

# Solutions for METAL WORKING

**じ**の Bonfiglioli

We engineer dreams





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## Engineering Solutions







WWW.BONFIGLIOLI.COM

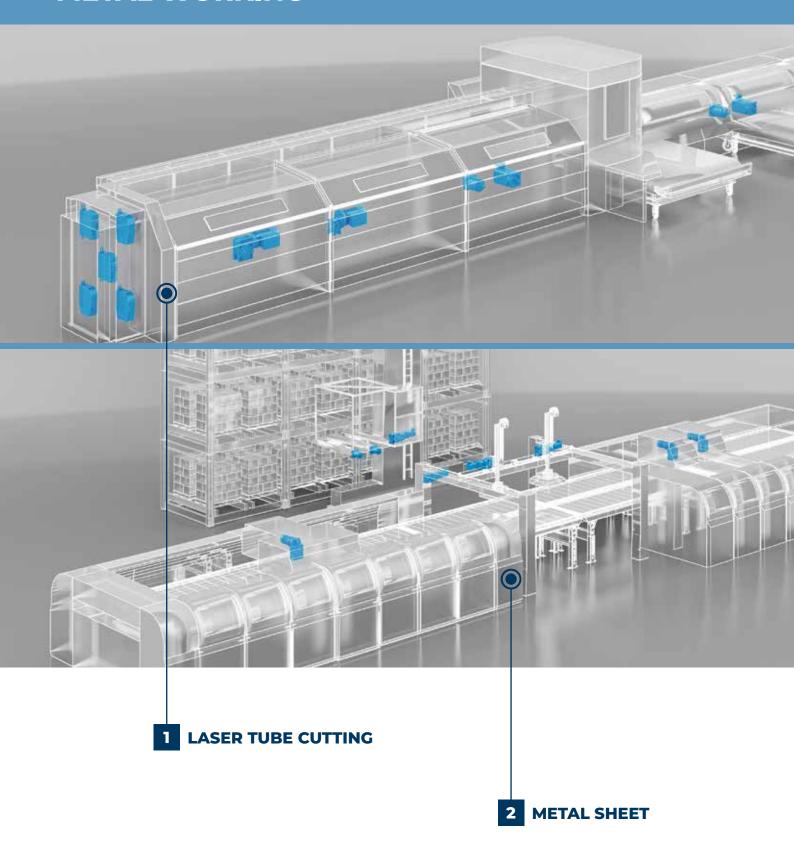
Bonfiglioli is a longstanding leading manufacturer of mechatronic solutions for the metal working industry, supplying excellence and innovation by keeping focus on our customers and their needs.

Thanks to our know-how and long-term co-design with key players in this industry, we supply dedicated solutions thanks to our wide product portfolio and integration capabilities, combining both industrial and precision gearboxes with motors and servomotors up to IE5, as well as with frequency inverters.

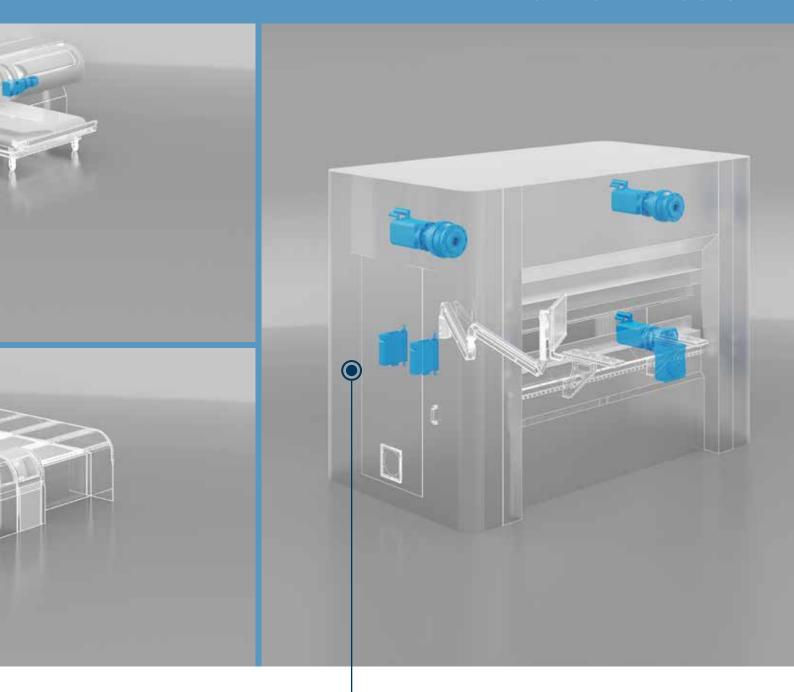




## Solutions for METAL WORKING



### METAL CUTTING, BENDING, PUNCHING & MACHINE TOOLS

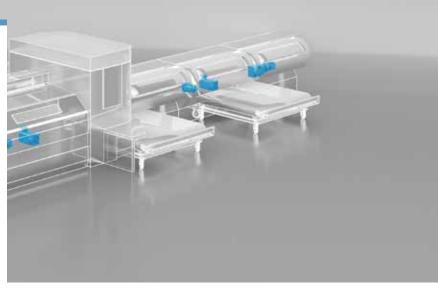


**3** METAL SHEET BENDING

1

### LASER TUBE CUTTING

Laser tube working machine, with suitable solutions for all axis. Our products are adaptable to existing design and easy to assemble, while saving space in the cabinet with our top class inverter power density.





