Product Range

Electromobility Solutions
Heavy duty vehicle manufacturers are eagerly seeking improvements in efficiency and are looking for solutions that can increase productivity and reduce the total cost of ownership for the end-user. Current emission regulations applied to the automotive industry have been extended to heavy duty vehicles, and the only way to meet these strict standards is to improve the powertrain efficiency.

**Dedicated products for a wide range of applications**
Various solutions have been designed specifically for use with electric motors, and offer a wide range of performance specifications and deliverable torque ratings. The latest products include a series of planetary drives for electric material handling vehicles and planetary drives with integrated electric motors for hybrid agricultural machines. These solutions have been shown to deliver numerous benefits in terms of machine manoeuvrability, reliability, operating costs and sustainability, thanks to low emissions and low working noise levels.

**Tailored-made solutions**
Wherever a custom solution is required, manufacturers can benefit from Bonfiglioli’s vast technical expertise.
Our teams work closely with powertrain designers and component suppliers to develop innovative and efficient tailored-made solutions. Bonfiglioli can count on years of experience in powertrain design for light and medium duty vehicles; the concepts and technologies involved are likely to be scaled up to heavy duty applications over the medium term.
Electric powertrains for material handling vehicles

600F Series

Bonfiglioli supplies high-efficiency, low-noise planetary axles and drives with integrated high performance electric motors and low maintenance braking systems for Class 1 material handling vehicles. Typical applications include 3- and 4-wheel counterbalance lift trucks and ground support equipment. Bonfiglioli electric powertrains are fully tested in the factory and guarantee reduced energy consumption. This, in turn, means longer battery operating times, extended service intervals and lower cost of ownership.

Gear ratios
• 26 ... 42

Input speed
• up to 8,000 rpm (Depending on ratio and size)

Main options
• Mechanical disengagement for towing, with no need to remove the wheel and without oil drop
• Wet disc service and parking brakes

Key features
• Dual stage gearbox
• Optimized gear design for maximum efficiency and minimum noise
• Service brake
• Parking brake
• Integrated, customized mast support
• Integrated AC traction motor protection rating up to IP54
• Integrated, high accuracy, silicon-based KTY temperature sensor
• Integrated, high resolution hall effect speed sensor

Torque (Nm)

<table>
<thead>
<tr>
<th></th>
<th>601 F</th>
<th>602 F</th>
<th>603 F</th>
<th>605 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>601 F</td>
<td>3,000</td>
<td>5,500</td>
<td>7,000</td>
<td>18,000</td>
</tr>
</tbody>
</table>

Lift capacity (kg)

<table>
<thead>
<tr>
<th></th>
<th>601 F</th>
<th>602 F</th>
<th>603 F</th>
<th>605 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>601 F</td>
<td>2,000</td>
<td>3,500</td>
<td>5,000</td>
<td>9,000</td>
</tr>
</tbody>
</table>
Electromobility Solutions

<table>
<thead>
<tr>
<th>Type</th>
<th>Max input speed</th>
<th>Rated motor power</th>
<th>Typical wheel size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min⁻¹</td>
<td>kW, S2-60°</td>
<td>inches</td>
</tr>
<tr>
<td>601 F</td>
<td>8,000</td>
<td>2x4.5</td>
<td>18</td>
</tr>
<tr>
<td>602 F</td>
<td>5,500</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>603 F</td>
<td>4,500</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>605 F</td>
<td>4,500</td>
<td>2x14</td>
<td>35</td>
</tr>
</tbody>
</table>

**Functional Diagram**

- **INVERTER**
- **AUXILIARY DRIVES**
- **BATTERY CHARGE/CONVERTER**
- **BATTERY PACK**
- **Bus DC**
Electric powertrains for warehouse vehicles

EL Series

Bonfiglioli EL powertrains are a perfect match for the most demanding warehousing applications (Class 2 and Class 3). Warehousing trucks require high maneuverability in tight spaces, provided by drives like the EL series drives, with the smallest operating radius in vertical arrangements.

