



# Waste & Water Treatment





## Our philosophy

# Solutions for an evolving industry

In the global marketplace, our customers, investors, partners value our products and services for two reasons: excellence and reliability. At Rossi S.p.A., a company of the Habasit Group, we utilize change as a strategic lever for our growth. "Solutions for an evolving industry" fully expresses our corporate philosophy: We are a flexible and dynamic reality, able to satisfy all requirements of a continuously evolving industrial world, thanks to our innovative solutions.

### Cutting-edge manufacturing

When it comes to high-performance and precision gear manufacturing, technology and experience are critical components. Cutting-edge technology without the experience to conduct it can limit the benefit the final product has for the end user. This is why we continue to take pride of our work. Cutting-edge technology can be bought, but how you utilize it is earned through experience.

### Specialized housing machining

High performance must be supported with exceptional equipment and knowledge. For this reason, we dedicate special attention to the machining of all components, including housings for big sizes. The requirements for high quality standards can be achieved using cutting-edge technology.

### Test controls

Extensive systematic controls at every stage of the manufacturing process, as well as performance evaluations, allow for consistent quality products. With our diligent quality testing procedures, supported by operational certifications, customers can be confident of our knowledgeable solutions before and after on site commissioning.

### The power of knowledge

Experience and knowledge not only mean to understand the demands of specific applications, but also how to support customers during all design and approval phases. We continue to develop our experience and share our knowledge suitable to machine builders today, regardless of the application.

The information that we make available includes:

- expected life calculation of gears and bearings;
- 3D drawings;
- shared design capabilities with customers.

At Rossi we share our know-how to support every kind of application and demand.



Who we are

# Rossi key figures

 over **1,000** people around the world


 **5,000** customers worldwide

 **70** years of experience

 **45** million euros investments in new technologies and methodologies to improve manufacturing efficiency

 **15** affiliated companies

 **5** production facilities

 **8** assembly plants



# Quality certifications

## System certifications

UNI EN ISO  
9001:2015

ISO  
14001:2015

ISO  
45001:2018

## Product certifications



DNV·GL



BUREAU VERITAS  
Marine & Offshore

# Global presence local service



### Local support

Sales, customer service,  
technical support, spare parts



### 15 branches\*



### Worldwide distribution network\*

A global network of subsidiaries and dealers. From design and execution to after-sales service. Rossi is always close to you: a local, reliable and flexible partner.

Alongside our 24/7 **Rossi for You** portal you have a suite of digital support tools enabling real time access to your order tracking, invoices, spare part tables download and contact to our service.



### United States

Suwanee, GA



### Brazil

Cordeiropolis, SP



\*All contacts available on [www.rossi.com](http://www.rossi.com)





