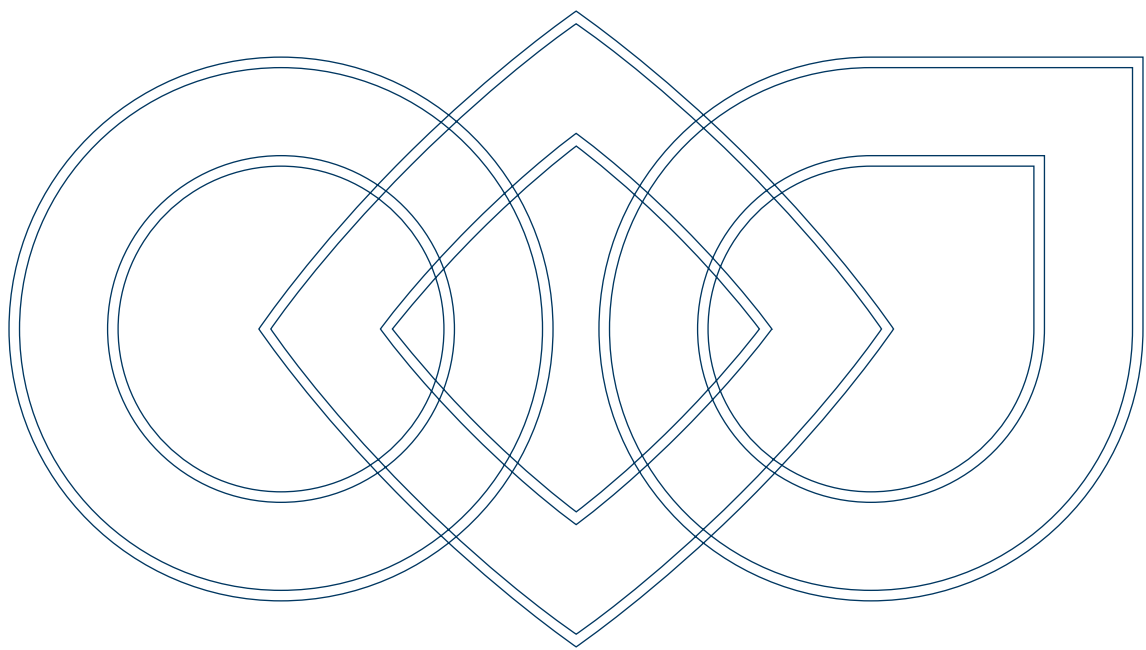




Solutions for
Mining



SECTOR



THE **BROADEST** RANGE OF SOLUTIONS FOR THE **MINING** INDUSTRY

Thanks to decades of experience in developing customized solutions for the most demanding mining applications around the world, Bonfiglioli is able to offer its customers a wide, complete and adapted range of solutions.

From crushing to slurry processes to earth moving applications, our team of experts is designing and creating integrated solutions that perfectly match the harsh and dusty environments typical of mining applications.

Bonfiglioli final drive, gearbox, geared motor or motion and control solutions are recognized on the market by worldwide leading players, with whom we've been working for decades. Today, our range of products is one of the broadest available in the world, with torque values from 13 Nm to 3 000 000 Nm.

BONFIGLIOLI HAS ALL THE EXPERIENCE NEEDED TO SUPPORT THE FOLLOWING MINING PROCESSES:



Crushing, Grinding & Material Handling

Page 6 to 9



Slurry Processing

Page 10 to 13



Earth-Moving Processes

Page 14 to 17

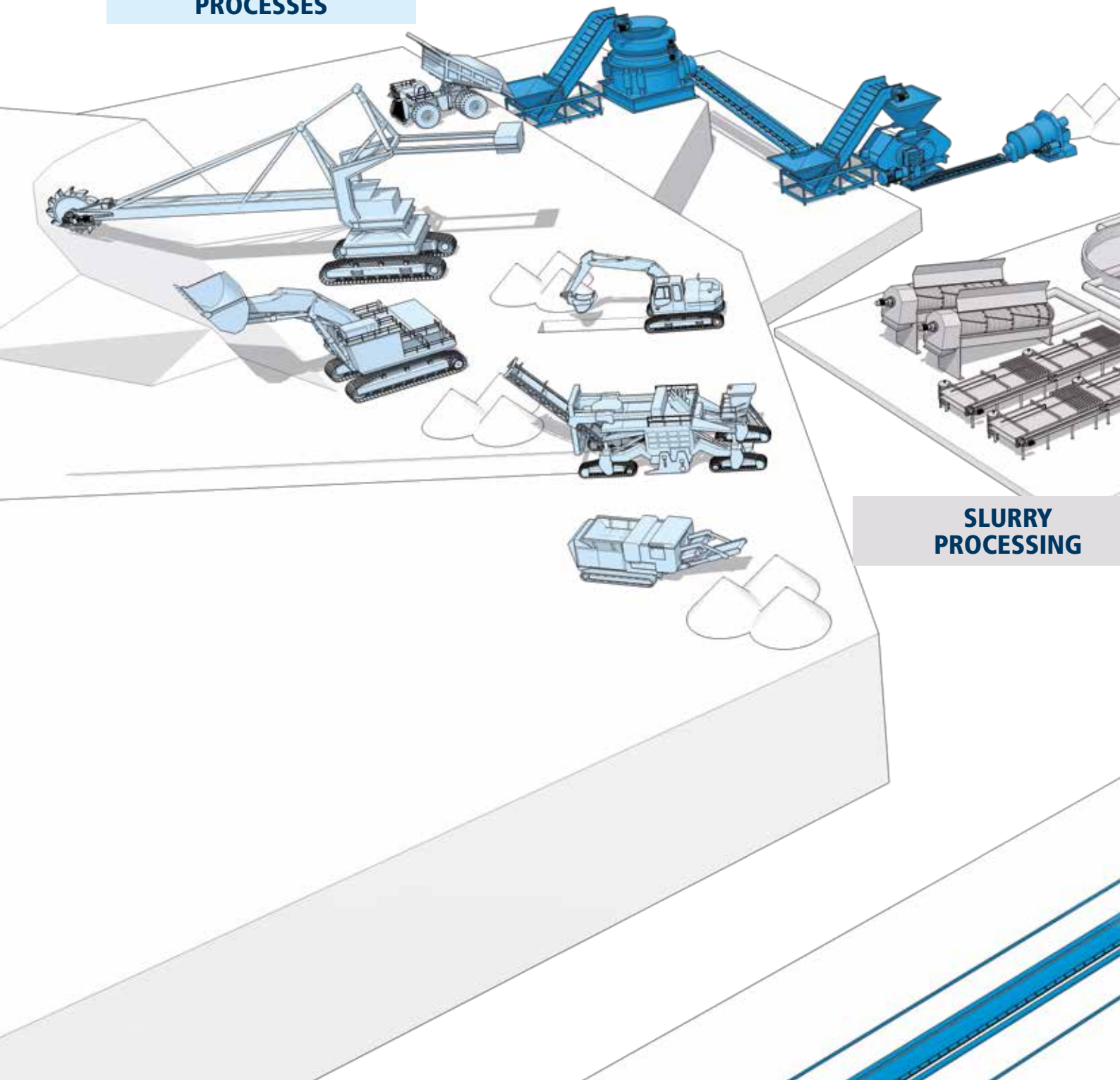


PRODUCTS FOR ALL TYPES OF MINING EQUIPMENT:

- 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

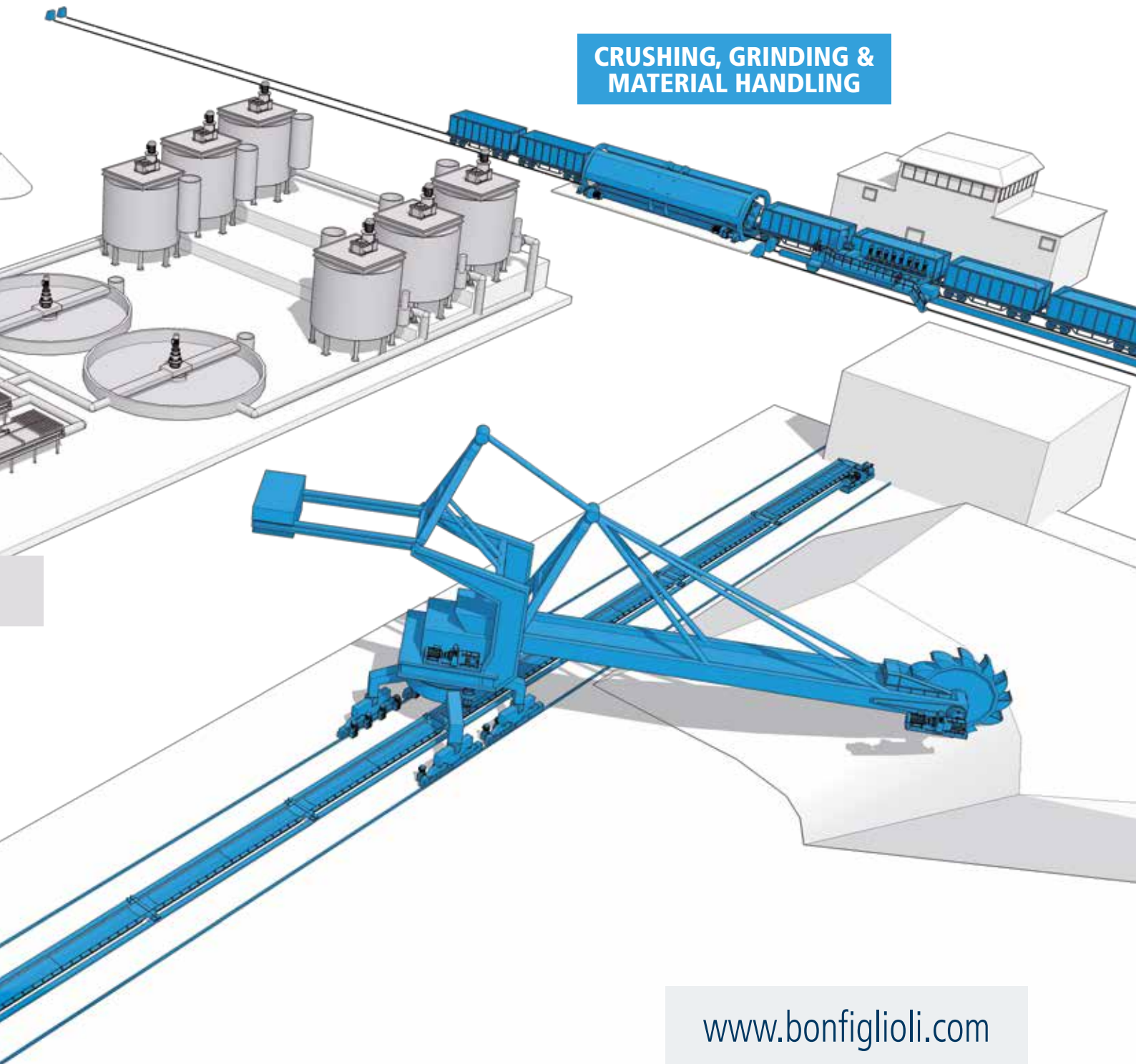
EXAMPLES OF SOLUTIONS WE PROVIDE FOR MINING PROCESSES

EARTH-MOVING PROCESSES



SLURRY PROCESSING

**CRUSHING, GRINDING &
MATERIAL HANDLING**



EXAMPLES OF SOLUTIONS WE PROVIDE FOR CRUSHING, GRINDING & MATERIAL HANDLING

Crushing

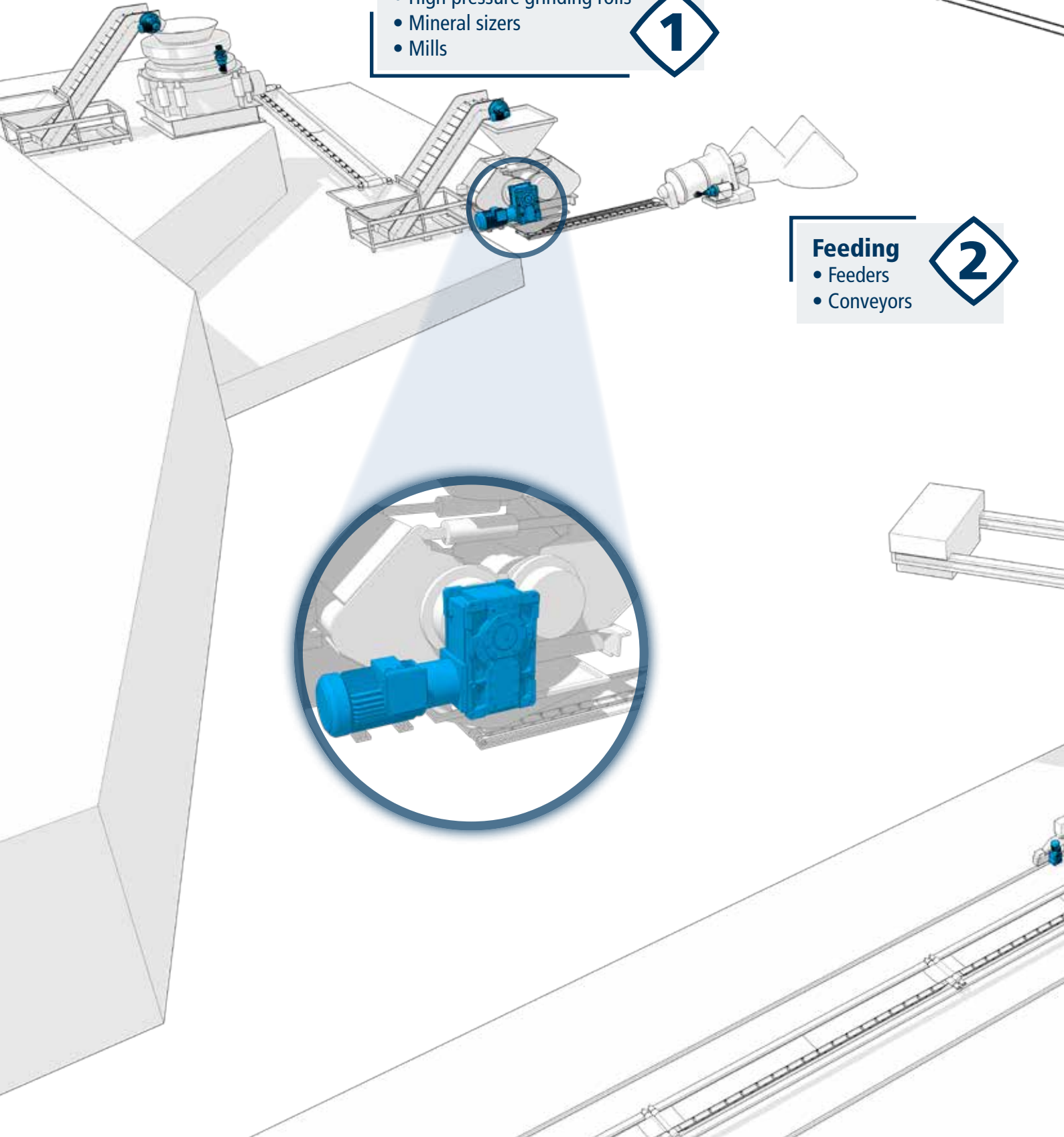
- Crushers
- High pressure grinding rolls
- Mineral sizers
- Mills