### VF/W + IE3 + AGL

### Open-loop inverter with worm gearmotor

## BENEFITS

- Suitable solutions for whole machine
- Easy-to-assembly and ready-to-go solutions
- Adaptable to existing design
- Space saving in cabinet



- · One-Stop-Shop
- Flexible solutions thanks to wide product portfolio



### MP + BMD + ANG

### Closed-loop inverter with precision servo gearmotor

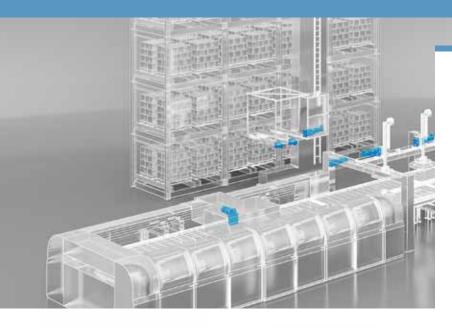
- Suitable solutions for whole machine axis
- Easy-to-assembly and ready-to-go solutions
- · Adaptable to existing design
- Space saving in cabinet
- · One-Stop-Shop
- Flexible solutions thanks to wide product portfolio
- Communication to any fieldbus
- Top class inverter power density



### A + IE3 + AGL

### Open-loop inverter with right-angle gearmotor

- Suitable solutions for whole machine axis
- Easy-to-assembly and ready-to-go solutions
- · Adaptable to existing design
- Space saving in cabinet
- · One-Stop-Shop
- Flexible solutions thanks to wide product portfolio



### 2

### **METAL SHEET**

Punching, shearing and bending are combined in the totally automatic and flexible production line, with no intermediate handling. Bonfiglioli combines performance and cost effectiveness through our selection tool and expertise.



### A + BMD

### Servo right-angle gearmotor

## BENEFITS

- Suitable solutions for whole machine axis
- Optimized sizing via Bonfiglioli servo selection tool to combine performances and cost effectiveness
- High dynamics and compact solution



- · One-Stop-Shop
- Bonfiglioli sector expertise at your disposal to co-design
- Servo-gearmotor based solutions



### **LC Series**

### Precision planetary gearbox

- Suitable solutions for whole machine axis
- Optimized sizing via Bonfiglioli servo selection tool to combine performances and cost effectiveness
- · High dynamics and compact solution
- · One-Stop-Shop
- Bonfiglioli sector expertise at your disposal to co-design



### **F + IE3**

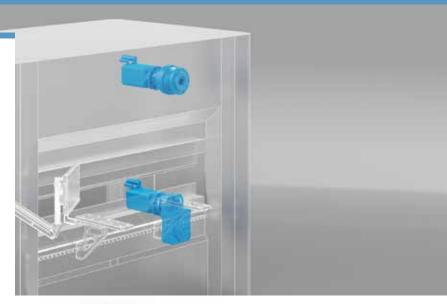
### Parallel shaft gearmotor

- Suitable solutions for whole machine axis
- Optimized sizing via Bonfiglioli servo selection tool to combine performances and cost effectiveness
- High dynamics and compact solution
- · One-Stop-Shop
- Bonfiglioli sector expertise at your disposal to co-design
- Servo-gearmotor based solutions

3

### **METAL SHEET BENDING**

The machine bends metal sheet with fully electric control. The Bonfiglioli solutions for the core axis are easy to refit, improving durability and requiring less maintenance compared to traditional solutions.





### 300 + BMD + ACU

Closed-loop inverter with synchronous reluctance motor and planetary gearbox

## BENEFITS

- Enhanced durability, less maintenance compared to parallel shaft
- · Servo performance motor without magnets
- · Easy re-fitting
- · No need for additional pulley, easier mounting

## ATURES

- Planetary gearbox solution for bending axis
- $\boldsymbol{\cdot}$  Synchronous Reluctance motor on bending axis
- ${\boldsymbol{\cdot}}$  Mechanically compatible with existing parallel shafts design



