



Mining

rossi.com



Mining

With more than 70 years experience in industrial gear unit manufacturing and 25 years devoted to the Mining & Cement sector, today Rossi is in the main EPC and OEM vendor lists. The wide range of product types (helical, bevel helical and planetary gear units, electric motors, couplings, etc) and sizes (up to 26,500,000 lb in), allows Rossi to supply “state of the

art” drives for all main applications of the sector.

A dedicated Project Team provides a high quality and fast time answers, making easier Customer project development and commissioning. More than 150 plants worldwide are successfully running thanks to Rossi!



Mining



Mining overview

Bucket wheel excavators
Stacker reclaimers

Flotation cells

Thickeners &
Clarifiers

Ship unloader

In-plant/Overland conveyor

Rail car dumper

Apron feeder & belt feeder

Crushing & grinding station

Pelletizers

HPGR

Bucket elevator

Ship loader

Bucket wheel excavators - Stacker re



Slewing drive

- Compact, modular space saving design
- In-line planetary or right angle
- Weight less solution
- Low noise level
- Nominal torque up to 2,800,000 lb in
- Custom made support, steel made
- Standard support, cast iron made
- Protection cover
- Motor base
- Optimized sealing
- Spare pinion



Long travel drive

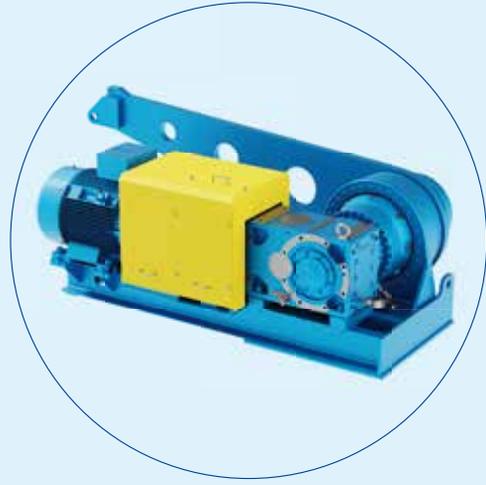
- IEC or NEMA brake motors
- Hand lever with or without automatic return
- 17 step sizes
- Ratio up to 200:1
- Grey or nodular cast iron housing
- Various low speed shaft options
- Low noise level
- Labyrinth seals
- External electromagnetic in-built brake
- Planetary right angle version as option

claimers



Boom conveyor drive

- Low noise level
- Spheroidal cast iron
- Nominal torque range up to 26,500,000 lb in
- Reliable operation
- Various low speed shaft types
- Sealing for harsh conditions (labyrinth)

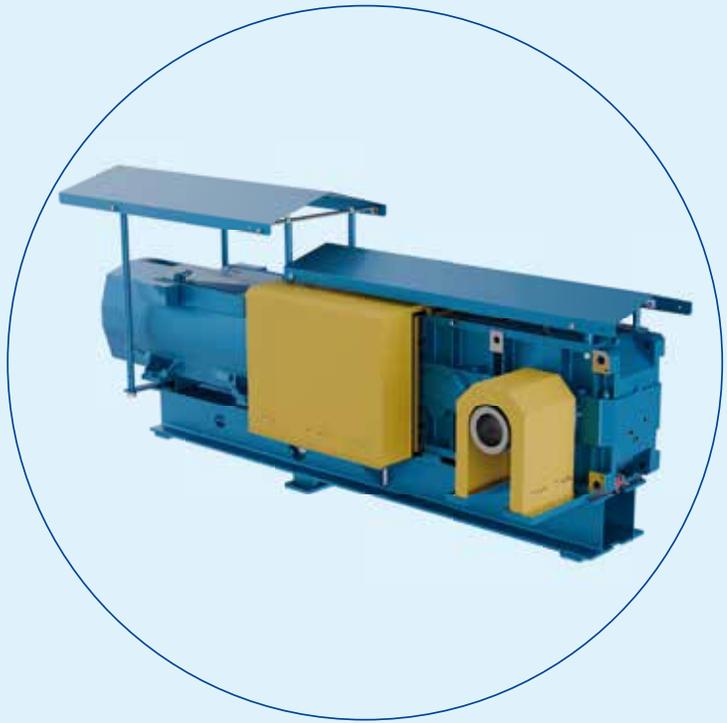


Bucket wheel drive

- Compact, modular space saving design
- In-line planetary or right angle
- Wide ratio range
- Nominal torque up to 8,850,000 lb in
- Various low speed shaft types
- Sealing for harsh conditions
- Increased thermal capacity
- Labyrinth seal

