Cutting edge solutions for industrial applications of gear reducers and gearmotors
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Rossi, founded in 1953, is a leading company in the sector of gear reducers and gearmotors.
Since 2004 Rossi is a member company of the Habasit Holding Group based in Reinach (BL), Switzerland, which is a world leader in its sector and owns 100% of Rossi stock capital.
Rossi is located in and expresses the industrial culture of Modena, Italy’s capital of precision mechanics and the world’s capital of sports car production with Ferrari, Maserati, Lamborghini, Bugatti, Pagani and Dallara. Modena is also considered to be the worldwide capital of the ceramics industry and is the native land of illustrious artists such as famous tenor Luciano Pavarotti.
Over 60 years in business, in this environment that is complete with resources offering creativity and specific skills, Rossi has developed know-how and experience that has enabled it to lead its market, because of the excellence of its products and of the industrial solutions it offers.
Rossi was the first gear reducer manufacturer to introduce surface grinding of all gears, the third European gear manufacturer to obtain ISO 9001 certification, and the first to develop the concept of the single-piece housing gear reducer. Product quality, innovative solutions, technical skills, investments in research and development, and advanced technologies have been Rossi’s distinguishing traits ever since it was founded. Rossi invests at least 5% of its turnover into the development of new products, services and processes that enable the company to enjoy a competitive advantage and be a leader on its market. Production facilities are equipped with advanced machinery and equipment, and are constantly upgraded.

Continuous innovation, a commitment to ongoing improvement, and the highest consideration for the customer’s requirements have enabled our company to consolidate its image over the years as a reliable, competitive partner, on the worldwide level.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>Rossi Motoriduttori is founded by Gilio Rossi</td>
</tr>
<tr>
<td>1956</td>
<td>Operations are expanded and moved to the current headquarters</td>
</tr>
<tr>
<td>1965</td>
<td>Quality becomes the company’s principal goal</td>
</tr>
<tr>
<td>1970</td>
<td>Surface grinding of all gears is introduced</td>
</tr>
<tr>
<td>1980</td>
<td>First on the market to develop a new series of gear reducers with a universal mounting system and a single-piece housing</td>
</tr>
<tr>
<td>1986</td>
<td>New subsidiaries in Germany, England and France</td>
</tr>
<tr>
<td>1992-97</td>
<td>First in Europe to offer a 3-year warranty on all products</td>
</tr>
<tr>
<td>1995</td>
<td>ISO 9001 certification</td>
</tr>
<tr>
<td>1997</td>
<td>Acquisition of SEIMEC, an Italian motor manufacturer</td>
</tr>
<tr>
<td>1999</td>
<td>New subsidiaries in Australia and in Spain</td>
</tr>
<tr>
<td>2002</td>
<td>Acquisition of SMEI, an Italian manufacturer of planetary gear units</td>
</tr>
</tbody>
</table>
Brand is changed from Motoriduttori to Rossi Habasit Holding AG, a company based in Reinach (BL), Switzerland, acquires 51% of Rossi capital New subsidiaries in China and USA New subsidiary in India USA opens new Headquarters Development of a new line of industrial use planetary gear units Development of a new line of electric motors Doubling of the production facility in Lecce, with introduction of new technologies Habasit Holding AG acquires the remaining portion of Rossi capital Merger of SMEI and SEIMEC into Rossi by takeover New subsidiaries in Benelux, Poland, Turkey, South Africa, Malaysia and Taiwan Brand is changed from Rossi Motoriduttori to Rossi Expansion of the production facility at Ganaceto (Modena), with introduction of new technologies New subsidiary in Brazil 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
MISSION

We’re a leading worldwide supplier of gear reducers and gearmotors with remarkable value for money. Customer satisfaction is the yardstick we use to measure our success. We’re committed to:

• Pursuing excellence in every facet of our operation.
• Fostering innovation
• Standing by the customers’ side and helping them develop their business
• Offering our employees a satisfying job and the opportunity to grow professionally.
• Creating value for our partners, employees and stockholders.