Gear ratios
- 13 ... 32

Power range
- 2 ... 7 kW

Main options
- Cold environment versions
- Integrated tiller or castor wheel supports

Key features
- Two-stage helical & bevel gearboxes
- Manual steer and power steer versions
- Optimized gear design for efficiency and noise
- Integrated low-voltage electric motor
- Integrated parking brake
- Complete system with tyres

Torque (Nm)

<table>
<thead>
<tr>
<th>Model</th>
<th>EL100</th>
<th>EL09 V</th>
<th>EL96</th>
<th>EL10 V</th>
<th>EL300</th>
<th>EL92</th>
<th>EL93</th>
<th>EL94</th>
<th>EL14 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque (Nm)</td>
<td>450</td>
<td>500</td>
<td>900</td>
<td>1,100</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,900</td>
<td></td>
</tr>
</tbody>
</table>

Max wheel load (kg)

<table>
<thead>
<tr>
<th>Model</th>
<th>EL100</th>
<th>EL09 V</th>
<th>EL96</th>
<th>EL10 V</th>
<th>EL300</th>
<th>EL92</th>
<th>EL93</th>
<th>EL94</th>
<th>EL14 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel load (kg)</td>
<td>1,200</td>
<td>1,200</td>
<td>1,500</td>
<td>1,500</td>
<td>2,200</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,400</td>
</tr>
</tbody>
</table>
## Electromobility Solutions

### Functional Diagram

<table>
<thead>
<tr>
<th>Type</th>
<th>Max wheel diameter</th>
<th>Max ratio</th>
<th>Max power</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL100</td>
<td>230 mm</td>
<td>32 i</td>
<td>2 kW</td>
</tr>
<tr>
<td>EL09 V</td>
<td>230 mm</td>
<td>32 i</td>
<td>2 kW</td>
</tr>
<tr>
<td>EL96</td>
<td>260 mm</td>
<td>24 i</td>
<td>3 kW</td>
</tr>
<tr>
<td>EL10 V</td>
<td>260 mm</td>
<td>24 i</td>
<td>3 kW</td>
</tr>
<tr>
<td>EL300</td>
<td>305 mm</td>
<td>24 i</td>
<td>4.5 kW</td>
</tr>
<tr>
<td>EL92</td>
<td>356 mm</td>
<td>24 i</td>
<td>7 kW</td>
</tr>
<tr>
<td>EL93</td>
<td>406 mm</td>
<td>25 i</td>
<td>7 kW</td>
</tr>
<tr>
<td>EL94</td>
<td>457 mm</td>
<td>25 i</td>
<td>7 kW</td>
</tr>
<tr>
<td>EL14 V</td>
<td>360 mm</td>
<td>24 i</td>
<td>7 kW</td>
</tr>
</tbody>
</table>

### BATTERY PACK

- **EL SERIES**
- **INVERTER**
- **BATTERY CHARGE/CONVERTER**
- **BATTERY PACK**
- **AUXILIARY DRIVES**

### Dimensions

<table>
<thead>
<tr>
<th>Type</th>
<th>A (mm)</th>
<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL100</td>
<td>184</td>
<td>134.5</td>
</tr>
<tr>
<td>EL09 V</td>
<td>190</td>
<td>125</td>
</tr>
<tr>
<td>EL96</td>
<td>215</td>
<td>147</td>
</tr>
<tr>
<td>EL10 V</td>
<td>207</td>
<td>125</td>
</tr>
<tr>
<td>EL300</td>
<td>249</td>
<td>175</td>
</tr>
<tr>
<td>EL92</td>
<td>277</td>
<td>187</td>
</tr>
<tr>
<td>EL93</td>
<td>304</td>
<td>187</td>
</tr>
<tr>
<td>EL94</td>
<td>325</td>
<td>187</td>
</tr>
<tr>
<td>EL14 V</td>
<td>277</td>
<td>187</td>
</tr>
</tbody>
</table>
Bonfiglioli 600WE planetary drives incorporate an integrated, maintenance-free electric motor and offer significant benefits, including compact dimensions, low noise and high efficiency. This advanced powertrain solution uses a two- or three-stage gearbox offering reduction ratios of up to 1:145 to satisfy the widest possible range of needs. The gearbox is coupled with a low-voltage induction motor (BT Series), specially developed for traction power and control applications.

