

MES technology with 3TEC

Fully integrated flexible furniture production line

► 100 cabinets / 1000 parts per shift

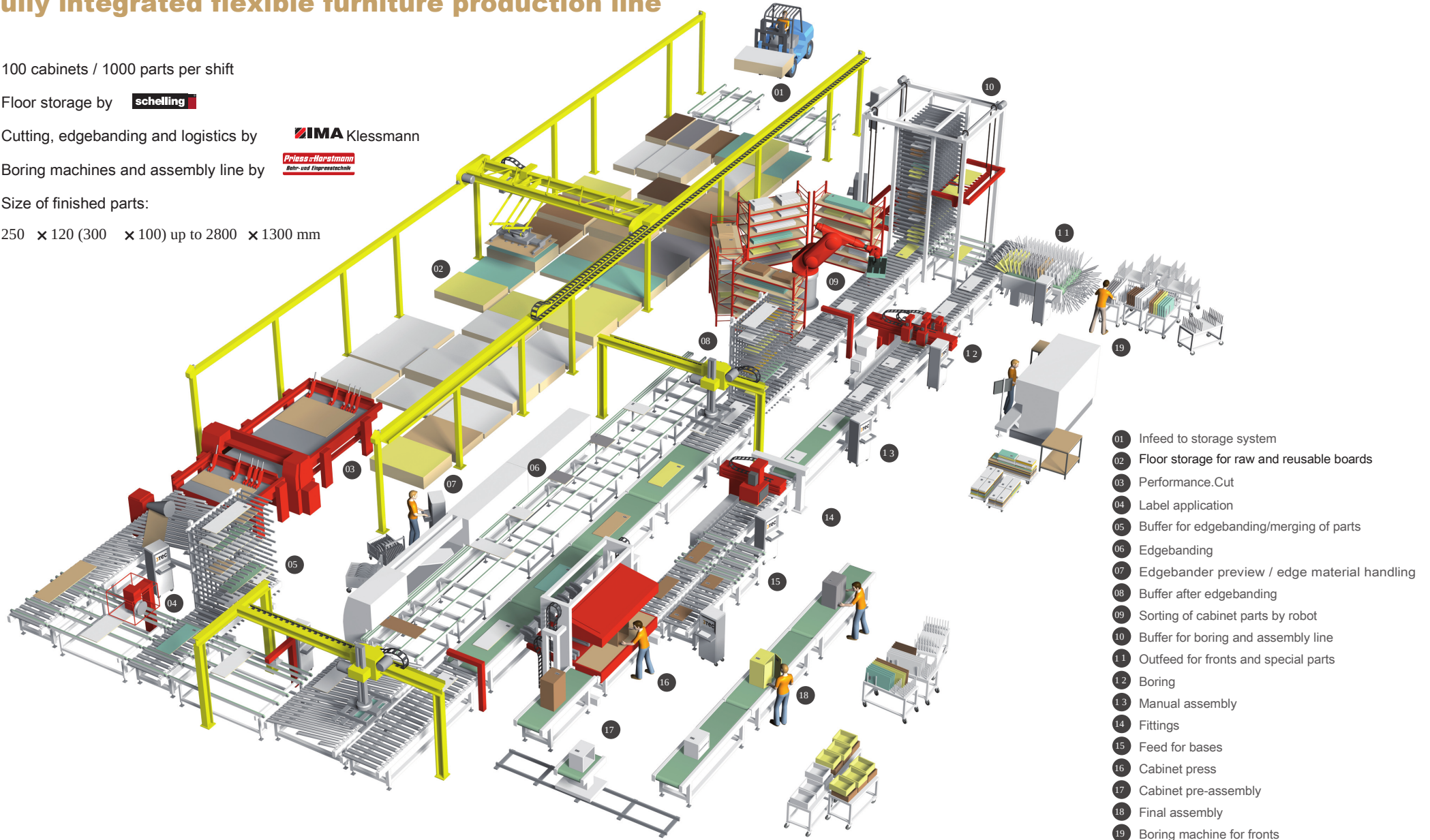
► Floor storage by **schelling**

► Cutting, edgebanding and logistics by **IMA Klessmann**

► Boring machines and assembly line by **Priess-Horstmann Bohr- und Einbautechnik**

► Size of finished parts:

250 × 120 (300 × 100) up to 2800 × 1300 mm



- 01 Infeed to storage system
- 02 Floor storage for raw and reusable boards
- 03 Performance.Cut
- 04 Label application
- 05 Buffer for edgebanding/merging of parts
- 06 Edgebanding
- 07 Edgebander preview / edge material handling
- 08 Buffer after edgebanding
- 09 Sorting of cabinet parts by robot
- 10 Buffer for boring and assembly line
- 11 Outfeed for fronts and special parts
- 12 Boring
- 13 Manual assembly
- 14 Fittings
- 15 Feed for bases
- 16 Cabinet press
- 17 Cabinet pre-assembly
- 18 Final assembly
- 19 Boring machine for fronts

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Fully integrated flexible furniture production line

- ▶ Automatic floor storage for raw and reusable boards
- ▶ 2-D cutting of component parts with Performance.Cut
- ▶ Labels applied to parts automatically
- ▶ Buffer before and after edgebanding
- ▶ Automatic edgebanding with single-sided edgebander
- ▶ Sorting for assembly line
- ▶ Boring machine for fronts
- ▶ Automatic assembly line

Production data import and preparation

- ▶ All data relevant to production is imported from the ERP system
- ▶ Production data stored in MS-SQL database
- ▶ Planning of production jobs
- ▶ Communication with the cutting plan optimizer
- ▶ Data preparation for storage system, cutting, edgebanding, boring and assembly
- ▶ Edgebander preview and edge material administration
- ▶ Handling of reproductions and quick shots

Control system

Inventory management and control of automatic floor storage system

Material flow control

- ▶ Tracking of individual parts
- ▶ Connections to production machines
- ▶ Sequencing of outfeed from floor storage system based on current loads
- ▶ Sorting
- ▶ Logistics
- ▶ Visualization

Feedback

Production status display for all production steps

System-wide display elements

- ▶ Operator guidance
- ▶ Diagnostics and error recovery