

Furniture panels – free from particles

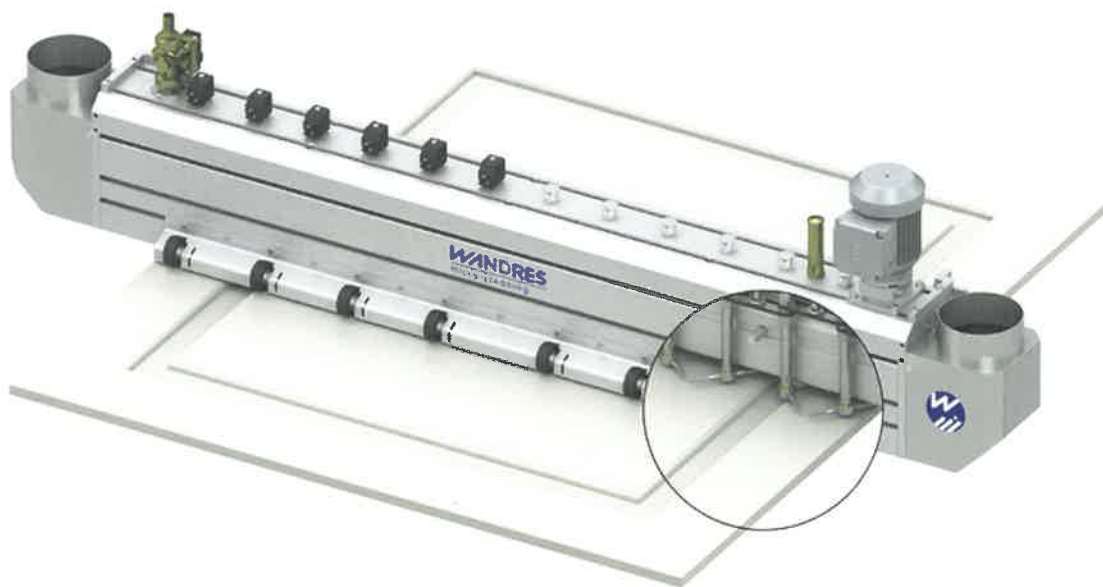
Sawing, drilling and milling are standard processes in the production of furniture panels and boards. Large amounts of shavings occur during these stages and can disrupt a smooth running of the line, for instance prior to surface coating or by causing indentations during stacking.

Purchasers of the finished item also object to particles turning up on the floor of their home. All such undesirable knock-on effects can be avoided if air-assisted and brush cleaning systems developed by Wandres GmbH (Germany), a producer of innovative brush and air technology cleaning systems for industrial production, are installed at appropriate points.

Sword Brush removes particles after cutting

Sword brush "Una X" removes particles and dusts after parts have been cut to size. Depending on the condition of the surfaces and the production step to follow, a brush can be installed either unilaterally or bilaterally, wiping transversally to the direction of travel. Micro-moistened filaments bind the particles and transport them towards vacuum extraction. A continuous self-cleaning mechanism of the brush ensures that particles are detached from the filaments and disposed of reliably while the filaments continue to absorb dust. Contaminating particles accumulate not only on flat surfaces but also on edgings. Sword brush "Type BIX" provides the solution for this problem. This application involves

Cleaning finger pull profiles.



short brushes which are installed vertically and wipe the panel edging clean from top to bottom. A manual or electrical adjustment unit provides for adjustment to the panel width. This cleaning solution also allows for subsequent integration of the module into a roller conveyor line, ideally before panel surfaces are cleaned.

Air technology cleans boreholes and grooves

Recesses with smaller cross section are cleaned most effectively using air technology such as deliv-

ered by the "Tornado Channel TKF". The Channel has a width of up to 3.4 meters with fixed "Tornado nozzles" positioned at intervals of 40 mm. The valves of the "TKF" are manually or electrically activated. Electrical valves can be synchronized with the milling or drilling programme to ensure they are activated precisely as required to target a specific area. This drastically reduces compressed air consumption. High-performance suction systems located at the infeed and outfeed of the module guarantee particles are removed from the production area.

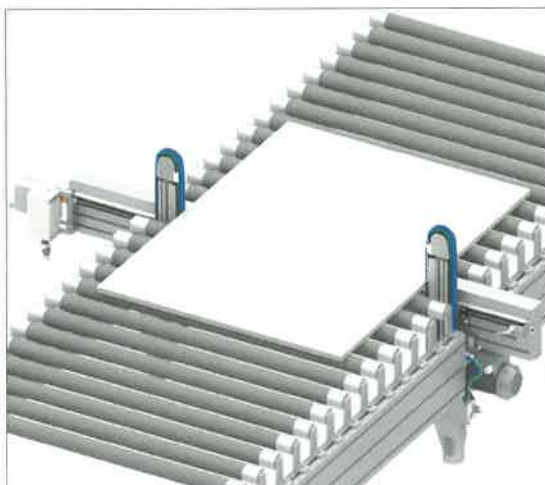
"Tornado Channel" removing particles from the flat surfaces as well as recessed surfaces of a furniture panel.

The maximum speed of transport is determined by depth and width or diameter of the recesses to be cleaned.

Just as effective for finger pull profiles

Recessed edging for finger pull profiles also requires meticulous cleaning before coating. A sword brush "Type BIX" with longer filaments is deployed here to ensure the base of the groove is clean. To achieve this, the brush is attached horizontally and completes the cleaning task by wiping in opposite direction to the direction of travel. Almost any cleaning application in the production of furniture panels can be performed to the highest possible standards using air-assisted or brush cleaning technology.

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Edge cleaning on both sides of a furniture panel.

Photos: Wandres