We believe that the ability to excel requires:

• Integrity
• Ethical behavior
• Straightforwardness
• Knowledge
• Creativity
• Competence
• Teamwork
VISION

Our dream is to make the quality and the innovative design of our solutions so attractive that customers consistently prefer the product lines we offer.
Our organization works in compliance with Codes of Ethics and Discipline that are available for viewing on our website. In particular, they emphasize:

• Doing one’s job in compliance with all applicable laws and regulations.
• Acting with a spirit of mutual respect.
• Meeting moral and social obligations.
• Complying with regulations on the protection, health and safety of people.
• Conserving resources and protecting the environment.
• Refusing to make decisions based on personal self-interest.
• Contributing to the development of the local communities where we operate, with the adoption of a code of ethics that ensures commitment, honesty, propriety and respect for rules.
# Rossi Group by the Numbers

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Turnover</td>
<td>131 mil. Euros</td>
</tr>
<tr>
<td>Employees</td>
<td>over 750</td>
</tr>
<tr>
<td>Production volumes</td>
<td>150,000 gear reducers and gearmotors, 100,000 electric motors</td>
</tr>
<tr>
<td>Percentage exported</td>
<td>over 60%</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>15</td>
</tr>
<tr>
<td>Assembly centers abroad</td>
<td>8</td>
</tr>
<tr>
<td>Present in</td>
<td>over 50 countries</td>
</tr>
<tr>
<td>Production facilities</td>
<td>3</td>
</tr>
<tr>
<td>Authorized distributors and service centers</td>
<td>approx. 250</td>
</tr>
</tbody>
</table>

# Habasit Holding Group by the Numbers

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Turnover</td>
<td>793 mil. CHF</td>
</tr>
<tr>
<td>Employees</td>
<td>over 3,300</td>
</tr>
<tr>
<td>Percentage exported</td>
<td>95%</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>38</td>
</tr>
<tr>
<td>Assembly centers abroad</td>
<td>38</td>
</tr>
<tr>
<td>Present in</td>
<td>over 70 countries</td>
</tr>
<tr>
<td>Production facilities</td>
<td>17</td>
</tr>
<tr>
<td>Authorized distributors and service centers</td>
<td>approx. 250</td>
</tr>
</tbody>
</table>
HOW WE CREATE ADDED VALUE FOR OUR CUSTOMERS

• Outstanding product quality and reliability
• Competitive cost of ownership
• 3-year extended warranty on all products
• Wide range of products
• Superior customized solutions, with complete drive units available
• State-of-the-art gear design and execution, for high efficiency and long service life
• All critical components designed and manufactured internally
• State-of-the-art technologies and facilities
• Proven experience in the majority of the applications in numerous industrial sectors
• Assembly and service around the world
• Competent, dedicated teams of engineers, technicians and fitters to support the customer’s project
• On-line product calculation and selection tool
• “Rossi for You” - a special web portal which allows you to obtain information directly about your transactions with Rossi and to view related information and drawings
• On-site service and commissioning
• On-site training for your staff
• AGMA Calculations and Certificates
• ISO 9001
• 24/7 emergency help line
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
ROSSI is considered a market leader in the steel making applications. With experienced Segment Managers and in-depth knowledge, Rossi products are perfectly designed to suit the various environments found within this demanding industry. With a reputation for reliability and long service life, Rossi is the primary choice for many leading manufacturers involved in the steel making applications. Some of the largest steel producing companies have standardized on Rossi products in critical applications.
No matter if it comes to drive an overland conveyor or a bucket wheel, Rossi can provide not just the simple product, but the complete drive solution, fully designed, produced, assembled, and tested in its facilities.
FOOD AND BEVERAGE