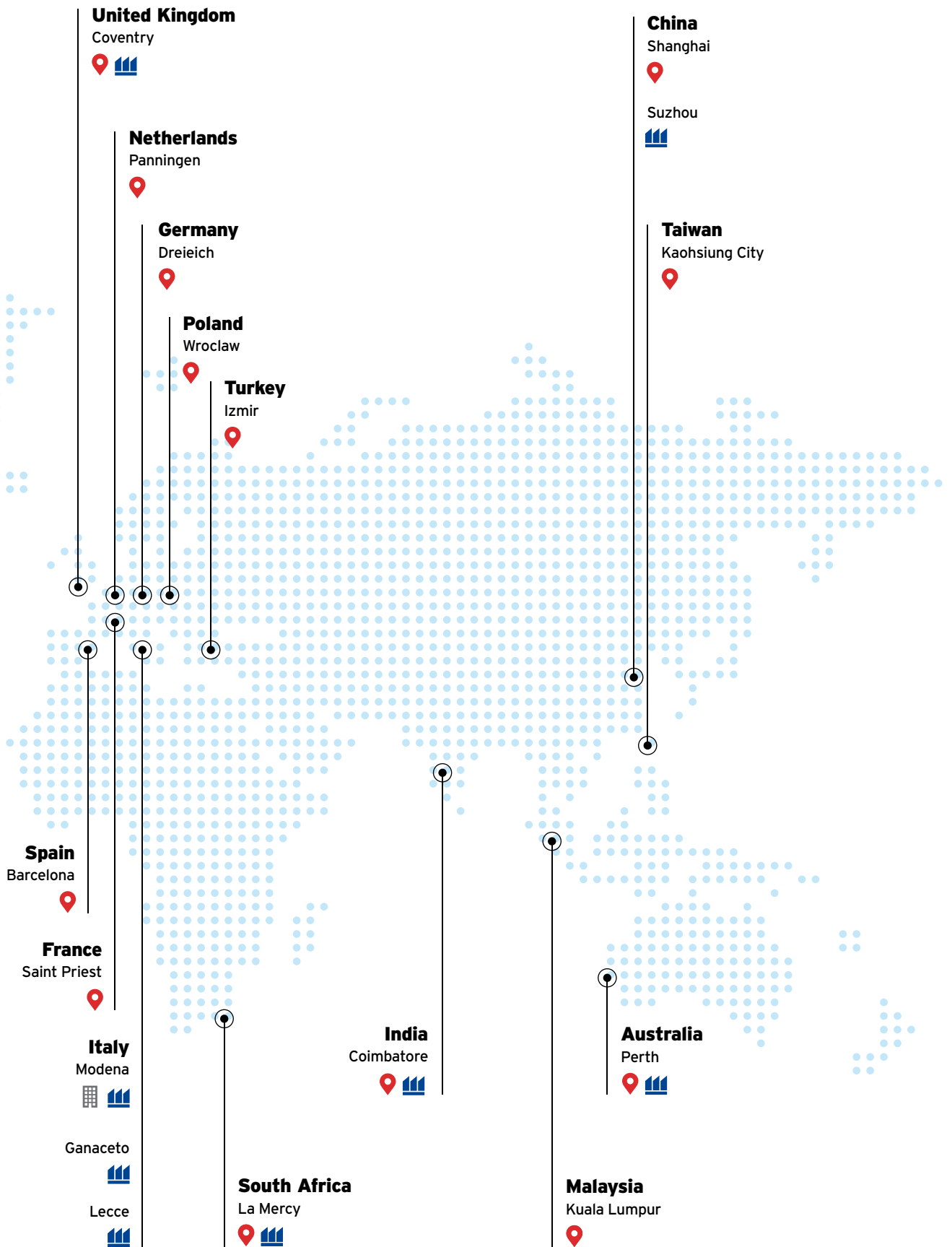
Headquarters



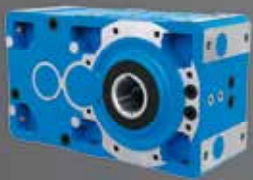
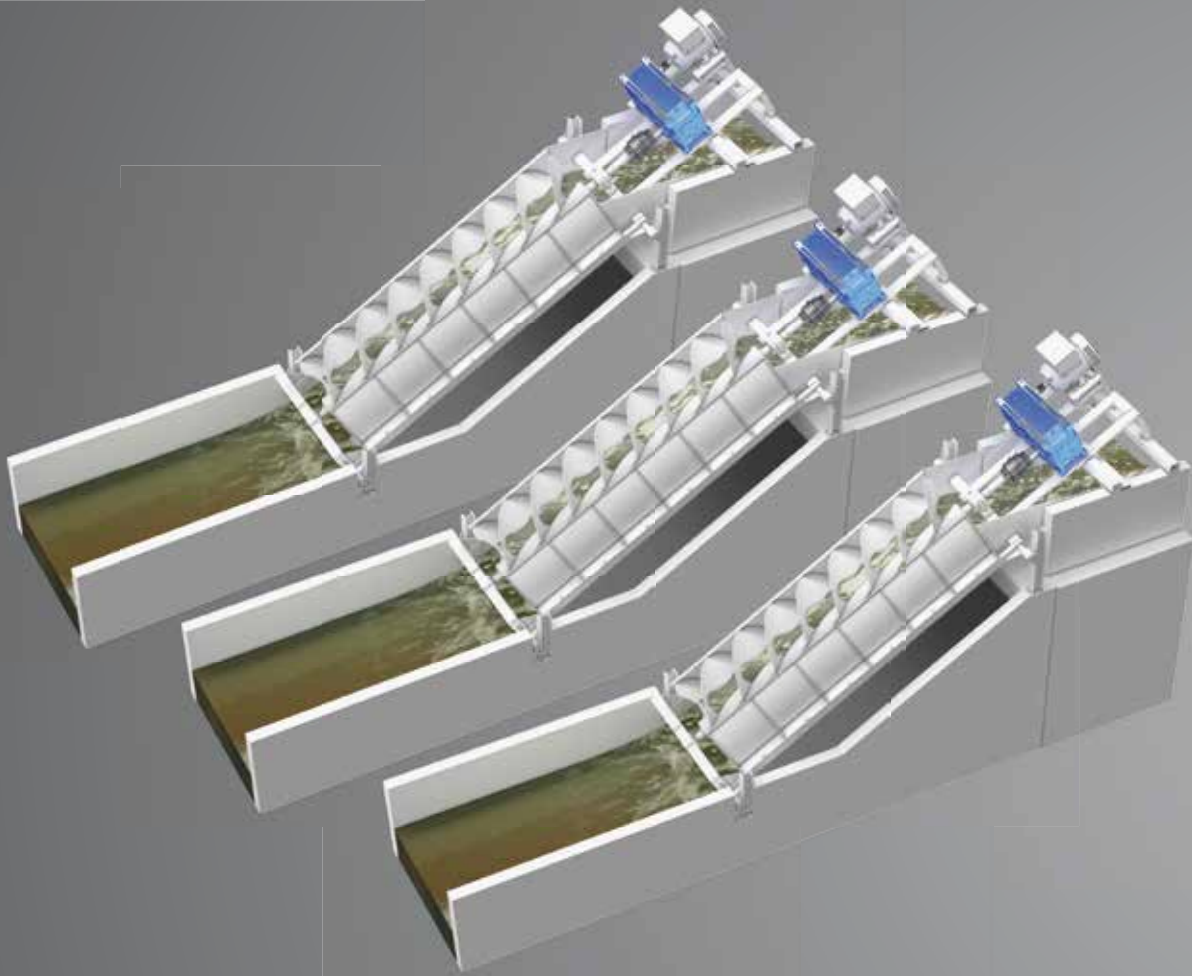
Branches



Production facilities/Assembly plants



# Screw pump



## Helical & Bevel helical G series

- High resistance in harsh conditions
- Premium bearing load capacity
- Premium sealing options
- C4 and C5 class surface protection according to UNI EN 12944-2 available
- Customized solutions available on request
- Suitable for foot mounting

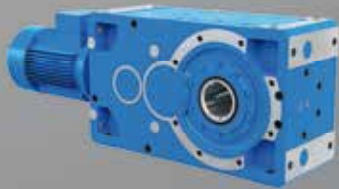
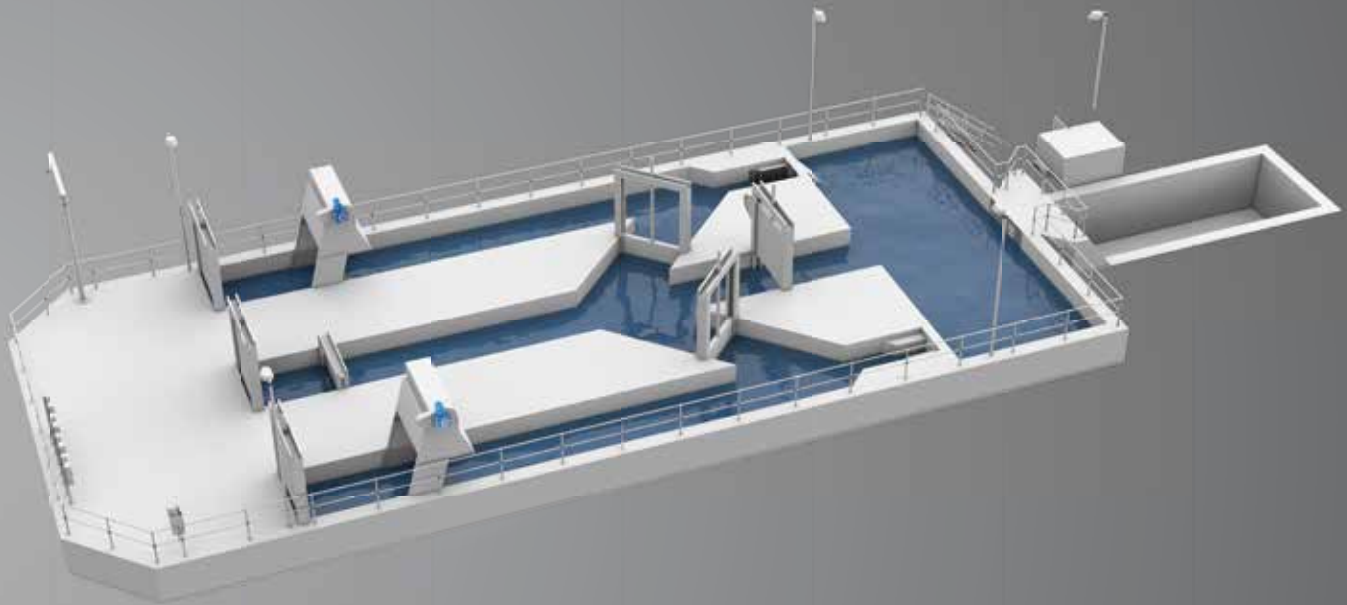


## Helical & Bevel helical H series

- Nominal torque up to 1 000 kN m
- High resistance in harsh conditions
- Premium bearing load capacity
- Premium sealing options
- C4 and C5 class surface protection according to UNI EN 12944-2 available
- Customized solutions available on request
- Suitable for foot mounting



# Screening



**Helical & Bevel helical G series**

- Suitable for shaft and flange mounting



**Worm A series**

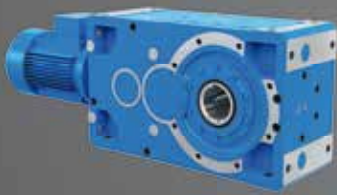
- Suitable for shaft and flange mounting



**Planetary EP series**

- Suitable for shaft and flange mounting

# Scraper



## Helical & Bevel helical G series

- Standard hollow low speed shaft (metric or inches)
- High resistance in harsh conditions
- Premium bearing load capacity
- Premium sealing options
- C4 and C5 class surface protection according to UNI EN 12944-2 available
- Customized solutions available on request

