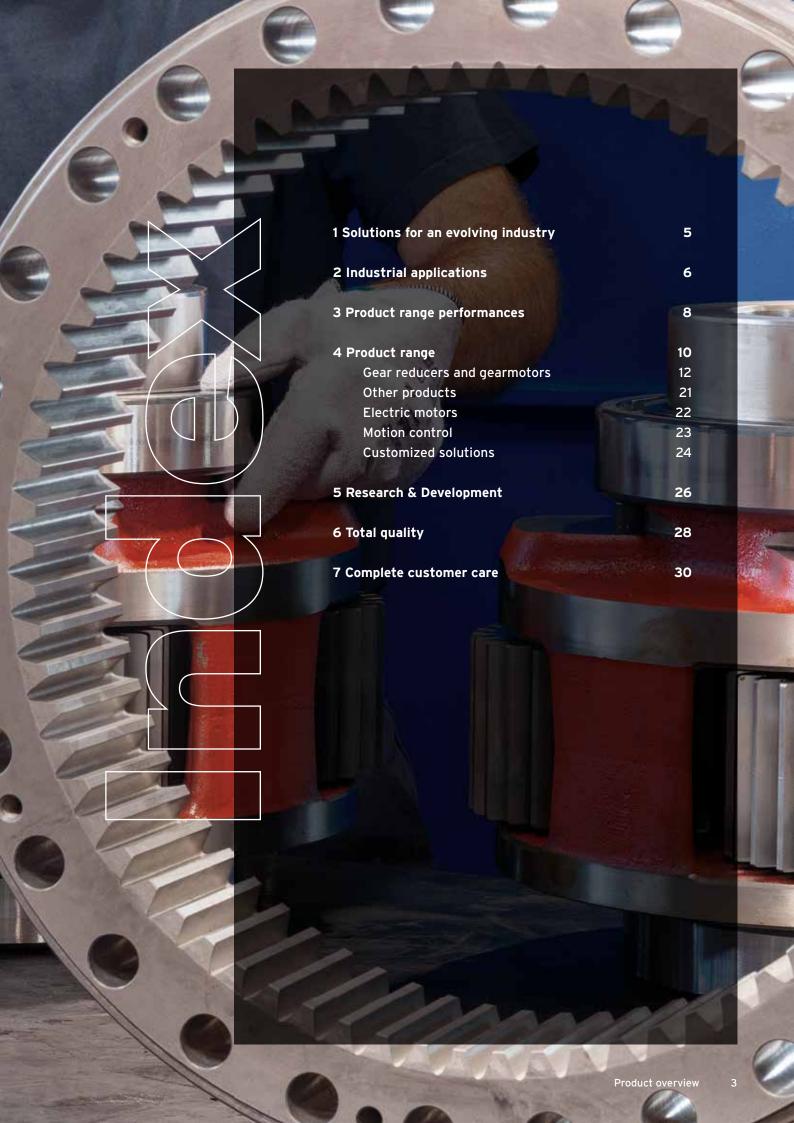


product overview









Solutions for an evolving industry

In the global marketplace, our customers and partners choose our products and services for two reasons: excellence and reliability. Rossi, a company of the Habasit Group, and has made a strategic change for the future growth of the company.

"Solutions for an evolving industry" fully expresses our corporate philosophy to satisfy all requirements of a continuously evolving industrial world thanks to our innovative solutions.

Cutting-edge manufacturing

Rossi provide high-performance, ground precision gear manufacturing, cutting-edge technology and experience. In Rossi we have all and for this reason we take pride in our work.

High quality products

Over 60 years of experience and know-how have led Rossi to become a reference supplier for the highquality products we manufacture, in combination with specific turnkey solutions mainly used in heavy-duty industry applications.

Specialized housing machining

We dedicate special attention to machining all components, including housings for big sizes gearboxes and gearmotors. High quality standard requirements are reached only using cutting-edge technology.

Test controls

Systematic and extensive controls on every stage of the process (from materials to final controls under load using computerized brakes at the end of the assembly line) allow quality to be produced, and permit the monitoring and improvement of the process itself. Our solutions have been fully tested and run in our testing rooms to be operationally certified before on site commissioning.

The power of knowledge

Experience and knowledge also mean how to support customers during all design and planning phases. We continue to develop our experience and share our knowledge to align ourselves with machine builders around the world. The information that we make available includes:

- expected bearing life calculation;
- finite element analysis;
- torque calculation;
- · shared design capabilities with customers;
- complete testing of gear reducers & gearmotors.

In Rossi we share our know-how to support every kind of application and exigence.