Rossi is at the forefront of global pasta production, with top leading equipment manufacturers choosing to use Rossi products because of the continuous high performance, reliability and easy maintenance found within the standard Rossi design. So the next time you have pasta consider that it was probably made using Rossi products.
Stringent production control combined with application experience allowed Rossi to be the principle choice to supply the gearboxes for one of the most highest lifting capacity, floating cranes in the world.
CONSTRUCTION MACHINERY

Smart solutions and intrinsic product quality help our customers to find the most cost-effective solutions, minimizing the Total Cost of Ownership.
ROSSI'S process engineering capabilities encompass all aspects of water and wastewater treatment, based around its extensive gearboxes and accessories range. Rossi is committed to meeting the growing requirements of this important industrial sector.

WATER AND WASTE TREATMENT
CHEMICAL, OIL & GAS

Rossi’s smart solutions for Chemical, Oil & Gas industry allow our customers to have one partner for all provided services. This enables reduced cost due to process optimization. It improves the reliability, integrity of the information flow as there are fewer stakeholders in the process. Rossi ensures value adding services are integrated specifically into this sector needs based around the high level of operating safety required in this industry.
OUR PRODUCTS

The Rossi product line is one of the most complete of its kind on the market. It enables you to select the most appropriate gear reducer to meet the requirements of your application.

All products are designed for highest mechanical performance, high thermal efficiency, low maintenance costs and a long service life.

All gears are surface-ground and have an optimized tooth profile. The housings feature a single-piece design that was developed with the Finite Element Analysis (FEA) method. As a result, our gear reducers boast maximum overall stiffness in a compact size, low noise levels, reduced energy consumption and improved thermal capacity.

Modern production and control technologies have also led to an increase in torque.

The characteristics of each product are described in detail in our catalogs, which are available for viewing on-line.

Our bevel helical, helical and planetary series for industrial applications are modular and flexible. Modularity means flexibility, universal mounting, and competitiveness. Our products are based on a system of modular components that can be assembled in millions of different configurations, so that every drive solution is custom tailored to our customer’s exact specifications.

Also available as combined (helical/planetary) gear reducers, they allow to offer smart drive solutions for nearly all application needs.
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: $T_{n2} \leq 19,000$ N m
Transmission ratio: $i_n$ 7 ... 16,000

Worm gearmotors STANDARDFIT
AS series
Size: 6 sizes (118 ... 742)
Power: $P_1$ 0.09 ... 5.5 kW
Nominal torque: $T_{n2} \leq 670$ N m
Transmission ratio: $i_n$ 6 ... 75

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

Coaxial gearmotors STANDARDFIT
ES series
Size: 8 sizes (0 ... 7)
Power: $P_1$ 0.09 ... 11 kW
Nominal torque: $T_{n2} \leq 900$ N m
Transmission ratio: $i_n$ 4 ... 200
### HELICAL AND BEVEL-HELICAL GEAR REDUCERS AND GEARMOTORS

**Helical and bevel helical gear reducers and gearmotors**

**G series**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>20 sizes (40 ... 401)</td>
</tr>
<tr>
<td>Power</td>
<td>$P_1$ 0.09 ... 160 kW</td>
</tr>
<tr>
<td>Nominal torque</td>
<td>$T_{n2} \leq 103,000$ N m</td>
</tr>
<tr>
<td>Transmission ratio</td>
<td>$i_n$ 2 ... 160</td>
</tr>
</tbody>
</table>

**Helical and bevel helical gear reducers for extruders**

**GX series**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>16 sizes (100 ... 451)</td>
</tr>
<tr>
<td>Power</td>
<td>$P_{n2}$ $\leq 1,710$ kW</td>
</tr>
<tr>
<td>Nominal torque</td>
<td>$T_{n2} \leq 132,200$ N m</td>
</tr>
<tr>
<td>Transmission ratio</td>
<td>$i_n$ 6.3 ... 28</td>
</tr>
</tbody>
</table>

