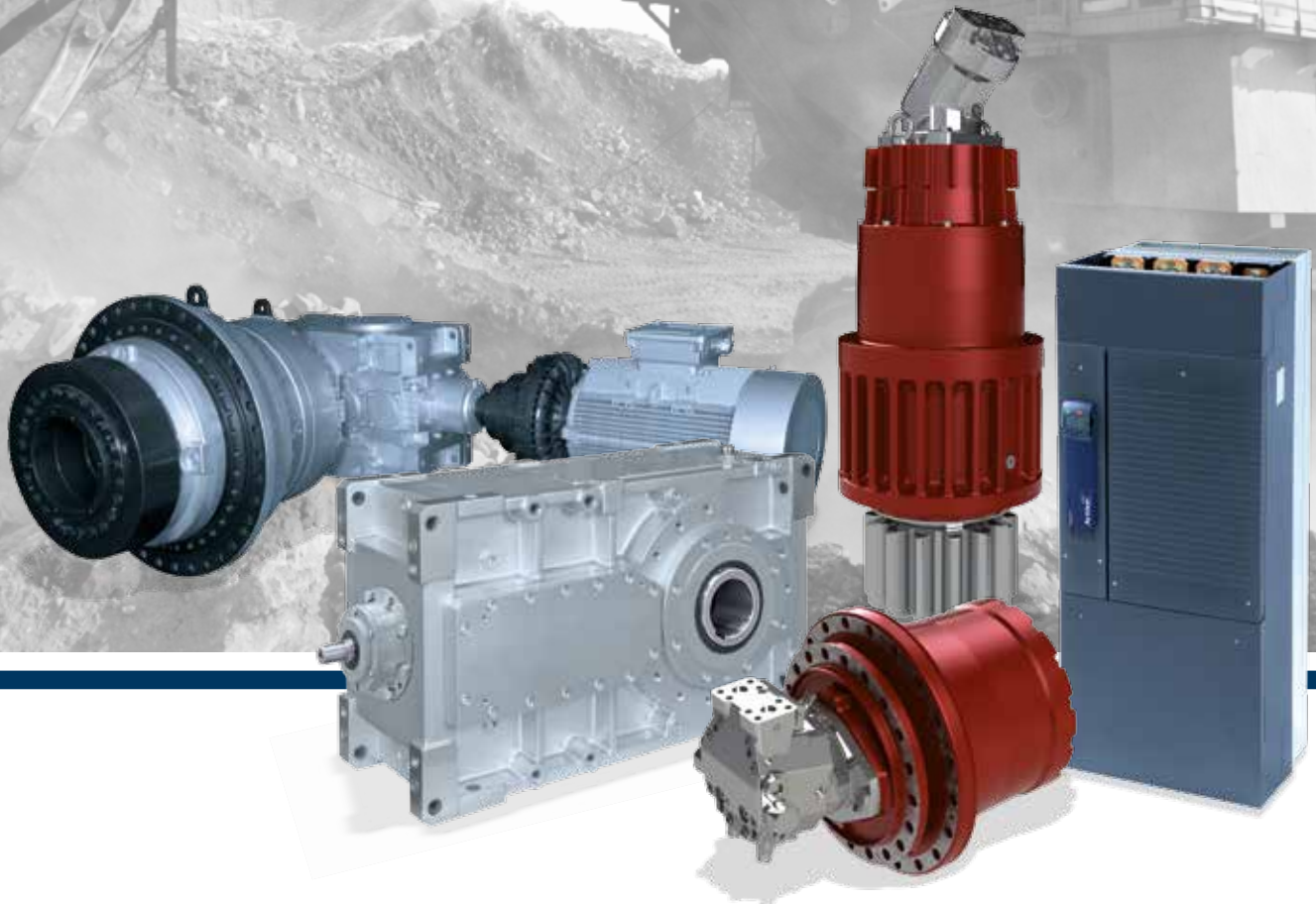
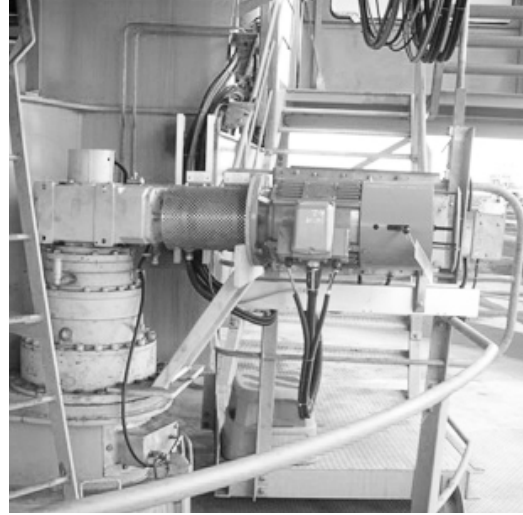




