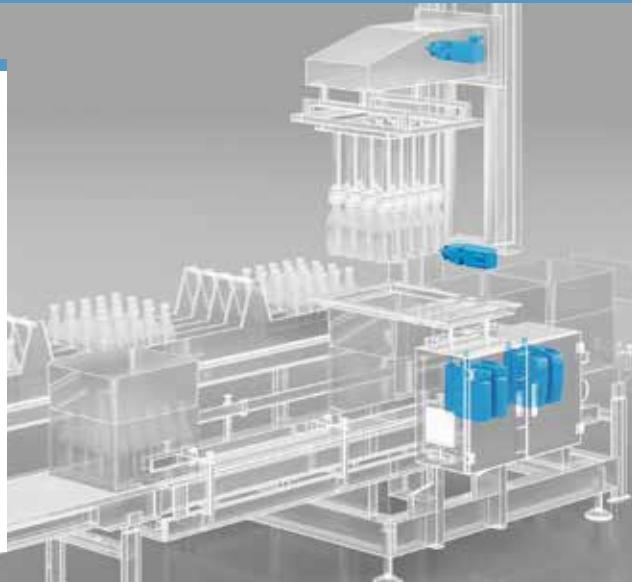
- Selectable Functional safety features (up to SIL 3 / PL e / CAT. 4)
- Wide range of Encoder supports for various systems
- Customizable logic functions with internal optional PLC (IEC61131)
- Integrated PID control system
- Various Control modes incl. Position, Speed or Torque Control & CiA402-compatible 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+BMD Series

Precision Planetary Gearbox + Permanent Magnet Servo Motor

BENEFITS

- High precision and dynamic
- Highly compact
- High stiffness
- Designed for continuous and intermittent duty



A+MXN Series

Right angle Helical Bevel Gearbox + Asynchronous Motor

FEATURES

- Different feedback systems available
- Brake option
- Inertia flywheel
- Customized windings on request
- Windings, pinning and labeling on request



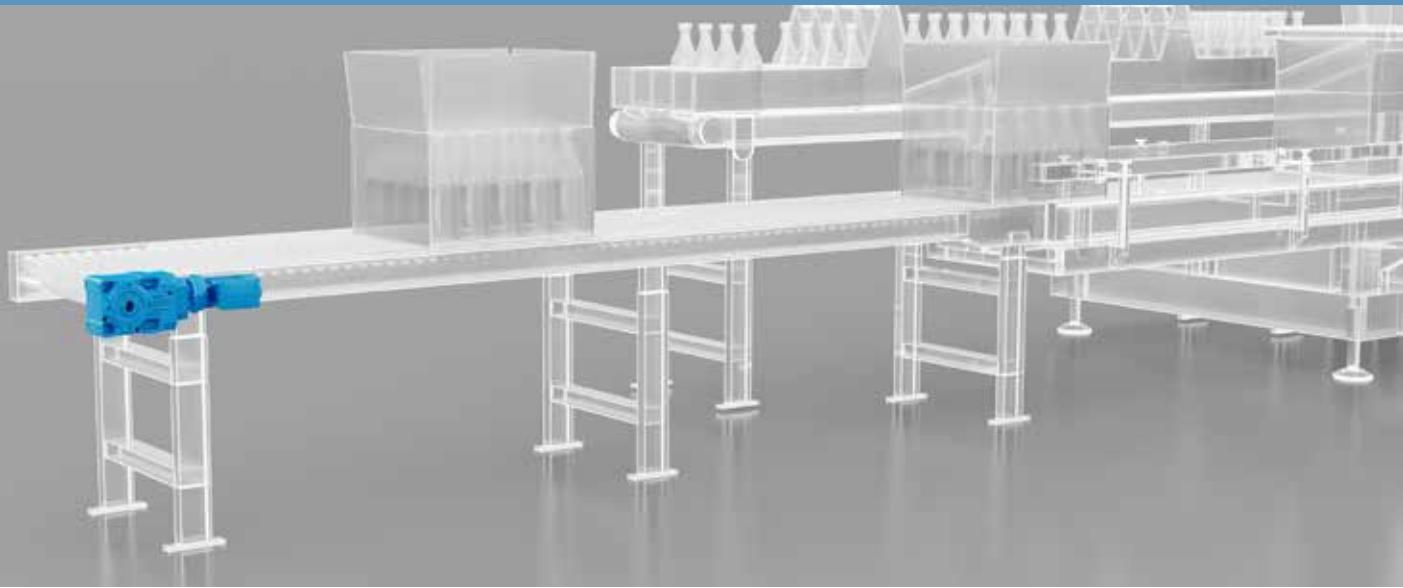
AxiaVert Series

High Performance Cabinet Inverter

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

- Keyed hollow shaft (metric and inch series)
- Premium efficiency motors IE3
- Reduced backlash

- 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)