Industrial applications

Main representative sectors

Metal

Furnace entry/exit roller table
Cooling bed
Tunnel/shuttle furnace
Entry/Exit looper - bridles
Bending/rollers machines
Wire drawing machines

Mining

Apron feeders
Belt conveyors
Bucket-wheel stackers and reclaimers
Overland conveyors
Rotary kilns
Ship loaders and unloaders

Food & Beverage

Extruders for pasta
Depallettizer - Pallettizer
Conveyor systems
Stretch blow-molding machines
Washing machines
Labelling machines
Wrapping machines and packaging
Agitators
Homogenizers

Sugar

Sugar cane feeders
Sugar cane carriers
Bagasse carriers
Cane Shredders/Levellers
Diffusers
Mills
Crystallizers, Clarifiers & Mixers

Chemical

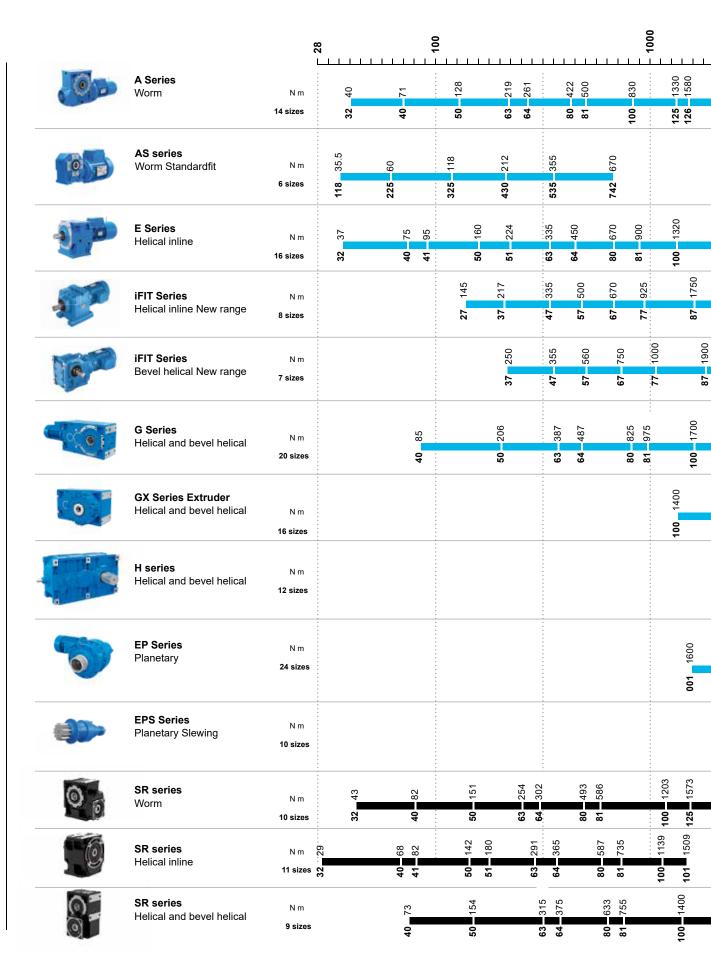
Mixers
Pumps
Agitators
Valve actuators
Decanters