Bonfiglioli
Forever Forward



Solutions for
MINING APPLICATIONS



Heavy Duty, Big Torque Solutions for Mining Processes and Machinery

Within the mining industry, Bonfiglioli offers a diverse range of solutions for all types of applications. We have decades of experience in developing customized solutions for the most demanding heavy-duty mining applications around the world and incomparable expertise in typical mineral processing applications.

The acquisition of O&K Antriebstechnik GmbH in 2015 expanded the final drives range from Bonfiglioli from 625 kNm to 3000 kNm torque, the largest final drive offering in the world.

Bonfiglioli also offers products that are specialized for dust-proof, explosion-proof and temperature controlled environments, developed to match the robustness and duration that are typical of the mining sector.

Some of the biggest machines and applications in the world are powered by at least one Bonfiglioli final drive, gearbox, gearmotor or motion and control solution.

Products for all types of mining equipment:

- Hydraulic shovel excavators
- Electric or hybrid rope shovel excavators
- Bucket wheel excavators
- Dump trucks with diesel-electric driveline
- Crushers and screeners
- Mining stackers
- Belt wagons
- Conveyors - systems & belt drives
- Conveyors - systems & mobile transfer drives
- Blast hole drills
- Surface miners
- Underground mining equipment

Track drives

(2200 kNm torque) and **slew drives** (54 kNm torque) in 1000-ton hydraulic shovel excavators

Track drives

(360 kNm torque) for blast hole drills, surface miners and mobile transfer conveyors

Track drives

(1800 kNm torque) and **slew drives** (130 kNm torque) in 800-ton Hybrid rope shovel excavators

Cutter wheel drives

and track drives for underground mining drills

Bevel helical

and **parallel shaft gear units** in discharge conveyors with a throughput of 1200 wtp