In-plant/Overland conveyor

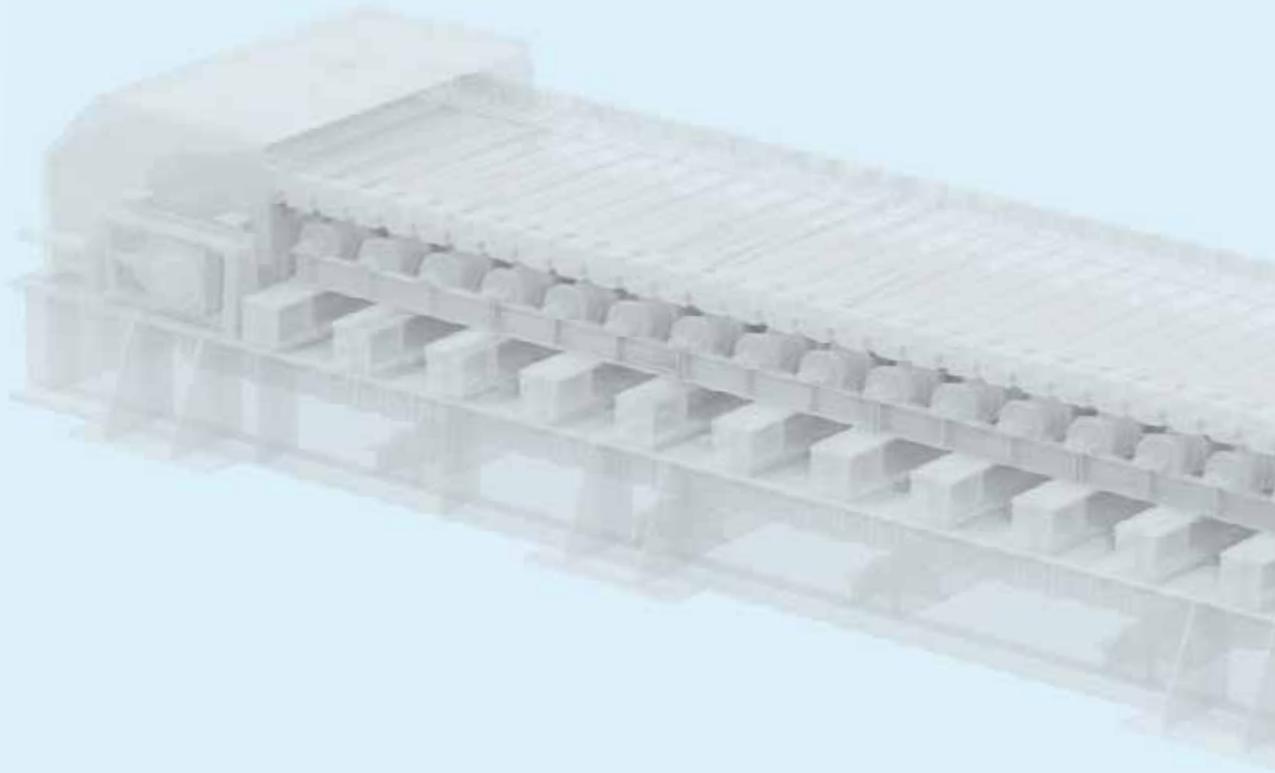


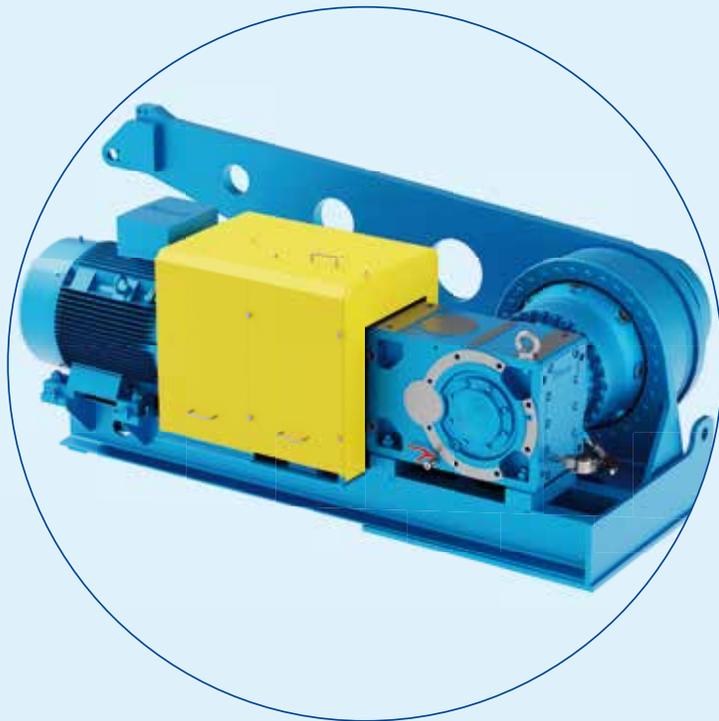


Conveyor drive

- Low noise level
- Nodular cast iron
- Nominal torque range up to 8,850,000 lb in
- Reliable operation
- Various low speed shaft types
- Sealing for harsh conditions
- Labyrinth seal rings

