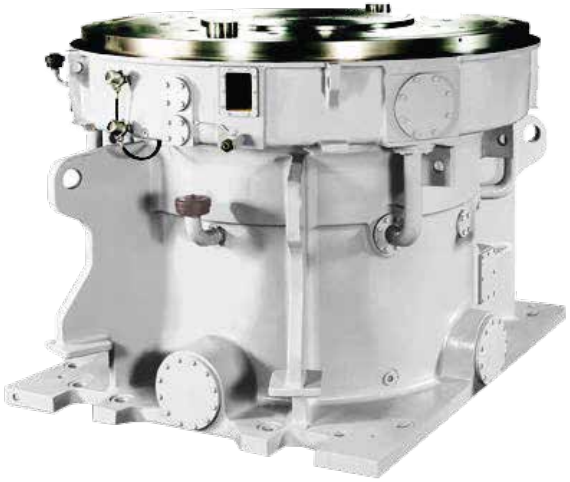
David Brown Santasalo

# Vertical Roll Mill Series

## Bevel planetary gear units for heavy duty grinding applications



Extreme industrial applications require reliable gear units all year round. Gearboxes with longer bearing life, improved power density and increased product lifecycle are key factors in the decision making process.

David Brown Santasalo's vertical roller mill series delivers power, durability and reliability even under extreme conditions.

**Key benefits:**

- Designed in close cooperation with manufacturers for different mill types to provide an optimal solution for each application
- Gear unit operates efficiently and transfers acting loads accurately, ensuring continuous and failure-free production flow
- Surface finishing process for advanced fatigue strength and increased wear resistance
- Profile and longitudinal modifications provide optimum tooth flank contact guaranteeing low vibration, low noise levels and longer lifecycle

| Technical data | |
|---|---|
| Design Sizes | 10 |
| Number of Stages | 2 |
| Power Range | up to 4,000 kW |
| Transmission Ratio | 20-45 |
| Nominal Output Torque | up to 3,000 kNm |

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Sugar
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## Approved lubrication unit

The gear unit is lubricated by a closed circuit oil system. All assemblies and components such as motor pumps (high and low pressure), the switchable double oil filter, oil cooler and instrument panel are installed on the oil tank platform. The lubricant system is standardised across several types of gear units, ensuring easy handling, optimal insertion and lower costs. To ensure operational reliability, the entire oil and cooling system is monitored and controlled via a Programmable Logic Controller (PLC) on site.

## Axial thrust bearing

The optimum design and layout of the axial thrust bearing ensures high operational safety. The innovative design of the slide bearing pads ensures reliable operation. Axial thrust bearing layout is evaluated based on the required thickness of the lubrication film and therefore as a function of the geometry of the pads, load, circumferential speed and oil viscosity.

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FLUID CONTROL

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