The most diverse range of Products for the Mining Industry

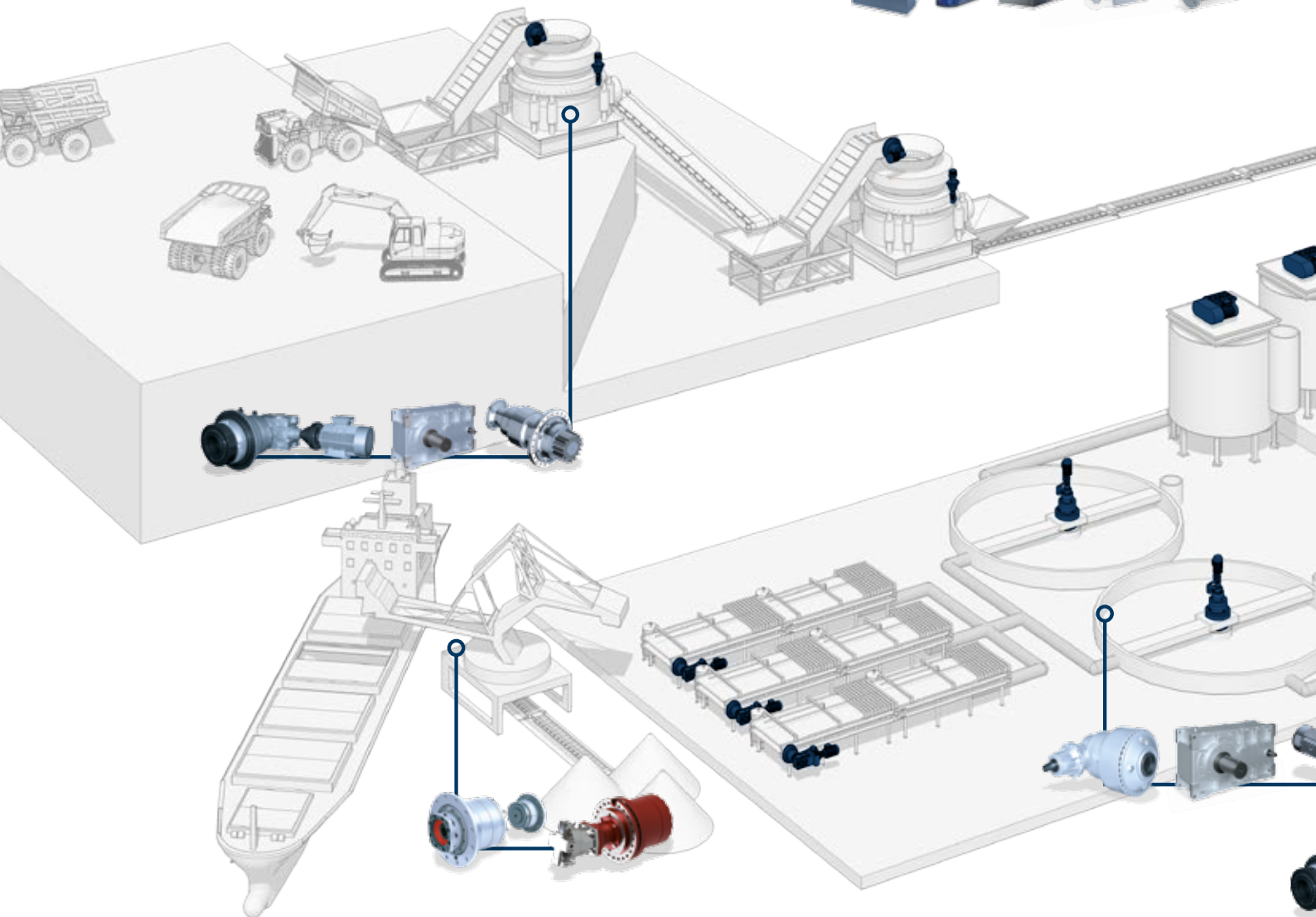
MINING PROCESSES

Crushing
Crushers
Apron Feeders
Conveyors

**Solid/Liquid
separation**
Filters
Thickeners
Flotation Cells
Grinding Mills

Heap/Leach
Travel
Slewing
Bucket Wheels

**Motion and
Control**
Electric Drives
Actuators

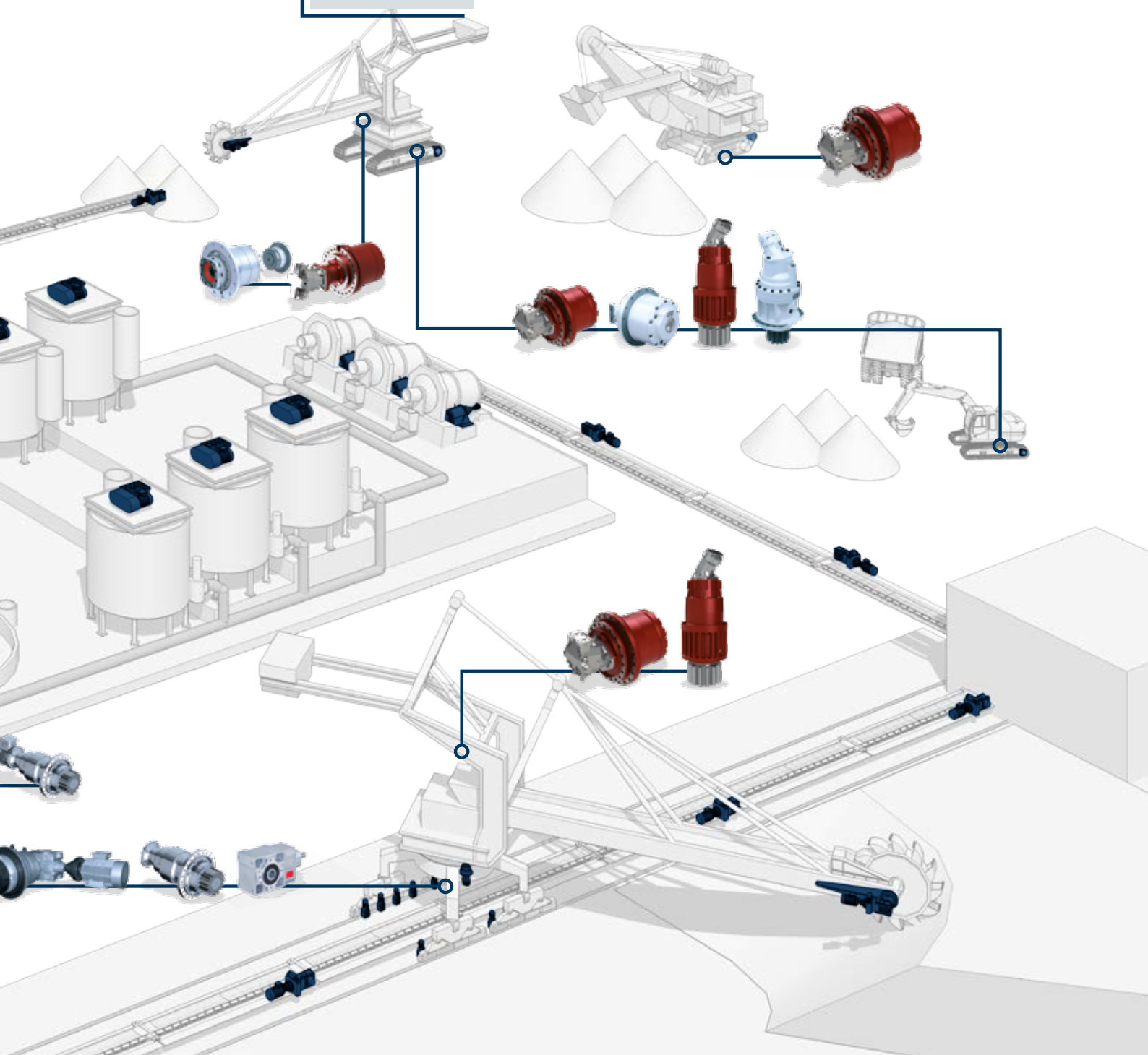


MINING MACHINERY

Excavators
Travel Drives
Track Drive Gearmotors
Slew Drives

Crawler Cranes
Travel Drives
Slew Drives
Winch Drives

Mining Shovel
Travel Drives



Heavy duty solutions for all types of mining processes

GEARBOXES AND GEARMOTORS

*WIDE VARIETY OF PRODUCTS WITH UNLIMITED
CONFIGURATIONS FOR ANY APPLICATION*

Planetary gearmotors (300 Series)

Torque range: 1250 to 1287000 Nm

