Heavy Industry

EP new planetary gear units

H new helical and bevel-helical gear units

Edition April 2016
### Technical 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

### Solution range
- Solid output shaft
- Hollow output shaft with key
- Hollow output shaft with shrink discs
- Backstop device
- Swing base
- Pony drives

### Benefits
- One of the widest torque range from a single supplier
- Customized solutions on request starting from a standard modular design
- Reduced delivery times
- Optimized design for belt conveyor applications

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**Size**

<table>
<thead>
<tr>
<th>Size *</th>
<th>400</th>
<th>401</th>
<th>450</th>
<th>451</th>
<th>500</th>
<th>501</th>
<th>560</th>
<th>561</th>
<th>630</th>
<th>631</th>
<th>712</th>
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<tbody>
<tr>
<td>$M_{\text{Inmax}}$ (kN m)</td>
<td>87.5</td>
<td>100</td>
<td>122</td>
<td>140</td>
<td>175</td>
<td>200</td>
<td>243</td>
<td>280</td>
<td>345</td>
<td>400</td>
<td>630</td>
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<tr>
<td>Range of nominal ratios</td>
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<tr>
<td>2 stages</td>
<td>8...18</td>
<td>8...18</td>
<td>8...20</td>
<td>9...20</td>
<td>8...14</td>
<td>9...14</td>
<td>8...14</td>
<td>9...14</td>
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<td>-</td>
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<tr>
<td>3 stages</td>
<td>20...100</td>
<td>20...100</td>
<td>22.4...125</td>
<td>22.4...125</td>
<td>22.4...125</td>
<td>22.4...125</td>
<td>25...125</td>
<td>25...125</td>
<td>28...100</td>
<td>28...100</td>
<td>14...71</td>
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<tr>
<td>4 stages</td>
<td>125...315</td>
<td>125...315</td>
<td>125...315</td>
<td>125...315</td>
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<td>125...315</td>
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<td>125...315</td>
<td>125...315</td>
<td>125...315</td>
<td>-</td>
</tr>
</tbody>
</table>

| Output Shaft (mm) | 190 | 200 | 210 | 220 | 240 | 250 | 270 | 280 | 300 | 320 | 360 |
| Length (mm) | 1 630 | 1 630 | 1 680 | 1 680 | 2 040 | 2 040 | 2 100 | 2 100 | 2 315 | 2 315 | 2 915 |
| Shaft height (mm) | 450 | 450 | 450 | 450 | 560 | 560 | 560 | 560 | 630 | 630 | 710 |
| Width (mm) | 580 | 580 | 580 | 580 | 725 | 725 | 725 | 725 | 795 | 795 | 1 040 |
| Mass (kg) | 2 470 | 2 470 | 2 830 | 2 830 | 4 650 | 4 650 | 5 300 | 5 300 | 7 260 | 7 260 | 14 000 |

* Values relevant to bevel-helical gear units
New solutions for heavy industry applications

EP series

<table>
<thead>
<tr>
<th>Size</th>
<th>001</th>
<th>002</th>
<th>003</th>
<th>004</th>
<th>006</th>
<th>009</th>
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<th>015</th>
<th>018</th>
<th>021</th>
<th>030</th>
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<tbody>
<tr>
<td>$M_{N2max}$ kN m</td>
<td>1,6</td>
<td>2,24</td>
<td>3,15</td>
<td>4,5</td>
<td>6,3</td>
<td>9</td>
<td>12,5</td>
<td>15</td>
<td>18</td>
<td>21</td>
<td>31,5</td>
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<td>63</td>
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<tr>
<td>Range of nominal ratios</td>
<td>Coaxial</td>
<td>12,5 ... 3 000</td>
<td>12,5 ... 2 500</td>
<td>14 ... 2 240</td>
<td>14 ... 1 800</td>
<td>14 ... 2 000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bevel gear</td>
<td>9 ... 2 500</td>
<td>9 ... 2 120</td>
<td>12,5 ... 1 800</td>
<td>10 ... 1 400</td>
<td>10 ... 1 400</td>
<td>10 ... 1 600</td>
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<tr>
<td>Output Shaft mm</td>
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<td>50</td>
<td>55</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>90</td>
<td>100</td>
<td>100</td>
<td>110</td>
<td>120</td>
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<tr>
<td>External diameter mm</td>
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<td>190</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>282</td>
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<td>330</td>
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<td>347</td>
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<td>440</td>
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<tr>
<td>Length* mm</td>
<td>435</td>
<td>440</td>
<td>476</td>
<td>529</td>
<td>544</td>
<td>643</td>
<td>633</td>
<td>703</td>
<td>739</td>
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<td>803</td>
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<td>Mass* kg</td>
<td>33</td>
<td>34</td>
<td>47</td>
<td>51</td>
<td>58</td>
<td>90</td>
<td>101</td>
<td>105</td>
<td>144</td>
<td>147</td>
<td>178</td>
<td>240</td>
<td>310</td>
</tr>
</tbody>
</table>