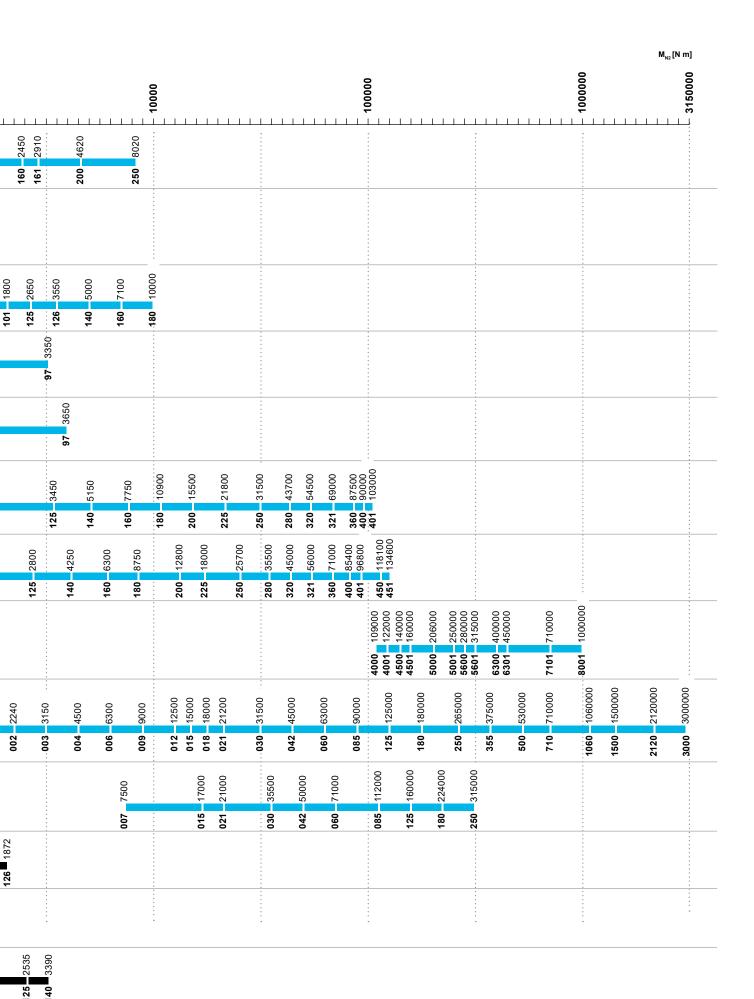
Plastic & Rubber

Single-Screw Extruders Milling Machine Bending/Rollers machine Winders



Product range performances





9





I - Gear reducers & gearmotors

Worm gear reducers & gearmotors



A Series

Worm gear reducers & gearmotors

- Universal mounting with lower feet integral on the housing and B14 flanges
- Rigid and precise cast iron monobloc housing
- Forced ventilation for an easy thermal power dissipation (size ≥ 100)
- · Worm wheels made of nickel bronze with controlled phosphor content to achieve improved performance, a higher load capacity, greater reliability and wear resistance
- · Higher worm efficiency
- Wide range of accessories and non-standard designs

Benefits

- Longer life and lower power consumption
- Easy and functional shaft mounting
- · High performance and greater reliability
- · Smooth and precise running, reduced and constant backlash
- · Constant performance in heavy duty applications





AStandardfit **Series**

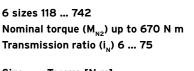
Worm gearmotors

Features

- Mounting with lower integral feet and B14 flanges on 2 faces integral on the housing
- Rigid and precise cast iron monobloc housing
- Worm wheels made of nickel bronze with controlled phosphor content to achieve improved performance, a higher load capacity, greater reliability and wear
- Generous internal space between train of gears and housing
- Tapered roller bearings on worm shaft
- Motor mounting flange integral to the housing
- Higher worm efficiency

Benefits

- · Longer life and lower power consumption
- · Interchangeability with major manufacturers
- · High performance and greater reliability
- · Smooth and quiet running



14 sizes 32 ... 250

A 32 A 40

A 50 A 63

A 64 A 80

A 81

A 100

A 125

A 126

A 160

A 161

A 200

A 250

Nominal torque ($M_{\rm N2}$) up to 8,020 N m Transmission ratio (i_N) 7 ... 16,000

422

500

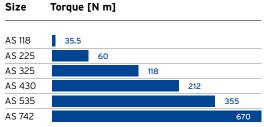
1,330

1.580

4.620

2.910

Torque [N m]



Coaxial gear reducers & gearmotors



E Series

Coaxial gear reducers & gearmotors

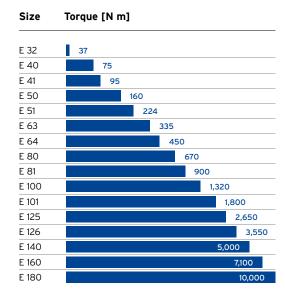
Features

- Universal mounting with lower/upper feet and B5 flange integral to the housing
- Rigid and precise cast iron monobloc housing
- Helical toothed gear pairs with ground profile
- · Wide range of sizes
- Final stage pinion with 3 bearings for increased torque cacpacity

Benefits

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

16 sizes 32 ... 180 Nominal torque ($\rm M_{N2}$) up to 10,000 N m Transmission ratio ($\rm i_N$) 4 ... 6,300



Helical inline & bevel helical gearmotors





iFIT Series

Helical inline gearmotors

Features

- Fully interchangeable with market standards
- Made in Europe
- · Full range with robust cast iron housing
- Gear precision as per DIN/ISO 6 or better
- New IE2, IE3 compact electric motors
- · High quality sealing solutions
- · Round shaped, smooth housing surface
- · Higher torque

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. Better hygiene
- Up to 12% torque higher than market standard



iFIT Series

Bevel helical gearmotors

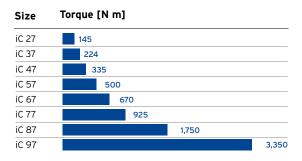
Features

- Fully interchangeable with market standards
- Made in Europe
- · Full range with robust cast iron housing
- Gear precision as per DIN/ISO 6 or better
- New IE2, IE3 compact electric motors
- High quality sealing solutions
- · Round shaped, smooth housing surface
- Higher torque

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. Better hygiene
- Up to 12% torque higher than market standard

8 sizes iC 27 ... iC 97 Nominal torque ($\rm M_{N2}$) up to 3,350 N m Transmission ratio ($\rm i_N$) 3.4 ... 290



7 sizes iO 37 ... iO 97 Nominal torque ($M_{\rm N2}$) up to 3,650 N m Transmission ratio ($i_{\rm N}$) 5.4 ... 197

	Size	Torque [N m]
	iO 37	250
	iO 47	355
	iO 57	560
	i0 67	750
	iO 77	1000
	iO 87	1,900
	iO 97	3,650
coming s	,001	