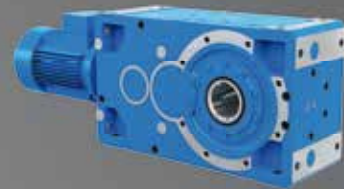


## Worm A series

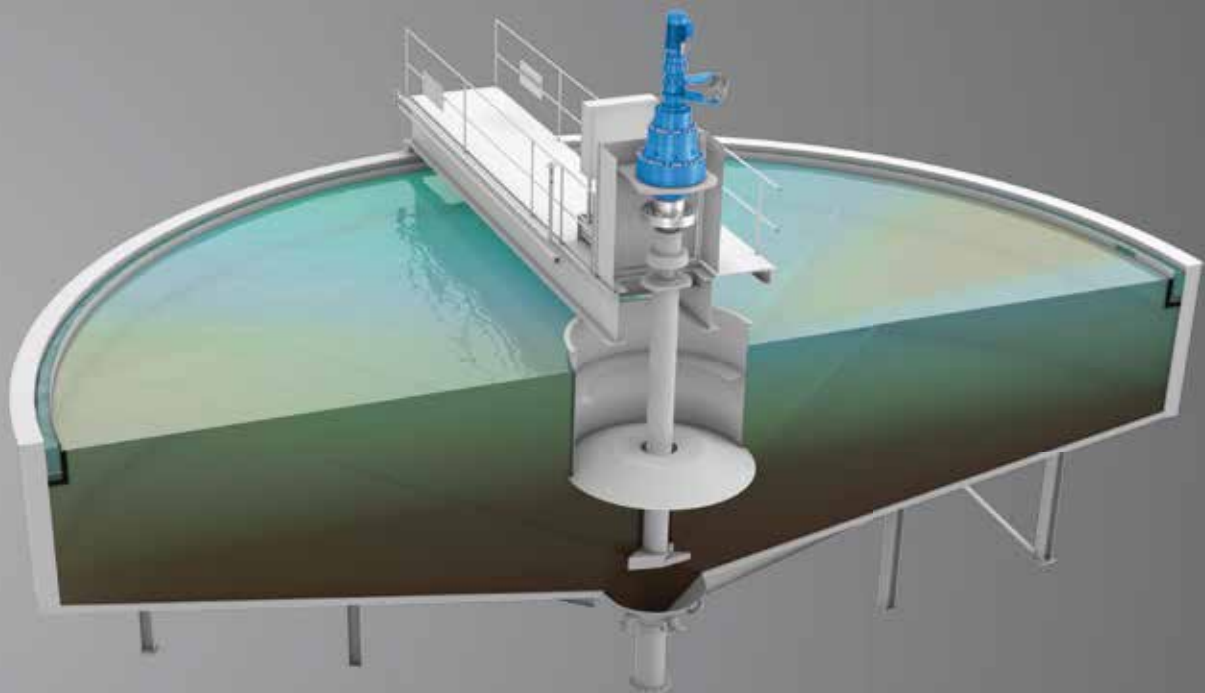
- Standard hollow low speed shaft
- High resistance in harsh conditions
- Premium bearing load capacity
- Premium sealing options
- C4 and C5 class surface protection according to UNI EN 12944-2 available
- Customized solutions available on request



# Clarifier



Helical & Bevel helical G series



## Planetary EP series

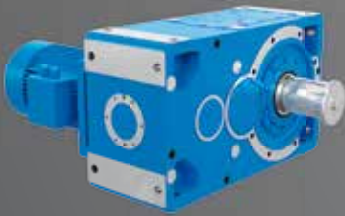
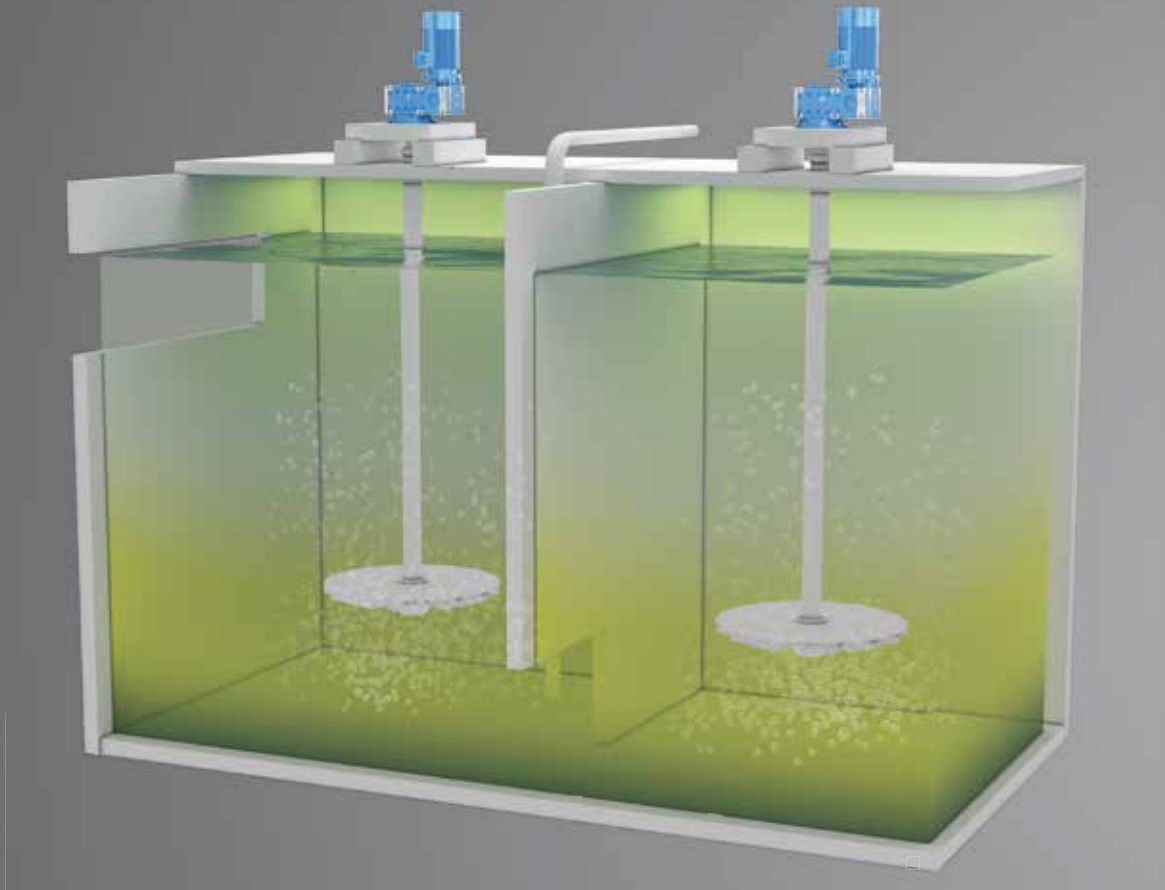
- Complete drive solution
- Modular design with unlimited reduction ratios, theoretically unlimited reduction ratios (1:30 000)
- Nominal torque up to 3 000 kN m
- High resistance in harsh conditions
- Premium bearing load capacity
- Premium sealing
- Easy solution to mount a load cell
- Torque limiter available
- Wheel flange available



## Slewing drives EPS series

- Standard or customized slewing gearbox available
- Double centering or front flange solution
- Loose or integral slewing pinion
- Direct connection to hydraulic or electric motor (IEC or NEMA)

# Surface aerator



## Helical & Bevel helical G series

- Dry well available
- Design for agitators available
- Large radial load capacity
- Metal plugs
- Premium sealing
- C4 and C5 class surface protection according to UNI EN 12944-2 available



## Planetary EP series

- Large radial load capacity
- Ground gears: low noise
- Metal plugs
- Premium sealing
- C4 and C5 class surface protection according to UNI EN 12944-2 available

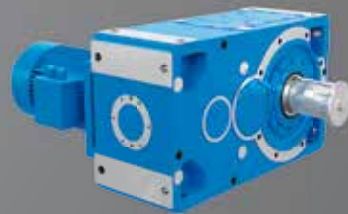
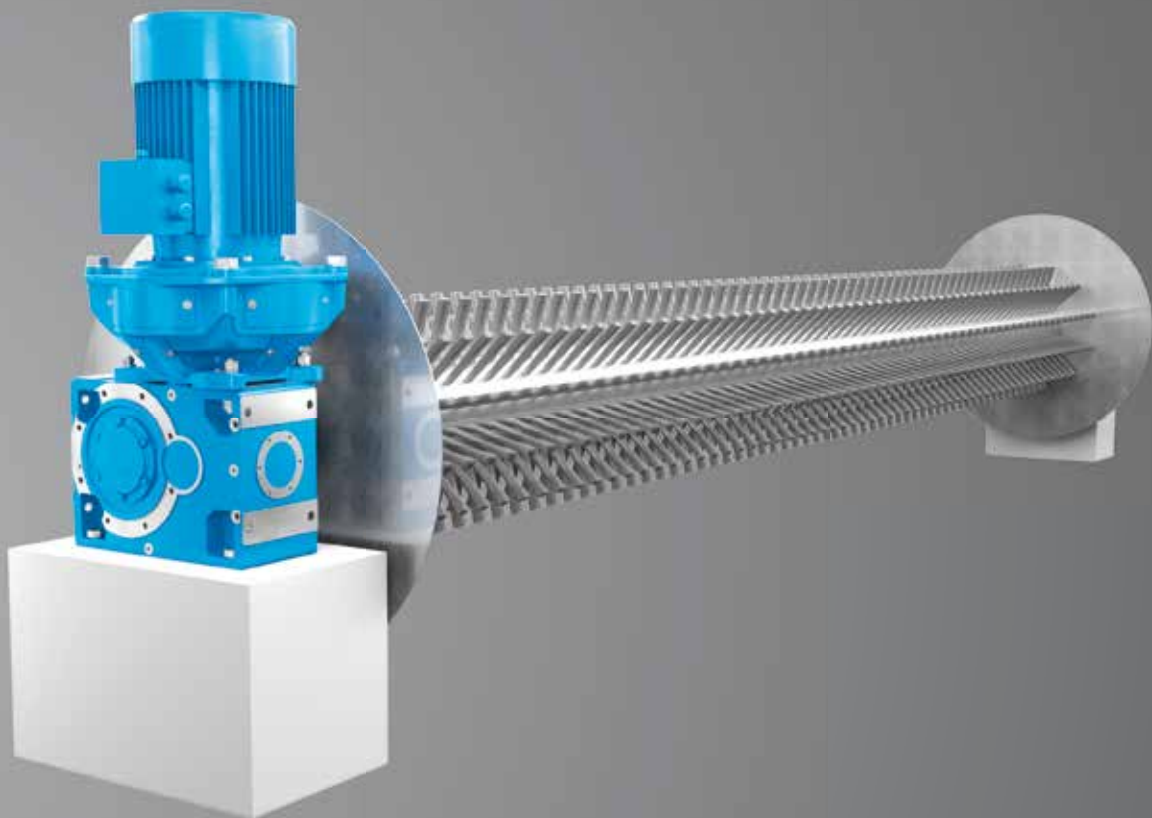