A+MXN Series

Right angle Helical Bevel Gearbox + Asynchronous Motor

BENEFITS

- Compact
- Universal mounting
- Modular design

FEATURES

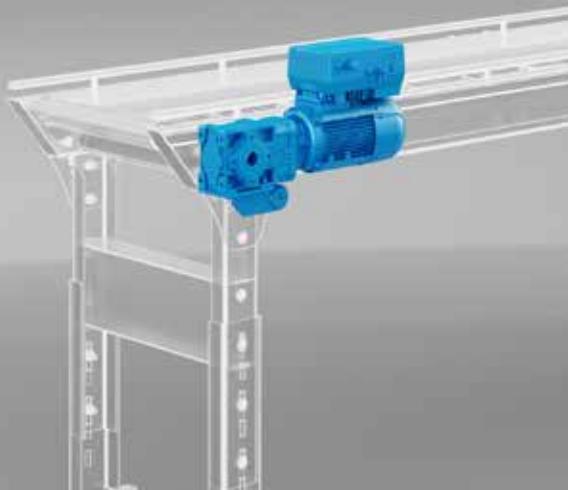
- Keyed hollow shaft (metric and inch series)
- Premium efficiency motors IE3
- Reduced backlash

AxiaVert Series

High Performance Cabinet Inverter

- 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.



A Series

Right angle Helical Bevel
Gearmotor

BENEFITS

- Torque density
- Compact design
- Wide speed choice



MXN/BSR Series

Asynchronous Motor /
Reluctance motor

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



DGM MPM Series

Decentralized Inverter

- 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

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

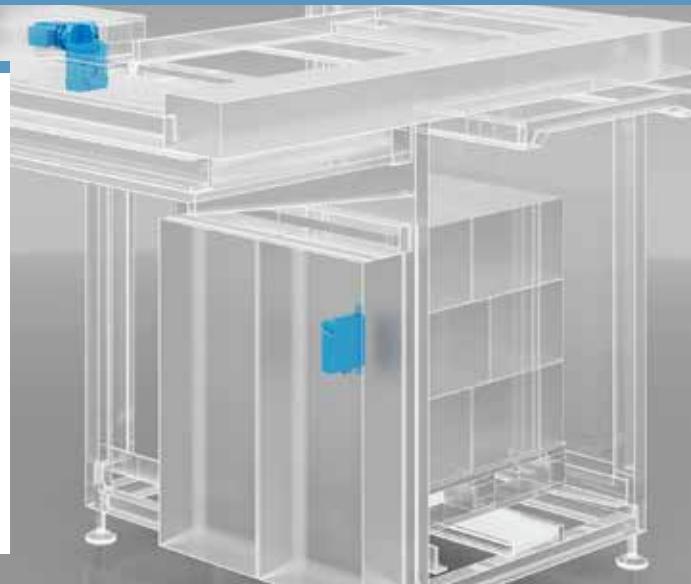
- IE3/IE4 green solution
- High level of torque
- Wide range of options and flanges

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

4

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.



CP+MXN+DGM MPM

In-Line Gearbox +
Asynchronous Motor +
Decentralized Inverter

BENEFITS

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

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

F+MXN Series

Helical Parallel-Shaft
Gearbox + Asynchronous
Motor

- Easy installation
- Low noise
- High torque capability

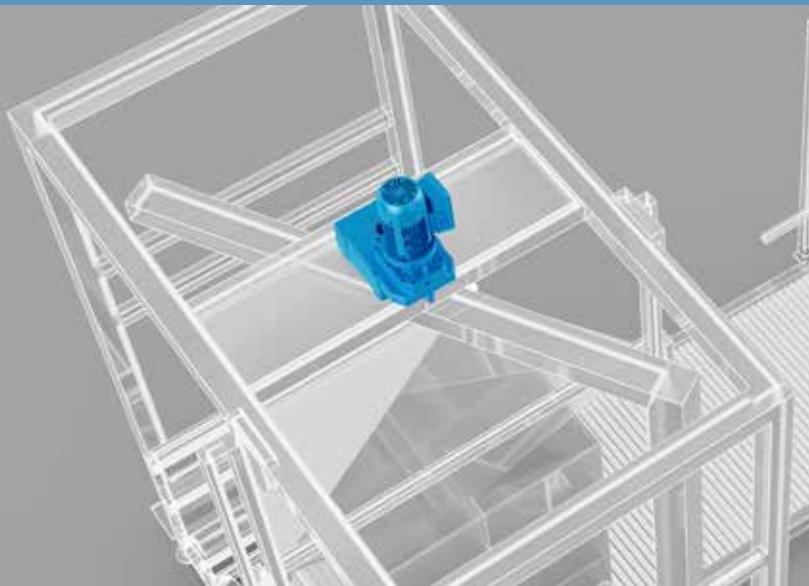
- Keyed Hollow Shaft - Two Bore Options per Size, Keyless Shrink Disc Fitting (Metric series)
- Keyed Hollow Shaft (Inch series)
- Backstop device
- High and premium efficiency motors (IE2, IE3)

AxiaVert Series

High Performance Cabinet
Inverter

- 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)



