/ PRESS RELEASE // MAY 2023

Ligna 2023: Precise grinding of circular saws for saw mills

Biberach an der Riss, 15th May 2023 – In saw mills, circular saws are indispensable when it comes to cutting wood on chipping and profiling lines. Sharpening specialist VOLLMER has designed its CS 860 and CSF 860 grinding machine duo specifically for grinding these carbide-tipped circular saws. They have R2 axes for axial lateral adjustment, centre brakes for an opening blade clamping mechanism and co-rotating mounting systems to protect clearing blades. Saw manufacturers, sharpening services and saw mills use this pair of machines from VOLLMER to manufacture or resharpen different circular saws safely and precisely, without manual intervention and around the clock.

(The press release and accompanying images can be found at the following link: https://www.vollmer-group.com/en-uk/company/press/press-releases.html)

In saw mills, the cutting edges of carbide-tipped circular saws must have a perfect geometry, surface and edge to optimally cut logs on chipping and profiling lines at feed rates of 250 metres per minute. And that's not all – the saw blade must be very rigid if the kerf is to be as thin as possible. Saw manufacturers therefore rely on bores with keyway or spline to effectively transfer high torsional forces from the shaft to the saw teeth. Internal clearing blades ensure that the huge amounts of sawdust are removed from the kerf and that the heating of the saw blade is kept within limits.

Co-rotating mounting system protects clearing blades

In order to sharpen circular saws for saw mills precisely and gently, VOLLMER has developed its CS 860 and CSF 860 grinding machine duo with a co-rotating mounting system. The saw blade is securely connected to the mounting system via magnets so that internal clearing blades are not damaged during the grinding process. In addition, the blade bores with keyway or spline are protected against wear thanks to the co-rotating mount. The centre brake with feed pawl makes an opening blade clamping mechanism possible. This only holds the saw blade in place during the grinding process and opens to position the next saw tooth. This means that even external clearing blades remain undamaged during the sharpening process because the blade clamping mechanism does not touch the circular saw blade.

R2 axis compensates for offset bodies

Saw manufacturers develop circular saws for wood cutting with offset bodies in order to achieve high cutting forces even with a small kerf. For sharpening, this means that the offsets must be compensated for – regardless of whether they are on the left, right or both sides of the bore. As the CS 860 and CSF 860 are equipped with an additional R2 axis, circular saws with different offsets can be machined in one batch. The machine operator only has to enter the height of the offset in advance, the CNC-controlled R2 axis then automatically adjusts the compensation of the offset. This means that different circular saws can be machined with the grinding machines using the same VOLLMER ND handling system, without manual intervention and around the clock.

Duo of grinding machines for production and resharpening

Saw manufacturers, sharpening services and saw mills can use the CS 860 and CSF 860 duo to sharpen both the tooth faces and tooth tops as well as the flanks of saw teeth in a single set-up. The machines automatically detect the geometry of a saw tooth and grind it precisely to the required size. The grinding machines automatically detect newly inserted teeth and machine them to size using oscillation. The feed pawl registers broken teeth in order to prevent the grinding wheels from breaking and determines the tooth pitch. This means that it is not necessary to enter this manually and prevents operator errors. In addition, the VOLLMER machines are networked via the standard IoT gateway (Internet of Things) and record all operating and machine data in order to determine the machine utilisation in real time, for example.

"We have specifically developed the CS 860 and CSF 860 to meet the strict requirements of saw mills," says Thomas Wenger, Product Manager at the Biberach-based VOLLMER Group. "Thanks to the wide-ranging machining scope of the machines, as well as their high flexibility and productivity, we have come up with a real innovation in the global grinding technology market."

(approx. 4400 characters)

Press images

Caption: The VOLLMER CS 860 and CSF 860 grinding machines are equipped with a co-rotating mounting system (red arrows) for sharpening carbide-tipped circular saws precisely and gently for saw mills.

Caption: Special grippers on the VOLLMER CS 860 and CSF 860 grinding machines pick up circular saw blades gently to protect internal and external clearing blades and keyways in the bore against wear.

About the VOLLMER Group
With its comprehensive range of machinery, the VOLLMER Group – which has sites in Germany, Austria, Great Britain, France, Italy, Poland, Spain, Sweden, the USA, Brazil, Japan, China, South Korea, India, Russia and Thailand/Taiwan – enjoys global success as a tool machining specialist in the areas of both production and service. The technological leader's range of products includes the most advanced grinding, eroding, laser and machining tools for rotary tools and circular saws in the woodworking and metalworking industries, as well as for metal-cutting band saws. VOLLMER relies heavily on the traditions and strengths of the company – close cooperation channels, quick decisions and the fast responses of a family-run business. The VOLLMER Group currently employs approximately 800 workers worldwide, with around 580 of these at the main headquarters in Biberach alone, including more than 75 trainees. The company invests around eight to ten per cent of its turnover in the research and development of new technologies and products. As a provider of technology and services, the VOLLMER Group is a reliable partner to its customers.

Further information and relevant images are available at:
http://www.vollmer-group.com/en-uk/company/press/press-releases.html

Find us on LinkedIn and Facebook:
www.linkedin.com/company/vollmer-werke
www.facebook.com/vollmergroup

Contacts for journalists
VOLLMER WERKE Maschinenfabrik GmbH
Ingo Wolf
Head of Marketing Services
Tel.: +49 (0) 7351 571 277
E-mail: i.wolf@vollmer-group.com

Carmen Fink
Marketing Services
Tel.: +49 (0) 7351 571 754
E-mail: c.fink@vollmer-group.com