



PRODUCT OVERVIEW

Cutting edge solutions for industrial applications of gear reducers and gearmotors



A TIMELINE OF OUR HISTORY

Rossi Motoriduttori is founded by Gilio Rossi	Operations are expanded and moved to the current headquarters	Quality becomes the company's principal goal Surface grinding of all gears is introduced	First on the market to develop a new series of gear reducers with a universal mounting system and a single-piece housing	New subsidiaries in Germany, England and France	Acquisition of SEIMEC, an Italian motor manufacturer New subsidiaries in Australia and in Spain First in Europe to offer a 3-year warranty on all products ISO 9001 certification	Acquisition of SMEI, an Italian manufacturer of planetary gear units
1953	1965	1970	1980	1986	1992-97	2002

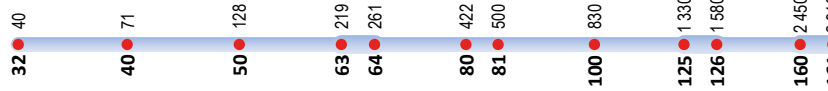


New subsidiary in India	Development of a new line of industrial use planetary gear units	Doubling of the production facility in Lecce, with introduction of new technologies	New subsidiaries in Benelux, Poland, Turkey, South Africa, Malaysia and Taiwan	USA opens new Headquarters	New subsidiary in Brazil	
Habasit Holding AG, a company based in Reinach (BL), Switzerland, acquires 51% of Rossi capital	Development of a new line of electric motors	Habasit Holding AG acquires the remaining portion of Rossi capital		Development of new, extra-large helical/bevel helical and planetary gear reducers and an increase in performance	Start-up of a new center for manufacturing housings in extra-large sizes, complete with measurement system	Further extension of our extra large helical / bevel helical and planetary gear reducers
New subsidiaries in China and USA	Expansion of the production facility at Ganaceto (Modena), with introduction of new technologies	Merger of SMEI and SEIMEC into Rossi by takeover	Brand is changed from Rossi Motoriduttori to Rossi			
2003-05	2008	2009	2010-12	2014	2015	2017