Gear ratios: 3.4 to 5234

Helical gearmotors (C Series)

Torque range: 45 to 12000 Nm

Gear ratios: 2.6 to 1481

Bevel-helical gearmotors (A series)

Torque range: 100 to 14000 Nm

Gear ratios: 5.4 to 1715

Shaft-mounted gearmotors (F series)

Torque range: 140 to 14000 Nm

Gear ratios: 6.4 to 2099

Bevel-helical gear reducers (HDO series)

Torque range: 28200 to 210000 Nm

Gear ratios: 5.6 to 400

Parallel shaft gearbox (HDP series)

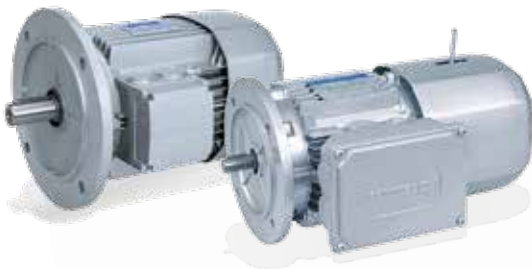
Torque range: 5000 to 210000 Nm

Gear ratios: 7.1 to 500

*PRODUCTS CAN BE INTEGRATED IN
MULTIPLE WAYS, FOR GREATER TORQUE
CONTROL AND PERFORMANCE*



- Ideal for applications that demand high power density
- Best mechanical performance, highest efficiency
- Higher thermal capacity



