PANELBOARD

NEXT-GENERATION PERFORMANCE

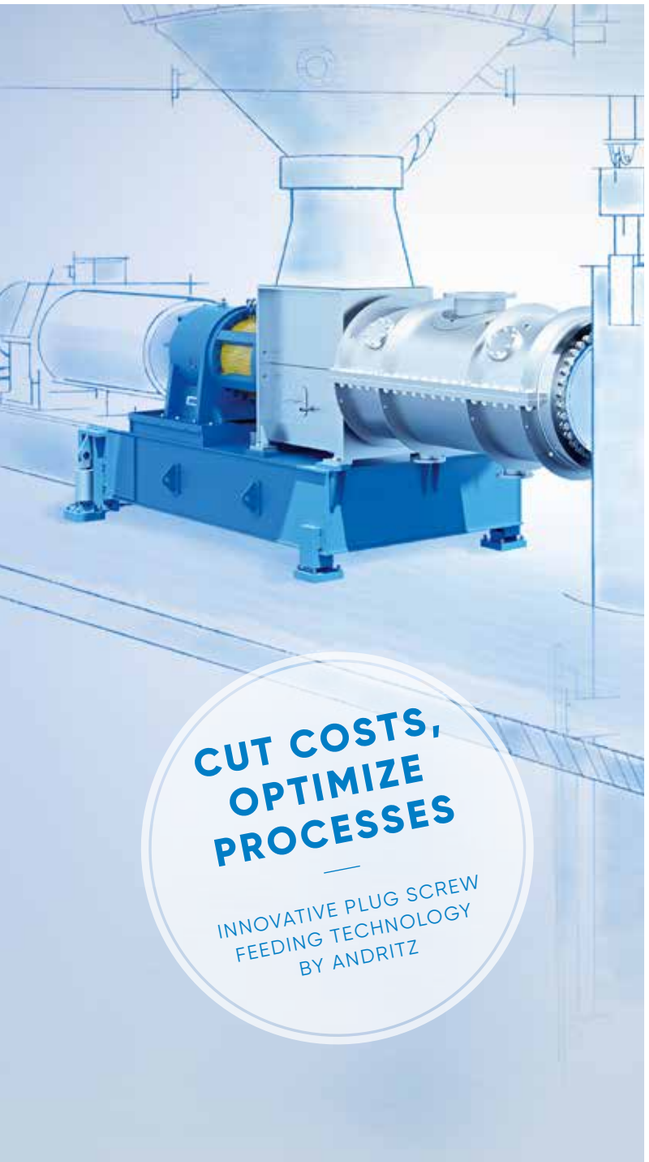
INNOVATIVE PRODUCTION TECHNOLOGIES DELIVER BENEFITS TODAY

ANDRITZ

ENGINEERED SUCCESS

Next-generation production technologies deliver benefits today

The future has arrived. Forward-thinking panelboard producers are taking advantage of innovative new features on new systems that can also be retrofitted to existing equipment.



Accelerating the development of new capabilities and implementing these innovative features is ANDRITZ, a global technology and service leader headquartered in Austria. Innovations in thermal and electrical energy savings, IIoT connectivity, and smart-plant networks are part of ANDRITZ's offering for new "front-end" (woodyard, chip storage, chip washing, pressurized refining, and evaporation) systems. The good news is that these capabilities can also be retrofitted into existing installations.

ENERGY DOWN, THROUGHPUT UP

Several innovations are designed to reduce energy consumption – a key cost factor for any MDF producer. According to studies, more than about 70% of energy demand is thermal energy, so technology that reduces thermal energy consumption can have a significant payback as well as a positive global impact in reducing the use of fossil fuels.

CENTER STEAMING FOR HIGH-CAPACITY PLANTS

Center steaming ensures the best pretreatment of wood chips before they enter the digester. ANDRITZ is the market leader in supplying high-capacity systems (up to 80 bdmt/h).

SMART PLUG SCREW FEEDERS

ANDRITZ plug screw feeders achieve the highest dewatering efficiency even for incoming raw materials with high moisture content. The compression ratio and diameter of the screw can be customized to any application. The cylindrical shape of the plug screw creates the industry's largest amount of open area for dewatering.

STEAM RECOVERY SYSTEM (SRS)

The SRS system allows the reuse of excess steam by returning it from the blowline after the refiner to the presteaming bin.

STEAM REGULATION MODULE (SRM)

Effective heat utilization within the digester was implemented by ANDRITZ several years ago. The latest innovation in SRM uses counter-current flow and a steam regulator to maximize thermal transfer and lower overall consumption. The new SRM does the counter-current flow into the digester based on online temperature measurements. This achieves a very stable temperature in the digester to ensure the best chip quality in terms of moisture, color, and temperature before the chips are refined.

ADVANCED WEAR RESISTANCE FOR LONGER LIFE

Even though the quality of fibrous raw materials is declining, the demands for quality of the end product are increasing. One of the side effects of this trend is that machinery is subject to more wear even as throughput increases. ANDRITZ has added advanced wear protection in the pressurized refining system to offset the potentially high wear due to pressurized flows and abrasive raw materials. Another innovation is the embedding of sensors in the feeder to monitor bar wear, screw condition, and screw deflection. The innovative plug screw feeder mentioned above monitors screw condition online so that replacement of the critical wear components can be scheduled as precisely as possible.

IIOT TOOLS FOR PREDICTIVE MAINTENANCE AND OPTIMAL OPERATION

ANDRITZ is very active in developing solutions compatible with the Industrial Internet of Things (IIoT) including its innovative ANDRITZ Maintenance Interval Guide Organizer (AMIGO) to help maintenance personnel increase their efficiencies and lower their costs (e.g., automating cleaning sequences; monitoring the wear of critical components; condition monitoring of bearings, lube, and cooling water systems; refiner plate pattern recognition). In addition, there are new SMART products to improve product performance, such as dewatering efficiency and steam recovery. Connected in a proper way, these IIoT solutions contribute to complete autonomous plant operation.

Next-level MDF plant operation for refined service and process control.

FULL-RANGE CAPABILITIES FROM ANDRITZ PANELBOARD

ANDRITZ Panelboard supplies innovative single equipment and complete front-end packages, ranging from debarking, chipping and screening, to chip handling, as well as from chip washing to pressurized refining systems, including waste water evaporation. Our machines process any species of wood or annual fibers, such as bagasse, bamboo or straw. Extensive system and process know-how for panelboard fiber preparation is the technological basis of our solution, which also comprises responsive service, replacement parts, and upgrades to existing machines. Low electrical and thermal energy consumption with best performance is the driving factor for the design of each individual machine in the system and the process.

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