A series

Worm
14 sizes
40 ... 8,000 N m



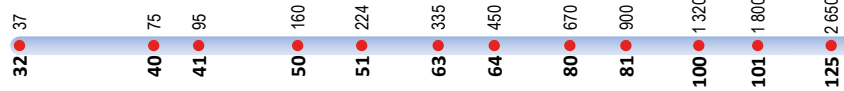
AS series

STANDARDFIT Worm
6 sizes
35 ... 670 N m



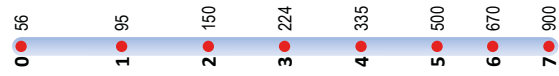
E series

Coaxial
16 sizes
37 ... 10,000 N m



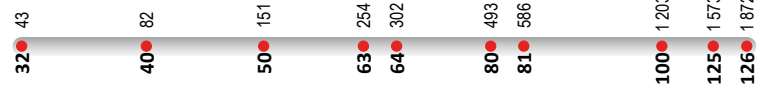
ES series

STANDARDFIT Coaxial
8 sizes
56 ... 900 N m



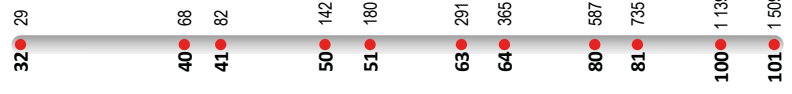
SR series

Worm
10 sizes
43 ... 1,800 N m



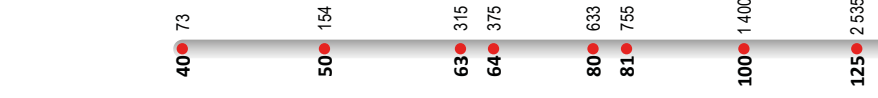
SR series

Coaxial
11 sizes
29 ... 1,500 N m



SR series

Helical and bevel helical
9 sizes
73 ... 3,390 N m



G series

Helical and bevel helical
20 sizes
85 ... 103,000 N m



GX series extruder

Helical and bevel helical
16 sizes
1,400 ... 134,600 N m



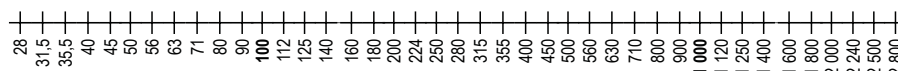
H series

Helical and bevel helical
14 sizes
106,000 ... 1,000,000 N m



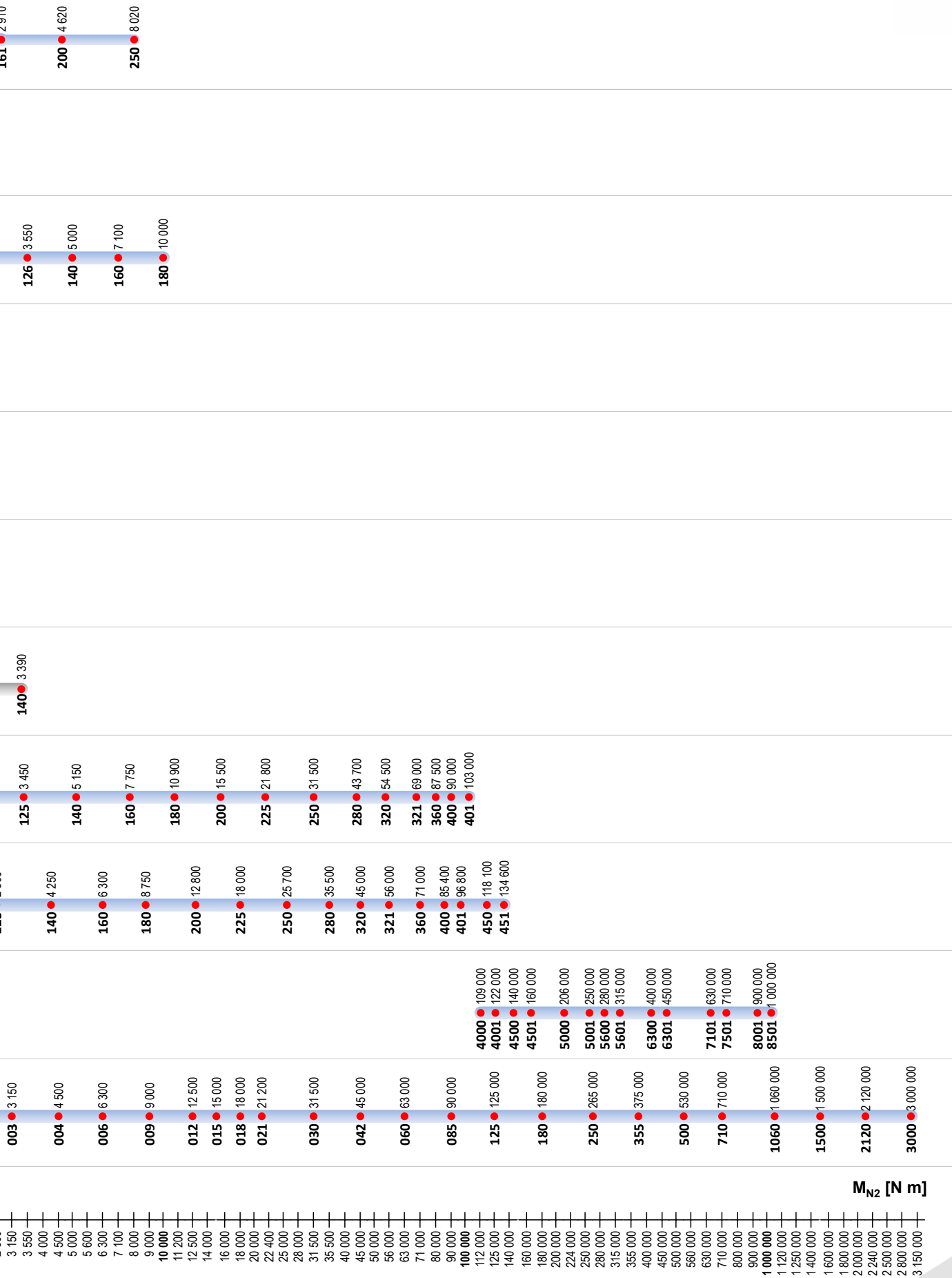
EP series

Planetary
24 sizes
1,600 ... 3,000,000 N m





REDUCERS AND GEARMOTORS







OVERVIEW



FEATURES

BENEFITS

Modular design	Reliability, different mounting positions, shorter delivery times, availability on stock, tailor made products from a modular design
High gear efficiencies	Low energy consumption and better thermal-rating
Optimized gear tooth profile	Low noise and increased torque
Design with FEA	Housing rigidity
Single piece housing from 85 to 103,000 N m	Greater stiffness, high precision, higher torque rating, low noise
Axial cooling fan	Lower surface temperature and improved oil life
Contactless seals option	Unlimited seal life, reduced maintenance, lower oil level and better efficiency
World leading brand roller bearings	Improved L10 service life, higher dynamic and static load capability
Leak-free "Taconite" sealing option	Long-lasting life in abrasive environment
Backstop device special design	More robust and reliable solution Easy to replace
Hollow shaft options (single keyway, shrink disk, etc.)	More compact and cost effective solution
Improved lubrication system	Lower surface temperatures, improved bearing life
3 year warranty worldwide	High quality and performance
All units tested to Rossi specifications on test bench	Aiming for zero non-conformances improving reliability standards
Compact design	Higher power to weight ratio

WORM GEAR REDUCERS AND GEARMOTORS



Worm gear reducers and gearmotors A series

Size		14 sizes (32 ... 250)