## Helical inline iFIT series

- Drop-in design to major competitors brands
- Foot or flange mounting design
- Compact electric motors as standard
- Input IEC or NEMA adapter available



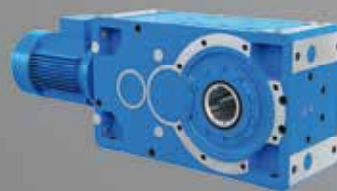
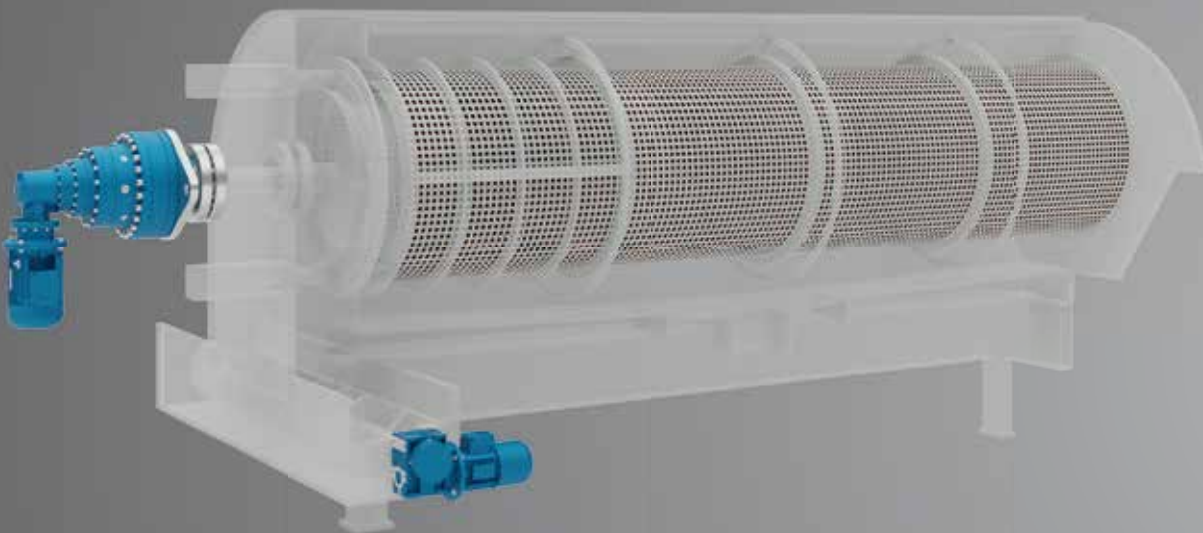
# Brush aerator



## Helical & Bevel helical G series

- Bell housing made of spheroidal cast iron for IEC and NEMA electric motors
- Flexible coupling available
- Standard heavy duty radial load capacity

# Screw press



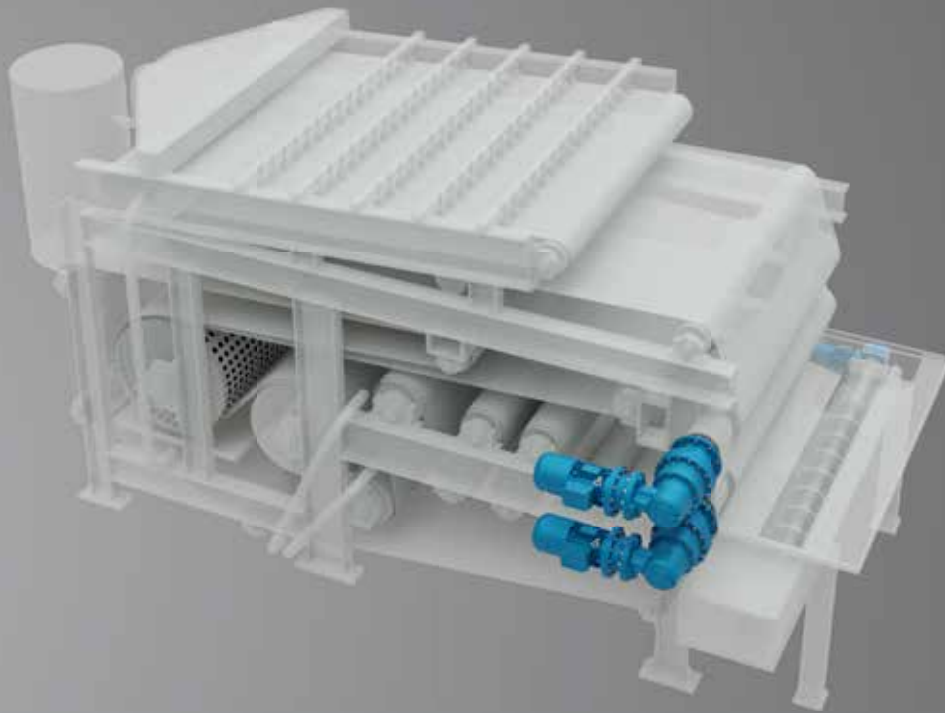
## Planetary gear units EP series

- High resistance in harsh and dusty environments
- High torque density
- Standardized or customized torque arms for shaft mounting available