Apron feeders



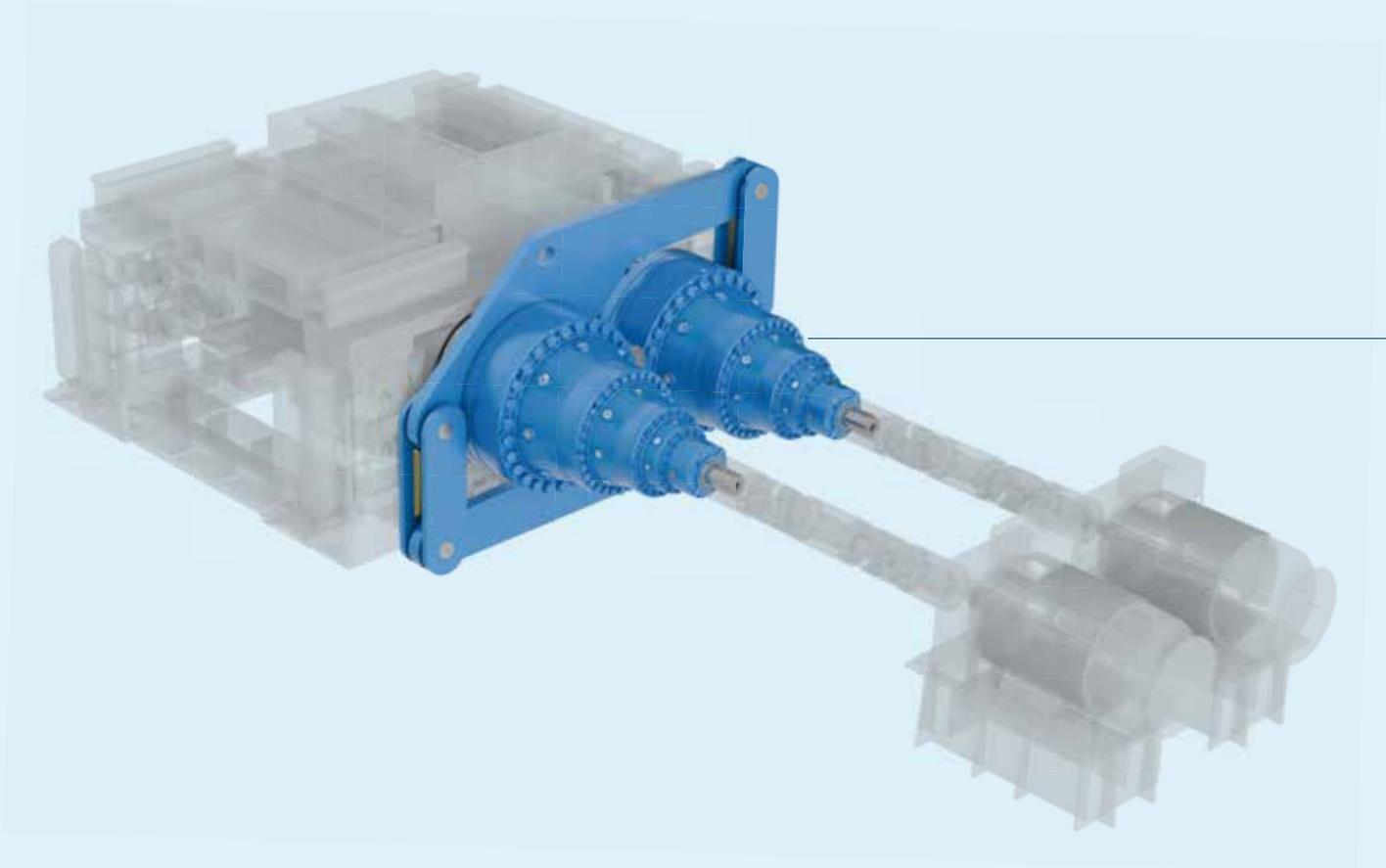


Combined planetary + bevel helical gear units

- Modular concept
- Wide ratio range
- Nominal torque up to 26,500,000 lb in
- Various low speed shaft type
- Sealing for harsh conditions
- Increased thermal capacity
- Labyrinth seal



High Pressure Roller Presses (HPGR)



- Hollow Low Speed Shaft
- Low speed flange coupling option
- Labyrinth sealing



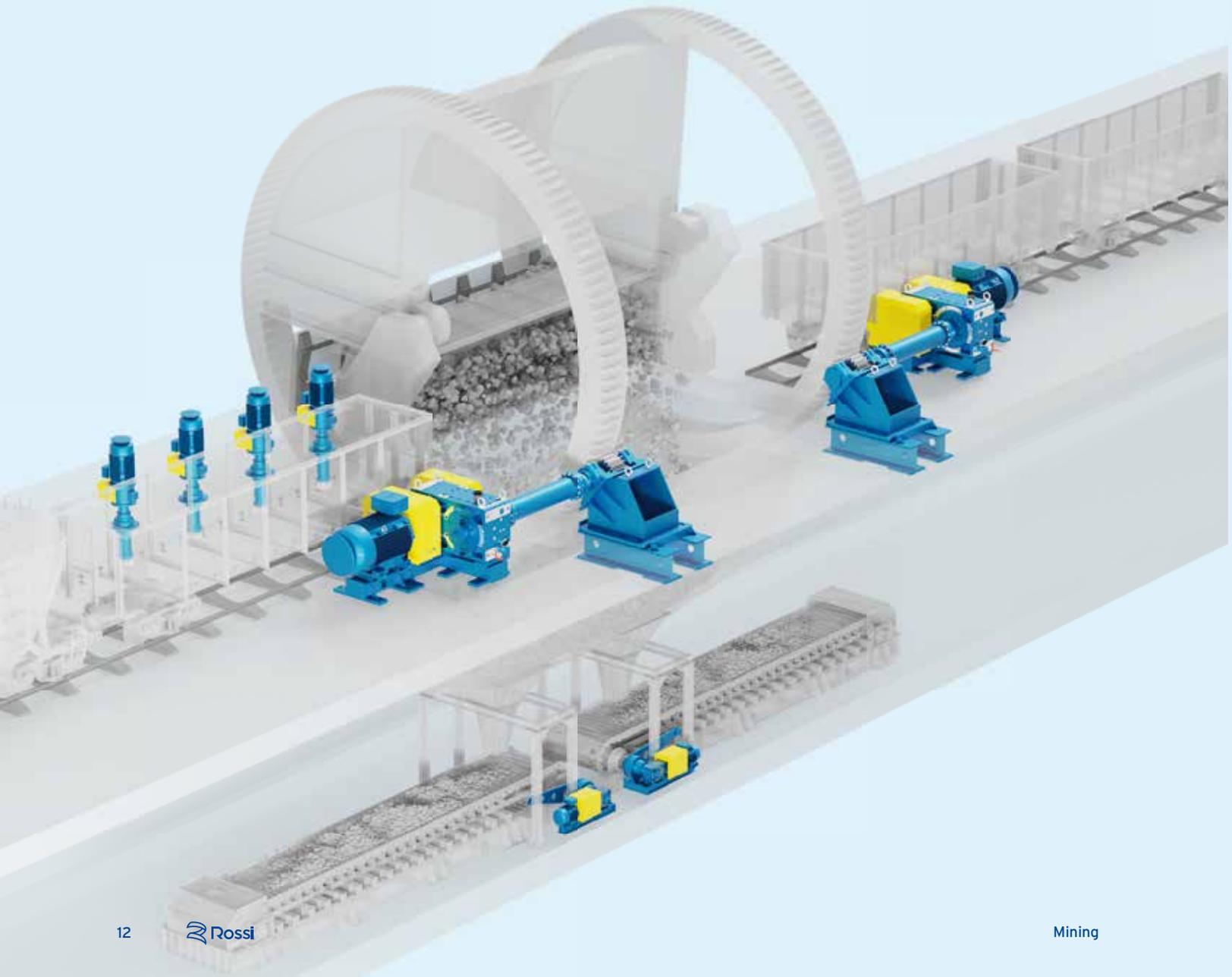
- Low noise gears
- Premium efficiency
- Nodular cast iron
- Reduced rolls center distance

- Input with cardan shaft torque limiting coupling and regreaseable seals

- Special Counter acting torque arm system

- Wide ratio range
- In-line planetary, 3 stages
- 2 planetary stages + Helical unit
- Nominal torque up to 26,500,000 lb in