**Motor bell housings**

**BH series**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor size</td>
<td>100 ... 355</td>
</tr>
<tr>
<td>G gear reducer size</td>
<td>125 ... 400</td>
</tr>
</tbody>
</table>

### HELICAL AND BEVEL HELICAL GEAR REDUCERS

**Helical and bevel helical gear reducers**

**H series**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>10 sizes (4000 ... 6301)</td>
</tr>
<tr>
<td>Nominal torque</td>
<td>$T_{n2} \leq 450,000$ kN m</td>
</tr>
<tr>
<td>Transmission ratio</td>
<td>$i_n$ 8 ... 315</td>
</tr>
</tbody>
</table>
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** $T_{N2}$: 1,600 … 710,000 N m
- **Transmission ratio** $i_N$: 3.55 … 3,550 (in line) 9 … 2,240 (bevel)

**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

**Combined units**
EP series

- **Size**: 6 sizes (125…710)
- **Nominal torque** $T_{N2}$: 125,000 … 710,000 Nm
- **Transmission ratio** $i_N$: according to Customer’s requirements

**Parking brakes**
PB series

- **Size**: 3 sizes (PB10, PB30, PB90)
### Worm servo gear reducers
**SR series**
- **Size**: 7 sizes (32 ... 81)
- **Accelerating torque** $T_{A2}$: 31.5 ... 747 N m
- **Transmission ratio** $i$: 7 ... 239

<table>
<thead>
<tr>
<th>MR</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 sizes (32 ... 81)</td>
<td>9 sizes (40 ... 126)</td>
</tr>
<tr>
<td>56 ... 2,200 N m</td>
<td>7 ... 125</td>
</tr>
</tbody>
</table>

### Helical and bevel helical servo gear reducers
**SR series**
- **Size**: 8 sizes (40 ... 125)
- **Accelerating torque** $T_{A2}$: 64 ... 3,000 N m
- **Transmission ratio** $i$: 6.16 ... 139

<table>
<thead>
<tr>
<th>MR</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 sizes (40 ... 125)</td>
<td>8 sizes (50 ... 140)</td>
</tr>
<tr>
<td>140 ... 4,400 N m</td>
<td>6.42 ... 127</td>
</tr>
</tbody>
</table>

### Coaxial servo gear reducers
**SR series**
- **Size**: 11 sizes (32 ... 101)
- **Accelerating torque** $T_{A2}$: 31.5 ... 2,000 N m
- **Transmission ratio** $i$: 4 ... 154

<table>
<thead>
<tr>
<th>MR</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 sizes (32 ... 101)</td>
<td>—</td>
</tr>
<tr>
<td>31.5 ... 2,000 N m</td>
<td>—</td>
</tr>
<tr>
<td>4 ... 154</td>
<td>—</td>
</tr>
</tbody>
</table>

### 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
MOTORS

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

Heavy duty roller table motors
S series

- Size: 112 ... 250
- Peak torque: \( T_p \) \( \leq 1,700 \) N m
- Polarity: 4, 6 poles

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

DRIVE UNITS ON SWING BASE

ROSSI SPECIAL PROJECTS

Rossi Special Projects

- Power according to Customer’s requirements
- Nominal torque: \( T_{n2} \) according to Customer’s requirements
- Transmission ratio: \( i \) according to Customer’s requirements
HEAVY INDUSTRY PRODUCTS

Planetary gear reducers and gearmotors  
EP series
Size 4 sizes (1060...3000)
Nominal torque $T_{N2}$ from 1,060,000 to 3,000,000 Nm
Transmission ratio $i_N$ 80 ... 1,000

Helical and bevel helical gear reducers  
H series
Size 4 sizes (7101, 7501, 8001, 8501)
Nominal torque $T_{N2}$ 1,000,000 N m
Transmission ratio $i_N$ according to Customer’s requirements