**Input speed**
- up to 6,000 rpm

**Main options**
- Speed sensor bearing
- Other types of temperature sensors
- Mechanical disengagement for towing, with no need to remove the wheel and without oil drop
- Parking brake (spring applied with hydraulic or electromagnetic release)

**Key features**
- Two- or three-stage planetary drive with reduction ratios of up to 1:145
- Optimized gear design for maximum efficiency and minimum noise
- Integrated, low voltage, 3 phase induction motor with inverter
- Integrated, high accuracy, KTY temperature sensor
- High resolution, Hall effect speed sensor

**Torque (Nm)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated motor data</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 WE</td>
<td>0.9 ... 3.4</td>
</tr>
<tr>
<td>601 RE</td>
<td>2.5 ... 4.3</td>
</tr>
<tr>
<td>602 RE</td>
<td>3.4 ... 5.4</td>
</tr>
<tr>
<td>602 WE</td>
<td>3.4 ... 5.4</td>
</tr>
<tr>
<td>604 WE</td>
<td>4.3 ... 6.2</td>
</tr>
<tr>
<td>605 WE</td>
<td>5.4 ... 9.1</td>
</tr>
</tbody>
</table>
## Electromobility Solutions

<table>
<thead>
<tr>
<th>Type</th>
<th>Ratios</th>
<th>Max Input Speed</th>
<th>Weight</th>
<th>Oil Quantity</th>
<th>AC Electric Motor - Size</th>
<th>Parking Brake</th>
<th>Machine Tone Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rpm</td>
<td>kg</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>600 WE</td>
<td>48-58.7</td>
<td>6,000</td>
<td>35</td>
<td>0.5</td>
<td>*</td>
<td>*</td>
<td>2 ÷ 4</td>
</tr>
<tr>
<td>601 RE</td>
<td>201-51.8</td>
<td>4,000</td>
<td>40</td>
<td>0.8</td>
<td>*</td>
<td>*</td>
<td>4 ÷ 6</td>
</tr>
<tr>
<td>602 RE</td>
<td>203-30.6</td>
<td>6,000</td>
<td>53</td>
<td>0.7</td>
<td>*</td>
<td>*</td>
<td>6 ÷ 9</td>
</tr>
<tr>
<td>602 WE</td>
<td>20-145</td>
<td>6,000</td>
<td>45</td>
<td>0.5</td>
<td>*</td>
<td>*</td>
<td>6 ÷ 9</td>
</tr>
<tr>
<td>604 WE</td>
<td>22.2-53</td>
<td>5,000</td>
<td>65</td>
<td>1.1</td>
<td>*</td>
<td>*</td>
<td>9 ÷ 12</td>
</tr>
<tr>
<td>605 WE</td>
<td>22.2-53</td>
<td>5,000</td>
<td>65</td>
<td>1.1</td>
<td>*</td>
<td>*</td>
<td>12 ÷ 18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>BT 135-</th>
<th>BT 150-</th>
<th>BT 170-</th>
<th>BT 200-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>P <em>r</em> (S2 60') (kW)</td>
<td>0.9</td>
<td>1.6</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
<td>T <em>n</em> (Nm)</td>
<td>3</td>
<td>5.6</td>
<td>8.5</td>
<td>4.5</td>
</tr>
<tr>
<td>V <em>r</em> (V)</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>I <em>n</em> (A)</td>
<td>55</td>
<td>95</td>
<td>128</td>
<td>80</td>
</tr>
<tr>
<td>n (rpm)</td>
<td>2,930</td>
<td>2,927</td>
<td>2,632</td>
<td>2,894</td>
</tr>
<tr>
<td>cosφ</td>
<td>0.77</td>
<td>0.8</td>
<td>0.81</td>
<td>0.85</td>
</tr>
<tr>
<td>η (%)</td>
<td>86.9</td>
<td>89.5</td>
<td>90.0</td>
<td>85.5</td>
</tr>
</tbody>
</table>

### Functional Diagram

**RE version**

**WE version**

<table>
<thead>
<tr>
<th>Type</th>
<th>BT 135-</th>
<th>BT 150-</th>
<th>BT 170-</th>
<th>BT 200-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>L1</td>
<td>275</td>
<td>325</td>
<td>375</td>
<td>340</td>
</tr>
<tr>
<td>600WE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>601RE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>602RE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>602WE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>604WE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>605WE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Auxiliary Drives**

- E.G. Heaters, Instrument Panel

**Battery DC**

**Battery Charge/Converter**

**Wheel Drive**

**Inverter**
Electric powertrains for lightweight vehicles

600D Series

Bonfiglioli supplies versatile low noise drives coupled to electric motors for all-electric, battery powered vehicles like urban passenger cars, commercial vehicles and delivery trucks. This solution ensures more energy-efficient operations and extended autonomy from the battery, thanks to optimised, low backlash helical gears and high speed bearings. Bonfiglioli’s 600D Series drives are extremely lightweight, thanks to their cast aluminium casings developed using all of Bonfiglioli’s vast process expertise.