## Helical & Bevel helical gear units G series



# Belt press



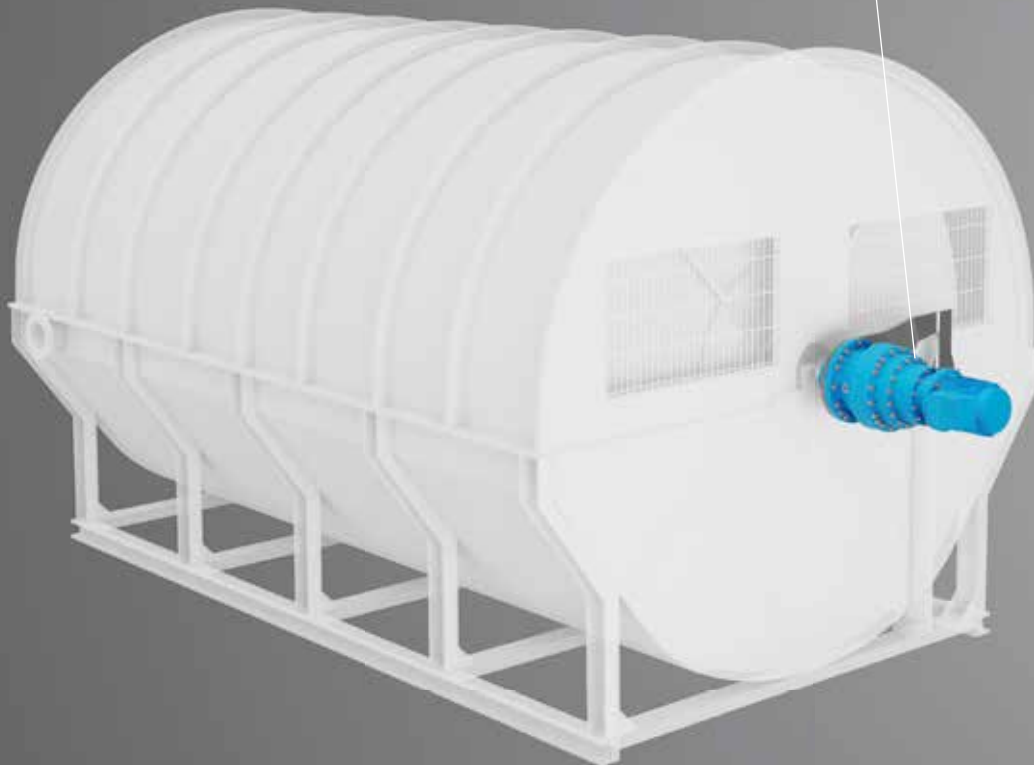
## Planetary gear units EP series

- Modular design
- High flexibility in layout and mounting position
- Large number of output shaft types
- High resistance in harsh and dusty environments
- High torque density

# Disc filter

## Planetary gear units EP series

- Large number of shaft mounted solutions
- Hollow shaft + shrink disc
- Hollow shaft with keyway for easy mounting
- Integral wheel flange option available



Coaxial E series

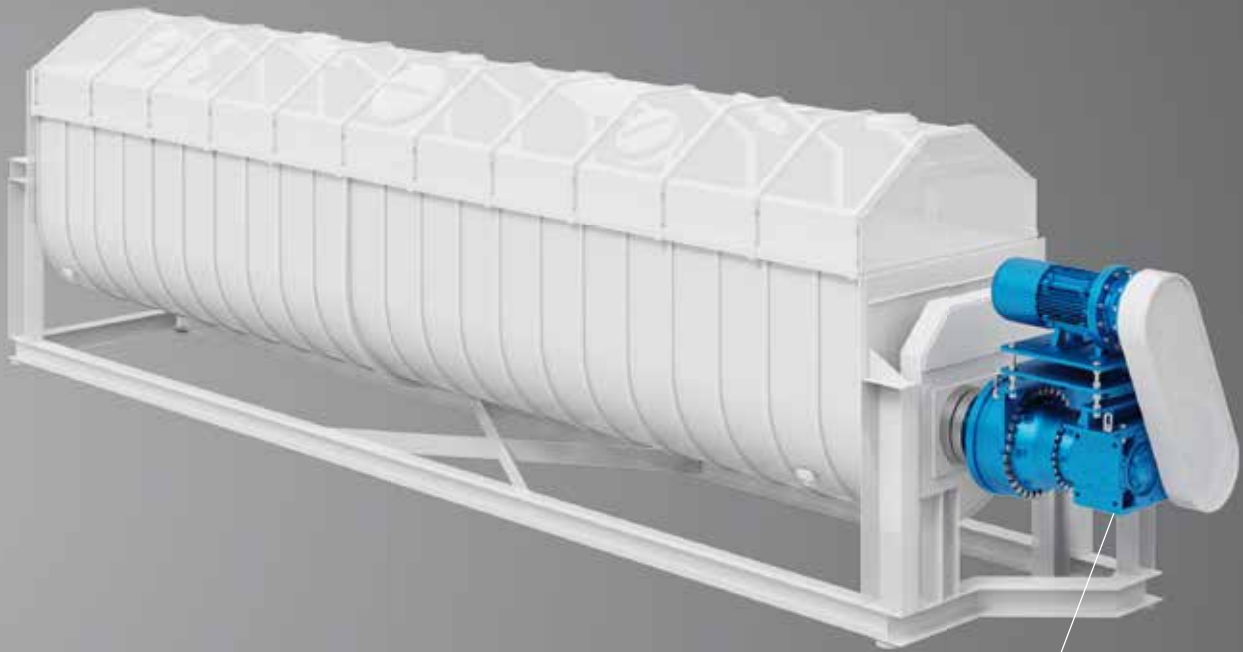


Helical inline iFIT series



Helical & Bevel helical G series

# Paddle dryer



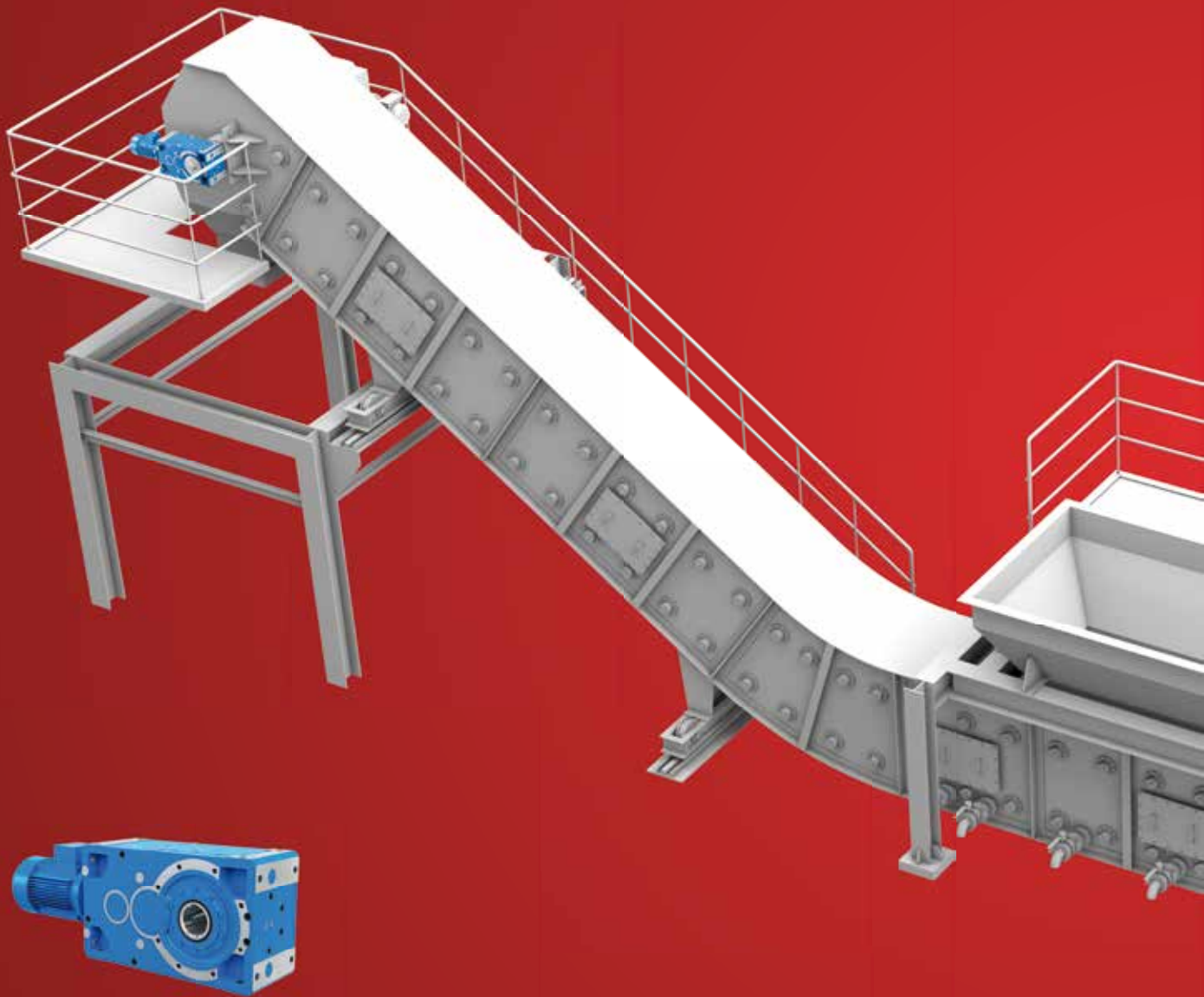
## Combined planetary EP series

- Bespoke compact solution available: a completely modular combined planetary + helical gearbox
- Large thermal capacity
- Up to 3 000 kN m
- High resistance in harsh conditions
- High torque density