Power	P_1	0.09 ... 55 kW
Nominal torque	T_{N2}	≤ 19000 N m
Transmission ratio	i_N	7 ... 16,000

Features

- Universal mounting
- Forced ventilation for an easy thermal power dissipation
- Wide range of accessories and non-standard designs
- Worm wheels of A gear reducers and gearmotors made of nickel bronze with controlled phosphor content, in order to achieve improved performance, a higher load capacity, greater reliability and more wear resistance
- Higher worm efficiency

Benefits

- Easy and functional shaft mounting
- High performance and reliability
- Long life
- Noiselessness, constant performance also for the heaviest applications
- Lower power consumption



Worm gearmotors STANDARDFIT AS series

Size		6 sizes (118 ... 742)
Power	P_1	0.09 ... 5.5 kW
Nominal torque	T_{N2}	≤ 670 N m
Transmission ratio	i_N	6 ... 75

Features

- Universal mounting with lower feet integral with housing, and B14 flange on 2 faces
- Improved modular construction both for components and assembled products
- Nickel bronze worm wheels
- Generous internal space between train of gears and housing
- Tapered roller bearings on worm shaft
- Flange for motor mounting integral with housing
- Higher worm efficiency

Benefits

- Interchangeability with major competitors without changing the machine
- High performance and reliability
- Long life
- Excellent low noise running
- Lower power consumption

COAXIAL GEAR REDUCERS AND GEARMOTORS



Coaxial gear reducers and gearmotors E series

Size		16 sizes (32 ... 180)
Power	P_1	0.09 ... 75 kW
Nominal torque	T_{N2}	$\leq 10,000$ N m
Transmission ratio	i_N	4 ... 6,300

Features

- Strong patented housing
- Wide range of sizes
- Final stage pinion with 3 bearings for increased torque capacity

Benefits

- Long life
- Minimum maintenance requirements
- High performance and reliability
- Universal mounting
- Strength and suitability also for the heaviest applications



Coaxial gearmotors STANDARDFIT ES series

Size		8 sizes (0 ... 7)
Power	P_1	0.09 ... 11 kW
Nominal torque	T_{N2}	≤ 900 N m
Transmission ratio	i_N	4 ... 200

Features

- Foot mounting integral with housing
- Proportioned bearings to withstand high loads

Benefits

- Dimensional interchangeability with other manufacturers for flexible replacement options
- Maximum compactness
- High performance
- Excellent low noise running for any critical environment