MOTORS

A COMPLETE RANGE OF AC MOTORS, INCLUDING IE2 AND IE3 FOR HIGHEST EFFICIENCY

Mechanical ratings (4 pole): 0.6 to 30 kW

Pole numbers from 2 to 4/8



MOTION AND CONTROL

SOLUTION AND SERVO DRIVES AND INVERTERS WITH THE HIGHEST POWER DENSITY ON THE MARKET

Solutions for Mining

Active Cube Size 8

Power range: 160 to 1200 kW

Voltages: 400 V, 525 V, 690 V

IP degrees: IP20, IP54 cabinet solution



Regenerative Unit - AEC Size 8

Power range: 160 to 400 kW

Block function or sinusoidal function

Servo Drives and Frequency Inverters

Active Cube

Power range: 0.25 to 132 kW

Voltages: 200 V, 400 V

Agile

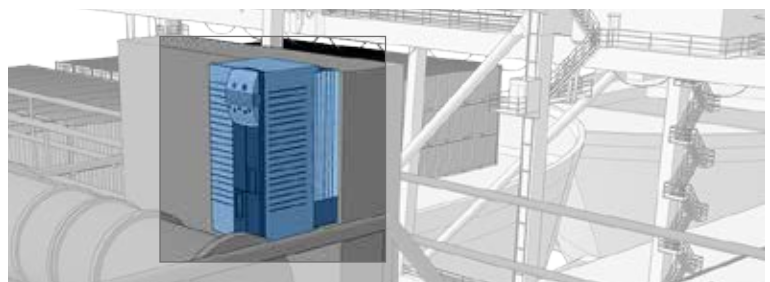
Power range: 0.25 to 11 kW

Voltages: 200 V, 400 V

Regenerative Unit - AEC

Power range: 5.5 to 132 kW

Block function or sinusoidal function



Powerful, heavy duty drives for self-propelled mining equipment

TRAVEL DRIVES

THE WIDEST TORQUE RANGE IN THE WORLD FOR FINAL DRIVES

- High quality forged IQT (42CrMo4V) versus standard nodular cast iron
- Taper roller main bearings for higher shock resistance
- Gear grinding of **up to 7** planet stages (5 is the market standard)
- Nitriding of Ringgears – 80 hours at 500° C, NO quench
- Tight tolerancing for even load distribution to all planets
- Low weight
- Small dimensions
- Constant quality
- Load sharing factor 1,0 applicable