G Series

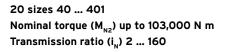
Helical & bevel helical gear reducers & gearmotors

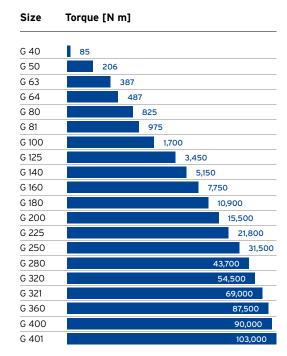
Features

- Universal symmetrical cast iron housing suited for horizontal and vertical mounting having integral feet with housing on 4 faces and 2 faces B14
- Single piece housing for high structural stiffness
- · Wide range of sizes, train of gears solutions and non-standard designs
- Suitable to be equipped with large NEMA & IEC motors
- Extended input-output center distance housing for U-layout
- · Case hardened and hardened gear pairs
- · Helical gear pairs with ground profile
- GLEASON spiral bevel gear pairs with ground profile

Benefits

- · Easy and functional shaft-mounting design
- · Minimum maintenance requirements
- · High performance and greater reliability
- · Strength and reliability for heavy duty applications







GX Series

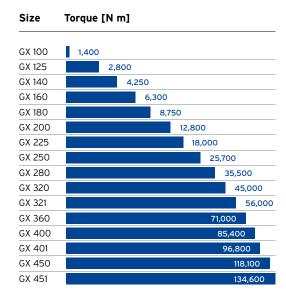
Helical and Bevel Helical for extruder design

Excellent specific series for extruders with the same Features and Benefits of G series

Additional Features

- Extruder support conceived for normal and heavy applications
- Optional extended input-output center distance housing for U-layout

16 sizes 100 ... 451 Nominal torque ($M_{\rm N2}$) up to 134,600 N m Transmission ratio ($i_{\rm N}$) 6.3 ... 28





H Series

Helical & bevel helical gear reducers

Features

- Universal spheroidal cast iron housing suited for horizontal and vertical mounting $\frac{\text{H}\,5,600}{\text{M}\,\text{m}}$ having integral feet
- · Two-piece housing with stiffening ribs for high structural stiffness and high oil capacity
- 12 sizes, train of gears solutions and non-standard designs
- Helical gear units with 2 and 3 gear stages
- Bevel helical gear units with 1, 2 and 3 gear stages
- · Case hardened and hardened gear pairs
- Helical gear pairs with ground profile
- GLEASON spiral bevel gear pairs with ground profile

Benefits

- One of the widest torque range from a single supplier
- Customized solutions on request starting from a standard modular design
- Short delivery times
- Optimized design for heavy industry applications



according to Customer's Nominal torque (M requirements Transmission ratio (i,)

12 sizes 4,000 ... 8,001

Size

H 4,000

H 4,001

H 4.500

H 4,501

H 5.000

H 5.001

H 5,601

H 6,300

H 6,301

H 7,101

H 8,001

Transmission ratio (i_N) 8 ... 315

Torque [N m]

109,000

122,000

140,000

160,000

206.000

250.000

280,000

315,000

400,000

450,000

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

G & H Series

Drive units on swing base

Features

- · Customized and innovative solutions for every specific application in order to maximize cost efficiency
- · Swing base structures are made of hollow profiles or beams approriately combined, treated and machined
- Wide range of gearboxes and possible combinations with a wide range of accessories and available options
- Customer support and assistance during the design stage, fabrication and commissioning taking advantage of Rossi's long experience
- Assembly and alignment by experienced and skilled manpower
- Global qualified suppliers of components for swing base and special design assemblies

Benefits

- · Supply of turn-key complete drive units
- Simplified installation at job site
- Maximum efficiency and cost effectiveness

Planetary gear reducers & gearmotors



EP Series

Planetary gear reducers & gearmotors

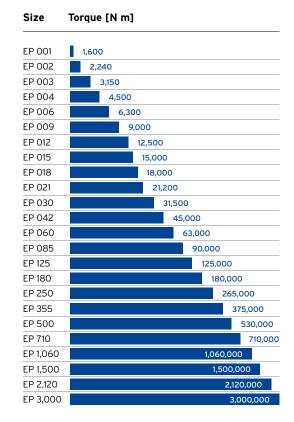
Features

- 2, 3, 4 or 5 and 6 reduction stages for both coaxial and right angle units
- Modular design, with multi-optional executions
- · Suitable to be equipped with NEMA, hydraulic & IEC motors
- External gear pair made of casehardened and hardened steel; internal gear made from nitride steel
- · Cylindrical spur gear with ground profile and flank modification
- · GLEASON spiral bevel gear pairs with ground profile
- · Very compact size and reduced mass of gearbox
- · Wide range of accessories and non-standard designs
- · Lower backlash, enhanced stiffness and heavy duty bearing
- Improved lubrication system
- · Wide range of hydraulic brakes