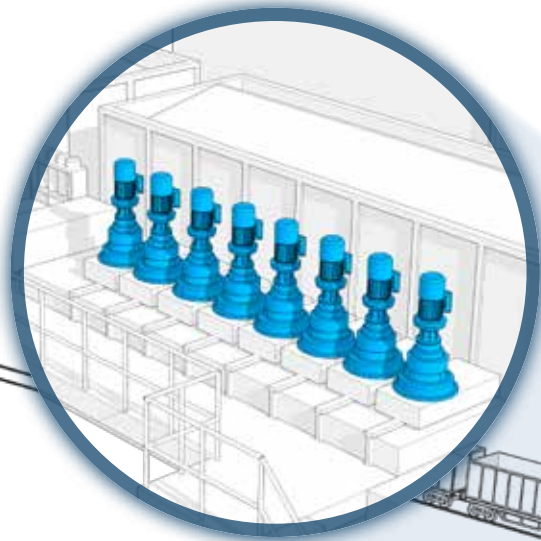
1

Feeding

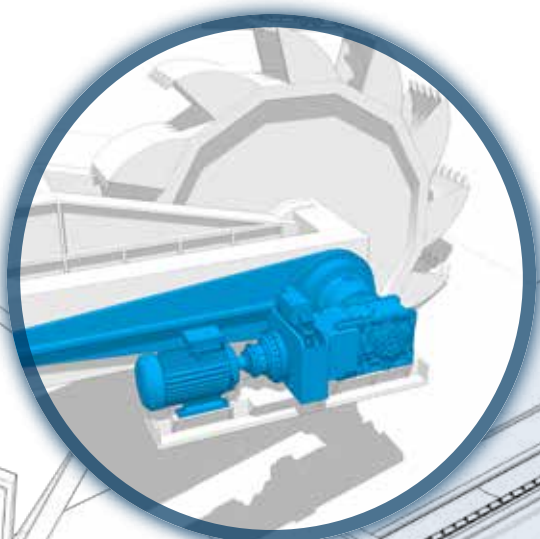
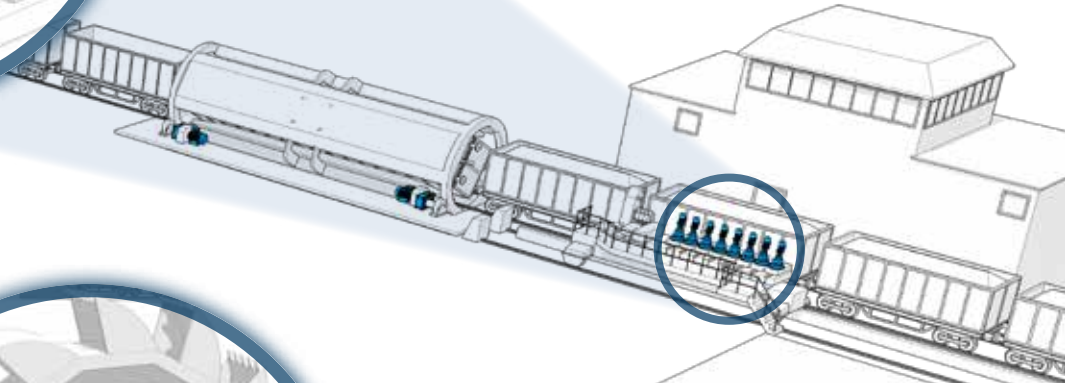
- Feeders
- Conveyors

