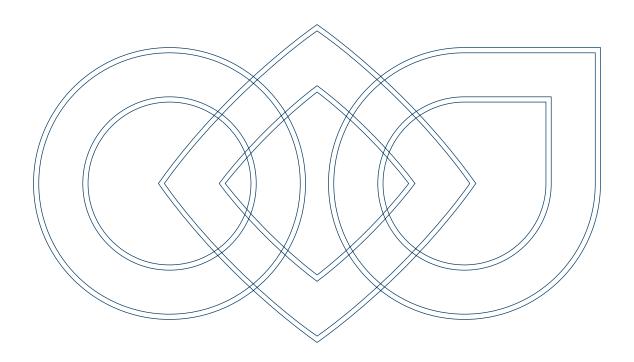


# **Precision Planetary Gearboxes Range**

New Technology Standard Powerfull Precise









# THE HIGHEST LEVEL OF PRECISION, EFFICIENCY AND ENERGY OPTIMIZATION.

Committed to become your world class partner, Bonfiglioli is a leading name in power transmission since 1956. Our best-in-class solutions are backed by nearly 60 years of engineering expertise as well as an in-depth understanding of the industries we serve.

mechatronic tailored solutions from unique supplier to meet any kind of specific needs.

Our solutions include precision planetary gearboxes, servomotors, servo inverters and regenerative inverters. An unique combination of mechatronic solutions plus a vast range of products for industry make Bonfiglioli a one-stop-shop for applications in many different sectors.

Our two centres of excellence, one in Italy and one in Germany, drive success in mechatronics by developing breakthrough innovations.

# 1988 2002 2004 2008 2009 2010 2013 2014 2015 2017



# A COMPLEX MITCHAILED SOLUTION **MECHATRONIC SOLUTIONS** FOR ALL INDUSTRIAL APPLICATIONS

Bonfiglioli is a leading drive and automation specialist in mechatronic applications. We are able to develop electronically orientated products as well as mechatronic and vertically integrated solutions with its mechanical, electrical, electronic and applications competences, Bonfiglioli can assist you to design cost effective and energy efficient machines and installations, aligning their performance to precisely meet your needs.







#### **APPLICATION / ENGINEERING**

Research & Development focusing on Mechanical and Mechatronic **Customized solutions** Prototyping, testing and analysis

#### **INSTALLATION / START-UP**

On-site assistance Start-up assistance Commissioning

#### **AFTER SALES**

Maintenance Pre-sale and post-sale customer service















FOOD, BEVERAGE, AND TOBACCO



MINING











# MECHATRONICS - THE CHALLENGE TO BUILD YOUR SUCCESS

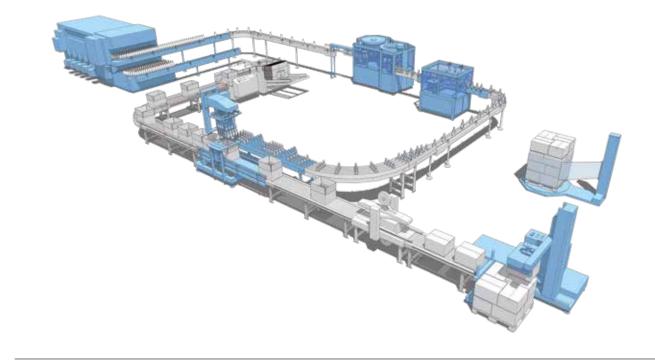
#### Faster, better and cheaper - this is the new challenge for machine designers!

Increasing demands on the productivity of complex system machines, more flexible machines which run at highest efficiency level are requiring now new intelligent technical solutions that enhance growth tomorrow.

Bonfiglioli has implemented a precise and detailed strategy to precisely achieve this objective!

Bonfiglioli Mechatronic Drives & Solutions division is born with the mission to improve profitability by acting as a riskless partner and a provider of energy-efficient solutions over the total lifecycle in the field of industrial automation.

- System integration
- Expertise
- Energy saving





# **OUR EXPERTISE FROM START TO FINISH!**

Two Centers of Excellence are driving MDS' innovation:

- Bonfiglioli Vectron in Germany, with strong technical, R&D and manufacturing capabilities as regards electronic components, and most notably inverters and servo drives;
- BMR (Bonfiglioli Mechatronic Research), situated in Rovereto (Trento, Italy) who offers a strong R&D capability able to provide innovative new solutions for your specific needs. BMR is a production facility where mechatronic new solutions become reality.

Key to our MDS' success is strongest technical support from our specialists DSC (Drive Service Center team). They accompany you throughout the entire installation's lifecycle, from initial concept idea and design until commissioning.