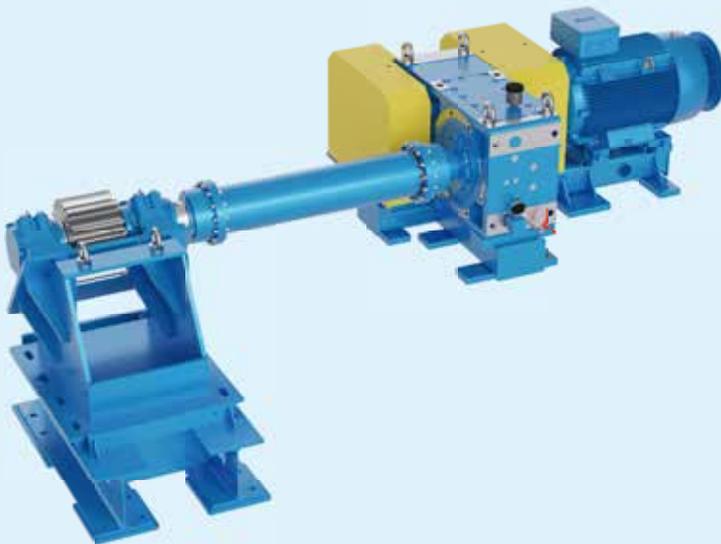
Rail car dumpers





Positioner drive

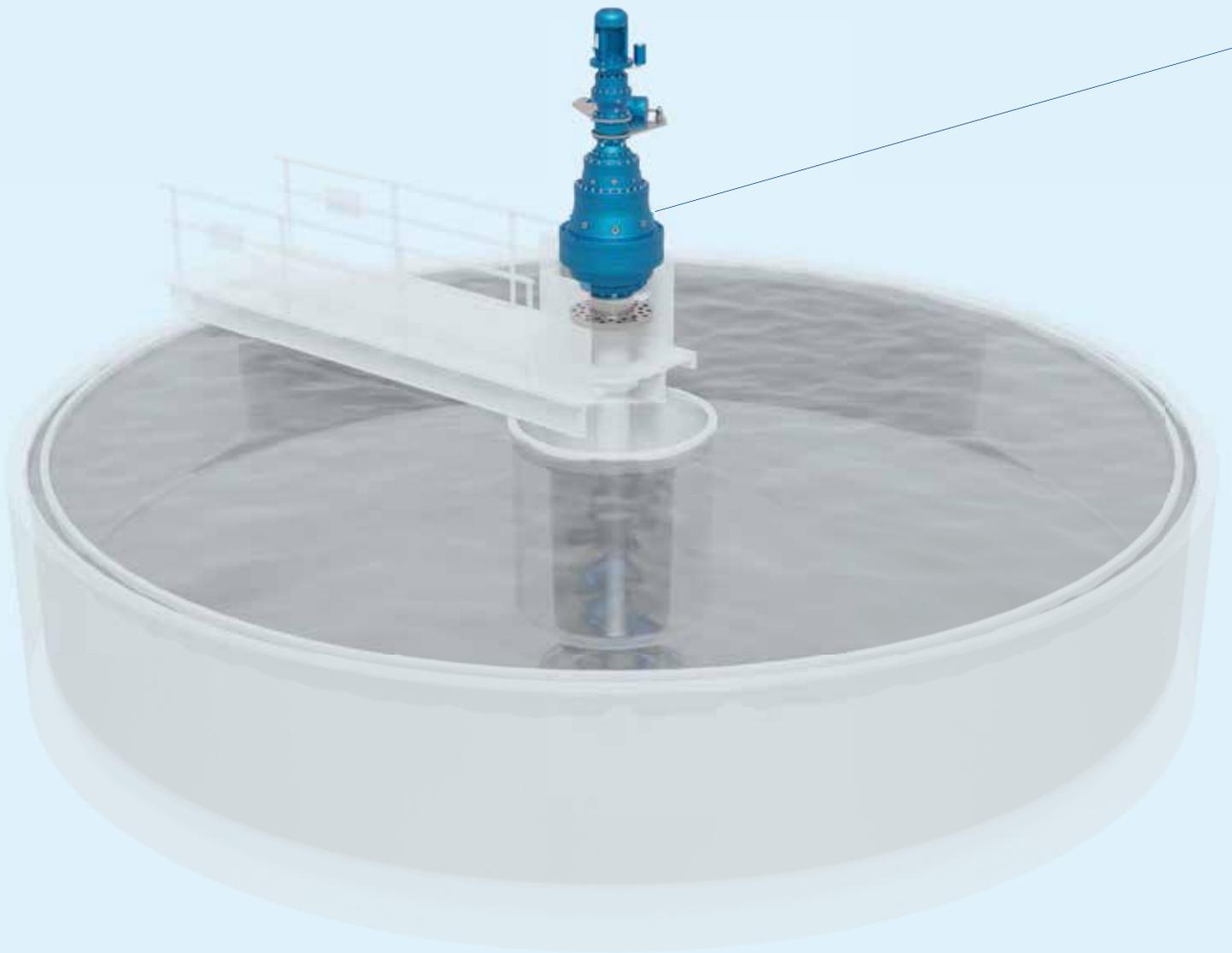
- Compact, modular space saving design
- In-line planetary
- Increased thermal capacity
- Weight less solution
- Low noise level
- From 60 hp to 147 hp
- Custom made support, fabricated steel made
- Protective hood
- Optimized sealing
- Spare pinion



Dumper drive

- Gear coupling with spacer suitable for low temperature
- Custom made pinion stool
- Custom made pinion with plummer blocks
- Low speed shaft encoder
- Protective hoods for brakes
- Redundant parking brakes
- Custom made base frame

Thickeners & Clarifiers





Thickener drive

- Complete drive solution
- Modular design with wide range of ratios
- Nominal torque up to 26,500,000 lb in
- High resistance in harsh conditions
- Premium bearing load capability
- Premium sealing
- Torque measurement device