2



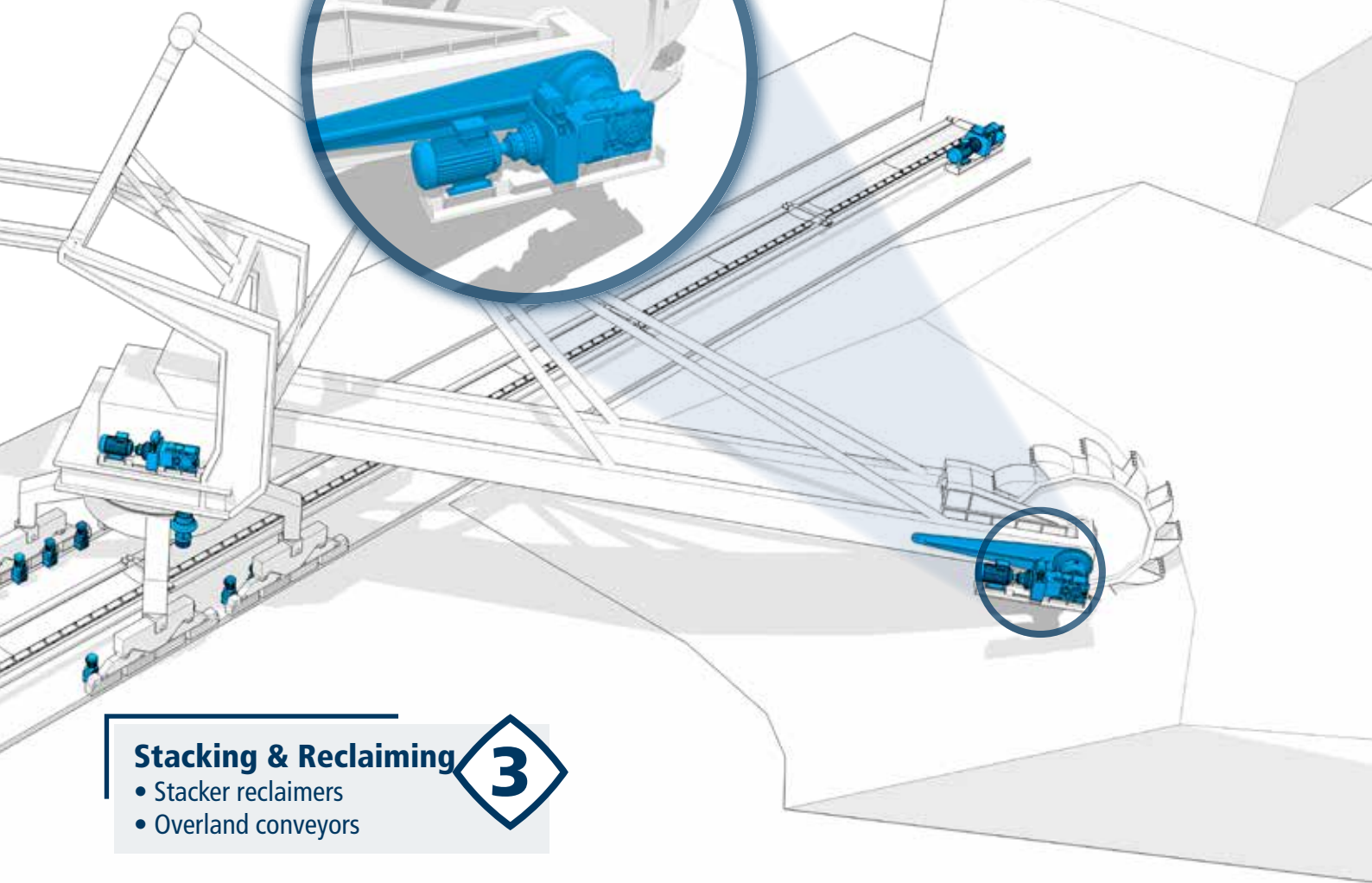


**Unloading
Car Dumpers**



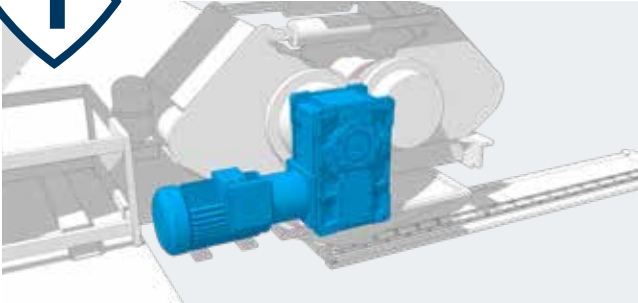
Stacking & Reclaiming

- Stacker reclaimers
- Overland conveyors



EXAMPLES OF SOLUTIONS WE PROVIDE FOR CRUSHING, GRINDING & MATERIAL HANDLING

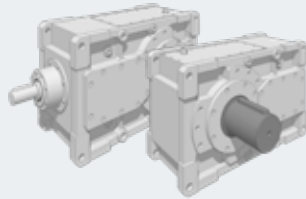
1



Crushing

Crushing & Grinding solutions

HDO/HDP - Heavy duty gearbox and geared motor



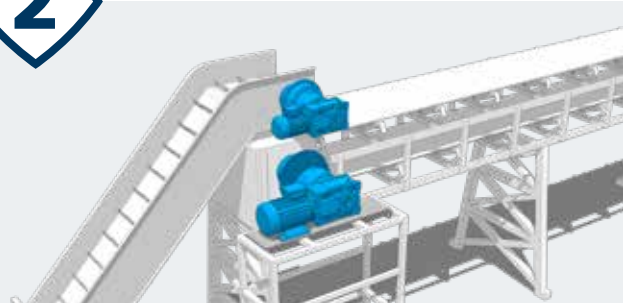
BENEFITS

- Compact layout solution
- Easy gearbox installation (shaft mounting option)
- Highly transmissible power
- Cooling-system free
- Wide range of temperature & working condition

FEATURES

- 14 gearbox sizes
- Modular design
- Torque up to 210 000 Nm

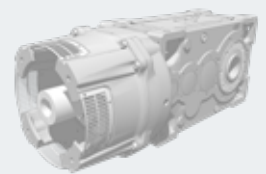
2



Feeding

Feeders & Conveyors solutions

HDO - Heavy duty gearbox and geared motor (Bevel-Helical)



BENEFITS

- One-stop-shop for a complete drive solution
- E-motor alignment free solution & free base frame
- Reliable, free maintenance and integrated cooling system
- Extended lifetime & reliability
- Highly transmissible power

FEATURES

- Extended bearing lifetime
- Torque range up to 210 000 Nm
- Strengthened E-motor input flange with integrated fan and coupling
- Wide range of options
- Integrated forced oil lubrication option
- Torque arm, coupling, brake, motor

Active Cube - Premium Inverter



BENEFITS

- High power density
- Water cooling provides increased life-time application
- Cost-effective solution

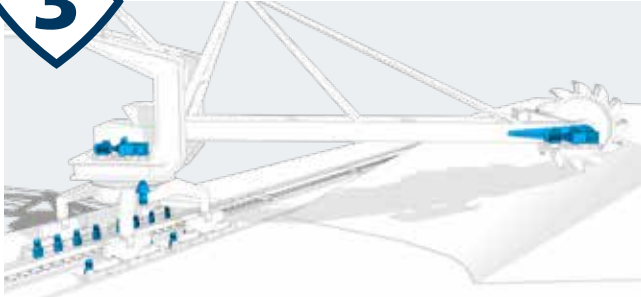
FEATURES

- Energy saving functions
- Motor temperature monitoring
- Ready for liquid cooling option

STANDARD GEARBOXES AND GEARED MOTORS FEATURES FOR MINING APPLICATIONS:

Taconite seals, C4 or C5 surface protection according to ISO 12944-2, oil heaters, greasers and sensors, heavy duty oil breather, IP56 degree of protection, thermal protective devices (thermistors and thermostats), anti-condensate heaters, tropicalized windings.

3



Stacking & Reclaiming Stacker Reclaimer solutions

Slew drive: **300M** - Planetary gearbox and geared motor



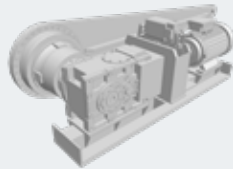
BENEFITS

- Hydraulic or electric motor input solution
- Integration with negative brake
- High overload capacity
- Torque control
- Easy installation

FEATURES

- Reinforced bearing output shaft
- Eccentric mounting flange option for pinion /girth gear adjustment
- Shock load up to 2 000 000 Nm
- Encoder and integrated load cell
- Base frame, coupling, brake, motor
- Oil expansion tank & oil level switch

Bucket wheel drive: **3/H** - Gearbox and geared motor



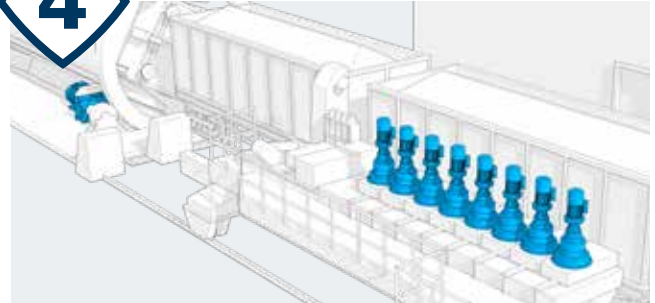
BENEFITS

- One-stop shop for a complete drive solution
- Extended oil service interval
- Maintenance free cooling device solution
- High overload capacity
- Highly transmissible torque and power

FEATURES

- Modular design
- Shock load up to 2 000 000 Nm
- Increased bearing load capability
- Wide range of options
- Integrated forced oil lubrication
- Torque arm, base frame, coupling, brake, motor