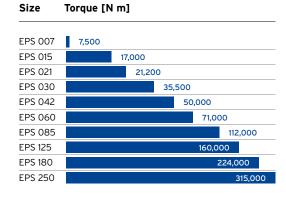
Benefits

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

24 sizes 001 ... 3,000 Nominal torque (M $_{\rm N2}$) up to 3,000,000 N m Transmission ratio (i $_{\rm N}$) 3.55 ... 3,550



10 sizes 007 ... 250 Nominal torque ($M_{\rm N2}$) up to 315,000 N m Transmission ratio ($i_{\rm N}$) 12.5 ... 2,800





EPSlewing series

Planetary Slewing drives

Excellent specific series for slewing drives with the same Features and Benefits of EP series.

Additional features

 10 modular slew drive gear size reducers with 3 output reinforced support configurations: dual pilot flanged (R), dual pilot compact (S) and single pilot front flanged (H)

Additional benefits

- Wide choice of the drives allows always the highest performance of cost-efficient solutions
- Enable to benefit of the wider range of options of the EP industrial catalog



EP Combined Units Series

Combined planetary gear reducers & gearmotors

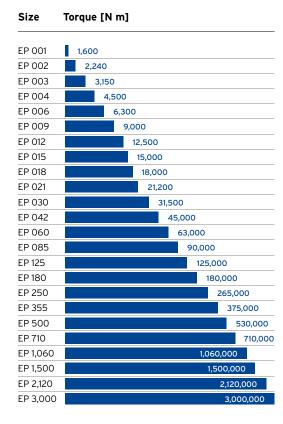
Features

- Planetary drives combined with other Rossi products to optimize performances on a broad spectrum of application needs
- Possible combinations with standard Rossi series using the planetary drives with worms, coaxial, helical and helical bevel drives and gearmotors

Benefits

- · Easy customization to meet customer needs
- Flexibility and adaptability to specific application needs
- Interchangeability

24 sizes 001 ... 3,000 Nominal torque ($\rm M_{N2}$) up to 3,000,000 N m Transmission ratio ($\rm i_N$) according to Customer's requirements





SR Series

Worm servo gear reducers

MR type 7 sizes 32 ... 81 Nominal Torque up to 586 N m Accelerating torque up to 747 N m Transmission ratio (i_N) 7 ... 239

R type
9 sizes 40 ... 126
Nominal Torque up to 1,872 N m
Accelerating torque up to 2,387 N m
Transmission ratio (i,) 7 ... 125

Size	Torque [N m]
SR 32	43
SR 40	82
SR 50	151
SR 63	254
SR 64	302
SR 80	493
SR 81	586
SR 100	1,203
SR 125	1,573
SR 126	1,872







SR Series

Helical & bevel helical servo gear reducers

MR type features

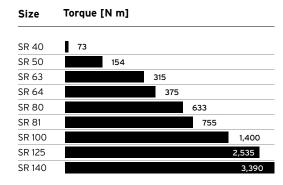
- Wide range of Servo gearboxes, designed to fit almost all servo motors found on the market
- Designed for the highest torsional stiffness and the lowest angular backlash, for the maximum torque and overhung loads
- Bush with slots and hub clamp for servomotor coupling

MR type benefits

- Enhanced dimensional compactness due to direct servomotor coupling
- The correct technical solution thanks to a a comprehensive range of sizes, gear stages, transmission ratios, designs, and non-standard designs
- Widest range of possible servomotor coupling dimensions

MR type 8 sizes 40 ... 125 Nominal Torque up to 2,535 N m Accelerating torque up to 3,000 N m Transmission ratio (i_N) 6.16 ... 139

R type 8 sizes 50 ... 140 Nominal Torque up to 3,390 N m Accelerating torque up to 4,475 N m Transmission ratio (i_N) 6.42 ... 127



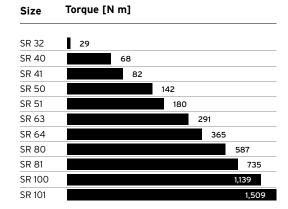


SR SeriesCoaxial servo gear reducers

MR type 11 sizes 32 ... 101 Nominal Torque up to 1,509 N m Accelerating torque up to 2,000 N m Transmission ratio (i_N) 4 ... 154

R type

-



II - Other Products



L Series

Right angle shaft gear reducers

Features

- Right angle units with multiple options of executions
- · Compact size
- Rigid and durable housing of cast iron
- Several output solutions, with solid or hollow shaft

Benefits

- Low ratios available
- Capability for multiple drives synchronization
- Easy adjustment to specific applications
- · High performace and reliability

7 sizes 80 ... 320 Nominal torque ($M_{\rm N2}$) up to 5,600 N m Transmission ratio ($i_{\rm N}$) 1 ... 6.25