### F + BMD + ACU

Closed-loop inverter with servo parallel shaft gearmotor

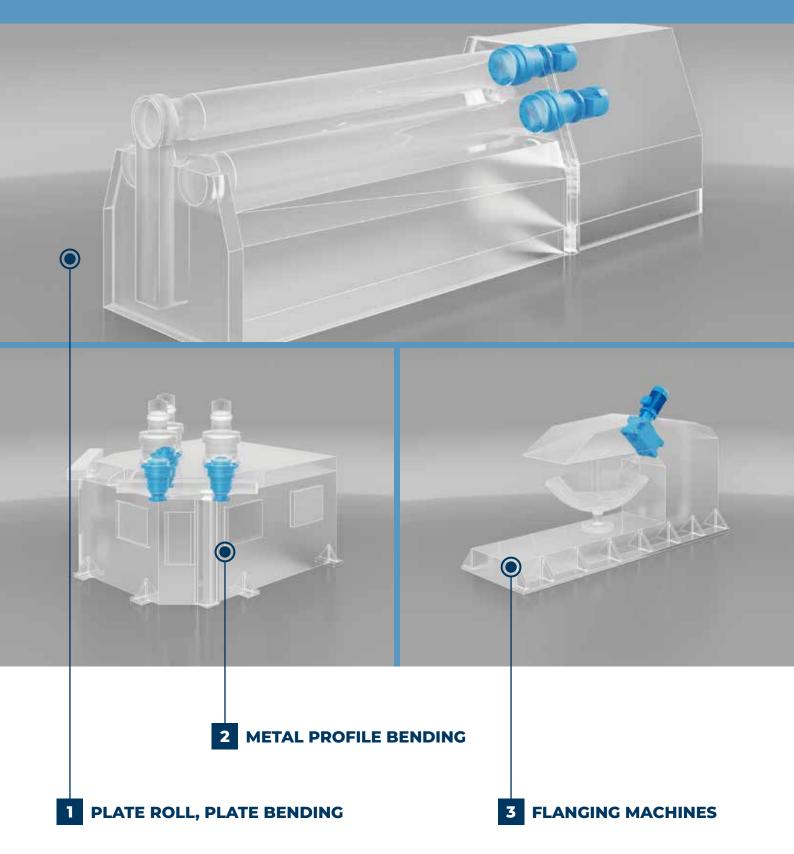
- Enhanced durability, less maintenance compared to parallel shaft
- · Servo performance motor without magnets
- · Easy re-fitting
- · No need for additional pulley, easier mounting

· All-in-one gearbox design on croning axis

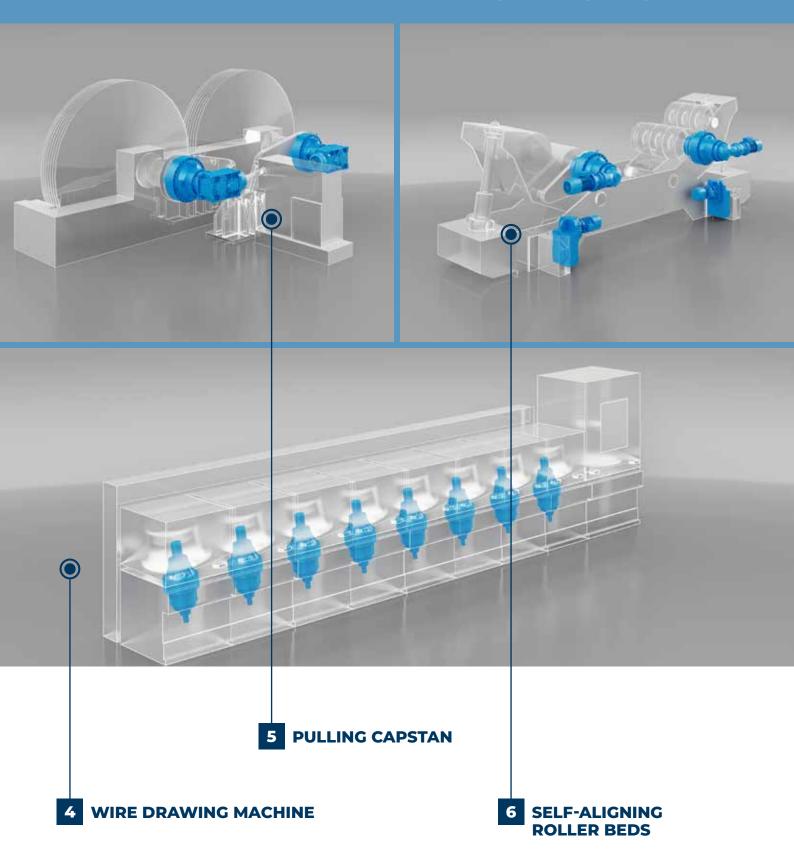
### METAL CUTTING, BENDING, PUNCHING & MACHINE TOOLS



## Solutions for METAL WORKING



### METAL FORMING & SHAPING MACHINERY

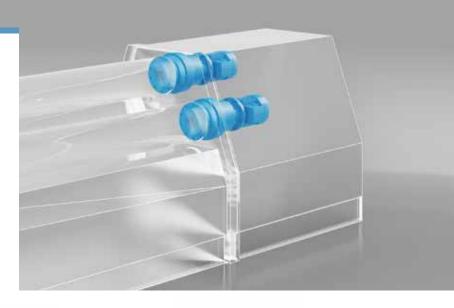


### 1

### PLATE ROLL, PLATE BENDING

A plate rolling machine is used to shape and form different kind of metal sheets with different thickness. The Gearmotors drive one or more pairs of rollers in order to obtain round or conical shapes through a calculated deformation process.