## Bonfiglioli

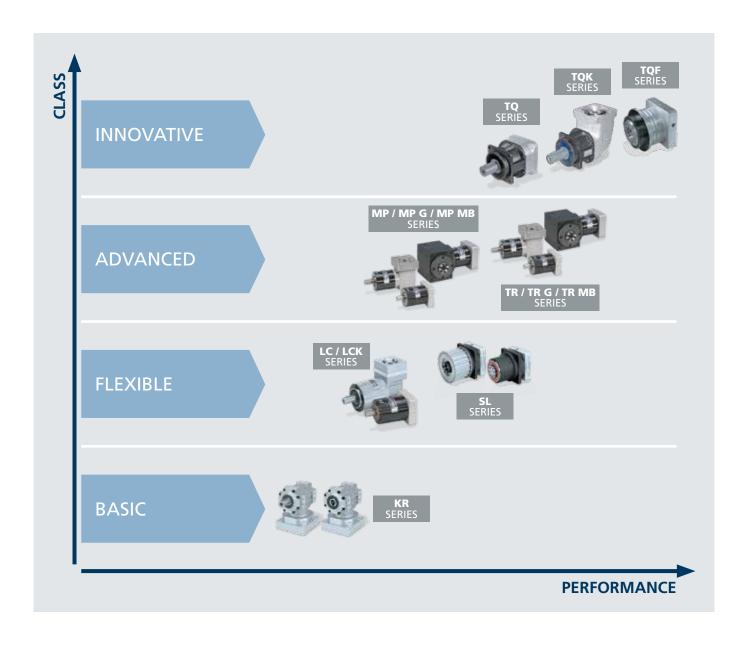
is close to your needs internationally through its branches which can directly follow the customers using streamlined internationa teams.





# **PERFORMANCE CLASSES**

## **BONFIGLIOLI PRECISION PLANETARY GEARBOXES**



# **INNOVATIVE LINE**

# TQ

#### PRECISION PLANETARY IN-LINE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	•••	•••	•••	••

**Size:** 060 / 070 / 090 / 130 / 160

**Backlash:** 1 stage ≤ 2 arcmin / 2 stages ≤ 3 arcmin

**Torque:** 20 ... 800 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 16 ... 100

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 1850 ... 15000 N

# **TQF**

#### PRECISION PLANETARY IN-LINE FLANGED GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	•••	•••	•••	••

**Size:** 060 / 070 / 090 / 130 / 160

**Backlash:** 1 stage less than 3 arcmin / 2 stages less than 5 arcmin

**Torque:** 20 ... 800 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 16 ... 100

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 2400 ... 29000 N

# **TQK**

#### PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	•••	•••	•••	••

**Size:** 060 / 070 / 090 / 130 / 160

Backlash: 2 stages less than 4 arcmin / 3 stages less than 6 arcmin

**Torque:** 20 ... 800 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 16 ... 10**0** 

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 1850 ...15000 N

# **ADVANCED LINE**

## TR

#### PRECISION PLANETARY IN-LINE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	••	•••	••	•••

**Size:** 053 / 060 / 080 / 105 / 130 / 160 / 190

**Backlash:** 1 stage ≤ 3 arcmin / 2 stages ≤ 3 arcmin / 3 stages ≤ 5 arcmin

**Torque:** 12 ... 1000 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 9 ... 100 / 3 stages 48... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 500 ...14000 N

# TR G

#### PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	••	•••	••	•••

**Size:** 053 / 060 / 080 / 105 / 130 / 160

**Backlash:** 2 stages ≤ 3 arcmin / 3 stages ≤ 3 arcmin / 4 stages ≤ 5 arcmin

**Torque:** 20 ... 700 Nm

**Ratios:** 2 stage 3 ... 10 / 3 stages 9 ... 100 / 4 stages 48... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 2400 ... 6500 N

# TR MB

#### PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
•••	••	•••	••	•••

**Size:** 080 / 105 / 130 / 160

**Backlash:** 2 stages ≤ 3 arcmin / 3 stages ≤ 3 arcmin / 4 stages ≤ 5 arcmin

**Torque:** 40 ... 700 Nm

**Ratios:** 2 stage 3 ... 10 / 3 stages 9 ... 100 / 4 stages 48 ... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 6000 ...15000 N