THE LARGEST FINAL DRIVE ON THE MARKET



Torque range: 0.6 to 3000 kNm

Gear ratios: 5.3 to 1784

For machine weights **up to 800 tons**

SLEW DRIVES

COMPACT STRUCTURE, HIGH PERFORMANCE

Torque range: 1.0 to 130 kNm

Gear ratios: 3.4 to 2000



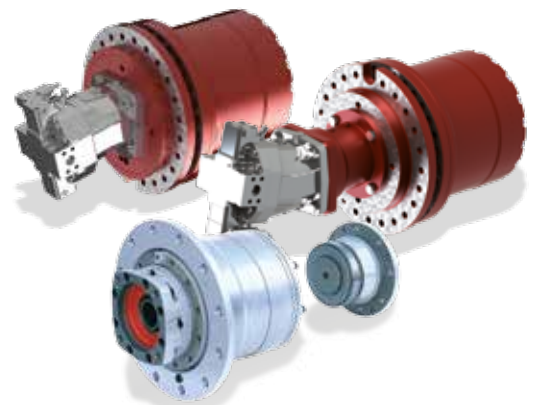
WINCH DRIVES

INCLUDING NEW FREE FALL WINCHES WITH INDEPENDENT AND INTEGRATED BRAKE CLUTCH SYSTEM

Torque range: 5.0 to 210 kNm

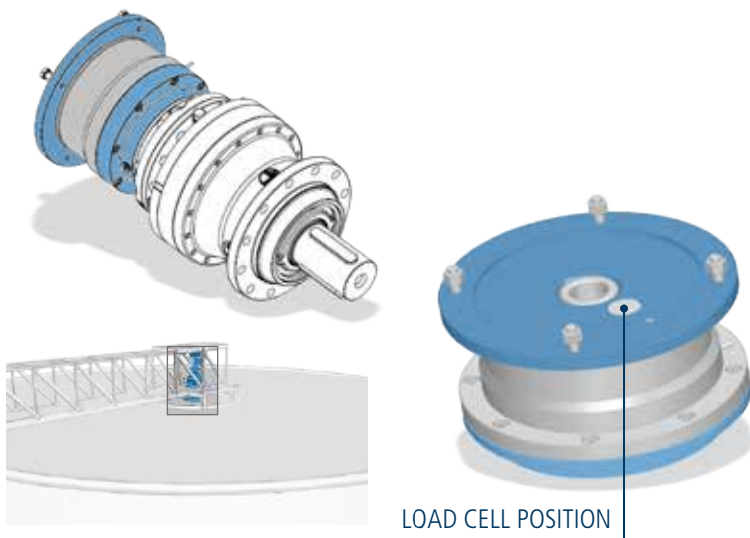
Gear ratios: 21 to 490

For machine weights **up to 300 tons**



INDUSTRY 4.0 DIGITAL AGE SOLUTIONS TO OPTIMIZE AND MONITOR PERFORMANCE

To help customers better maintain their machines and prevent downtime, Bonfiglioli offers two new technologies to monitor product performance, the Integrated Load Cell and Condition Monitoring System. These technologies help to reduce or eliminate downtime, minimize production losses and optimize performance, extending the product life and reducing total cost of ownership.

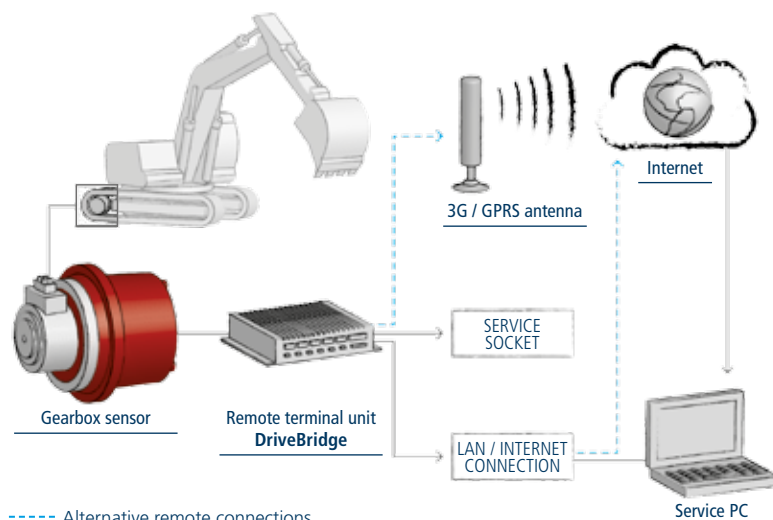


**NEW
PATENTED
SOLUTION!**

THE INTEGRATED LOAD CELL

is for all applications with an e-motor where it is necessary to control and manage input power

- The only version on the market with the load cell integrated inside the gearbox
- External output cable to monitor performance
- Shuts down the e-motor if necessary
- Real-time, precise torque monitoring



----- Alternative remote connections.