Bonfiglioli supply a wide range of Planetary Hydraulic or Electric gearmotors with controls able to grant the highest level of performances to several different application segments.





### **300 Series**

### **Roller Drive**

## ENEFITS

- Hydraulic or electric motor input solution
- High overload capacity
- Torque control
- Easy installation
- · Brake avaliable as an option

## EATURES

- Wide range of ratios
- · Modular design
- In-line and right angle solutions
- Multiple output configurations and accessories
- Reinforced output shaft bearings
- · Shock load up to 2.000.000 Nm



### **Active Cube Series**

### Premium Frequency Inverters

- Drive control highly customizable
- Great operational safety
- Higher productivity
- · Increased service life of the crane
- Easy installation
- · Lower total cost of ownership



- 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)

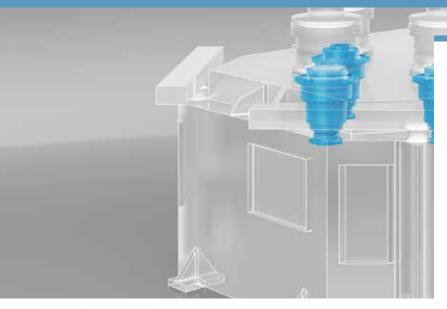


### **BX Series**

### Asynchronous IE3 Three Phase Motor

- 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
- 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
- $\boldsymbol{\cdot}$  Degree of protection up to IP56





### 2

### **METAL PROFILE BENDING**

Profile bending machines are used to shape tubes or profiles trough a calculated deformation process into a form for several industrial purpose. The Bonfiglioli product portfolio satisfies the requirements coming from the different sizes or materials that can be processed in these machines. The drives can be equipped with hydraulic or electric motors with controls.



### **300 Series**Bending Drive

## ENEFITS

- Hydraulic or electric motor input solution
- High overload capacity
- Torque control
- Easy installation
- · Brake avaliable as an option

## EATURES

- Wide range of ratios
- Modular design
- In-line and right angle solutions
- Multiple output configurations and accessories
- Reinforced output shaft bearings
- · Shock load up to 2.000.000 Nm



### **Active Cube Series**

### Premium Frequency Inverters

- Drive control highly customizable
- Great operational safety
- Higher productivity
- · Increased service life of the crane
- Easy installation
- · Lower total cost of ownership
- 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
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- Energy consumption optimization (AEC/B)
- · Mains unit (AEC/S)



### **BX Series**

### Asynchronous IE3 Three Phase Motor

- Motor efficiency class up to IE3
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- Energy saving solution
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- Power range: up to 355 kW
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- Forced ventilation
- · Anti-condensate heaters
- Rotor balancing
- Second shaft extension
- Anti corrosive paintings up to C5M
- Tropicalization
- $\boldsymbol{\cdot}$  Degree of protection up to IP56



3

### **FLANGING MACHINES**

The Manufacturer process of dished and flanged heads for tanks and pressure vessels require high performances, in order to offer the maximum reliability to obtain tolerances and lamination reduction. Starting from circular plates of different thickness the machine press the plate with specific tools and repetitive actions in order to obtain the dished ends shape by cold forming. The final step is completing the dished ends by forming the edge for the circular welding. Bonfiglioli can provide the widest range of Power Transmissions and Mechatronics Solutions.





### **300 Series**

### Flanging Drive

## ENEFITS

- $\boldsymbol{\cdot}$  Hydraulic or electric motor input solution
- High overload capacity
- Torque control
- Easy installation
- · Brake avaliable as an option

## **FEATURES**

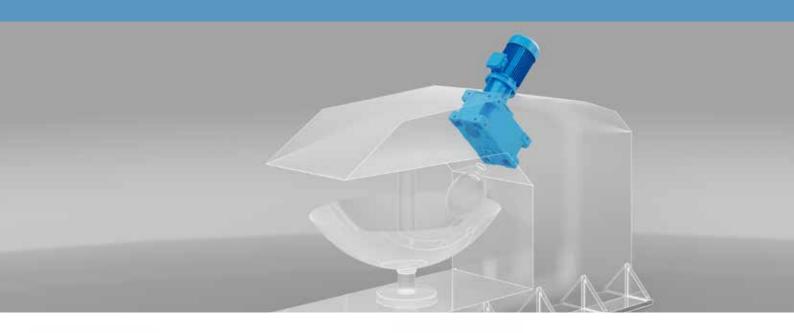
- Wide range of ratios
- Modular design
- In-line and right angle solutions
- · Multiple output configurations and accessories
- Reinforced output shaft bearings
- Shock load up to 2.000.000 Nm



### **HDP Series**

### Flanging Drive

- · High transmissible power
- Robustness
- · Mounting flexibility
- Reliability
- Wide range of ratios
- Torque rating up to 210.000 Nm
- IEC or Nema motor flange
- Different output configurations and accessories





### **Active Cube Series**

### **Premium Frequency Inverters**

### VEFITS

- 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)



### **BX Series**

### Asynchronous IE3 Three Phase Motor

- 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
- 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

### 4

### WIRE DRAWING MACHINE

Wire drawing is used for a metal working process that reduce the cross section of wire by pulling it through a series of dies. This process is a type of forging. Forging is the plastic, or permanent, changing of a metal shape and can be performed at hot, warm or cold temperatures. Bonfiglioli can provide the widest range of Planetary drives and alternative technologies of Power Transmissions and Controls.