P Series

Shaft mounted gear reducers

Features

- · Split housing reducers
- Simplified design, with narrow housing execution

Benefits

- Very easy maintenace, with minimal requirements
- Easy and functional shaft mounting
- Durable solution dedicated for conveyors

7 sizes 80 ... 250 Nominal torque ($\rm M_{N2}$) up to 11,200 N m Transmission ratio ($\rm i_{N}$) 10 ... 25

III - Electric Motors





TX Series

Premium line electric asynchronous three-phase motors and brake motors

Features

- · IEC standard motors
- Protection: IP 55 standard, IP 66 *
- · 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



S Series

Heavy duty roller table motors

Features

- IEC asynchronous three-phase 4 and 6 poles motors with cage rotor. totally enclosed, without fan
- Motor cooling by natural convection over a large radiating surface area and obtained by ring fins
- Protection: IP 55 standard, IP 65 * and IP 66 *

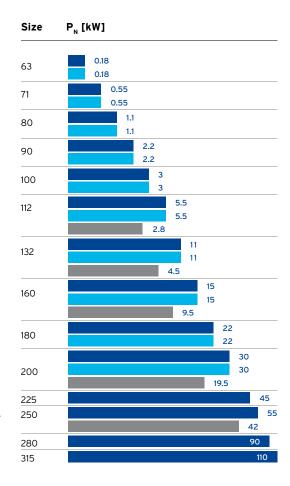
Benefits

- Specifically designed for heavy industry. in particular roller tables and conveyor roller tables
- * optional

TX Series
Sizes 63 ... 315
Power (P_N) 0.06 ... 110 kW
Polarity 2, 4, 6, 8 poles

S Series Sizes 112 ... 250 Power (P_N) 2.8 ... 42 kW Polarity 4, 6 poles

- Asynchronous three-phase motors
- Asynchronous three-phase brake motors (sizes from 225 to 315 available on request)
- Asynchronous three-phase heavy duty roller table motors







dDrive Inverter Series

Decentralized Drive

Features

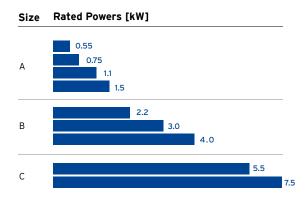
- · Decentralized Frequency Inverter
- Designed for Rossi IE2, IE3 electric motors
- Aluminum Housing IP 65
- Sensorless Vector Control
- Safe Torque Off (STO)
- Configurable I/O's board and internal PLC
- A large number of field buses available
- Bluetooth Interface

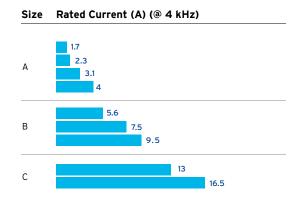
Benefits

- 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)
- Customizable to fit all different application features
- · Possibility to develop your own dedicated control functions
- Easy integration with existing automation controllers
- Fast and smart inverter parametrization access

dDrive Inverter Series
Sizes A, B, C
Rec. motor rating 0.55 ... 7.5 kW
Supply Voltage 3x200V AC...480V AC
280V DC...680V DC

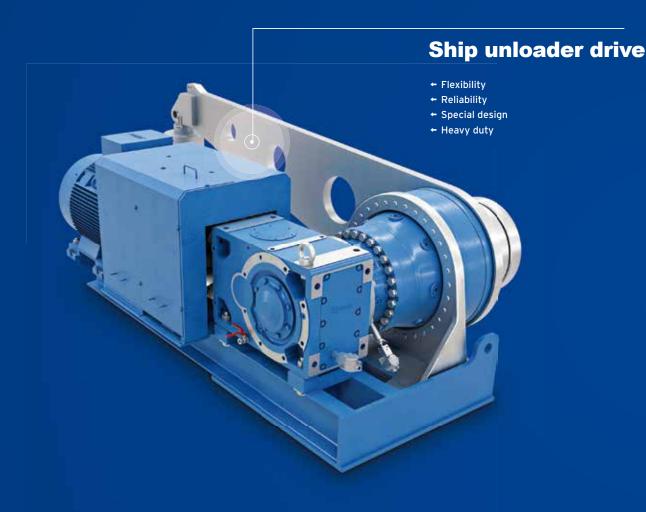
Rated current 1.7A...16.5A





Customized solutions

Ask us whatever you need



Modularity can be considered the foundation of the Rossi product line. Modular products and processes allow us to engineer a solution for most industrial applications requiring a gearmotor or gear reducer. To us, modularity means flexibility, wide range of options, faster delivery, and most important of all, competitiveness. Even more it allows to assemble in any assembly facility with almost limitless configurations allowing us to deliver solutions, regardless if it comes to supply a standard unit or an engineered one, in a cost effective manner.

This capability is made possible through our ability to understand the customer's requirements and translate the needs of that customer into a commercially and technically acceptable solution.