Flotation cells

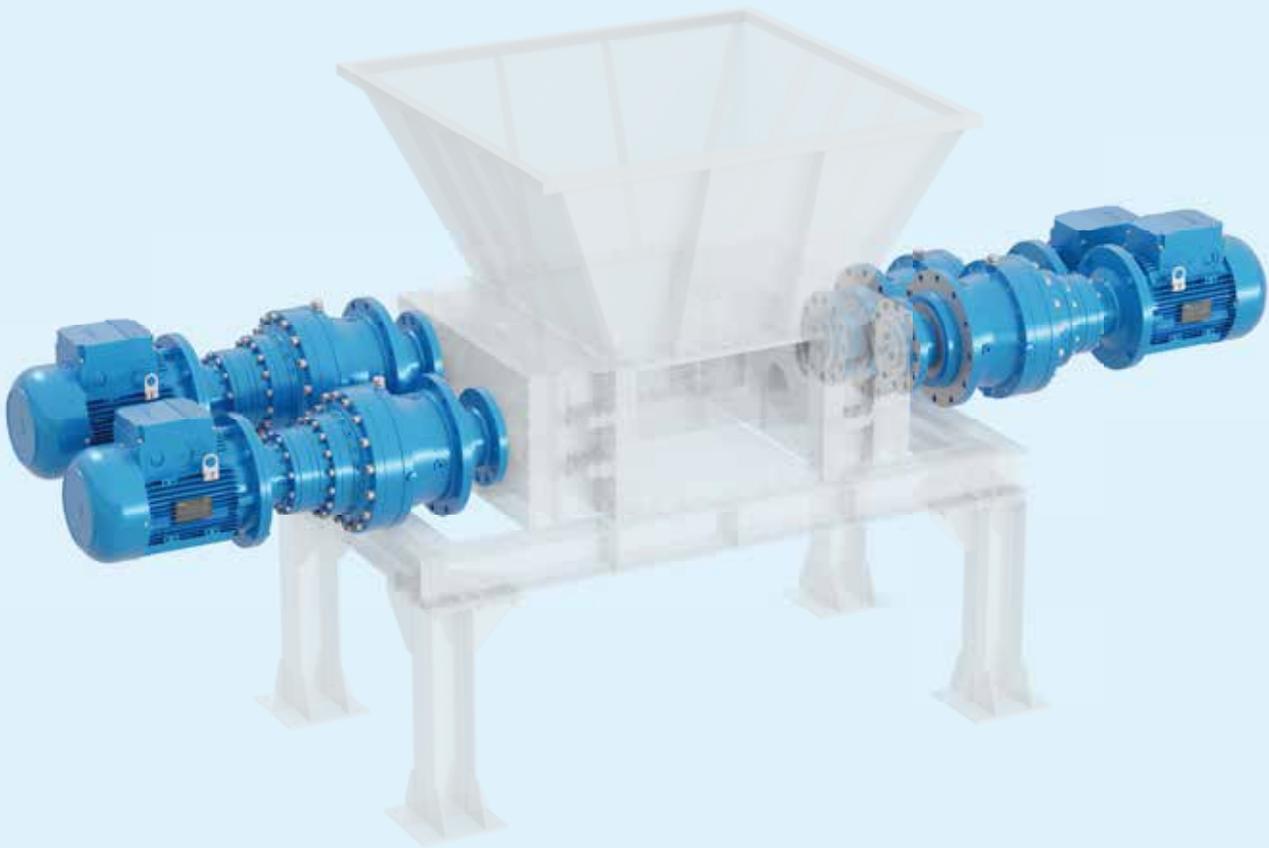




Flotation cell drive

- Drywell design
- Customized LSS shaft dimensions
- Low speed shaft with pass through hole
- Shaft driven oil pump
- Motor bell housing with integrated axial cooling fan

Crushers - Sizers





Planetary EP series

- Modular concept
- Wide ratio range
- Nominal torque up to 26,500,000 lb in
- Various low speed shaft type
- Sealing for harsh conditions
- Spheroidal cast iron

G Series

Helical & bevel helical gear reducers & gearmotors

20 sizes 40 ... 401

Nominal torque (M_{N2}) up to 900,000 lb in

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 gear sets
- 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 4000 ... 8001

Nominal torque (M_{N2}) up to 8,850,000 lb in

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, 3, and 4 gear stages
- Bevel helical gear units with 2, 3, and 4 gear stages
- Case carburized gear sets
- Helical gear pairs with ground profile
- Ground GLEASON spiral bevel gear set

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 ... 3000

Nominal torque (M_{N2}) up to 26,500,000 lb in

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 and non-standard designs
- 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

12 sizes 001 ... 3000

Nominal torque (M_{N2}) up to 26,500,000 lb in

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

EPS Slewing Series

Planetary Slewing drives

10 sizes 007 ... 250

Nominal torque (M_{N2}) up to 3,540,000 lb in

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 allows for very high performance while being cost-efficient



TX Series

Premium line electric asynchronous three-phase motors and brake motors

Sizes 63 ... 315

Power (P_N) 0.12 ... 147 hp

Polarity 4, 6 poles



Features

- IEC standard motors
- Protection: IP 55 standard, up to IP 66 on request
- IE3 Energy efficiency (IE4 for $P_1 \geq 100$ hp)
- 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 0.75 ... 10 hp