**300 Series** 

### **Drum Drive**

### EFITS

- Reinforced input shaft bearings
- Suitable for pulley and belt configuration
- High overload capacity
- Easy installation



- Wide range of ratios
- Modular design
- · Parallel, In-line and right angle solutions
- Several output configurations



### **HDP Series**

### **Drum Drive**

- · High transmissible power
- Robustness
- Mounting flexibility thanks to dedicated output flange
- Suitable for pulley and belt configuration
- Reliability
- $\boldsymbol{\cdot}$  Wide range of ratio
- Torque rating up to 210.000 Nm
- IEC or Nema motor flange





### **Active Cube Series**

### **Premium Frequency Inverters**

### NEFITS

- 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)



### **BX Series**

### Asynchronous IE3 Three Phase Motor

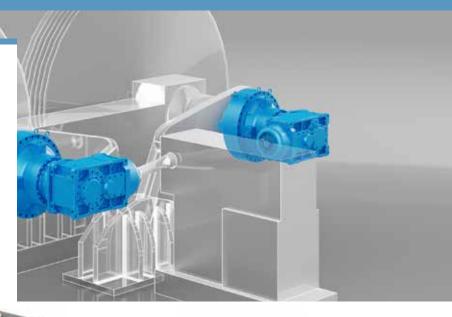
- Motor efficiency class up to IE3
- · Reliable, balanced and robust
- Complete solution (gear unit + Motor)
- Energy saving solution
- Compliant with the most of the efficiency standards
- Power range: up to 355 kW
- Built in brakes available for all power/sizes
- Thermal protection: KTY, PTC, bimetal switches
- Forced ventilation
- · Anti-condensate heaters
- Rotor balancing
- · Second shaft extension
- · Anti corrosive paintings up to C5M
- Tropicalization
- · Degree of protection up to IP56

5

### **PULLING CAPSTAN**

Pulling capstan with belt or double capstan for extrusion lines or stranding to perform wide range for all types of cables.

Bonfiglioli supply a wide range of combined gear unit Helical Bevel Planetary for different machine capacity.





### **3/H Series**Pulling Capstan Drive

## ENEFITS

- Extremely high transmissible torque and power
- · Suitable for all heavy-duty applications
- · High shock resistance
- Reliability
- Easy maintenance
- · High level of customization



### **Active Cube Series**

### Premium Frequency Inverters

- Drive control highly customizable
- Great operational safety
- Higher productivity
- · Increased service life of the crane
- Easy installation
- · Lower total cost of ownership



### **BX HD Series**

### Asynchronous IE3 Three Phase motor

- Robustness
- · Long lifetime
- · Wide power range
- Energy saving
- Compliant to all the MEPS
- Complete solution (gear unit + motor)
- · Control flexibility
- Global motor that can be used in most of the markets

- · Increased bearing load capability
- Nominal torque up to 1,300,000 Nm
- · Modular design

- 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)

- · Standard IP55 also for brakemotors
- · Cast iron housing
- · Inverter duty ready
- · SPM measurement
- Certified motor (DOE, NRCan, CCC...)



### METAL FORMING & SHAPING MACHINERY





6

### **SELF-ALIGNING ROLLER BEDS**

Self-Aligning roller beds is used in the Heavy Duty industry for positioning and rotating huge cylindrical structures in order to execute multiple final operations. The rotation of the structures is driven by AC geared motors at variable speed. Machine can be fixed to the floor or rails mounted in order to increase the efficiency of the equipment. Bonfiglioli supply a wide range of Planetary, Helical parallel and Helical Bevel gearmotors and controls providing the highest level of performances for different machine capacity and the worst ambient condition.



**300 Series**Self Roller Drive

### . Ro

- Robustness
- High torque density
- High overload capacity
- · High overhung load capacity
- · Easy fit



**A Series** 

### Self Roller Drive

- High efficiency
- · Reliability and robustness
- Compactness
- · Low maintenance
- Space effective & compactness with right angle arrangement