Of course our modular approach doesn't stop at the delivery of a product or solution. For us this is just the start, with strong online support systems our customers have access to leading interactive product and service care.

Test room drive

Features

- Project management
- Accurate selection and sizing of the components
- ← Precise certified alignment of the complete drive

Benefits

- Heavy customized and innovative solution to match customer requirements
- ← Feasibility study to find optimal solution
- ← Turn key drive units design
- ← Easy and quick installation on site

according to Customer's requirements.



Our project management

Once the order is assigned, a dedicated team with skilled technicians will provide application support offering assistance and innovative solutions during the design phase.

Customer order management

We ensure that all processes within the IT platform are designed with rapid transfer of data needed for internal processes as well as for the management of the order by the customers themselves.

We have chosen to operate with Oracle's JD Edwards EnterpriseOne. This facilitates order management on one platform for both the customer and our staff anywhere in the world. Through a standard operating platform we are able to configure customers unique forecasting, shipping standards, transportation sequence and reporting processes in coordination with commercial contracts and associated quality control documentation - all integrated to one ERP system.

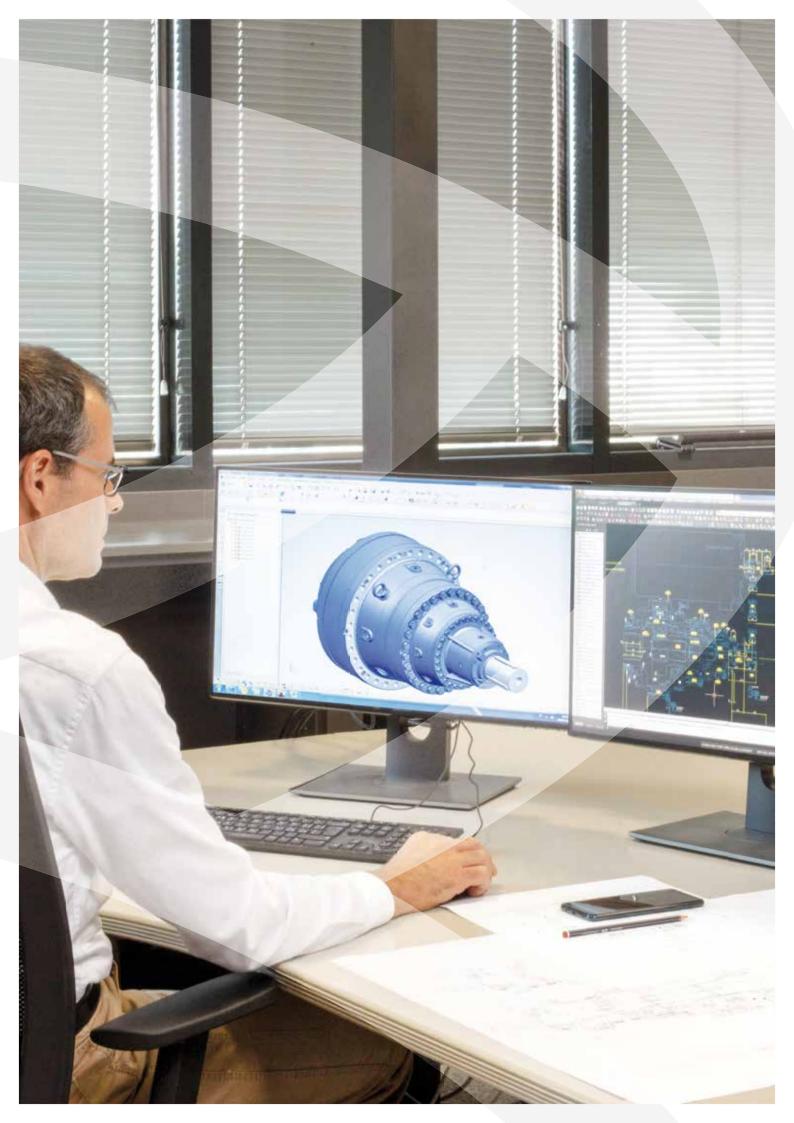
Research & Development

We have our geographical and philosophical origins rooted in the town of Modena, the renowned Italian capital of precision mechanics. From here stems the unique pool of skills and the high professionalism of our technicians, who are always ready to design products and anticipate innovative solutions to satisfy the needs of a continually evolving market. Our research and development activities are stimulated by the desire to develop ever more complex electromechanical drive systems for our customers. We are committed to developing processes

and products able to meet the growing demands of the modern digital age. Small incremental improvements in elements such as gear quality, housing rigidity and sealing arrangements can have a significant impact on the Total Life Cycle of the product. Our geared products have a strong market reputation, traditionally built around product innovation, outstanding quality and high operational safety.

Investments in the three-year period 2021-2023





Total quality

Quality is about our commitment to continuously moving our company and our customers forward.