HELICAL AND BEVEL HELICAL GEAR REDUCERS AND GEARMOTORS



Helical and bevel helical gear reducers and gearmotors G series

Size		20 sizes (40 ... 401)
Power	P_1	0.09 ... 160 kW
Nominal torque	T_{N2}	$\leq 103,000$ N m
Transmission ratio	i_N	2 ... 160

Features

- Wide range of accessories and non-standard designs
- Single piece housing with high structural stiffness

Benefits

- Easy and functional shaft-mounting design
- Minimum maintenance requirements
- High, reliable and tested performance
- Suitability for the heaviest duties



Helical and bevel helical gear reducers for extruders GX series

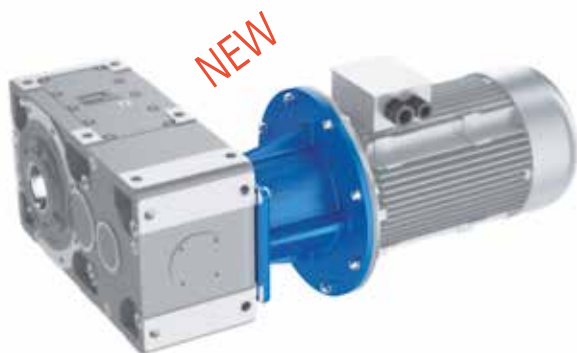
Size		16 sizes (100 ... 451)
Power	P_{N2}	$\leq 1,710$ kW
Nominal torque	T_{N2}	$\leq 132,200$ N m
Transmission ratio	i_N	6.3 ... 28

Features

- Extruder support conceived for heavy applications
- Option of long models

Benefits

- Excellent gear reducer transmitted torque to weight ratio



Motor bell housings BH series

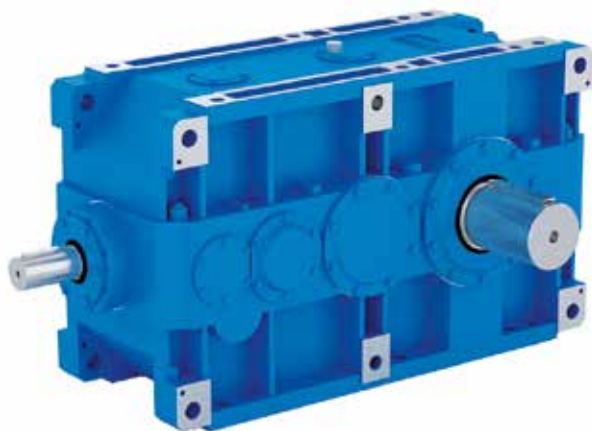
Motor size	100 ... 355
G gear reducer size	125 ... 400

Features

- Connection of electrical motors with helical and bevel helical gear reducers of cat. G by means of flexible coupling
- Available connection for IEC standard electric motors, mounting position IM B5
- Nodular cast iron housings
- Design temperature: -30 °C - +50 °C

Benefits

- Bell housings designed to reach the best performance in terms of strength and stiffness



Helical and bevel helical gear reducers H series

Size	10 sizes (4000 ... 6301)	
Nominal torque	T_{N2}	$\leq 450,000 \text{ N m}$
Transmission ratio	i_N	8 ... 315

Features

- Large size gear reducers produced in series specifically conceived for heavy industry applications
- New options
- Flexible mounting arrangements - typical mountings include horizontal vertical, inclined and oscillating mounting positions
- Nodular cast iron housings for all sizes

Benefits

- Highest reliability in heaviest application conditions
- Long life
- Split housing for simplified maintenance



PLANETARY GEAR REDUCERS AND GEARMOTORS

Planetary gear reducers and gearmotors (in line and bevel) EP series

Size		20 sizes (001...710)
Power	P_1	0.18 ... 90 kW
Nominal torque	T_{N2}	1600 ... 710,000 N m
Transmission ratio	i_N	3.55 ... 3,550 (in line) 9 ... 2,240 (bevel)