**F Series** 

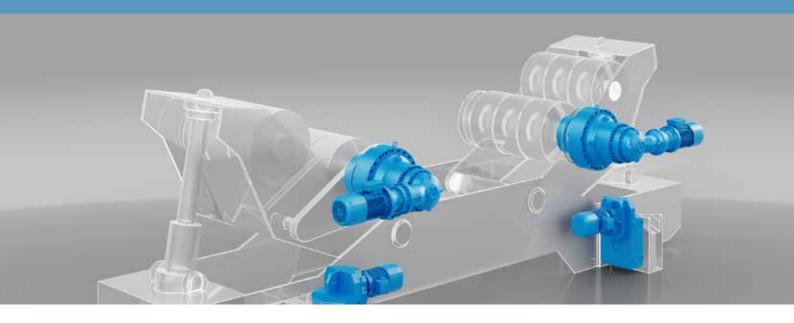
### Self Roller Drive

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

## **FEATURES**

- $\boldsymbol{\cdot}$  Wide range of ratios
- Modular design
- Parallel, In-line and Right angle solutions
- Multiple output configurations and accessories
- · Explosion proof certification

- Power range: up to 55 kW
- Shaft mounted solution with different output configurations
- Torque arm and anti-vibration kits
- Wide range of ratios
- Space-saving compact motor design
- Compact or IEC/NEMA Flanged motor adaptors
- · Parallel shafts design
- Power range: up to 55 kW
- Shaft mounted solution with different output configurations
- Housing integrated torque arm design and anti-vibration kits
- Wide range of ratios
- Space-saving compact motor design
- Fluor Elastomer Seals





### **Active Cube Series**

### **Premium Frequency Inverters**

### VEFITS

- · 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)

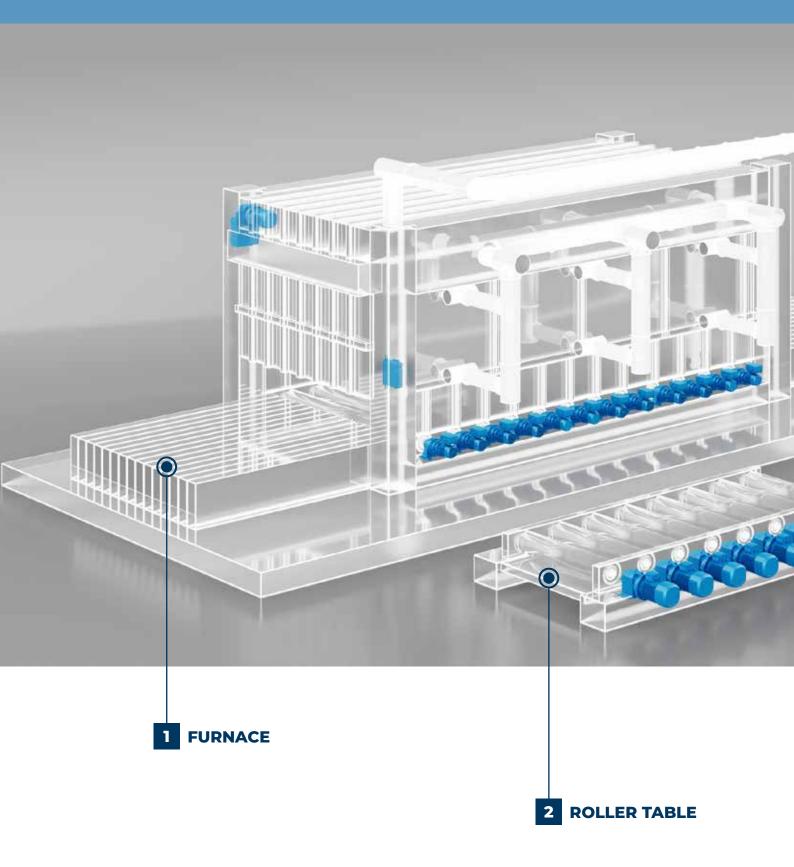


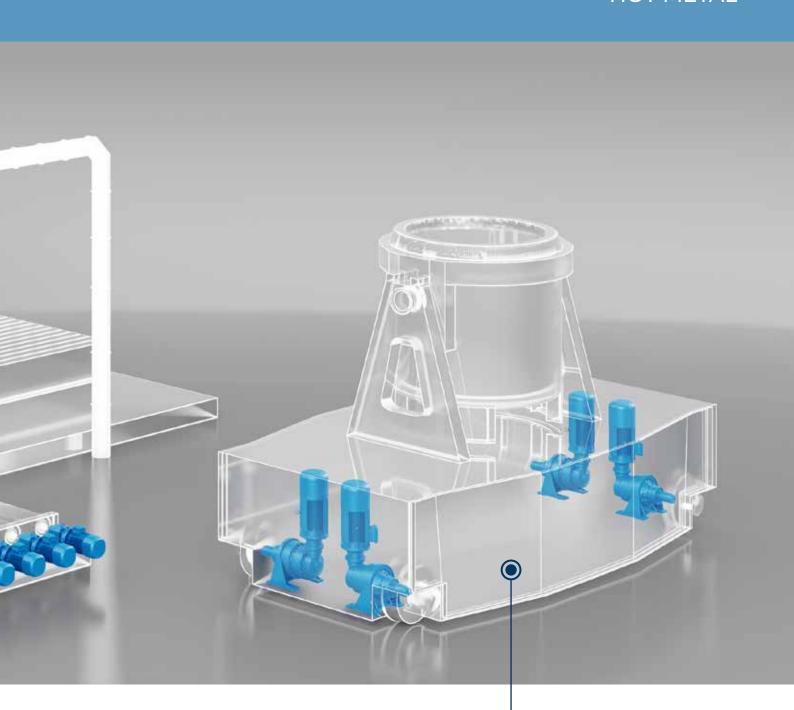
### **BX Series**

### Asynchronous IE3 Three Phase Motor

- 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
- 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