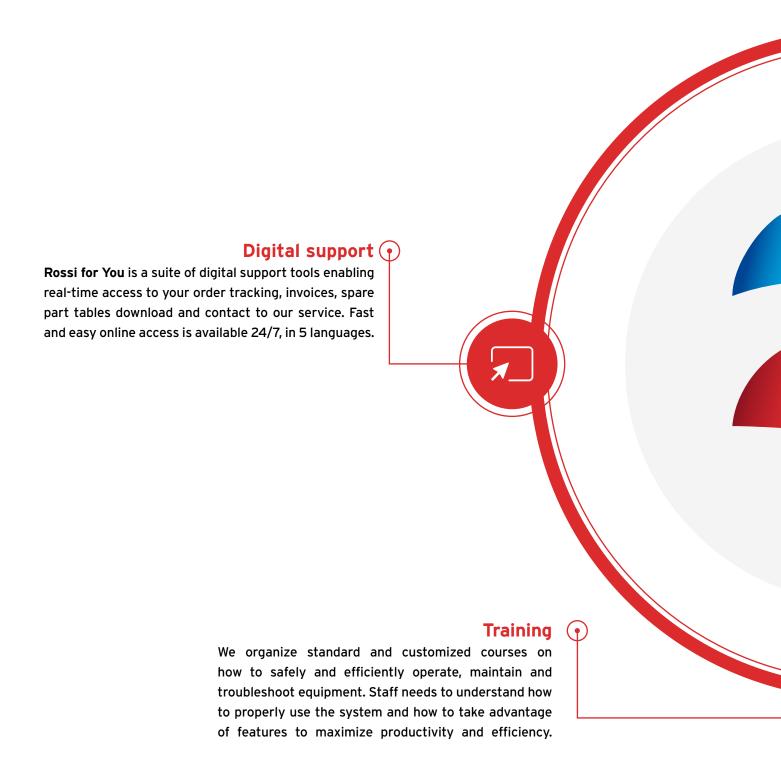
For Rossi, quality means professionalism and a proactive attitude in taking care of each individual customer. Rossi has been a pioneer in the gear industry in adopting the ISO 9001 standards, proud of its technology which has obtained major industry acknowledgments over the years.

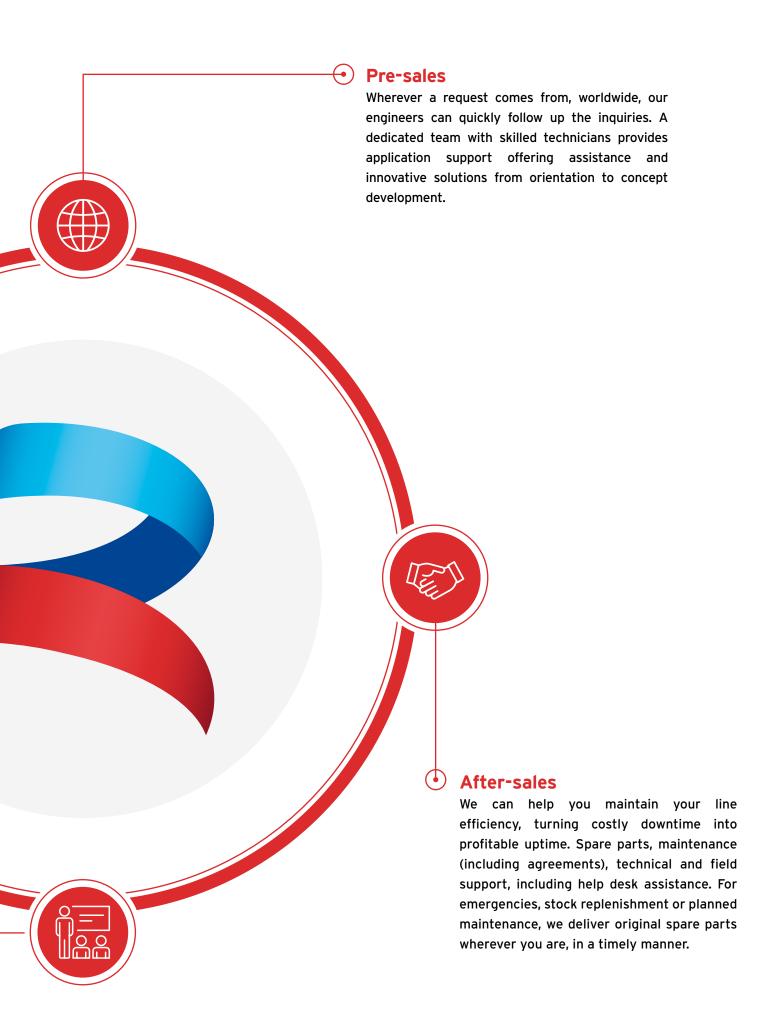
Our products comply with the main industry regulations (AGMA, GL, CTI, etc.).





Complete customer care











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