# **ADVANCED LINE**

# MP

#### PRECISION PLANETARY IN-LINE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	•••	••	•••

**Size:** 053 / 060 / 080 / 105 / 130 / 160 / 190

**Backlash:** 1 stage ≤ 10 arcmin / 2 stages ≤ 10 arcmin / 3 stages ≤ 10 arcmin

**Torque:** 12 ... 1000 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 9 ... 100 / 3 stages 48... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 500 ...14000 N

# MP G

#### PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	•••	••	•••

**Size:** 053 / 060 / 080 / 105 / 130 / 160

**Backlash:** 2 stages ≤ 10 arcmin / 3 stages ≤ 10 arcmin / 4 stages ≤ 12 arcmin

**Torque:** 20 ... 700 Nm

**Ratios:** 2 stage 3 ... 10 / 3 stages 9 ... 100 / 4 stages 48... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 2400 ... 6500 N

# MP MB

## PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	•••	••	•••

**Size:** 080 / 105 / 130 / 160

**Backlash:** 2 stages ≤ 10 arcmin / 3 stages ≤ 12 arcmin / 4 stages ≤ 12 arcmin

**Torque:** 40 ... 700 Nm

**Ratios:** 2 stage 3 ... 10 / 3 stages 9 ... 100 / 4 stages 48 ... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 6000 ...15000 N

# **FLEXIBLE LINE**

## LC

#### PRECISION PLANETARY IN-LINE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	••	••	••

**Size:** 050 / 070 / 090 / 120 / 155

**Backlash:** 1 stage ≤ 6 arcmin / 2 stages ≤ 8 arcmin

**Torque**: 10 ... 450 Nm

**Ratios:** 1 stage 3 ... 10 / 2 stages 9 ... 100

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 500 ... 6000 N

# **LCK**

#### PRECISION PLANETARY RIGHT-ANGLE GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	••	••	••

**Size:** 050 / 070 / 090 / 120 / 155

**Backlash:** 2 stages ≤ 6 arcmin / 3 stages ≤ 8 arcmin

**Torque:** 10 ... 700 Nm

**Ratios:** 2 stage 6 ... 14 / 3 stages 24 ... 100

Input speed: Up to 5000 min<sup>-1</sup>
Max. radial force: 500 ... 6000 N

#### SII

#### PRECISION PLANETARY IN-LINE GEARBOX FOR PULLEY DRIVES



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	•••	•••	•••	••

**Size:** 080 / 105 / 130 / 160

Backlash: 2 stages less than 4 arcmin / 3 stages less than 6 arcmin

**Torque:** 40 ... 700 Nm

**Ratios:** 2 stage 3 ... 10 / 3 stages 9 ... 100 / 4 stages 48 ... 1000

Input speed: Up to 6000 min<sup>-1</sup>
Max. radial force: 6000 ...15000 N



# **BASIC LINE**

# KR

# PRECISION BEVEL GEARBOX



BACKLASH	TORSIONAL STIFNESS	PROTECTION RATING	RADIAL FORCES	WIDE RANGE OF RATIO
••	••	••	•	•

**Size:** 010 / 020 / 030 / 040

**Backlash:** 1 stages less than 8 arcmin

Torque: 3 ... 120 Nm Ratios: 1 stage ratio 1; 2; 5 Input speed: Up to 3000 min<sup>-1</sup> Max. radial force: 500 ...5500 N

# SELECT THE OPTIMUM SERVOPACKAGE FROM A MULTITUDE OF SCENARIES POSSIBLE



Across a wide product portfolio, engineering expertise, fine tunes optimization, we are able to propose cost – effective solution, which fits each specific requirement.

# A RELIABLE PARTNER FOR YOUR BUSINESS

Bonfiglioli Riduttori brings decades of experience supporting customers across a broad spectrum of industry sectors.

Our industry expertise means we understand your applications: product and requirements must fit and form a solution that match to your application.

Our tailored-solutions always offer to you a complete approach.

# Some of the industrial sectors we serve:

- Machine tools
- Packaging & labeling
- Food, beverage & tobacco
- Glass working
- Robotics
- Automation storage
- Ceramio
- Electronics & electronic assembly
- Woodworking





**PACKAGING & LABELLING** 





FOOD, BEVERAGE & TOBACCO





**WOODWORKING MACHINES** 





**CERAMIC** 







# SHARING THE VALUE OF OUR WORK WITH YOU

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

Bonfiglioli management systems are certified to ISO 9001:2008, ISO 14001 and OHSAS 18001, while our products are covered by international certifications.

Product reliability, excellence, innovation make Bonfiglioli a preferred partner.