4



Unloading Car Dumper solutions

Train positioner drive: **300M** - Planetary gearbox and geared motor



BENEFITS

- Highly transmissible torque and power
- Compact design
- Cooling-system free
- Integrated brake solution
- Wide range of temperature & working condition

FEATURES

- New e-motor flange with integrated fan
- Increased bearing load capability
- Dedicated design for disk brake integration
- Nominal torque up to 1 300 000 Nm
- Modular design
- Oil expansion tank & oil level switch

Active Cube - Premium Inverter



BENEFITS

- High power density
- Water cooling provides increased life-time application
- Cost-effective solution

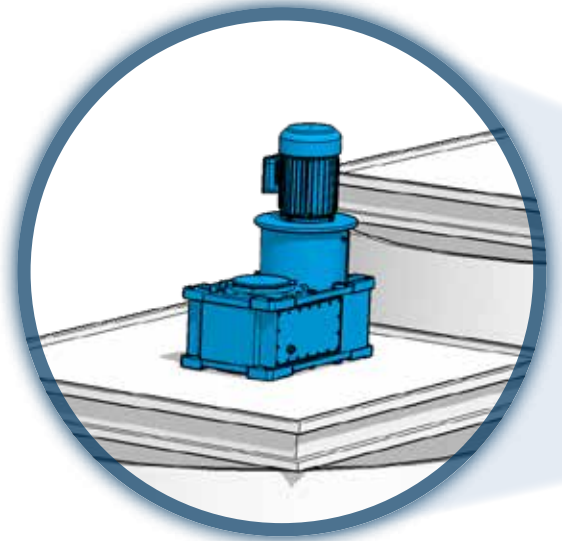
FEATURES

- Energy saving functions
- Motor temperature monitoring
- Ready for liquid cooling option

STANDARD GEARBOXES AND GEARED MOTORS FEATURES FOR MINING APPLICATIONS:

Taconite seals, C4 or C5 surface protection according to ISO 12944-2, oil heaters, greasers and sensors, heavy duty oil breather, IP56 degree of protection, thermal protective devices (thermistors and thermostats), anti-condensate heaters, tropicalized windings.

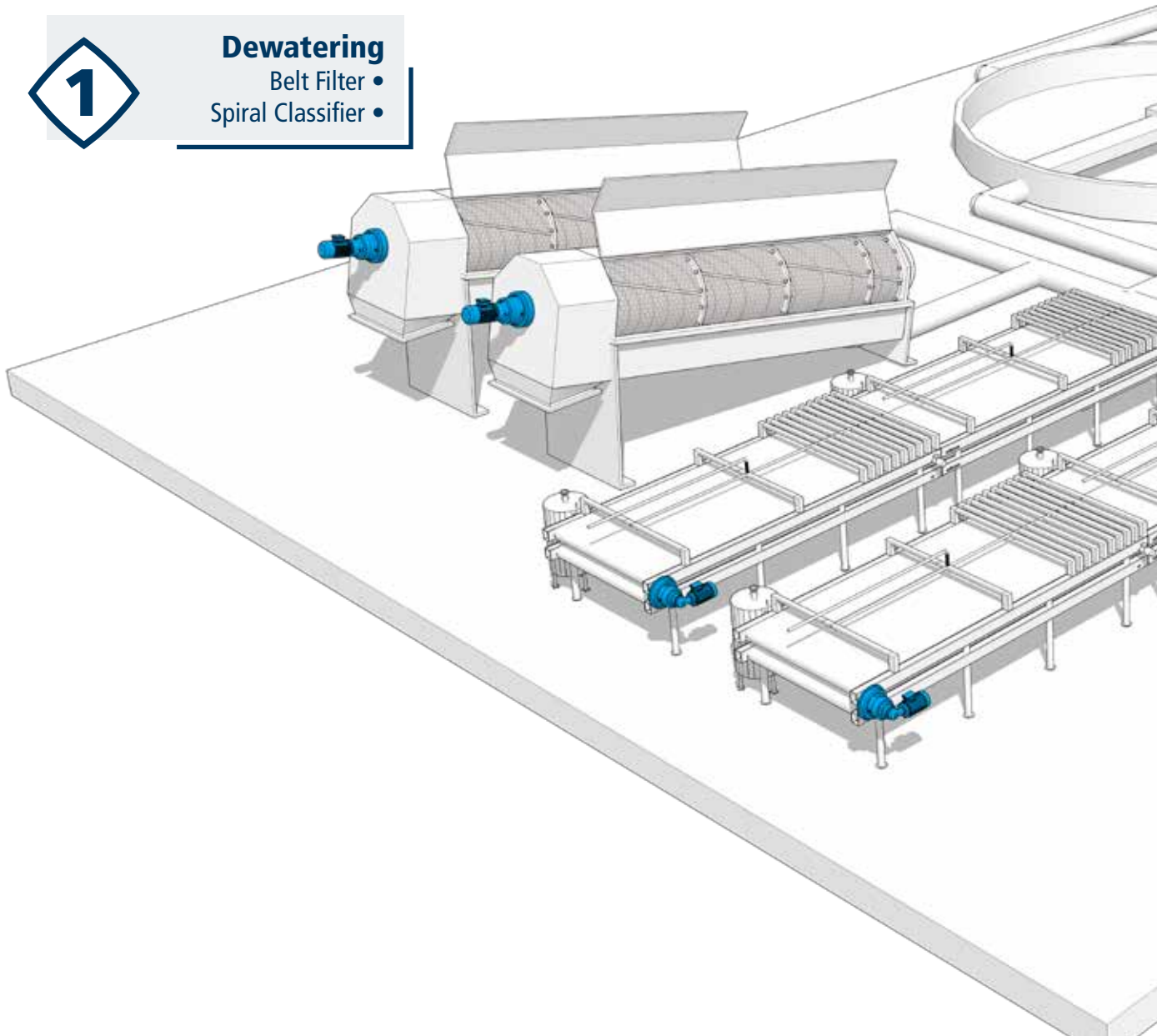
EXAMPLES OF SOLUTIONS WE PROVIDE FOR SLURRY PROCESSING



