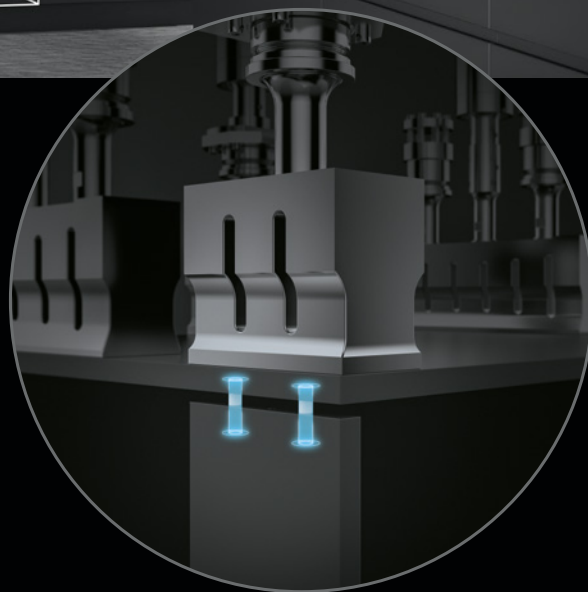


Titus+
Technologies

Titusonic®

Ultrasound Cabinet Welding



Revolutionary ultrasound welding technology

Titusonic® is an innovative, next-generation technology that uses ultrasound to weld wooden cabinets, offering exceptional strength, reliability, and fastening speed without the need for adhesives.

The Titusonic® process is compatible with various wood-based panels like chipboard, plywood, hollow core boards, and solid woods. It can be seamlessly integrated into most industrial wood processing equipment to boost production speed and enhance cabinet rigidity.

- **Fast** - high productivity with fast welding time
- **Clean** - adhesive-free process
- **Strong** - sturdy cabinet construction
- **Reliable** - enhanced confidence in the end product



Fast

- High-level production outputs for volume applications
- Ultrasound welding speed is fast, taking only two seconds per cycle
- A brief dwell time is sufficient to strengthen the weld