Key features

- Multi-stage, parallel shaft gearbox with reduction ratios of up to 1:15
- Optimised gear design for maximum efficiency and minimum noise
- Integrated mechanical differential
- Lightweight cast aluminium housing
- Versatile gearbox installation in the chassis
- Low voltage electric traction motor with inverter control

Optional features available on request

- Input for 2 electric motors
- Integrated mechanical parking brake
- Integrated, high resolution Hall-effect speed sensor
- Matched mechanical joints and shafts
- Matched electric motors and inverters

Torque (Nm)

<table>
<thead>
<tr>
<th>Model</th>
<th>Torque (Nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600D</td>
<td>1,000</td>
</tr>
<tr>
<td>601D</td>
<td>1,500</td>
</tr>
<tr>
<td>602D</td>
<td>3,000</td>
</tr>
<tr>
<td>Type</td>
<td>Rated motor power</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>kW, S2-60'</td>
</tr>
<tr>
<td>600D</td>
<td>5 ... 20</td>
</tr>
<tr>
<td>601D</td>
<td>20 ... 30</td>
</tr>
<tr>
<td>602D</td>
<td>30 ... 45</td>
</tr>
</tbody>
</table>

**Functional Diagram**

- **600D SERIES**
  - WHEEL TRANSMISSION
  - INVERTER
  - AUXILIARY DRIVES
    - DC
    - AC
  - BATTERY CHARGE/CONVERTER
  - BATTERY PACK
  - Bus DC
Idle steering systems for material handling vehicles

600W0C Series

600W0C units are typically applied in the rear section of 3- and 4-wheel counterbalanced forklifts. They can be axles or steering units for twin wheels. Depending on the steering unit model, anti-vibration parts can be included, and they serve as support for fixing brackets. The steering mechanism guarantees a high steering angle to minimize the vehicle’s steering radius and allow the truck to move easily in narrow aisles. Depending on the customers’ needs, it is possible to customize the unit’s main dimensions and other characteristics, such as adding a potentiometer to read the steering angle.

Key features
- Hydraulic steering
- Electric steering for 601W0
- Optimized design for steering angle

Main options
- Anti-vibration parts
- Potentiometer for steering angle

Lift capacity (kg)

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>601W0C</td>
<td>2,000</td>
</tr>
<tr>
<td>602W0C</td>
<td>3,000</td>
</tr>
<tr>
<td>603W0C</td>
<td>3,500</td>
</tr>
</tbody>
</table>
### Electromobility Solutions

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of wheels</th>
</tr>
</thead>
<tbody>
<tr>
<td>601W0C</td>
<td>3</td>
</tr>
<tr>
<td>602W0C</td>
<td>4</td>
</tr>
<tr>
<td>603W0C</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Flange distance [mm]</th>
<th>Max steering angle [deg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>601W0C</td>
<td>175</td>
<td>85</td>
</tr>
<tr>
<td>602W0C</td>
<td>830</td>
<td>95</td>
</tr>
<tr>
<td>603W0C</td>
<td>930</td>
<td>85</td>
</tr>
</tbody>
</table>

**Functional Diagram**

**Functions:**
- **Steering Axle**
- **Steering Gear (Steering Wheel)**
- **Traction Unit**
- **Steering Cylinder**
- **Pump Motor**
- **Inverter**
- **Bus DC**
- **Battery Charge/Converter**
- **Battery Pack**
Wheel drives for hybrid construction & agriculture machinery

600W Series

Bonfiglioli’s 600W planetary wheel drives can be coupled to a high-power density electric motor, instead of a conventional hydraulic motor. This complete mechatronic solution is designed for a high voltage hybrid powertrain system and was originally conceived for self-propelled crop sprayers.