1

Dewatering

- Belt Filter •
- Spiral Classifier •

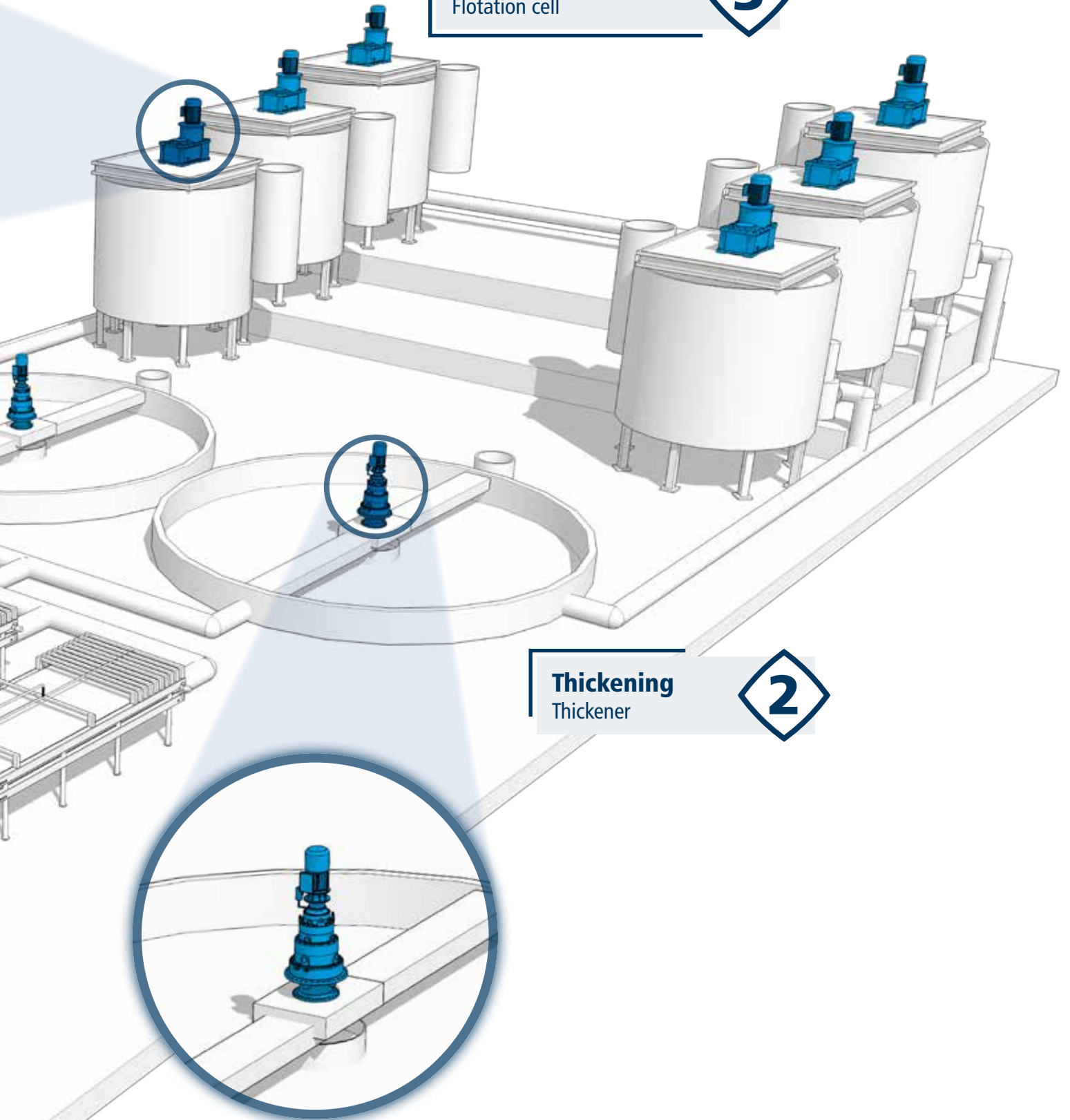


Flotation
Flotation cell

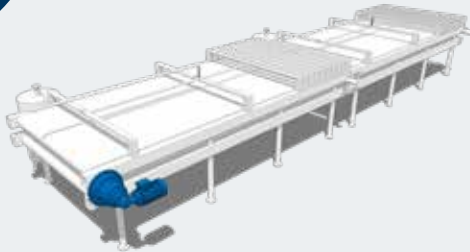
3

Thickening
Thickener

2

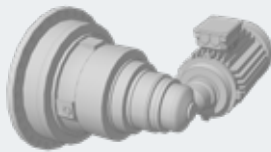


EXAMPLES OF SOLUTIONS WE PROVIDE FOR SLURRY PROCESSING



Dewatering Belt Filter solutions

300M - Planetary gearbox and geared motor

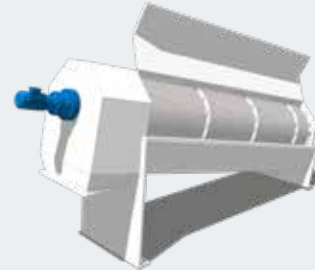


BENEFITS

- One-stop-shop for a complete drive solution
- High flexibility in layout and mounting positions
- High resistance in harsh & dusty ambient conditions
- High torque density
- Wide range of working temperature working conditions

FEATURES

- 20 gearbox sizes
- Nominal torque up to 1 300 000 Nm
- Modular design
- Increased bearing load capability
- Shaft gearbox mounting
- Torque arm



Dewatering Spiral Classifier solutions

300M - Planetary gearbox and geared motor



BENEFITS

- One-stop-shop for a complete drive solution
- High flexibility in layout and mounting positions
- High resistance in harsh & dusty ambient conditions
- High torque density
- Wide range of working temperature working conditions

FEATURES

- 20 gearbox sizes
- Nominal torque up to 1 300 000 Nm
- Modular design
- Increased bearing load capability
- Flange gearbox mounting

STANDARD GEARBOXES AND GEARED MOTORS FEATURES FOR MINING APPLICATIONS:

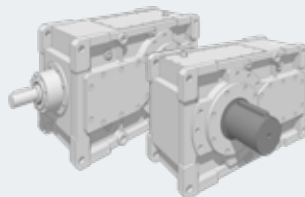
Taconite seals, C4 or C5 surface protection according to ISO 12944-2, oil heaters, greasers and sensors, heavy duty oil breather, IP56 degree of protection, thermal protective devices (thermistors and thermostats), anti-condensate heaters, tropicalized windings.

2



Flotation
Flotation Cell solutions

HDP/HDO - Heavy duty gearbox and geared motor



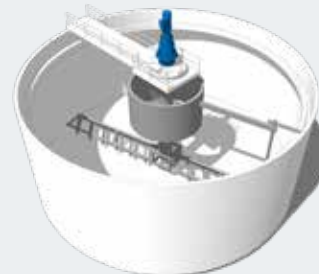
BENEFITS

- Air flow inlet and through hole prearrangement on output shaft
- Enhanced oil leak protection
- High radial & axial load capability on output shaft
- Extended lifetime & reliability
- Highly transmissible power

FEATURES

- Reinforced bearing and extended span on output shaft
- Drywell
- Modular design
- Integrated forced oil lubrication
- Back stop device

3



Thickening
Thickener solution

300M - Planetary gearbox and geared motor



BENEFITS

- High shock load capability
- Extended lifetime & reliability
- Torque control

FEATURES

- Increased bearing load capability
- Integrated load cell
- Modular design
- Shock load up to 2 000 000 Nm
- Oil expansion tank & oil level switch

Active Cube -
Premium Inverter



BENEFITS

- High power density
- Water cooling provides increased life-time application
- Cost-effective solution

FEATURES

- Energy saving functions
- Motor temperature monitoring
- Ready for liquid cooling option

STANDARD GEARBOXES AND GEARED MOTORS FEATURES FOR MINING APPLICATIONS:

Taconite seals, C4 or C5 surface protection according to ISO 12944-2, oil heaters, greasers and sensors, heavy duty oil breather, IP56 degree of protection, thermal protective devices (thermistors and thermostats), anti-condensate heaters, tropicalized windings.