Welding

+



Dwelling

=

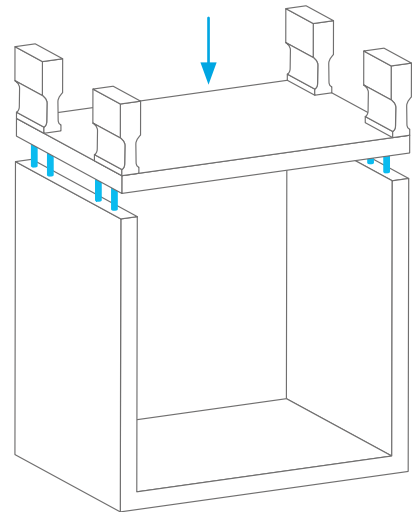


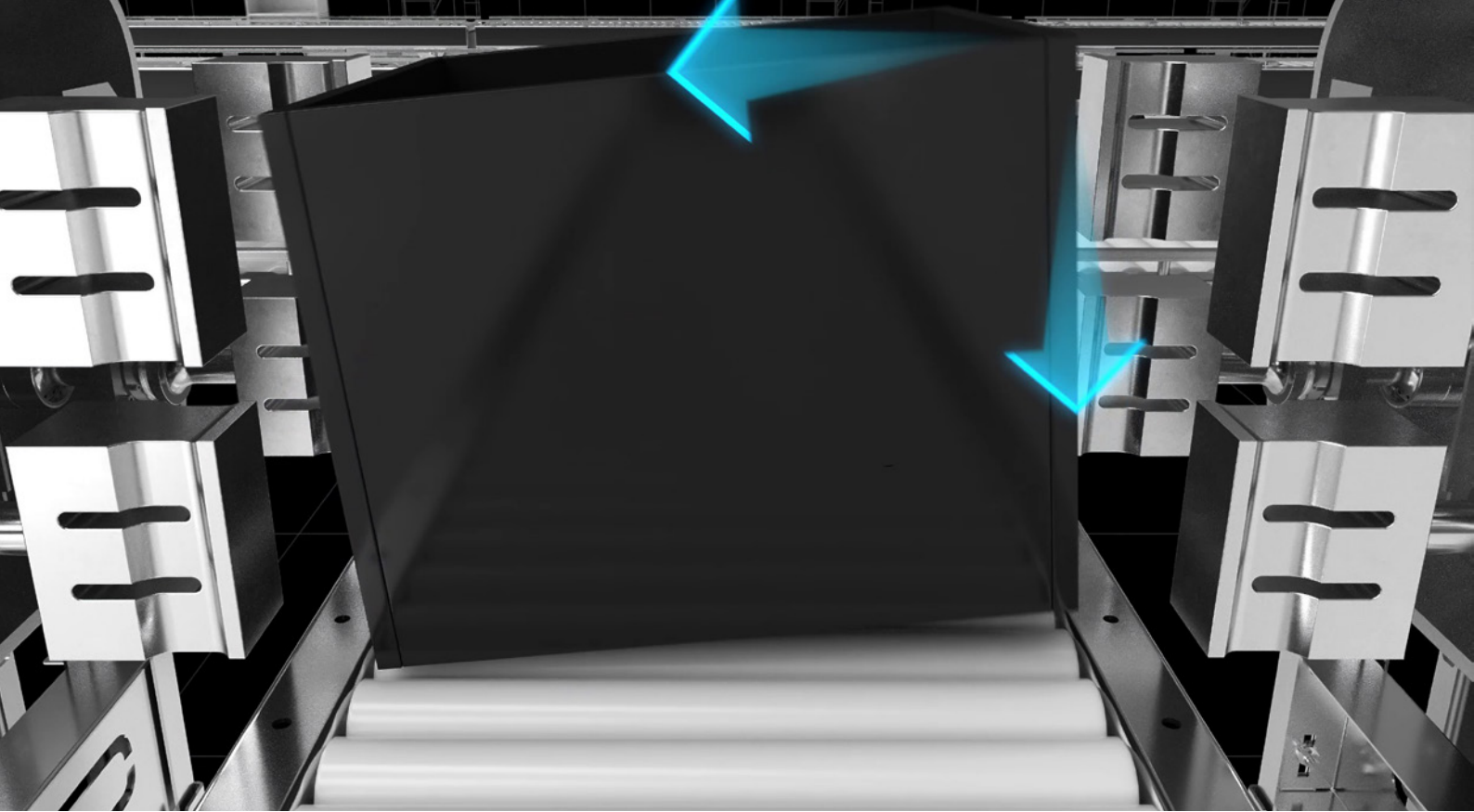
**Complete
cabinet assembly**



Clean

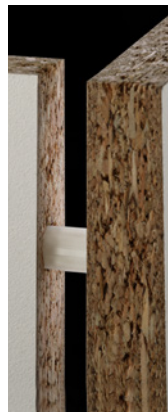
- The welding process is completely adhesive-free
- Low production complexity without the need to set up or clean glue application machines
- No drying time required





Strong

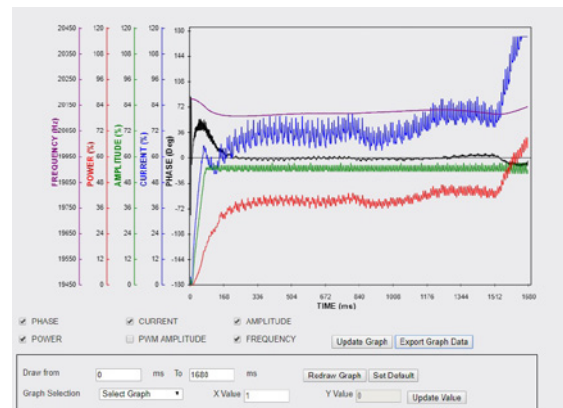
- 30% stronger than a standard cam and dowel joint, and comparable in strength to a glued cabinet joint
- Welded cabinets can be shipped immediately after assembly
- Dowel contraction during welding creates tension across joints, ensuring strong and sturdy cabinets





Reliable

- Integrated Quality Check Algorithm - Statistical Process Control (SPC) to monitor the performance of every weld
- Traceable performance for process optimisation and repeatability
- Automated detection and ejection of inconsistent cabinet raw material during production



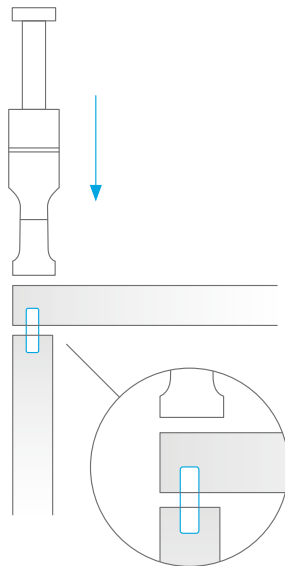


How does it work?

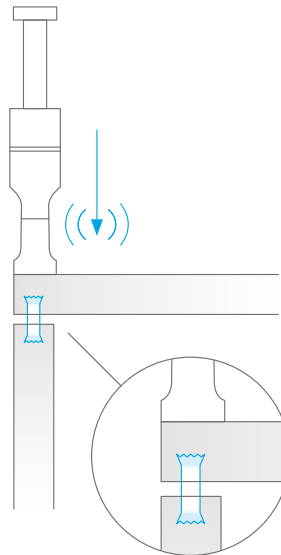
Ultrasound high-frequency energy is applied to specific areas of the panel joints, causing the sonic dowels to liquefy. The melted material is then forced into the porous spaces of the wooden board by pressure before hardening and contracting, resulting in an effective joining of the panels.

Fastening process

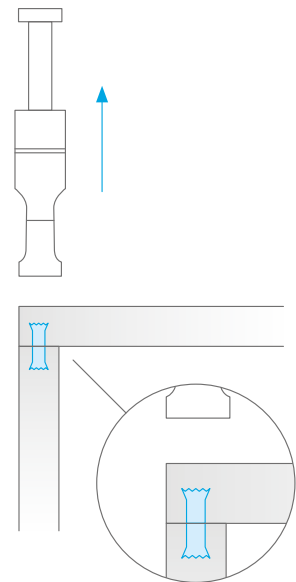
Preassemble the cabinet and place it into the press



Ultrasound energy welds the boards together



After 3-4 seconds the cabinet can exit the press



Engineered for Purpose

Titus is committed to providing its customers with products and services that improve their competitiveness, while reducing manufacturing and assembly costs.

Titusonic®



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