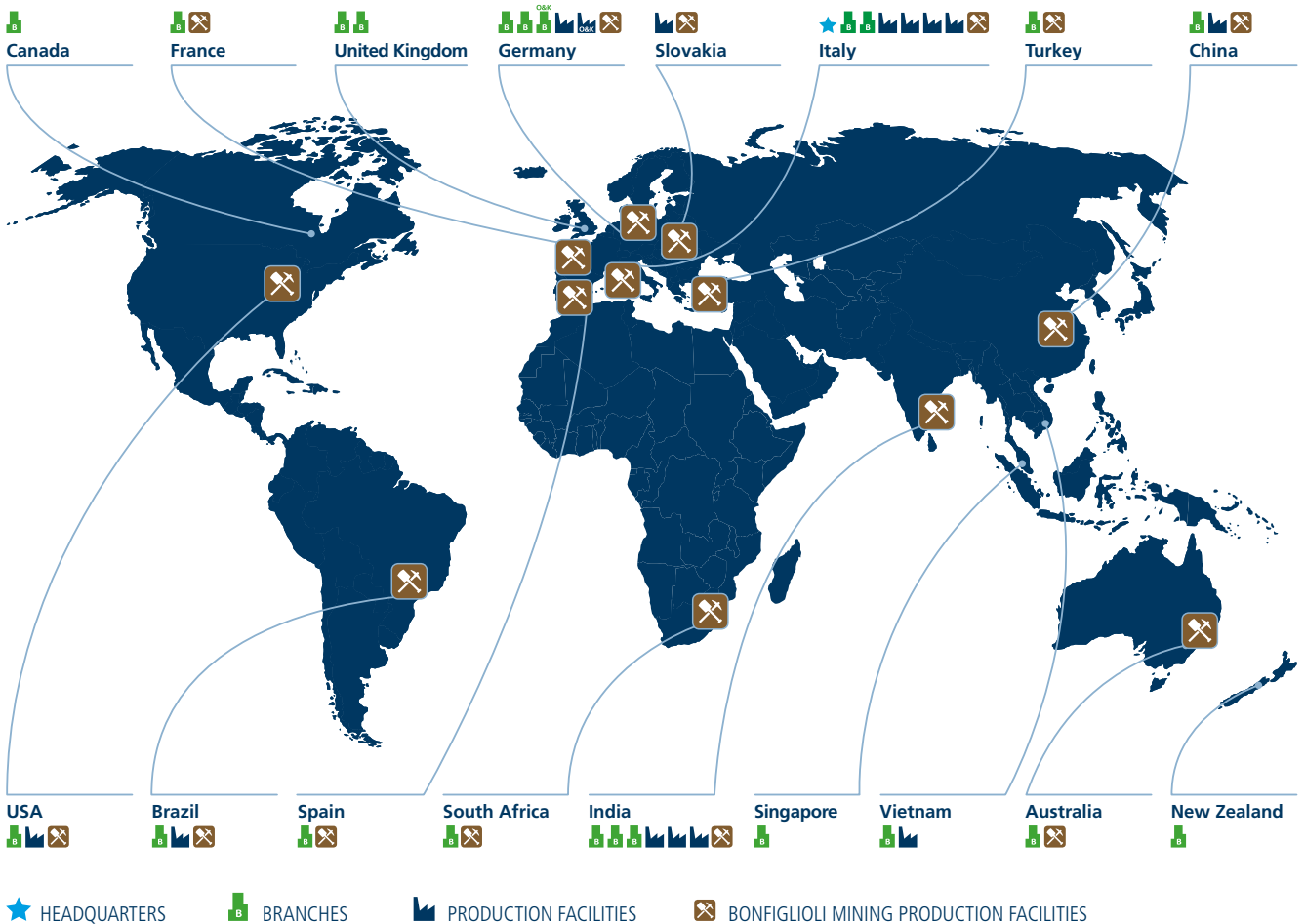
THE CONDITION MONITORING SYSTEM

measures various parameters of the drive such as lube oil temperature, oil level, hydraulic motor pressure, gearbox vibration and more.

- Reliable on-board alarming
- Real-time remote monitoring from anywhere in the world
- Detailed analysis and data history

Bonfiglioli Worldwide Locations

Bonfiglioli is located in regions and countries around the world that enable us to provide faster sales and service to customers. Our network includes more than 35 service centers worldwide, with 12 facilities that manufacture and assemble products that are specific to the mining industry. We are around the world, and around the corner.



**Worldwide
distribution
network**

Local support
Sales
Customer Service
Warranty
Tech support
Spare parts

22
branch offices in
17
countries

Bonfiglioli Worldwide Locations

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Fax +91(0) 44 24780091 - 24781904
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Industrial

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