#### **SYSTEM CERTIFICATIONS:**







#### **PRODUCT CERTIFICATIONS:**





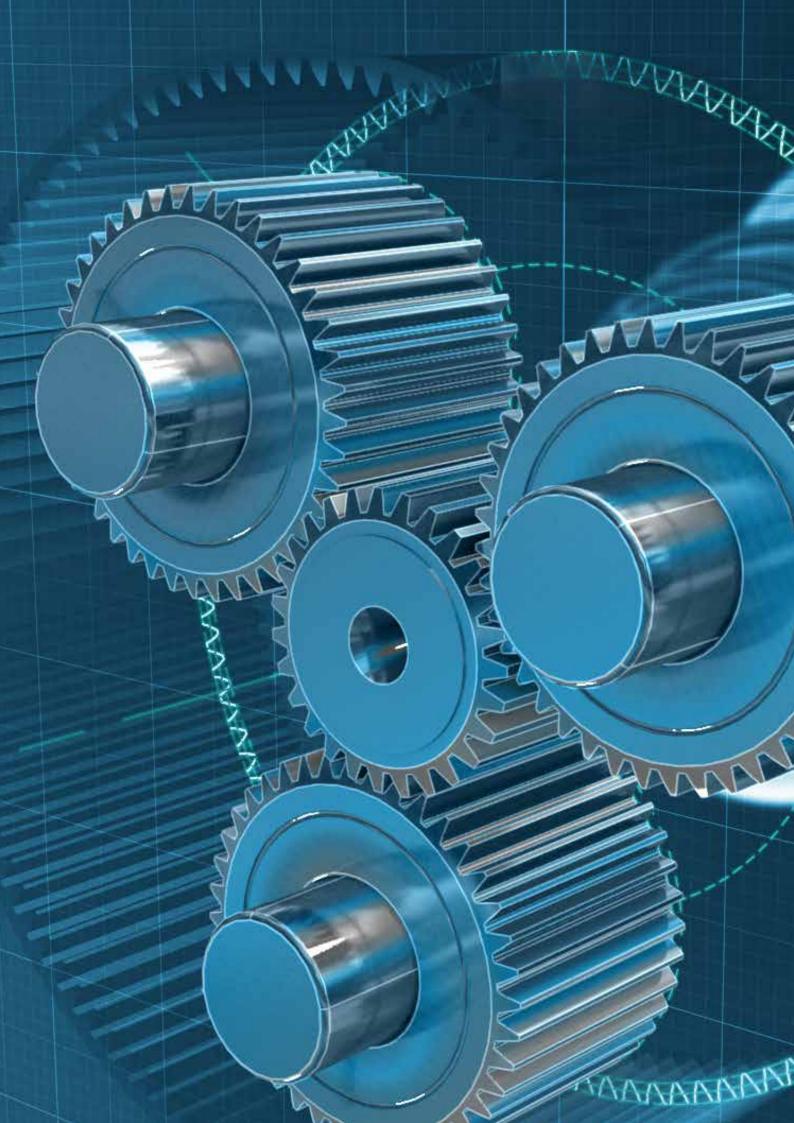








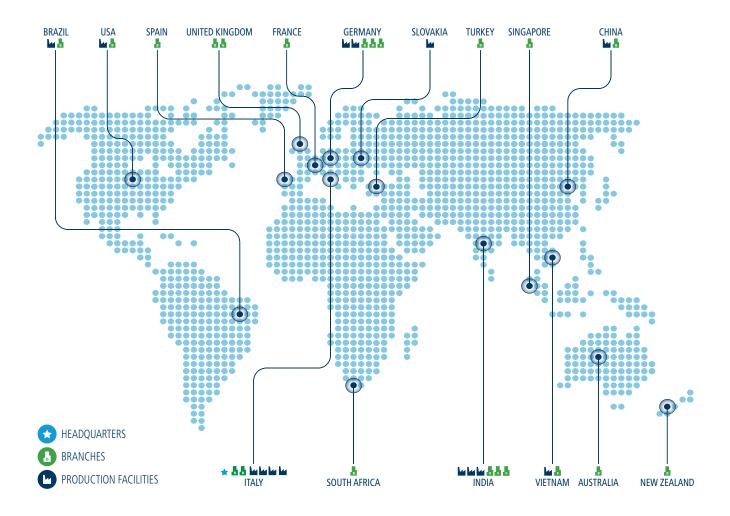






# **Bonfiglioli worldwide presence**

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.** 









# **Bonfiglioli worldwide locations**

#### Australia

www.bonfiglioli.com.au 2, Cox Place Glendenning NSW 2761 Locked Bag 1000 Plumpton NSW 2761 Tel. + 61 2 8811 8000