## Solutions for METAL WORKING



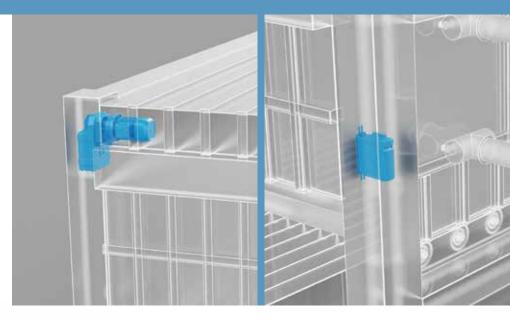


3 LADLE TRANSFER CAR



### **FURNACE**

The heating process is performed by different types of furnaces. Reheating furnaces, heat treatment furnaces and furnaces for hot rolling mills (Billets, blooms or slabs) require solutions for roller table conveyor and door movement. All these applications requires solutions designed for harsh and wide range ambient temperature condition. Bonfiglioli 300M series allows flexibility to combine dedicated input and output shaft for roller table conveyors. When coupled to our IE4 BSR synchronous reluctance motors forced ventilation is not required at low operating speed and you can experience an accurate speed and torque control also in open loop when you combine it with our ACU drives. Our solutions are the best in class in terms of MTBF (meantime before failure) and suit the needs of continuous running applications. In addition, we can improve the reliability and minimize the unplanned downtimes thanks to our condition monitoring made with our own IOT platform and sensors.





### F & A Series + BX Series + Active Cube Series

### **Furnace Door Drive**

### · Low maintenance

- Easy installation
- Space effective
- · IES2 power drive system solution

### TURES

### • Torque arm and anti-vibration kits

- Space-saving compact gearmotor design
- · Compact or IEC/NEMA gearbox flange adapters
- Fluor Elastomer Seals
- Wide power range: up to 55 kW
- · IE3 energy efficiency level
- · Worldwide certification
- Wide range of temperature sensors
- · Independent servo fan option
- Ready for heavy duty applications





### **300M Series + BSR Series + DGM-MPM Series**

### **Roller Drive**

### EFITS

- Low maintenance
- Compactness
- Energy saving solution
- · Reliability and robustness
- Low wiring costs
- $\cdot$  IES2 power drive system solution

## ATURES

- Made in spheroidal cast iron
- Modular design (input, output, mounting)
- Peak torque up to 2.000.000 Nm
- Space-saving compact gearmotor design
- · High overload capacity
- Fluor elastomer seals
- Energy efficiency up to IE4 and UL certification
- High efficiency solution up to 9,2kW (size 132)
- High output configuration up to 18,5kW (size 132)
- · Open loop sensorless control mode
- · Motor or wall mounting solution

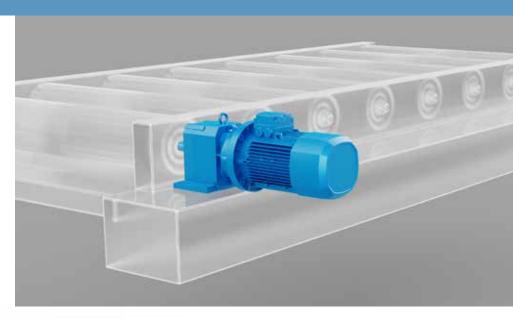
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### **ROLLER TABLE**

A roller table is a fundamental equipment used inside several production plants to transport the material along the different process stations. These rollers are commonly driven by electrical gearmotors which can be directly connected to the roller shaft: one gearmotor for every single roller, or one gearmotor that can drive more than one roller thanks to gears and chains.

Output speed can vary according to the process phase or to the material weight. Heavier material will have lower speed, so a wide range of motor speed is fundamental. Bonfiglioli can offer the widest product portfolio along with the most optimized solutions for drives and controls with a wide range of speed adjustment according to material handling weight and specs. All metal working related applications requires solutions designed for harsh and wide range ambient temperature condition. Our solution allows flexibility to combine dedicated input and output shaft for roller table conveyors.

Our solutions are the best in class in terms of MTBF (meantime before failure) and suit the needs of continuous running applications.