* Values relevant to 4 stages coaxial gear reducer
New solutions for heavy industry applications

**Technical features**
- From 1 kN m to 3 000 kN m
- Multi-stage modular design
- Reduced number of components
- Universal Mounting position
- Reduced noise
- Easy customization
- Modular add-on accessories
- Ground gears (bevel and planet wheels)

**Solution range**
- Comprehensive planetary and bevel planetary range
- Shaft rotating and case rotating suitable design
- Large options of transmission ratio
- Enhanced bearing life
- Electric and Hydraulic motor adapters

**Benefits**
- Extremely dependable and shock absorbing design
- Reduced weights
- Increased operational safety
- Easy to fit in any industrial application
- Reduced maintenance intervals
- Easy maintenance
- Worldwide product and service support

### Table

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<th>125</th>
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<th>1 060</th>
<th>1 500</th>
<th>2 120</th>
<th>3 000</th>
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<td>21</td>
<td>31,5</td>
</tr>
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**Range of nominal ratios**
- Coaxial: 12,5 … 3 000
- Coaxial: 12,5 … 2 500
- Coaxial: 14 … 2 240
- Coaxial: 14 … 1 800
- Coaxial: 14 … 2 000
- Bevel gear: 18 … 1 800
- Bevel gear: 12,5 … 1 800
- Combined: 9 … 2 500
- Combined: 9 … 2 120
- Combined: 10 … 1 400
- Combined: 10 … 1 600
- Combined: 10 … 1 250

### Dimensions
- **Output Shaft**
  - φ: 42, 50, 55, 60, 70, 80, 90, 90, 100, 100, 110, 120, 140, 160, 180, 200, 220, 250, 280, 320, 400, 460, 500, 600
- **External diameter**
  - φ: 190, 190, 236, 236, 236, 282, 282, 282, 330, 330, 347, 405, 440, 500, 570, 630, 715, 805, 885, 970
- **Length**
  - *: 435, 440, 476, 529, 544, 643, 633, 703, 739, 739, 803, 848, 916, 1 138, 1 214, 1 364, 1 591, 1 741, 1 981, 2 257, 2 600, 2 950, 3 350, 3 800
- **Mass**
  - *: ≈ 33, 34, 47, 51, 58, 90, 101, 105, 144, 147, 178, 240, 310, 460, 620, 860, 1 220, 1 740, 2 470, 3 260, 4 000, 5 500, 7 000, 9 500

* Values relevant to 4 stages coaxial gear reducer
Rossi benefits

- Complete modular system providing customer tailored solutions starting from standard production
- State-of-the-art quality for maximum reliability offering 3 year warranty
- Tough products, labyrinth seals, oil heaters, cooling fan / coil / independent cooling units, painting cycle, everything studied for the most challenging application or environment
- Final functional tests performed on every product for heavy industry applications
- “One-stop-shop” supplier achieving cost-effective solutions
- Web portal Rossi for You, allowing you to have 24/7 everything concerning Rossi supplies (order tracking, documentation ...) in real time
- Dedicated Segment Managers sharing specific know-how for heavy applications
- Customer oriented worldwide sale and service network

Planetary gear units EP series

Planetary units combined with bevel-helical units

Bevel-helical gear units H series
Product liability, application considerations

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