#### Brazil

www.bonfigliolidobrasil.com.br Travessa Cláudio Armando 171 Bloco 3 - CEP 09861-730 - Bairro Assunção São Bernardo do Campo - São Paulo Tel. +55 11 4344 2322

#### China

www.bonfiglioli.cn Bonfiglioli Drives (Shanghai) Co., Ltd. #68, Hui-Lian Road, QingPu District, 201707 Shanghai Tel. +86 21 6700 2000

#### France

www.bonfiglioli.fr 14 Rue Eugène Pottier Zone Industrielle de Moimont II - 95670 Marly la Ville Tel. +33 1 34474510

#### Germany

www.bonfiglioli.de Sperberweg 12 - 41468 Neuss Tel. +49 0 2131 2988 0

Industrial

Europark Fichtenhain B6 - 47807 Krefeld Tel. +49 0 2151 8396 0

**O&K Antriebstechnik** 

Ruhrallee 8-12 - 45525 Hattingen

Tel. +49 0 2324 2050 1

#### India

www.bonfiglioli.in

Mobile, Wind

Bonfiglioli Transmissions Pvt. Ltd. Plot No. AC7-AC11, SIDCO Industrial Estate, Thirumudivakkam - 600 044 Chennai

Tel. +91 44 2478 1035

Industrial

Survey No. 528, Porambakkam High Road, Mannur Village, Sriperambudur Taluk - 602 105 Chennai Tel. +91 44 6710 3800

Plot No. A-95, Phase IV, MIDC Chakan, Village Nighoje Pune, Maharashtra - 410 501

#### Italy

www.bonfiglioli.it

Headquarters

Bonfiglioli Riduttori S.p.A. Via Giovanni XXIII, 7/A

Lippo di Calderara di Reno - 40012 Bologna

Tel. +39 051 647 3111

Mobile, Wind

Via Enrico Mattei, 12 Z.I. Villa Selva - 47100 Forlì

Tel. +39 0543 789111

Industria

Via Bazzane, 33/A - 40012 Calderara di Reno Tel. +39 051 6473111

Via Trinità, 1 - 41058 Vignola

Tel. +39 059 768511

Via Sandro Pertini lotto 7b - 20080 Carpiano

Tel. +39 02 985081

**Bonfiglioli Mechatronic Research** 

Via F. Zeni 8 - 38068 Rovereto

Tel. +39 0464 443435/36

#### **New Zealand**

www.bonfiglioli.co.nz 88 Hastie Avenue, Mangere Bridge, 2022 Auckland PO Box 11795, Ellerslie Tel. +64 09 634 6441

#### **Singapore**

www.bonfiglioli.com 24 Pioneer Crescent #02-08 West Park Bizcentral - Singapore, 628557 Tel. +65 6268 9869

#### Slovakia

www.bonfiglioli.com Robotnícka 2129 Považská Bystrica, 01701 Slovakia Tel. +421 42 430 75 64

#### South Africa

www.bonfiglioli.co.za 55 Galaxy Avenue, Linbro Business Park - Sandton Tel. +27 11 608 2030

#### Spain

www.tecnotrans.bonfiglioli.com Tecnotrans Bonfiglioli S.A. Pol. Ind. Zona Franca, Sector C, Calle F, n° 6 08040 Barcelona Tel. +34 93 447 84 00

#### Turkey

www.bonfiglioli.com.tr Atatürk Organize Sanayi Bölgesi, 10007 Sk. No. 30 Atatürk Organize Sanayi Bölgesi, 35620 Çiğli - Izmir Tel. +90 0 232 328 22 77

#### **United Kingdom**

www.bonfiglioli.co.uk

Industrial

Unit 7, Colemeadow Road North Moons Moat - Redditch, Worcestershire B98 9PB Tel. +44 1527 65022

#### Mobile, Wind

3 - 7 Grosvenor Grange, Woolston Warrington - Cheshire WA1 4SF Tel. +44 1925 852667

#### USA

www.bonfiglioliusa.com 3541 Hargrave Drive Hebron, Kentucky 41048 Tel. +1 859 334 3333

#### Vietnam

www.bonfiglioli.vn Lot C-9D-CN My Phuoc Industrial Park 3 Ben Cat - Binh Duong Province Tel. +84 650 3577411



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.







#### **HEADQUARTERS**

www.bonfiglioli.com

Bonfiglioli Riduttori S.p.A. Via Giovanni XXIII, 7/A 40012 Lippo di Calderara di Reno Bologna (Italy) tel: +39 051 647 3111 fax: +39 051 647 3126 bonfiglioli@bonfiglioli.com