Advantages for OEM
• Possibility of downsizing and downspeeding combustion engines
• Ease of installation: electric solution dimensions comparable to standard hydrostatics
• Higher system reliability: fewer mechanical parts
• Virtually maintenance-free electric motors
• From wheel bolt to electric wire with only one supplier

Advantages for final user
• Reduction of fuel consumption
• Increase of productivity
• Better machine manoeuvrability
• The electric solution is cleaner: lower risk of oil spills
Functional Diagram

600W SERIES

WHEEL TRANSMISSION

INVERTER

AUXILIARY DRIVES

DC

AC

DC

AC

CONVERTER

CONVERTER

ENGINE

GENERATOR

BATTERY PACK

Bus DC
Drum drives for hybrid concrete mixers

500 Series

This solution is designed for use with medium/large mixer trucks that have medium/long delivery distances to travel. Bonfiglioli’s innovative solution comprises a Bonfiglioli 500 Series gearbox coupled to an AC electric motor, providing normal power, and a DC electric motor for emergency use.

Key benefits

- Increased energy efficiency
- Reduced fuel consumption
- Optimized gear design for maximum efficiency and minimum noise

Torque (Nm)

| 577 | 60,000 |

This product not only guarantees greater energy efficiency and reduced fuel consumption, but also helps cut cement mixer truck operating costs. Performance is improved too: rotation speed control is more accurate, operating noise levels are significantly lower. Finally, functionality remains higher in the event of a failure: the presence of a second backup DC motor provides reassuring redundancy and eliminates the risks and potentially hazardous situations caused by failures of the drum emptying system.
**Gearbox data**

- **Ratio**
  - Main: 1:220
  - Emergency: 1:2,200

- **Max output torque**
  - Main: 60,000 Nm
  - Emergency: 10,500 Nm

- **Max input speed**
  - Main: 3,500 rpm
  - Emergency: 2,000 rpm

- **Oil quantity**
  - 8 lt

- **Dry weight**
  - 328 kg

**Motor data**

- **Type**
  - Main: Induction AC
  - Emergency: PM DC motor

- **Rated Power**
  - Main: 40 kW
  - Emergency: 2 kW

- **Voltage**
  - Main: 170 VAC
  - Emergency: 24 VDC

- **Protection degree**
  - IP66

- **Cooling**
  - Main: Liquid
  - Emergency: Air forced

**Key features**

- Service intervals less frequent and simplified versus the standard hydraulic solution
- Better drum rotation speed control
- The emergency electric DC motor allows higher availability in case of machine failure

---

**Functional Diagram**

- **500 SERIES**
- **ELECTRIC MOTOR**
- **DRUM DRIVE**
- **INVERTER**
- **AUXILIARY DRIVES**
  - **DC**
  - **AC**
- **BATTERY PACK**
- **CONVERTER**
- **GENERATOR**
- **TRANSMISSION + WHEEL TRACTION**
- **ENGINE**
Electric travel drives for crusher

700CE Series

Bonfiglioli 700CE planetary drives coupled with a high-power density electric motor are specifically designed for high-voltage hybrid powertrain systems. An integrated, maintenance-free IPM (internal permanent magnet) electric motor is included, giving significant benefits in terms of dimensions and efficiency. For outdoor use on rough soils, the motor protection class is IP67. The overall length in the case of SAHR brake, is particularly limited, close to the size of a hydraulic motor.

Gear ratios
• Up to 166

Input speed
• up to 6,000 rpm

Benefits for the end-user
• Reduced fuel consumption
• Increased productivity
• Better machine maneuverability
• The electric solution is cleaner: lower risk of oil spills

Benefits for OEMs
• Ability to downsize and downspeed combustion engines
• Ease of installation: electric solution dimensions comparable to standard hydrostatics
• Higher system reliability: fewer mechanical parts
• Virtually maintenance-free electric motors
• From sprocket to electric wire with only one supplier

Torque (Nm)