Features

- 2, 3 or 4 reduction stages for both coaxial and right angle shaft
- Wide range of accessories and non-standard designs
- Modular design, with multi-optional executions
- Very compact size and reduced mass of gearbox

Benefits

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



Slewing drives EP series

Size		10 sizes (007 ... 250)
Nominal torque	T_{N2}	7,500 ... 265,000 N m
Transmission ratio	i_N	12.5 ... 2,800

Features

- Slew drive gear reducers, ranging from 9 kNm to 400 kNm maximum output torque over 10 primary sizes and 3 output reinforced support configurations:
 - R: dual pilot flanged
 - S: dual pilot compact
 - H: single pilot front flanged
- Modular design, with multi-optional executions

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



Combined units EP series

Size		6 sizes (125...710)
Nominal torque	T_{N2}	125,000 ... 710,000 N m
Transmission ratio	i_N	according to Customer's requirements

Features

- Standard products
- Catalog G + EP

Benefits

- Easy customization
- Flexibility and adaptability to specific application needs
- Interchangeability



NEW

Parking brakes PB series

Size	3 sizes (PB10, PB30, PB90)
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Features

- Direct coupling with standard U flanges
- On the same housing, extensive range of braking torques
- Ideal for outdoor and sparking-free operations

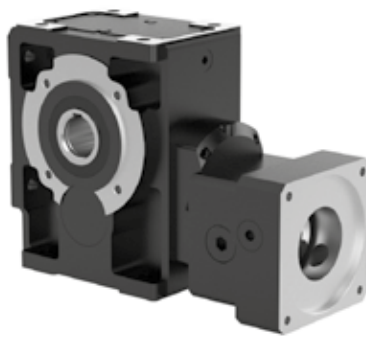
Benefits

- Modular system
- Extensive brake range

MOTION CONTROL



Worm servo gear reducers SR series		MR	R
Size		7 sizes (32 ... 81)	9 sizes (40 ... 126)
Accelerating torque	T_{A2}	31.5 ... 747 N m	56 ... 2,200 N m
Transmission ratio	i	7 ... 239	7 ... 125



Helical and bevel helical servo gear reducers SR series		MR	R
Size		8 sizes (40 ... 125)	8 sizes (50 ... 140)
Accelerating torque	T_{A2}	64 ... 3,000 N m	140 ... 4,400 N m
Transmission ratio	i	6.16 ... 139	6.42 ... 127

Type MR

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

Benefits

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



Coaxial servo gear reducers SR series		MR	R
Size		11 sizes (32 ... 101)	—
Accelerating torque	T_{A2}	31.5 ... 2,000 N m	—
Transmission ratio	i	4 ... 154	—



Low backlash planetary (coaxial and bevel helical) gearmotors without motor SM series		
Size		5 sizes (57 ... 181)
Accelerating torque	T_{A2}	33 ... 1,700 N m
Transmission ratio	i	3.4 ... 50

Type R

Features

- Standard input flanges
- Input shaft: with torsionally rigid elastomer coupling
- Output shaft: smooth solid shaft with or without key; hollow shaft with keyway or with shrink discs

Benefits

- Manufacturing program and product types suitable to ensure full coupling possibility to all servomotors available on the market, thanks to standard products
- High stability and stiffness of servomotor-gear reducer connection
- Backlash-free servo gear reducer keying
- Easy servomotor dismounting even after long running periods

MOTORS



Premium line electric asynchronous three-phase motors and brake motors TX series

Size		63 ... 280
Power	P_N	0.06 ... 110 kW
Polarity		2, 4, 6, 8 poles

Features

- IEC standard motors
- IP 55 protection
- 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



Heavy duty roller table motors S series

Size		112 ... 250
Peak torque	T_k	$\leq 1,700 \text{ N m}$
Polarity		4, 6 poles

Features

- 4, 6 poles, ΔY connection with standard or customer tailored voltage and frequency
- IEC standardized mating dimensions under accuracy rating
- IP 55 protection
- Insulation class F (class H on request), impregnation allows use in tropical climates without further treatments
- Overtemperature class F
- Three thermistors PTC type (DIN 44081) wired to the terminal box
- Motor shaft axially fastened on rear end shield with compensation spring for thermal expansion