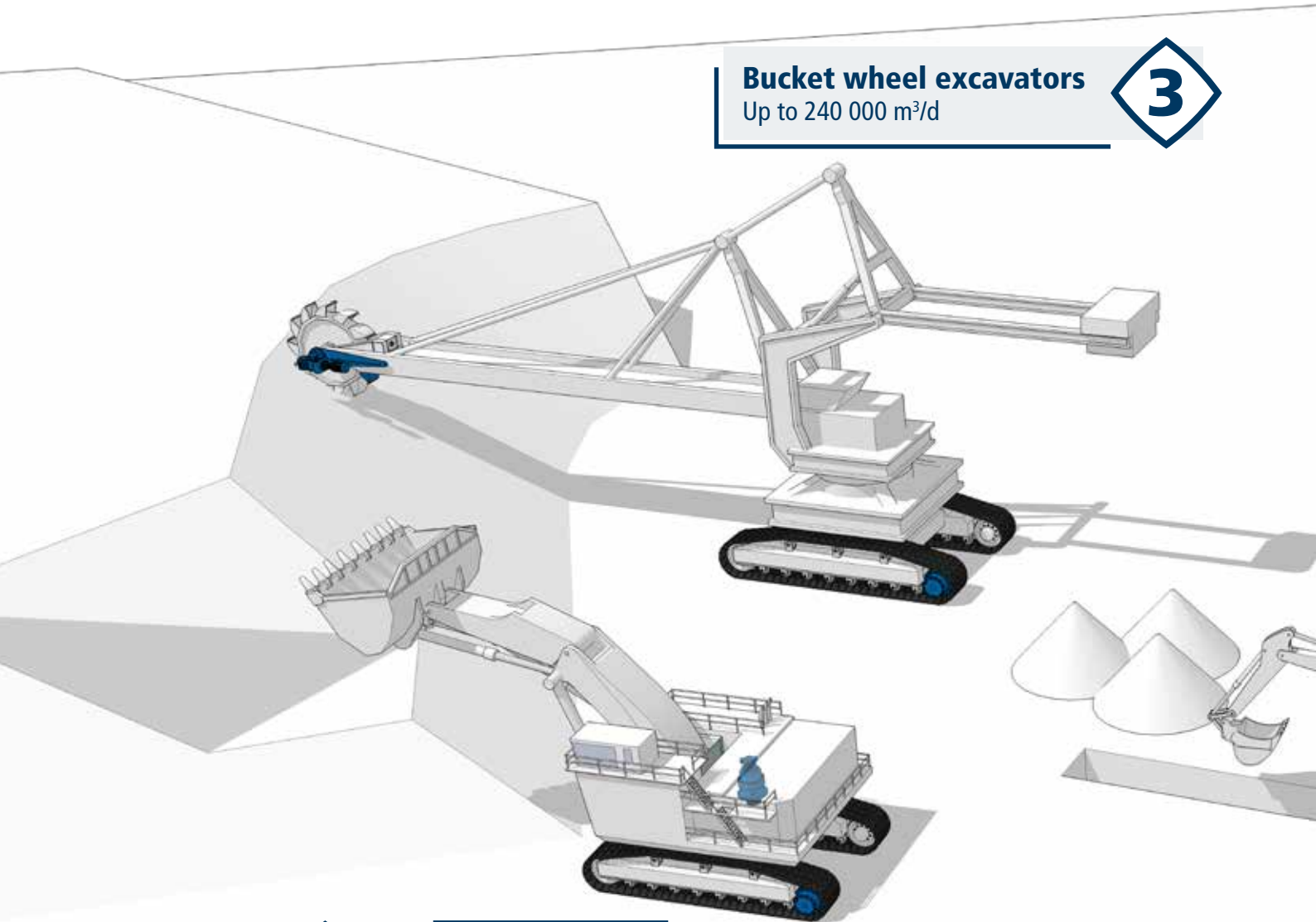
EXAMPLES OF SOLUTIONS WE PROVIDE FOR EARTH-MOVING PROCESSES

Bucket wheel excavators
Up to 240 000 m³/d

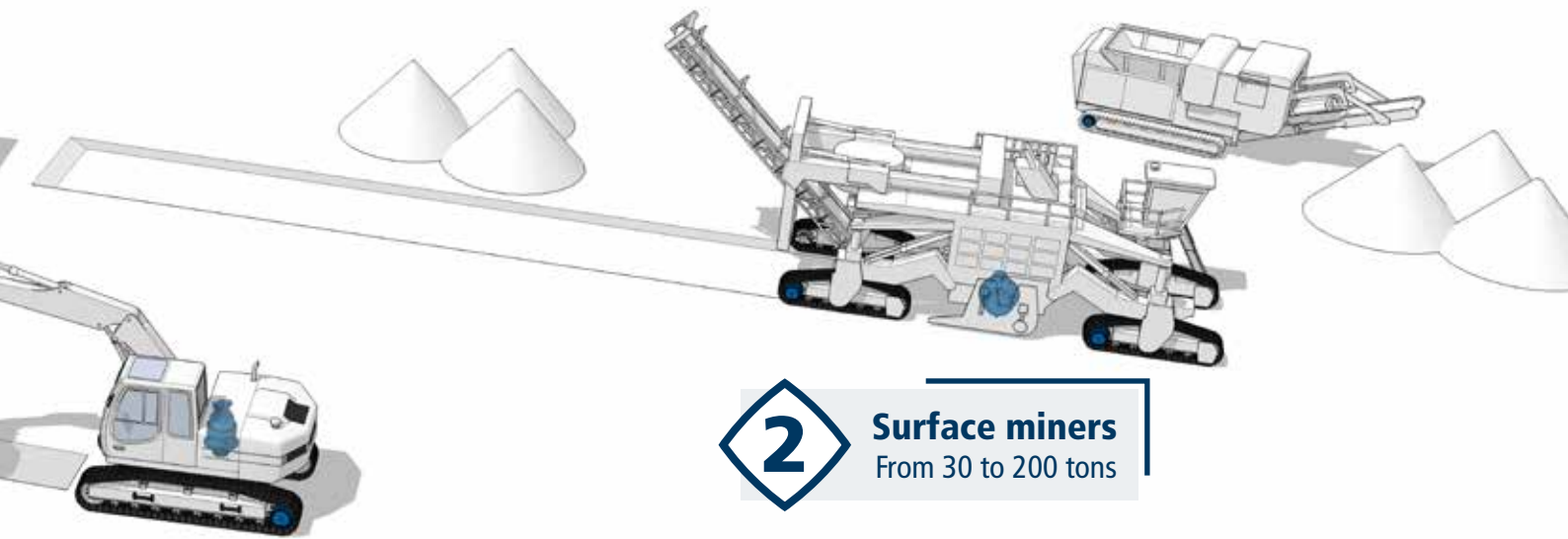
3

1

Large excavators
From 150 to 1 400 tons



4 **Jaw crushers**
From 30 to 80 tons



2 **Surface miners**
From 30 to 200 tons

EXAMPLES OF SOLUTIONS WE PROVIDE FOR EARTH-MOVING PROCESSES

1



Large excavators

From 150 to 1 400 tons

Travel drives

700C series



OUTPUT TORQUE
1 ... 625 kNm

GEAR RATIOS
5.3 ... 492

BENEFITS

- Power shift capability
- Compact solution
- High performance

F series



OUTPUT TORQUE
620 ... 2 916 kNm

GEAR RATIOS
249 ... 989

FEATURES

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations

Slew drives

700T series



OUTPUT TORQUE
1 ... 80 kNm

GEAR RATIOS
3.4 ... 2 000

BENEFITS

- Compact structure
- Suitable for various hydraulic motors
- High performance

S series



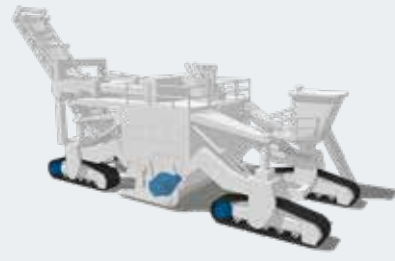
OUTPUT TORQUE
5.5 ... 130 kNm

GEAR RATIOS
23 ... 67

FEATURES

- Notchless ground tooth root
- Integrated disc-brake
- High availability by highest teeth and production quality