Supply Voltage 3x200V AC...480V AC

280V DC...680V DC

Rated current 1.7A...16.5A

dDrive

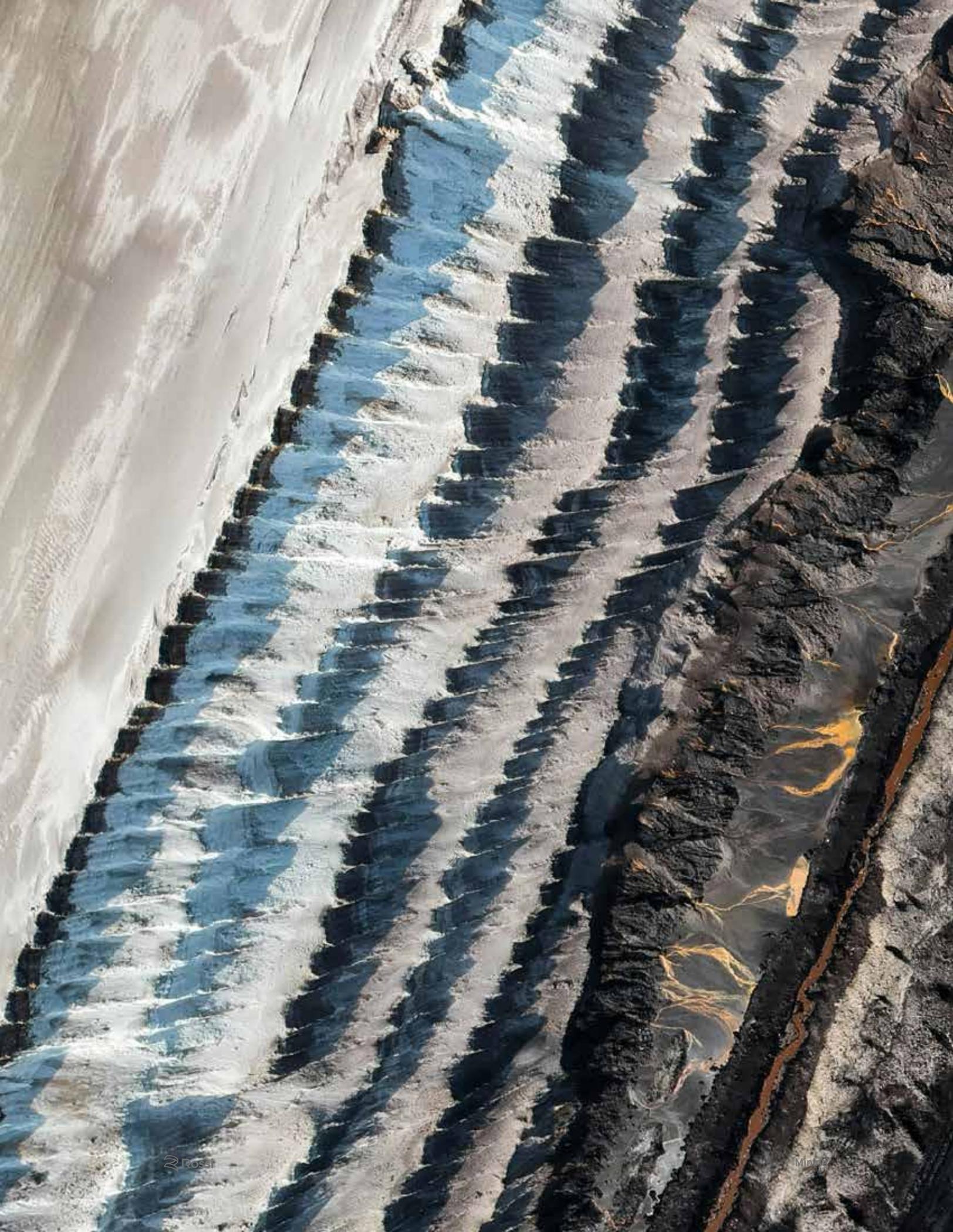


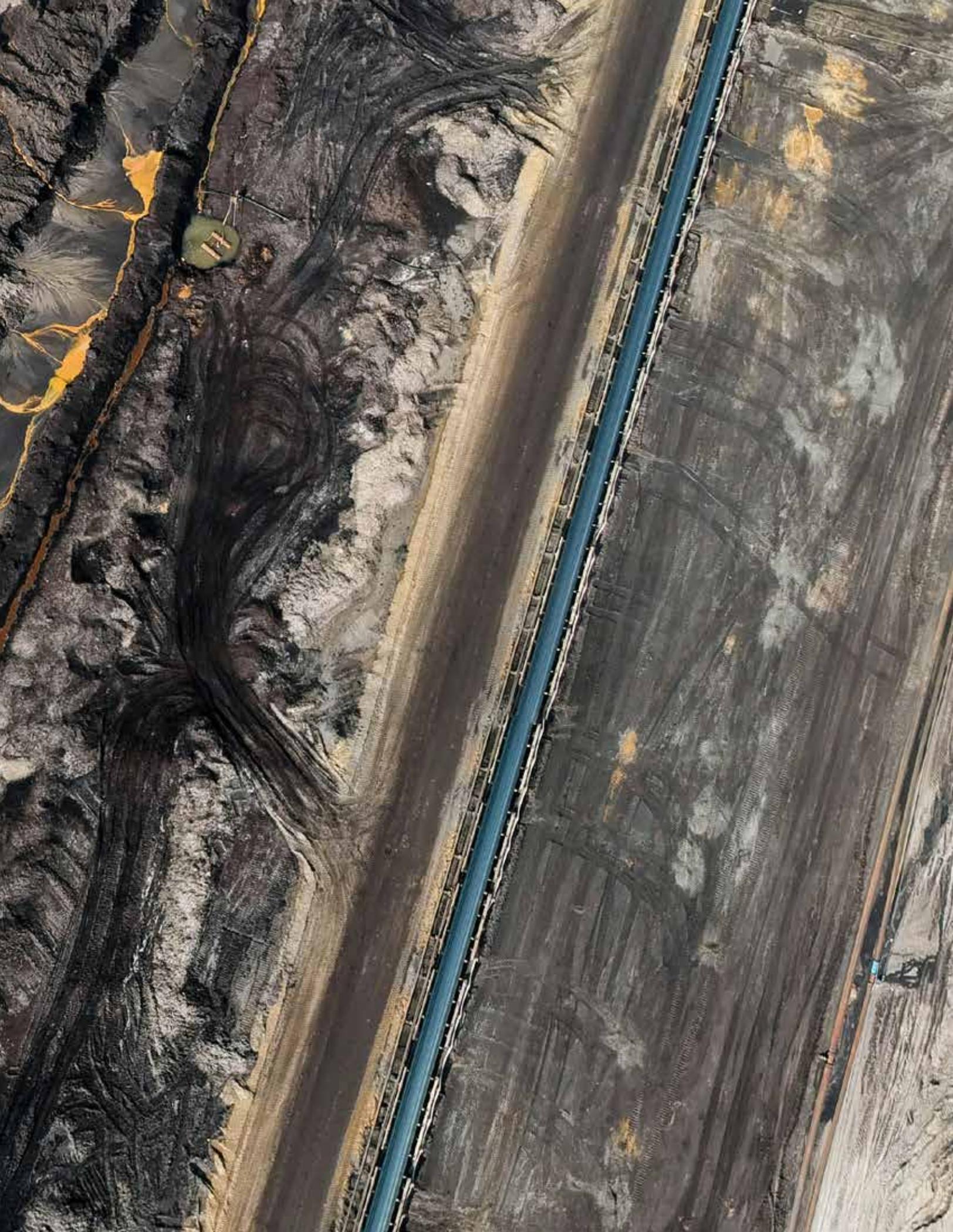
Features

- 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

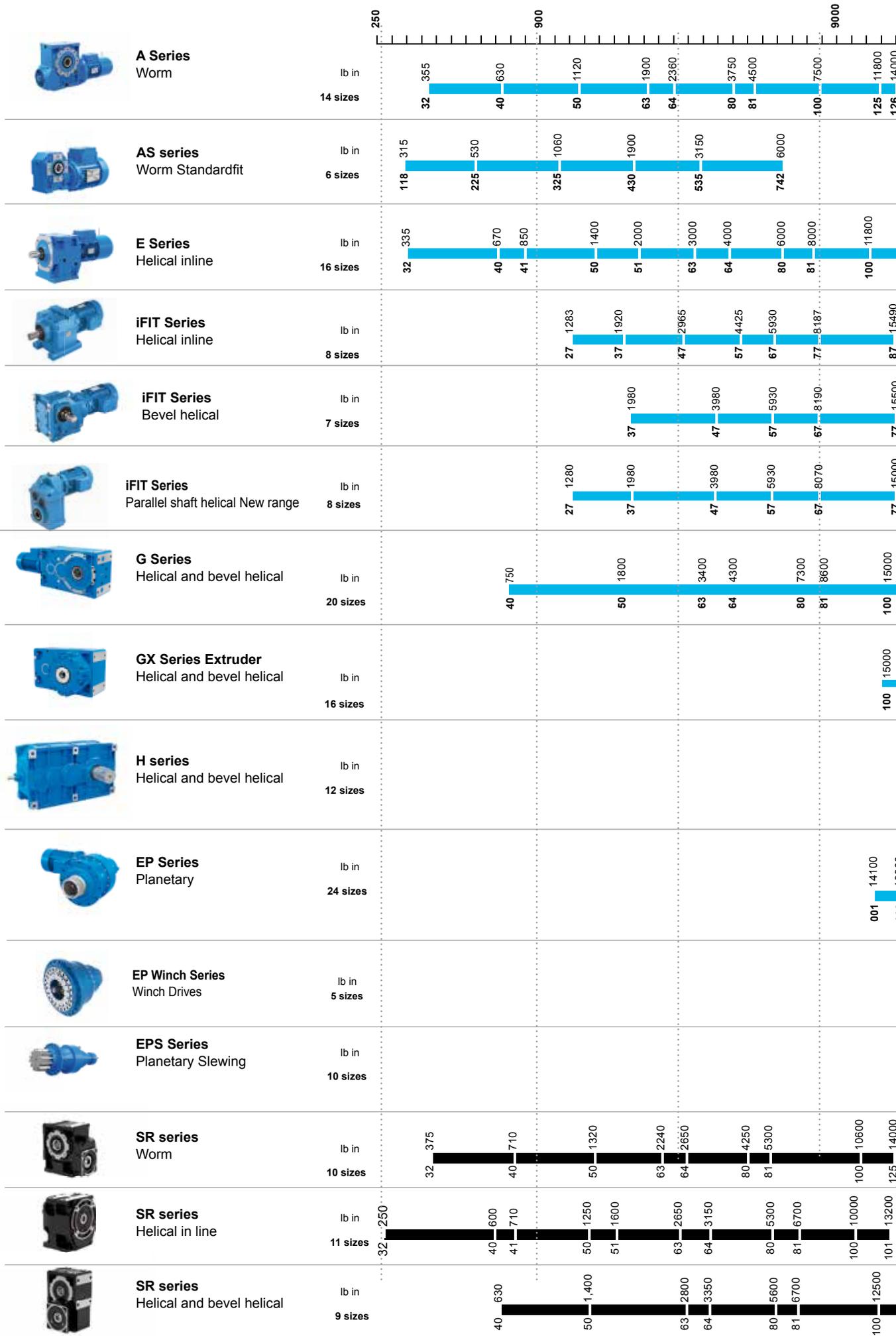
Benefits

- 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





Gear reducers and gearmotors



Our references



CEMENT KILN



APRON FEEDERS



SHIP LOADER / UNLOADER

**We deliver
reliable
solutions
worldwide**



BUCKET WHEEL EXCAVATOR - STACKER RECLAIMERS

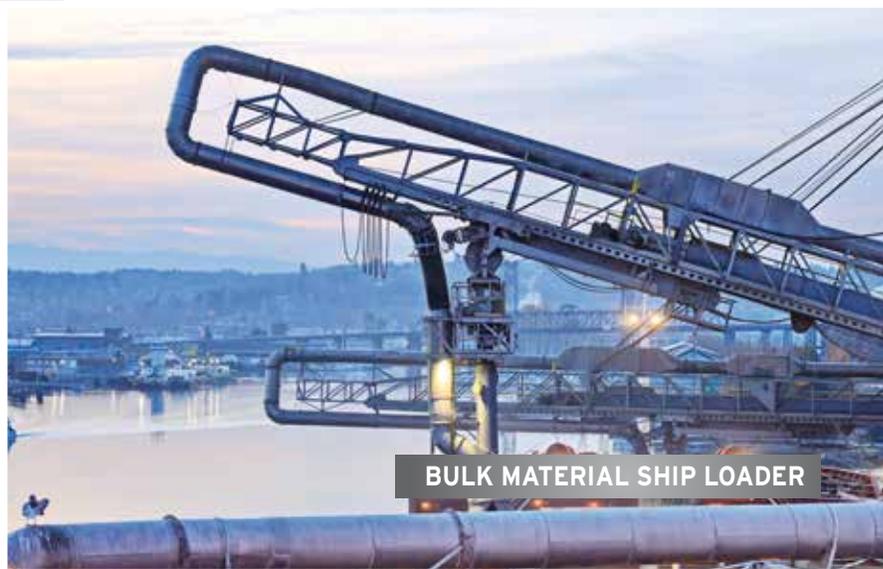




BELT CONVEYOR



THICKENER



BULK MATERIAL SHIP LOADER



THICKENER



BELT CONVEYORS



CRUSHER

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 we utilize change as a strategic lever for our growth.