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

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
<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modular design</td>
<td>Reliability, different mounting positions, shorter delivery times, availability on stock, tailor made products from a modular design</td>
</tr>
<tr>
<td>High gear efficiencies</td>
<td>Low energy consumption and better thermal-rating</td>
</tr>
<tr>
<td>Optimized gear tooth profile</td>
<td>Low noise and increased torque</td>
</tr>
<tr>
<td>Design with FEA</td>
<td>Housing rigidity</td>
</tr>
<tr>
<td>Single piece housing from 85 to 103,000 N m</td>
<td>Greater stiffness, high precision, higher torque rating, low noise</td>
</tr>
<tr>
<td>Axial cooling fan</td>
<td>Lower surface temperature and improved oil life</td>
</tr>
<tr>
<td>Contactless seals option</td>
<td>Unlimited seal life, reduced maintenance, lower oil level and better efficiency</td>
</tr>
<tr>
<td>World leading brand roller bearings</td>
<td>Improved L10 service life, higher dynamic and static load capability</td>
</tr>
<tr>
<td>Leak-free “Taconite” sealing option</td>
<td>Long-lasting life in abrasive environment</td>
</tr>
<tr>
<td>Backstop device special design</td>
<td>More robust and reliable solution Easy to replace</td>
</tr>
<tr>
<td>Hollow shaft options (single keyway, shrink disk, etc.)</td>
<td>More compact and cost effective solution</td>
</tr>
<tr>
<td>Improved lubrication system</td>
<td>Lower surface temperatures, improved bearing life</td>
</tr>
<tr>
<td>3 year warranty worldwide</td>
<td>High quality and performance</td>
</tr>
<tr>
<td>All units tested to Rossi specifications on test bench</td>
<td>Aiming for zero non-conformances improving reliability standards</td>
</tr>
<tr>
<td>Compact design</td>
<td>Higher power to weight ratio</td>
</tr>
</tbody>
</table>
With its wide range of products and the significant experience it has gained throughout most industrial applications, Rossi can offer the solution that best meets the customer’s requirements. Rossi can also provide complete, turnkey drive units installed on a self-supporting base. Rossi is one of the few suppliers that can perform tests under load on gear reducers at the factory prior to shipment - a capability that provides additional assurance of proper on-site operation.
Inspiration to solve evermore complex electromechanical drive systems for our customers is the foundation behind research and development. Italy and in particular the city of Modena has a legacy of mechanical design and innovation and Rossi draws on this long heritage together with 60 years of Rossi gearbox manufacturing experience. 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, high operational safety.
Formula One is probably the best example of highlighting the difference between a good product and an outstanding product and that is probably why Italy has won and lead more races than any other nation. Similarly, we at Rossi believe that there is a significant difference between good gearing and Rossi good gearing. The only way to achieve this level of precision and quality is to start with correctly specified material, and machine it on the latest precision machinery, in order to ensure the final standard Rossi’s customers are asking for. Cutting-edge production technology is the essential building block to achieve high performance geared products built around a reliable design in order to maximize the added value of the Rossi product.
Rossi maintains a close and direct link with every subsidiary throughout the group. In order to maximize efficiencies and reduce the time taken to answer customers, the group employs several “LEAN” processes to achieve consistent quality not only in the product, but with information as well. The subsidiaries maintain similar processes and functions at a local level and as the group operates one IT platform, the information flow and processes have been standardized. This direct link between headquarters and individual subsidiary enables minimal intervention, but delivers fast, consistent and clear information to those that require the information in order to provide fast, effective and solution driven answers for all its customers.
OUR APPLICATION KNOW-HOW AND SERVICE

Years of experience accumulated by our Segment Managers in specific fields of application allow Rossi to be the reliable partner of leading industries in the most demanding sectors. Know-how not limited to gear manufacturing competence, but also in-depth knowledge of specific applications needs as well as local service and technical assistance worldwide, are the principle success factors behind many successful business relationships with customers.