### F & C Series + BX Series + Active Cube Series

### **Roller Drive**

### Roller Dilve

- Low maintenance
- Easy installation
- Space effective
- IES2 power drive system solution

## ATURES

### Torque arm and anti-vibration kits

- Space-saving compact gearmotor design
- · Compact or IEC/NEMA gearbox flange adapters
- Fluor Elastomer Seals
- Wide power range: up to 55 kW
- IE3 Worldwide certification
- Wide range of temperature sensors
- · Independent servo fan option
- · Ready for heavy duty applications

### HOT METAL

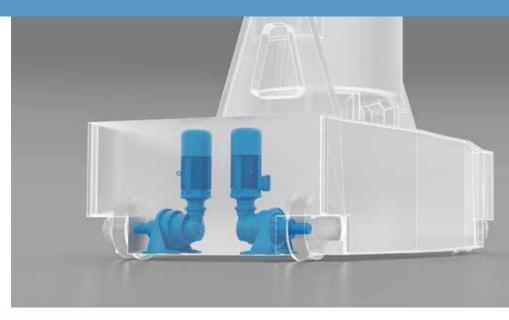


3

### **LADLE TRANSFER CAR**

A ladle transfer car is used in foundries and metallurgy industry to transport the molten metals. Ladle cars can have different shapes and capacities. Thanks to the wide product portfolio, Bonfiglioli can provide the best fitting solution according to the machine design and capable to withstand harsh and wide range ambient temperature condition. Thanks to our solution and experience we have the flexibility to combine dedicated input and output shaft according to the tightest installation space typical of Ladle transfer car application. We are able to provide our customers of a very compact solution with heavy duty design lifetime criteria as well as a cost saving offer that allow to drive 2 gearmotors with only one inverter. The smooth payload handling is assured thanks to controllable s-ramp and anti sloshing dedicated functions.

Our solutions are the best in class in terms of MTBF (meantime before failure) and suit the needs of continuous running applications.





### F Series + **BX Series + Active Cube Series**

### Wheel Drive

### · Low maintenance

- Easy installation
- Space effective
- · IES2 power drive system solution

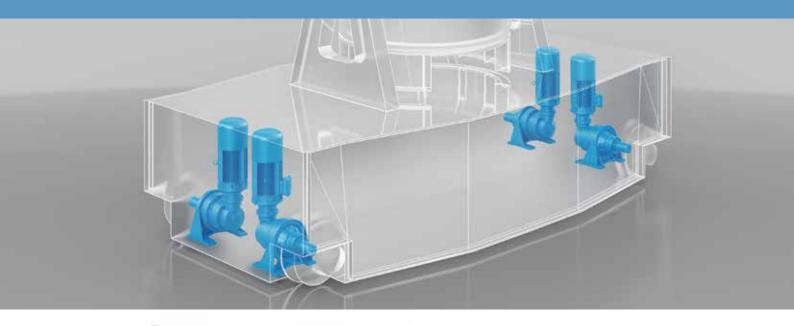
### 300M Series + **BX Series + Active Cube Series**

### Wheel Drive

- · Low maintenance
- Compactness
- Energy saving solution
- · Reliability and robustness
- IES2 power drive system solution

- · Torque arm and anti-vibration kits
- · Space-saving compact gearmotor design
- · Fluor Elastomer Seals
- Wide power range: up to 55 kW
- · IE3 Worldwide certification
- Wide range of temperature sensors
- · Independent servo fan option
- · Ready for heavy duty applications

- · Made in spheroidal cast iron
- · Modular design (input, output, mounting)
- Peak torque up to 2.000.000 Nm
- · Space-saving compact gearmotor
- High overload capacity
- · Wide power range: up to 55 kW
- IE3 Worldwide certification
- Wide range of temperature sensors
- · Motor winding insulation class up to CLH
- · Independent servo fan option
- · Ready for heavy duty applications





### **HDx Series + BX Series + Active Cube Series**

### Wheel Drive

### NEFITS

- Low maintenance
- Easy installation
- Energy saving solution
- · Reliability and robustness
- IES2 power drive system solution

## EATURES

- Different output shaft accessories
- Squared gearbox frame
- $\boldsymbol{\cdot}$  Torque arm and anti-vibration kits
- Torque rating up to 210.000Nm
- Fluor Elastomer Seals
- · Many cooling device available
- Wide power range: up to 55 kW
- IE3 Worldwide certification
- Wide range of temperature sensors
- · Independent servo fan option
- Ready for heavy duty applications.





### **GEARBOXES & GEARED MOTORS**

#### 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

### **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

### 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

• Backlash: lower than 2 and 17 arcmin

• **Torque range:** 140 to 14,000 Nm

• **Gear ratios:** 5.6 to 500

• Gear ratios: up to 1,000

### 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<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



### 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-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<sup>-1</sup>

• Power supply: 560 VDC

Precision planetary servo geared motors TQ, TQK, TQF, TR, MP, LC, LCK, SL, KR Series • Torque range: up to 1,000 Nm



### COMPLETE SOLUTIONS FOR POWER TRANSMISSION & AUTOMATION





### **CABINET INVERTERS**

#### 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

### 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

### **DECENTRALIZED INVERTERS**

#### DGM<sub>1</sub>

• **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

### ERVO

LIGHT

### 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



<sup>\*</sup> up to 1200 kW with parallel connection

### **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 18 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

25
COMMERCIAL SITES



550
DISTRIBUTORS



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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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