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+MXN Series

Helical Parallel-Shaft
Gearmotors & Units +
Asynchronous Motor

BENEFITS

- Easy installation
- Low noise
- High torque capability
- Flexibility



Agile Series

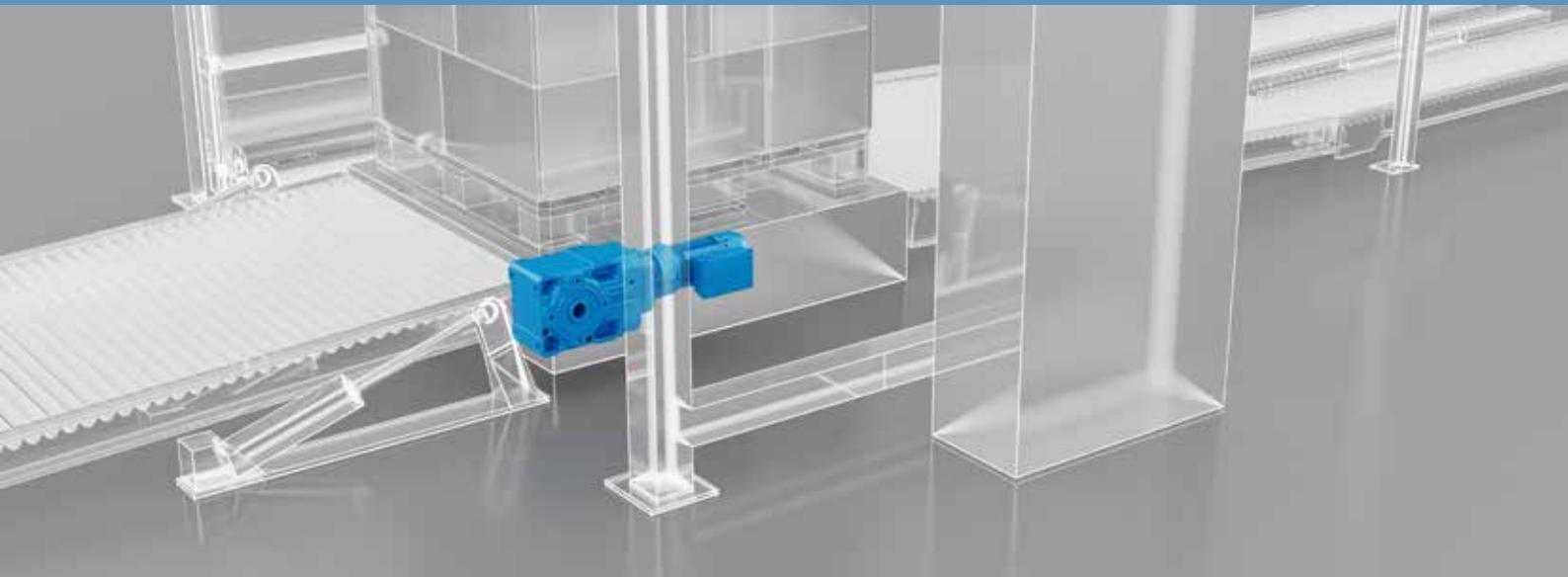
Smart inverter

FEATURES

- Keyed Hollow Shaft - Two Bore Options per Size, Keyless Shrink Disc Fitting (Metric series)
- Keyed Hollow Shaft (Inch series)
- Backstop device
- High and premium efficiency motors (IE2, IE3)

- 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



A+MXN Series

Right angle Helical
Bevel Gearmotor +
Asynchronous Motor

BENEFITS

- Compact
- Universal mounting
- Modular design



AxiaVert Series

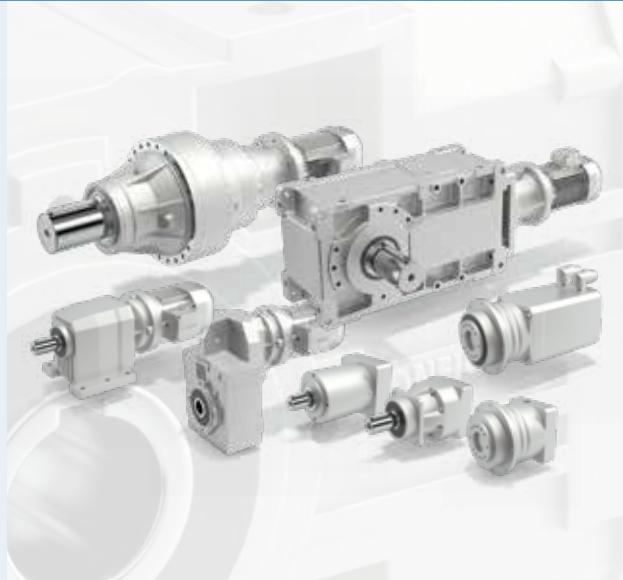
High Performance Cabinet
Inverter

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

FEATURES

- Keyed hollow shaft (metric and inch series)
- Premium efficiency motors IE3
- Reduced backlash

- 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)



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)

IE3

- **Power range:** 0.06 to 355 kW

- **Poles:** from 2 to 8 and multiple poles

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

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

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

IE4

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

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

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

* 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 GLOBAL 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.



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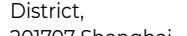


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We have a relentless commitment to excellence, innovation & sustainability. Our team creates, distributes and services world-class power transmission & drive solutions to keep the world in motion.

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