Benefits

- Motors conceived specifically for metal industry

DRIVE UNITS ON SWING BASE



Drive units on swing base RE series

Gear reducer size		140 ... 631
Motor size		132 ... 400
Nominal torque	T_{N2}	up to 450,000 N m

Features

- Accurate design and selection of equipment
- Unique reference for commercial and technical issues
- Precise certified alignment of the complete drive
- Global well known and qualified brands of equipment suppliers

Benefits

- Turn key drive units
- Easy and quick installation on site
- Precise and qualified design for baseplates

ROSSI SPECIAL PROJECTS



Rossi Special Projects

Power	P_N	according to Customer's requirements
Nominal torque	T_{N2}	according to Customer's requirements
Transmission ratio	i	according to Customer's requirements

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

HEAVY INDUSTRY



Planetary gear reducers and gearmotors EP series

Size		4 sizes (1060...3000)
Nominal torque	T_{N2}	from 1,060,000 to 3,000,000 N m
Transmission ratio	i_N	80 ... 1,000

Features

- Multi-stage modular design
- Easy customization
- Modular add-on accessories
- Ground gears (bevel and planet wheels)

Benefits

- Easy to fit in any industrial application
- Reduced maintenance intervals
- Easy maintenance
- Worldwide product and service support



Helical and bevel helical gear reducers H series

Size		4 sizes (7101, 7501, 8001, 8501)
Nominal torque	T_{N2}	$\leq 1,000,000 \text{ N m}$
Transmission ratio	i_N	according to Customer's requirements

Features

- Helical and bevel-helical gear units with 2 and 3 gear stages
- Ratios to R20 series
- Split housing; nodular cast iron frame
- Helical and bevel gear with ground and optimized 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

OTHER PRODUCTS



Right angle shaft gear reducers L series

Size		7 sizes (80 ... 320)
Nominal torque	T_{N2}	up to 5,600 N m
Transmission ratio	i_N	1 ... 6.25

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 performance and reliability



Shaft mounted gear reducers P series

Size		7 sizes (85 ... 250)
Nominal torque	T_{N2}	up to 11,200 N m
Transmission ratio	i_N	10 ... 25

Features

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

Benefits

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



OUR MAIN INDUSTRIAL SEGMENTS

With over 60 years experience in the design, manufacturing and commissioning of gear reducers and gearmotors, Rossi has become a power transmission leader in all industrial segments.

Rossi has forged many strategic partnerships with leading companies and OEM in various sectors throughout the world.

Relationships forged from Rossi's know-how and expertise, offering turnkey solutions for nearly every application.

Rossi smart solutions, thanks to product designed around modularity, robustness and reliability, help customers to minimize Total Cost of Ownership of plants, reducing maintenance costs and enhancing energy saving.

Steel making

Mining

Food and beverage

Cranes and hoisting machinery

Construction machinery

Water and waste treatment

Chemical, oil and gas

Rubber and plastics

Energy (thermal and renewable)

Motion engineering (bulk and packaged products)

Marine, offshore and harbor sectors

Wood and paper

Packaging





GLOBAL SERVICE

We don't stop with the sale of our product, we provide our customers with service and back-up.

Through our subsidiaries' inventories and assembly centers worldwide we make sure that we are not only able to supply gearboxes but that we can also back them up, if need be, with the spare parts required.

Our Global Service has the possibility to reach our customer's plants quickly, in case of breakdown. Our main goal is to return our customers' plants to operation as soon as possible and to keep maintenance overheads as low as possible.

OUR SERVICE CENTERS WORLDWIDE

Africa	phone +27 32 815 0380
America	phone +1 800 931 2044
Asia	phone +86 21 3350 5345 (China) phone +91 422 236 1484 (India)
Europe	phone +39 059 330288
Oceania	phone +61 8 94557399

Rossi S.p.A.

Via Emilia Ovest 915/A

41123 Modena - Italy

Phone +39 059 33 02 88

fax +39 059 82 77 74

e-mail: info@rossi-group.com

www.rossi-group.com