<table>
<thead>
<tr>
<th>Type</th>
<th>Typical ratio</th>
<th>Crusher weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>707 CE</td>
<td>154</td>
<td>26,000</td>
</tr>
<tr>
<td>709 CE</td>
<td>123</td>
<td>30,000</td>
</tr>
<tr>
<td>710 CE</td>
<td>166</td>
<td>36,000</td>
</tr>
<tr>
<td>711 CE</td>
<td>153</td>
<td>45,000</td>
</tr>
<tr>
<td>713 CE</td>
<td>163</td>
<td>60,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Typical ratio</th>
<th>Crusher weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>707 C3 E</td>
<td>154</td>
<td>28</td>
</tr>
<tr>
<td>709 C3 E</td>
<td>123</td>
<td>36</td>
</tr>
<tr>
<td>710 C3 E</td>
<td>166</td>
<td>45</td>
</tr>
<tr>
<td>711 C3 E</td>
<td>153</td>
<td>50</td>
</tr>
<tr>
<td>713 C3 E</td>
<td>163</td>
<td>60</td>
</tr>
</tbody>
</table>
Motor data

Rated voltage DC BUS
- 400 V

Rated motor power
- 24.4 kW S1

Maximum motor torque
- 400 Nm [255 A] (up to 1,200 rpm)

Motor speed
- Up to 6,000 rpm

Protection class
- IP 67

Ins. Class
- H

Max. output torque
- Up to 60,000 Nm

Functional Diagram
Bonfiglioli's global research and development create breakthrough solutions that integrate the most advanced mechanical, electrical and hydraulic technologies. They meet the most demanding application requirements and support our customers’ growth.

More than 200 employees around the world are involved in the group’s research and development.

We support our customers’ projects from beginning to end.

At Bonfiglioli, we believe that product development relies on passion, efficient processes, and the ability to understand our customers’ needs accurately.

First, our team identify the customer’s needs after in-depth analysis drawn from our specific application expertise.

Through dedicated calculation tools, we can simulate the transmission’s capabilities and performance allowing reducing development time.

The alignment phase allows us then to adapt our proposal according to key factors of performance, installation and maintenance.

The test centers at Bonfiglioli

Bonfiglioli’s test laboratories develop, certify and perform production follow-up for the solutions designed and manufactured in our plants across the world.

Our specialists are true partners to the R&D, technical and quality departments. They help validate each Bonfiglioli product from the smallest critical component to the overall solution.

The test centers regularly conduct additional tests to ensure gearbox durability and confirm the specifications declared during the official approval stage.
Quality, Health & Safety

Our team is wholly dedicated to continuous improvement in the quality, safety and environmental sphere, throughout the entire value chain, from the smallest supplier to the end client.

Bonfiglioli management systems are certified ISO 9001: 2015, ISO 14001: 2015 and OHSAS 18001: 2007, while our products are covered by 7 international certifications. Responsibility, excellence and continuous improvement are the basic elements that make us the favored partner of our clients and suppliers.

Quality

Bonfiglioli is committed to achieving the highest ethical and quality standards. These standards are documented in the Bonfiglioli Quality Management System.

Our products are intended to generate value for our customers. We are committed to designing, manufacturing and supplying effective products and services that set a benchmark for quality in the industry.

Based on defined procedures and instructions, the Bonfiglioli Quality Management System has been established not only to ensure the ongoing quality of our products and processes, but also to guarantee continuous improvement.

Bonfiglioli has also implemented a Quality Policy which sets customer focus as a primary goal. The Quality Policy is used to set and deploy goals and objectives at every level of the organization. The fulfilment of these objectives is measured on a regular basis with appropriate performance indicators.

Health & Safety: Sustainability starts with safety

Prevention of accidents and incidents is a key element of our company’s sustainable strategy and an integral part of each one of our business processes. The successful management of risks is essential for protecting our employees and assets and thereby contribute therefore strengthening.
Global Presence

Bonfiglioli is a market force with a presence spanning 22 countries on 5 continents. Our organization makes the most of geographic proximity to offer complete solutions combining efficiency and competence.

We Are a Global Company

Thanks to an international network of sales branches and closely interconnecting production plants, we can guarantee the same high standards of Bonfiglioli quality anywhere at any given time. Aware that our direct presence in local markets is the key to long-lasting success, our family includes 22 sales branches, 14 production plants and more than 500 distributors around the world.

Our organization is always close by, offering complete and efficient solutions and supporting our customers with dedicated services, such as co-engineering or after-sales assistance.
We have a relentless commitment to excellence, innovation and sustainability. Our team creates, distributes and services world-class power transmission and drive solutions to keep the world in motion.