



2+4 ROLL EVO REDUCING AND SIZING MILL

PATENDED COMBINATION OF 2- AND 4-ROLL PROCESSING TECHNIQUES

Special Bar Quality applications have demanding requirements, especially for stainless and special steel products. Excellent surface finish, precise dimensional tolerance and controlled metallurgy, both for straight and coiled bars, are very important.

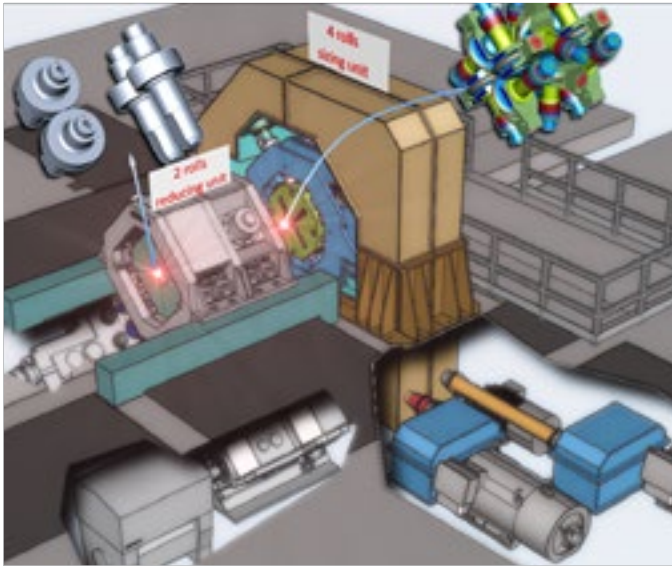
The 2+4 Roll EVO Reducing and Sizing Mill is a development of the proprietary concept Precision Sizing and Rolling (PRS). It allows to optimize the rolling operations, to obtain a fine metallurgy control with thermo-mechanical rolling, and to reach high surface finish and dimension accuracy. Product quality and mill productivity are significantly improved

FIELD OF APPLICATION

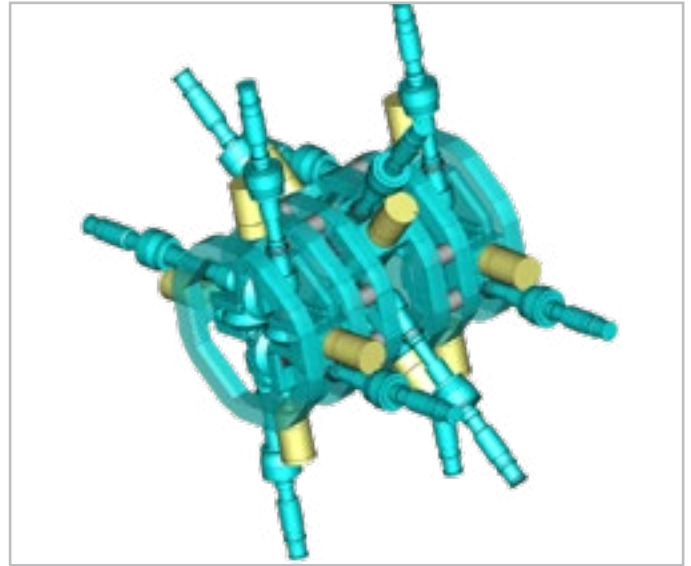
Rolling mills for long products

MAIN BENEFITS

- Wider free-sizing range
- Short times for size change
- Compact inter-stand distance
- Zero-spread with energy saving
- Stable finishing quality
- Enhanced metallurgical uniformity
- Auto-size control in closed loop



Layout of 2+4 EVO Roll Reducing and Sizing Mill



Arrangement of 2- and 4- roll stands

MAIN FEATURES

The 2+4 EVO mill comprises one reducing group with two 2-roll stands for high rolling reduction, and one 4-roll sizing group with three stands for low reduction. Stands have a high rigidity which improves the accuracy of roll gap adjustment. A wide range of dimensions may be rolled within tolerance without changing groove and the negligible spread deformation simplifies the control of product dimension. Recrystallization and grain growth are effectively controlled, especially in combination with thermo-rolling processes.

PLANT DATA

Product sizes round	Ø 14-90 mm
Modular units	2+4 Roll or 4 Roll
Micro footprint	4 m (2+4 Roll)
Groove families	qty 11 for a range Ø 14-90 mm
Size change time	1 min within family
Roll change time	5 min
Free sizing range	e.g. 7 mm Ø 63 mm at 1/4 DIN.
Tolerance Ø 14-90 mm	<1/6 DIN with 1 DIN entry
Speed	up to 20 m/s

FLEXIBILITY, EFFICIENCY, STABLE QUALITY

The latest design of bar sizing mill offers absolute precision and maximum flexibility. A wider range can be free-sized which reduces the investment for rolls and extends the operating times. The zero-spread of the 4-roll process decreases the requirement of energy for rolling. The stable finishing quality allows for larger entry stock variation

REFERENCES (PRS)

- Xing Tai, China
- Chaparral, USA
- Hangzhou, China

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