# Conveyor & Compactor



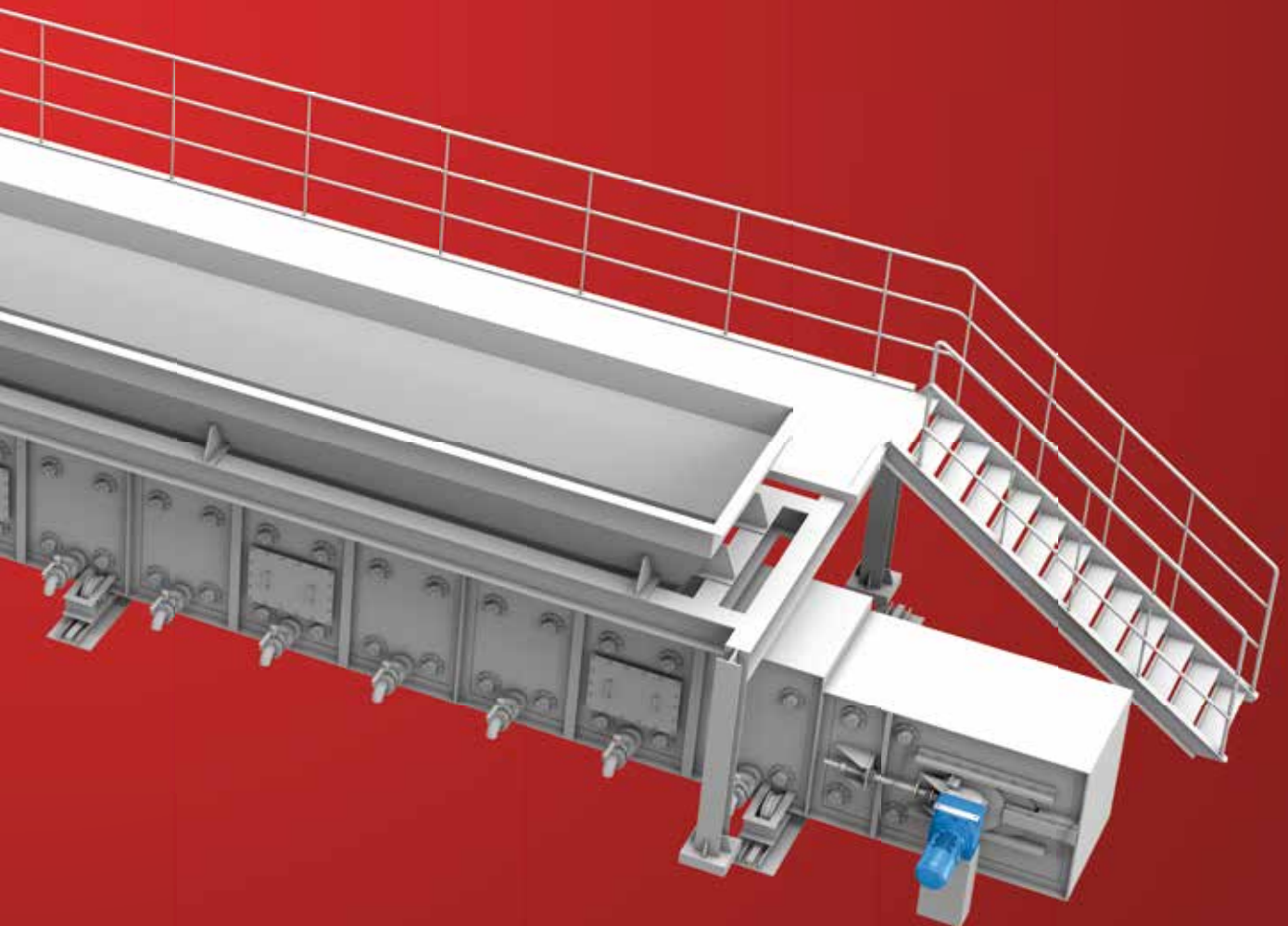
## Helical & Bevel helical gear units G series

- Backstop device available
- Metric and inches shafts available
- C4, C5 class surface protection according to UNI EN 12944-2 standard available

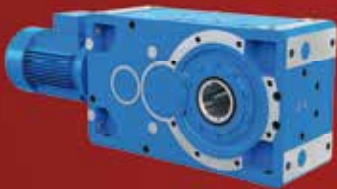
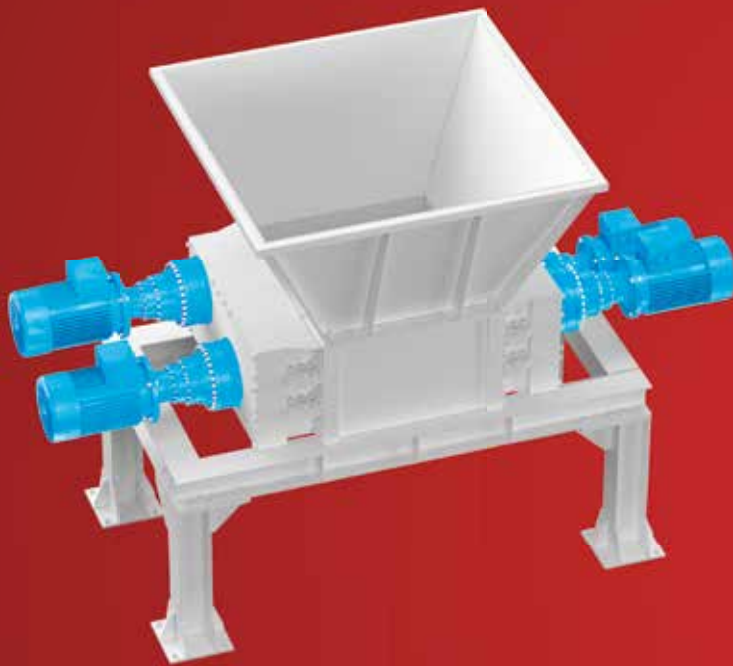
Coaxial gear units E series



Helical inline iFIT series



# Shredder



## Helical & Bevel helical G series

- Single piece housing with high structural stiffness
- Flexible mounting arrangements
- High shock load resistance



## Helical & Bevel helical H series

- Customized solutions on request, starting from a modular design
- Up to 1 000 kN m
- Spheroidal cast iron housing suited for horizontal and vertical mounting
- High shock load resistance



## Planetary gear units EP series

- Modular design
- High torque density
- Up to 3 000 kN m
- High shock load resistance