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.

“Solutions for an evolving industry” fully expresses

- Cutting-edge manufacturing
- Specialized housing machining
- Extensive systematic controls
- Experience and know-how
- Excellence and innovation
- Reliable customer support.



We have a solution for every segment



Global presence local service



Local support

Sales, customer service,
technical support, spare parts



18 branches*



Worldwide distribution network*

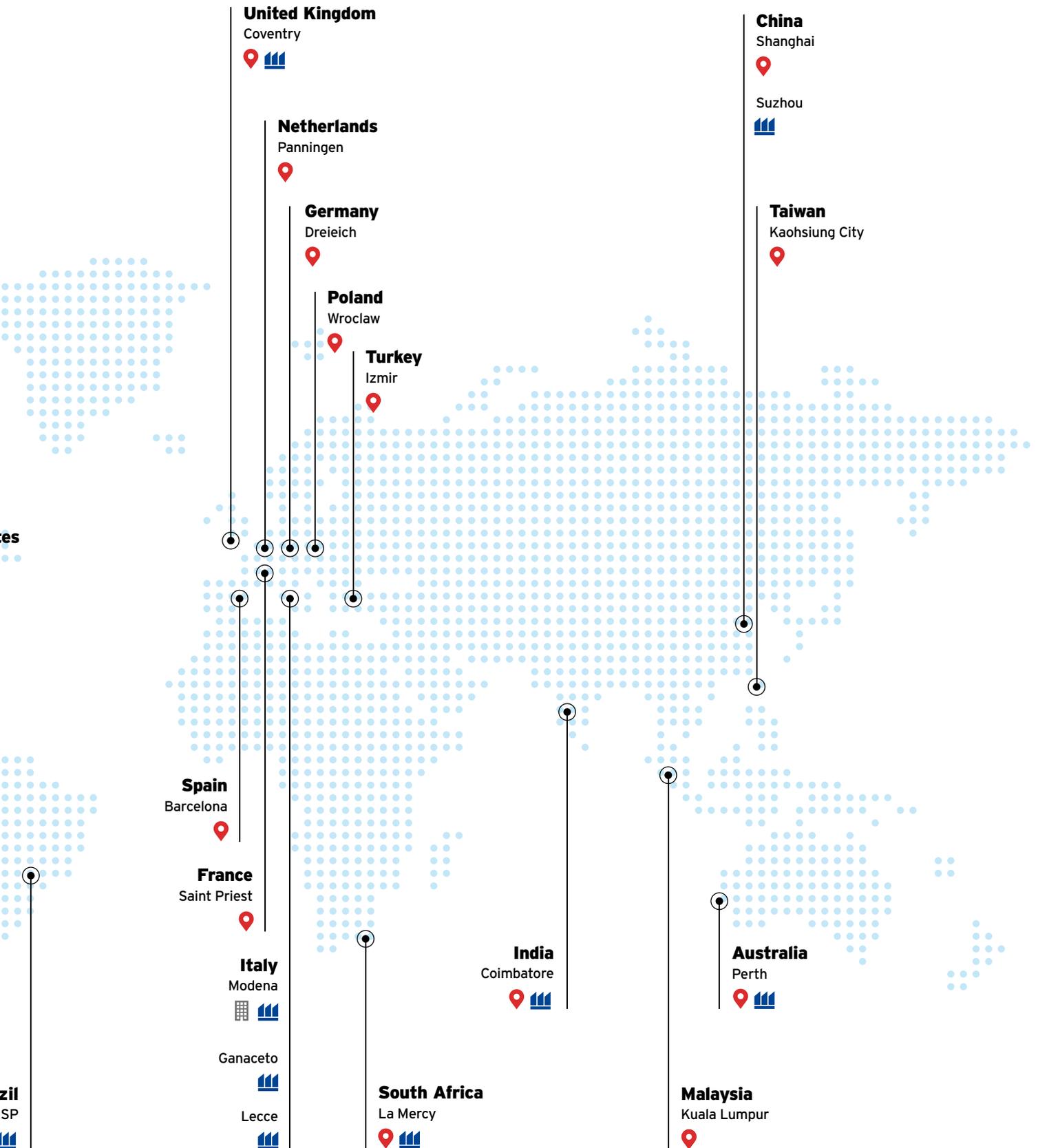


*All contacts available on www.rossi.com

 Main offices

 Affiliated companies

 Production facilities/Assembly plants



Key figures



over **1000** people around the world



5000 customers worldwide



70 years of experience



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



18 affiliated companies



5 production facilities



8 assembly plants



18 authorized service centers

After-sale service



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



Our new space is your gateway to a world of information, assistance, and seamless access to the solutions you need. Whether you're an end user, distributor, or OEM partner you will find a personalized area to explore and manage all things related to your Rossi products.

Visit us at
www.rossi.com

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.

* As per our warranty terms.

System certifications

ISO
9001:2015

ISO
14001:2015

ISO
45001:2023

Product certifications





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