

Motors and Drives for the Cement, Mining and Mineral Industries

Cost Reduction and Process Optimization



IndustrialIT
—enabled

ABB

ABB – the world's leading supplier of motors and variable speed drives

ABB's motors and drives have established themselves as the preferred choice for a wide range of applications in the cement, mining and mineral industries. Designed to provide accurate control even in tough environmental conditions, ABB motors and drives help to optimize the production process. By boosting process reliability, plants can achieve increased output, and higher and more consistent product quality. At the same time energy consumption and CO₂ emissions are reduced, and wear and tear on moving equipment is minimized.



- High availability
- Leading technologies
- Excellent performance
- High efficiency
- Worldwide sales and service organization
- Lifetime customer support

Accurate speed and torque control in a wide range of applications

ABB motors and drives can be used in many applications in the cement, mining and mineral industries, including:

- Fans
- Pumps
- Grinding mills
- Kilns
- Crushers
- Conveyors
- Roller presses
- Excavators
- Hoists
- Raw mill
- Cement mill

Whether retrofitted to upgrade existing machinery or installed with new equipment, ABB motors and drives provide reliable starting and operation, reduced maintenance costs and improved asset life. These factors improve overall process quality and increase plant availability and output.





Specialized know-how for tailored solutions

Through its long-standing partnerships with leading cement, mining and mineral processing companies, ABB has the experience and know-how to develop and implement tailored solutions to match specific needs. From single products – low and medium voltage drives, and low and high voltage motors – to the execution of major projects, ABB's expertise ensures that the selected solution will result in optimum productivity and reliability.

■ **ABB low voltage drives** are used to regulate a wide variety of applications at all stages from raw material handling to end product packing. By helping to optimize the process, save energy and reduce maintenance, ABB's variable speed AC drives help to enhance the plant's overall competitiveness.

LV drives:

- Component drives 0.12 to 2.2 kW
- Standard drives 0.75 to 355 kW
- Industrial drives (single) 0.55 to 2800 kW
- Industrial drives (multi) 1.5 to 5600 kW

■ **ABB's medium voltage drives** incorporate Direct Torque Control (DTC) for optimum torque and speed performance over the whole operating range, and IGCT switching for the lowest possible losses. These state-of-the-art technologies, developed by ABB, provide the basis for efficient, reliable and compact solutions.

MV drives:

- ACS 1000 standard drive for new or existing motors, 315 to 5000 kW
- ACS 5000 for motors up to 6.9 kV, 5-24 MW
- ACS 6000 for single and multi-drive applications for synchronous or induction motors up to 27 MW
- LCI drives and soft starters up to 100 MW

■ **ABB's low voltage motors** are used to drive fans, pumps, conveyors, kilns, and other equipment. With two standard motor ranges available, the right motor can be found for any application. ABB motors are designed and manufactured for efficiency and reliability. Motors with robust cast iron frames are especially well suited to heavy duty applications.

LV motors:

- Process performance and cast iron motors for demanding applications, 0.25 to 2250 kW
- General purpose motors for standard applications, cast iron, steel and aluminum frames, 0.06 to 630 kW
- Low voltage synchronous permanent magnet motors up to 5600 kW

■ ABB offers a comprehensive range of **high voltage motors** for direct online and frequency converter supply. The use of a modular platform means the motors can be engineered to match the customer's specific requirements and applications. These motors combine high efficiency and rigid construction with reliability and low maintenance.

HV motors:

- Modular induction motors ranging up to 15 kV and 18 MW
- Process performance and cast iron motors up to 2250 kW
- Synchronous motors ranging up to 15 kV and 50 MW

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs around 102,000 people.

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