# Biogas digester

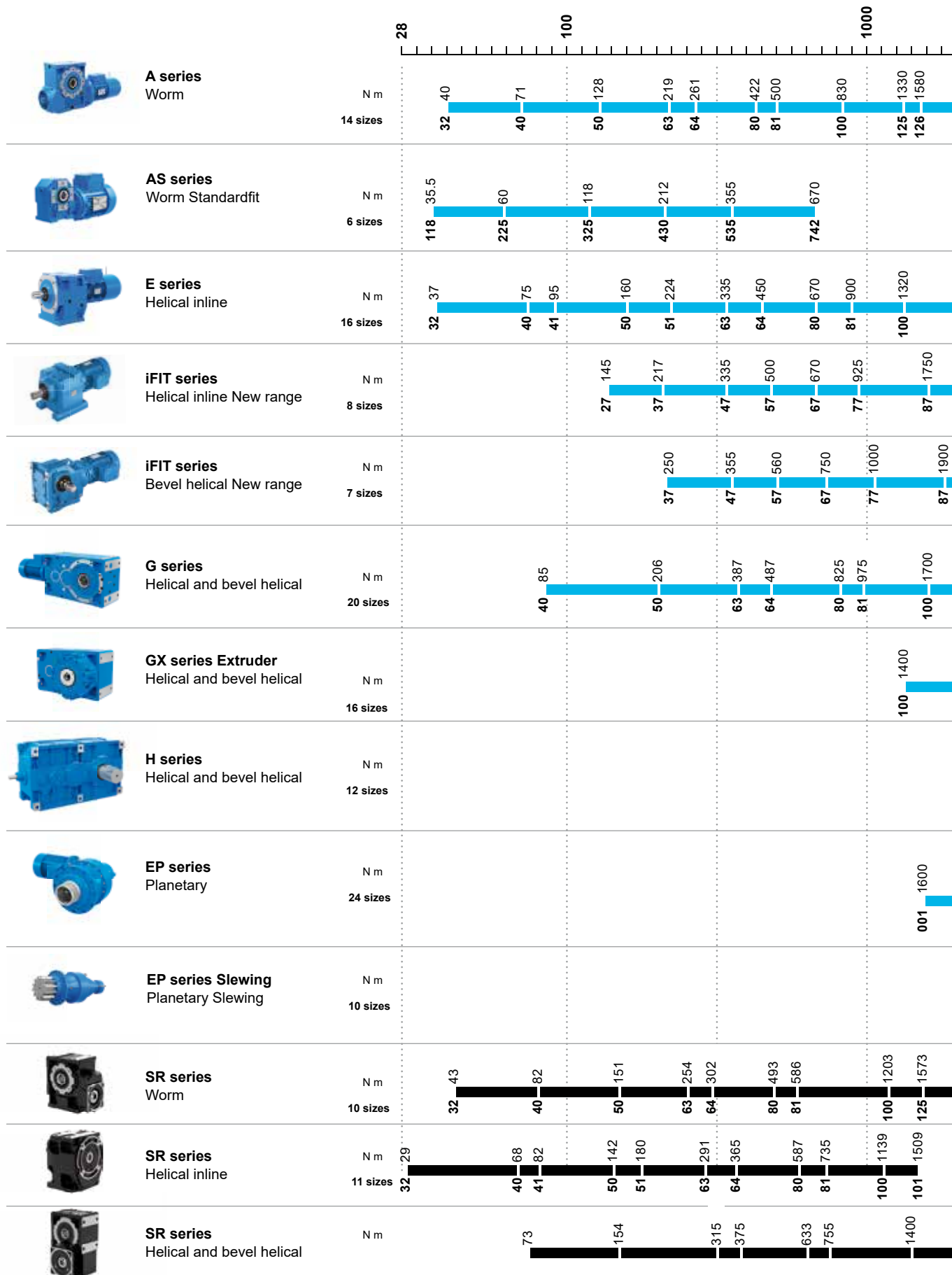


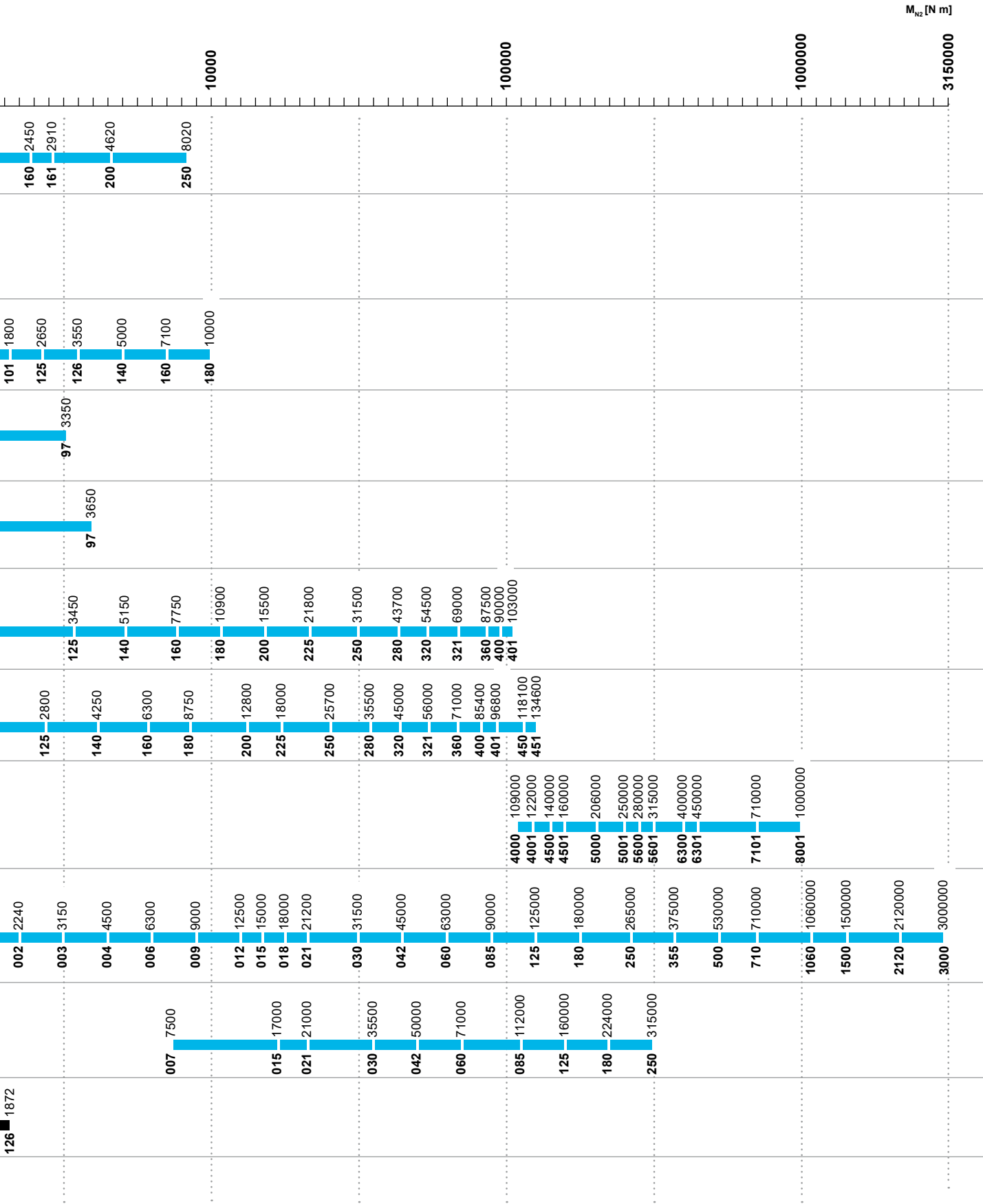
## Planetary gear units EP series

- Large number of shaft mounted solutions
- Hollow shaft + shrink disc
- Hollow shaft with keyway for easy mounting
- Integrated or loose wheel flange for easy maintenance and space saving

# Product range performances

## Gear reducers and gearmotors





$M_{N_2}$  [N m]



### G Series

Helical & bevel helical gear reducers & gearmotors

20 sizes 40 ... 401

Nominal torque ( $M_{N2}$ ) up to 103,000 N m

Transmission ratio ( $i_N$ ) 2 ... 160



#### Features

- Single piece cast or ductile iron housings available. Machine face on all 4 sides
- Wide range of sizes & ratios available
- Suitable for NEMA or IEC motor inputs
- Extended housing design for large center to center distance
- Case carburized gearsets
- Helical gear pairs with ground profile
- Ground GLEASON spiral bevel gear set
- Bell housing for IEC and NEMA motors available
- Bell housing with or without elastic coupling available

#### Benefits

- Modular design allows for flexibility in mounting positions
- Minimum maintenance requirements
- High performance and reliability
- Strength and reliability for heavy duty applications

### H Series

Helical & bevel helical gear reducers

12 sizes 4,000 ... 8,001

Nominal torque ( $M_{N2}$ ) up to 1,000,000 N m

Transmission ratio ( $i_N$ ) 8 ... 315



#### Features

- Ductile iron housing suitable for horizontal or vertical mounting with integral feet
- Horizontal split housing
- 12 sizes available
- Helical gear units with 2 and 3 gear stages
- Bevel helical designs available

#### Benefits

- One of the widest torque range from a single supplier
- Custom solutions available on request
- Short delivery times
- Optimized design for heavy industry applications