2



Surface miners

From 30 to 200 tons

Travel drives

700C series



OUTPUT TORQUE
1 ... 625 kNm

GEAR RATIOS
5.3 ... 492

BENEFITS

- Power shift capability
- Compact solution
- High performance

F series



OUTPUT TORQUE
620 ... 2 916 kNm

GEAR RATIOS
249 ... 989

FEATURES

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations

Cutter Drives

FA series

MAX CUTTING TORQUE
8.5 ... 32 kNm

INPUT POWER
80 ... 300 kW

GEAR RATIOS
16 ... 26

BENEFITS

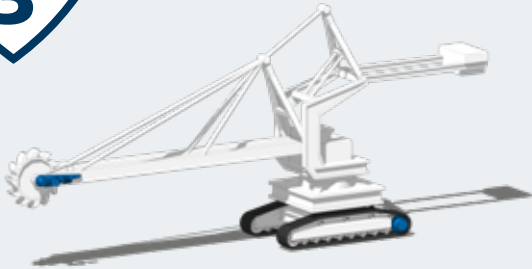
- Compact structure
- High performance
- High availability by highest teeth and production quality

FEATURES

- Notchless ground tooth root
- Different ratios
- Integrated disc-brake
- Suitable for various hydraulic motors



3



Bucket wheel excavators
Up to 240 000 m³/d

Travel drives

700C series



OUTPUT TORQUE
1 ... 625 kNm

GEAR RATIOS
5.3 ... 492

BENEFITS

- Power shift capability
- Compact solution
- High performance

F series



OUTPUT TORQUE
620 ... 2 916 kNm

GEAR RATIOS
249 ... 989

FEATURES

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations

4



Jaw crushers
From 30 to 80 tons

Travel drives

700C Series



OUTPUT TORQUE
1 ... 625 kNm

GEAR RATIOS
5.3 ... 492

BENEFITS

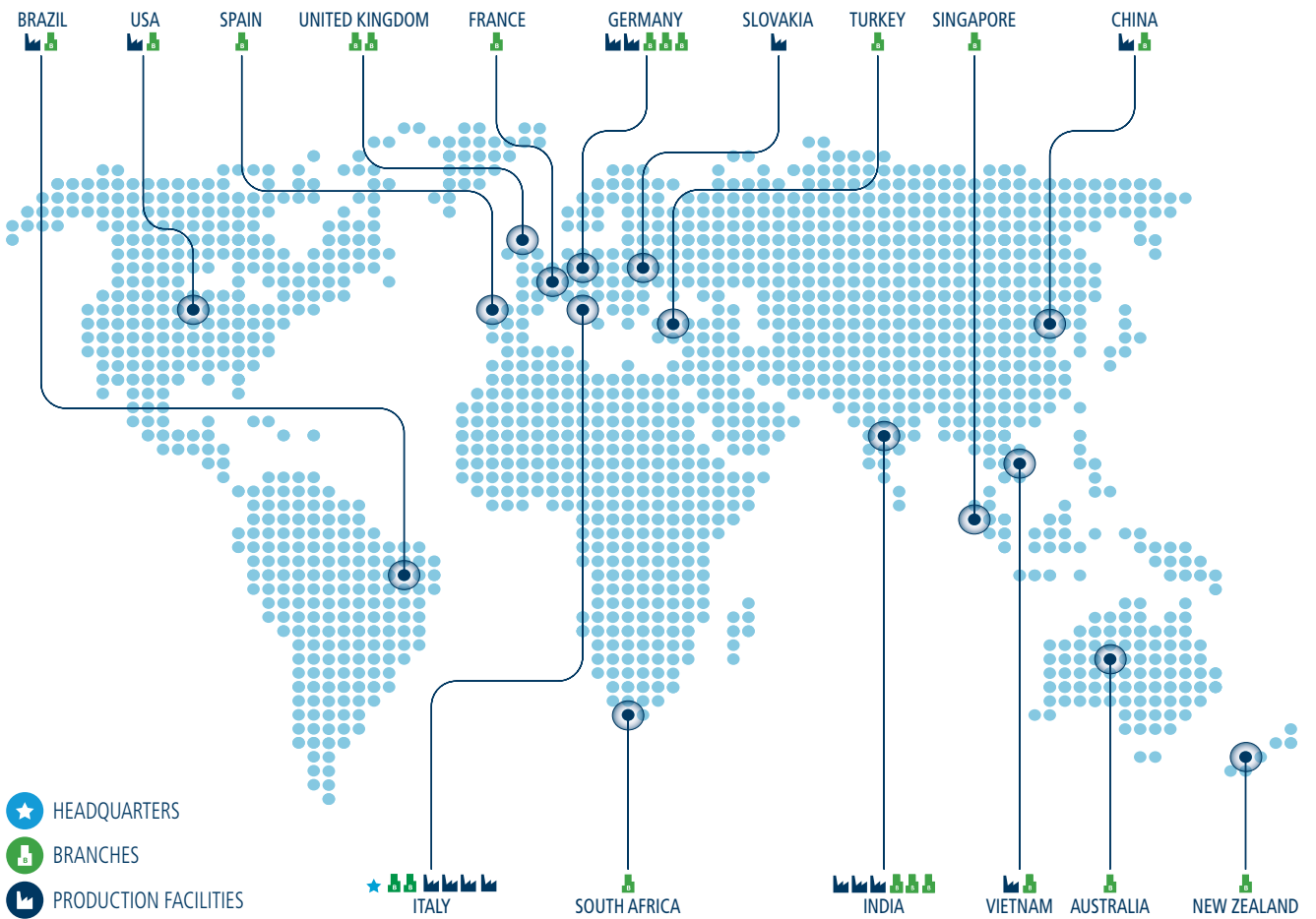
- Power shift capability
- Compact solution
- High performance

FEATURES

- Two gear shifting transmission
- Hydraulic controlled shifting
- Integrated parking & emergency brake
- Optional cooling flow to input stage and clutch unit
- Wide variety of ratio combinations

Bonfiglioli worldwide presence

Bonfiglioli is located in regions and countries around the world that enable us to provide faster sales and service to customers.
We are around the world, and around the corner.



LOCAL SUPPORT
 Sales, Customer Service,
 Warranty, Tech support,
 Spare parts



**21 BRANCH OFFICES
 IN 15 COUNTRIES**



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Ben Cat - Binh Duong Province
Tel. +84 650 3577411



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.



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