## EP Series

Planetary gear reducers & gearmotors

24 sizes 001 ... 3,000

Nominal torque ( $M_{N2}$ ) up to 3,000,000 N m

Transmission ratio ( $i_N$ ) 3.55 ... to unlimited



### Features

- Multiple input stages in inline or right angle configurations
- Modular design
- Suitable with NEMA, IEC motors or hydraulic input
- Final stage gear set case carburized & ground with nitriding on internal sun gears
- Cylindrical spur gear with ground profile
- GLEASON spiral bevel gear pairs with ground profile
- Very compact size
- Wide range of accessories
- Low backlash, enhanced stiffness and heavy duty bearings as a standard
- Improved lubrication system
- Wide range of hydraulic brakes

### Benefits

- Easy and functional flange, foot, or shaft-mounting design
- High torque transmitted
- Extended range of transmission ratios

## EP Combined Units Series

Combined planetary gear reducers & gearmotors

24 sizes 001 ... 3,000

Nominal torque ( $M_{N2}$ ) up to 3,000,000 N m

Transmission ratio ( $i_N$ ) according to Customer's requirements



### Features

- Planetary drives combined with other Rossi products to optimize performances
- Possible combinations with standard Rossi products utilizing planetary drives in conjunction with worm, inline, helical or bevel drive/gearmotors

### Benefits

- Flexibility and adaptability to specific application needs
- Large thermal capacity
- High torque density
- Unlimited reduction ratios available

### EP Slewing Series

Planetary Slewing drives

10 sizes 007 ... 250

Nominal torque ( $M_{N2}$ ) up to 315,000 N m

Transmission ratio ( $i_N$ ) 12.5 ... 2,800

Excellent specific series from the standard EP series

#### Additional features

- 10 modular sizes
- 3 different output supports: Dual pilot flange (R), Dual compact pilot design (S), single pilot flange (H)
- Loose or integral slewing pinions available
- Wide range of hydraulic brakes

#### Additional benefits

- Wide range of drives allow for very high performance while being cost-efficient



### A Series

Worm gear reducers & gearmotors

14 sizes 32 ... 250

Nominal torque ( $M_{N2}$ ) up to 8,020 N m

Transmission ratio ( $i_N$ ) 7 ... 16,000

#### Features

- Universal mounting with integral feet on the housing and B14 flanges
- Rigid and precise cast iron single piece housing
- Forced ventilation for high thermal power dissipation (size > 100)
- Worm wheels made of nickel bronze with high performance capability. High load capacity and wear resistance
- Wide range of accessories

#### Benefits

- Universal mounting positions
- High performance and reliability
- Smooth and precise running, reduced and constant backlash
- Noiselessness and constant performance even in the hardest applications







## iFIT Series

Helical inline gearmotors

8 sizes iC 27 ... iC 97

Nominal torque ( $M_{N2}$ ) up to 3,350 N m

Transmission ratio ( $i_N$ ) 3.4 ... 290

### Features

- Fully interchangeable with market standards
- 100% Italian manufacturing
- Full range with robust cast iron housing
- Gear precision as per DIN/ISO/AGMA 6 or better
- New IE2, IE3 compact electric motors
- High quality sealing solutions
- Round shaped, smooth housing surface
- Higher Torque than competitor brands

### Benefits

- "Plug & Play" with no re-engineering costs
- Superior quality, minimum maintenance
- High performance and reliability: minimum deformation, no gearing misalignment, no vibration, and low noise level
- Energy saving, low noise level, reduced backlash
- Premium efficiency, long lifetime and no oil leakage
- Wash down capability.
- Up to 12% higher torque ratings than market standard



## iFIT Series

Bevel helical gearmotors

7 sizes iO 37 ... iO 97

Nominal torque ( $M_{N2}$ ) up to 3,650 N m

Transmission ratio ( $i_N$ ) 5.4 ... 197

### Features

- Fully interchangeable with market standards
- 100% Italian manufacturing
- Full range with robust cast iron housing
- Gear precision as per DIN/ISO/AGMA 6 or better
- New IE2, IE3 compact electric motors
- High quality sealing solutions
- Round shaped, smooth housing surface
- Higher Torque than competitor brands

### Benefits

- "Plug & Play" with no re-engineering costs
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- High performance and reliability: minimum deformation, no gearing misalignment, no vibration, and low noise level
- Energy saving, low noise level, reduced backlash
- Premium efficiency, long lifetime and no oil leakage
- Wash down capability.
- Up to 12% higher torque ratings than market standard



COMING SOON

### E Series

Coaxial gear reducers & gearmotors

16 sizes 32 ... 180

Nominal torque ( $M_{N2}$ ) up to 10,000 N m

Transmission ratio ( $i_N$ ) 4 ... 6,300



#### Features

- Universal mounting with lower/upper feet and B5 flange integral to the housing
- Rigid and precise cast iron single piece housing with high structural stiffness
- Helical tooth design with ground & carburized gearing
- Wide range of sizes
- Standard IEC motor input adapter

#### Benefits

- Long life
- Minimum maintenance requirements
- High performance and greater reliability
- Strength and reliability for heavy duty applications

### AS Standardfit Series

Worm gearmotors

6 sizes 118 ... 742

Nominal torque ( $M_{N2}$ ) up to 670 N m

Transmission ratio ( $i_N$ ) 6 ... 75



#### Features

- Mounting with lower integral feet and B14 flanges on 2 faces integral on the housing
- Rigid and precise cast iron single piece housing
- Helical tooth design with ground & carburized gearing
- Tapered roller bearings on worm shaft
- High worm efficiency

#### Benefits

- Interchangeability with major manufacturers
- High performance and greater reliability
- Smooth and quiet running

## TX Series

Premium line electric asynchronous three-phase motors and brake motors

Sizes 63 ... 315

Power ( $P_N$ ) 0.06 ... 110 kW

Polarity 2, 4, 6, 8 poles



### Features

- IEC standard motors
- Protection: IP 55 standard, up to IP 66 on request
- IE3 Energy efficiency
- Standard and safety brake (AC. DC)
- Optional complex executions available (encoders, axial cooling, increased protection, etc.)

### Benefits

- Compactness and flexibility
- Suitable for running with inverter
- Reduced environmental impact and energy saving

## dDrive Inverter Series

Decentralized Drive

Sizes A, B, C

Rec. motor rating 0.55 ... 7.5 kW

Supply Voltage 3x200V AC...480V AC  
280V DC...680V DC

Rated current 1.7A...16.5A

### Features

- Decentralized Frequency Inverter
- Designed for Rossi IE2, IE3 electric motors
- Aluminum Housing IP 65
- Sensorless Vector Control
- Safe Torque Off (STO)
- Configurable I/O's board and internal PLC
- A large number of field buses available
- Bluetooth Interface

### Benefits

- Reduced electric cabinet dimension and cooling systems
- Compact solution of inverter, motor, and gearbox
- Suitable for hard environmental operating conditions
- No need of motor encoder for speed control
- High Safety Performance Level (up to PL E)
- To develop your own dedicated control functions
- Ease integration with existing automation controllers
- Fast and smart inverter parametrization access

# dDrive





# Rossi for You



## Innovation

Rossi offers a wide range of solutions for an evolving industry, flexible and innovative gearboxes and gearmotors for customer tailored solutions to maximize performance and minimize the Total Cost of Ownership.



## High quality, 3 years warranty

Our drive is to innovate and boost operations by manufacturing performing, precise, reliable and high-quality products all over the world. We are always one step forward in offering and developing solutions that can satisfy an unlimited number of application needs, even in the most demanding conditions.



## Reliable

We are a reliable company with the right flexibility and know-how to respond to worldwide market requests, in all application fields, without leaving aside our commitment for the environment and value on human safety, to protect everyone's future.



## Tools and processes

We continue to invest in new tools and processes, so our highly skilled specialist team in different fields are supporting you to find the best solution suitable for your demands, always by your side on every step of the project.



## After-sale service

Highly trained mechanics and support teams can ensure a fast and efficient after-sale service providing support worldwide.



## Digital support

Alongside our 24/7 Rossi for You support portal you have a suite of digital support tools enabling real time access to your order tracking, invoices, spare part tables download and contact to our service.



## Experience

Shaped by 70 years of history Rossi meets your unique needs whether you need a standard design or a customized solution.



ROSSI



Solutions for  
an evolving  
industry

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