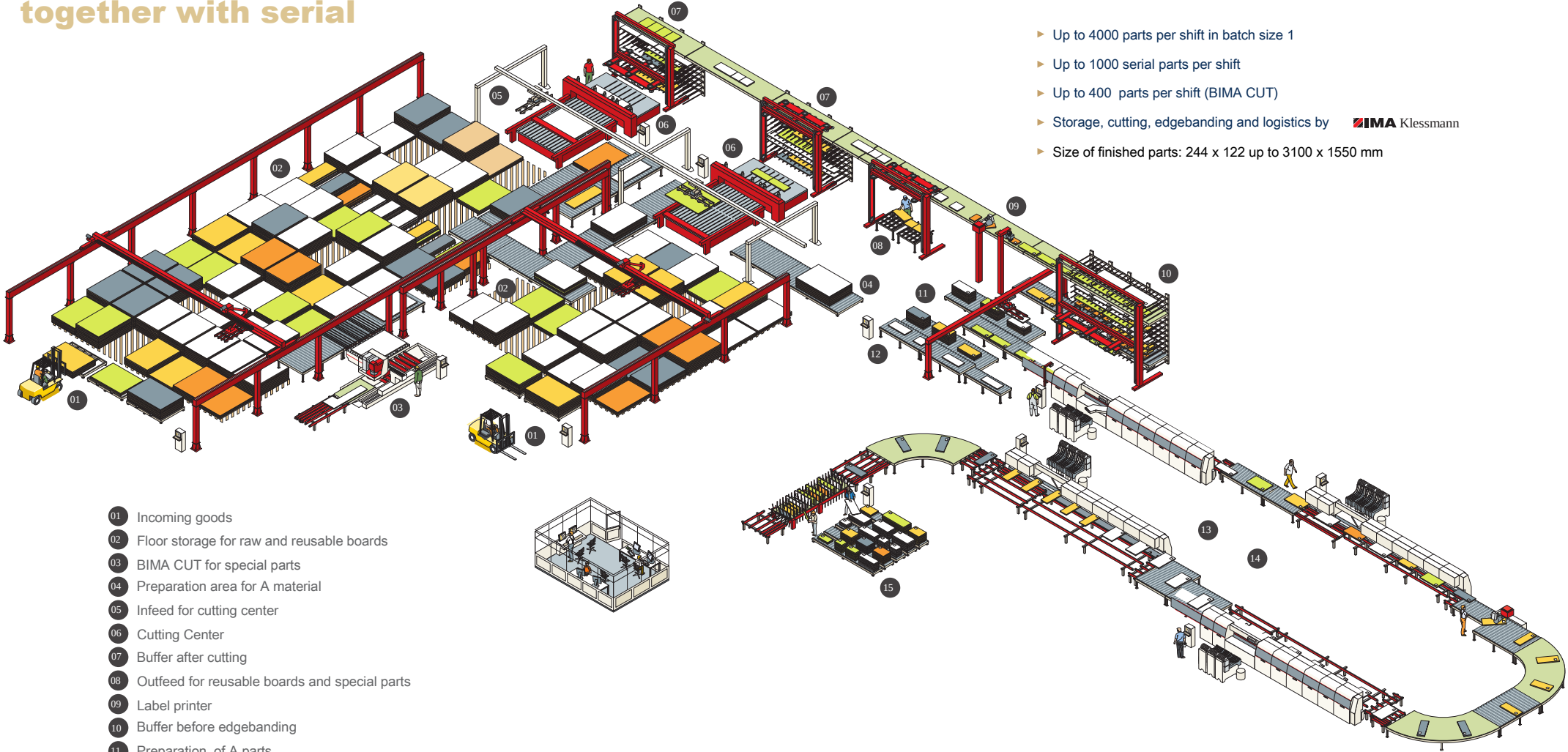


MES technology with 3Tec

Furniture parts production in batch size 1 together with serial



- ▶ Up to 4000 parts per shift in batch size 1
- ▶ Up to 1000 serial parts per shift
- ▶ Up to 400 parts per shift (BIMA CUT)
- ▶ Storage, cutting, edgbanding and logistics by **IMA Klessmann**
- ▶ Size of finished parts: 244 x 122 up to 3100 x 1550 mm

- 01 Incoming goods
- 02 Floor storage for raw and reusable boards
- 03 BIMA CUT for special parts
- 04 Preparation area for A material
- 05 Infeed for cutting center
- 06 Cutting Center
- 07 Buffer after cutting
- 08 Outfeed for reusable boards and special parts
- 09 Label printer
- 10 Buffer before edgbanding
- 11 Preparation of A parts
- 12 Area for quick shots
- 13 4 single-sided edgbanders
- 14 Edgbander preview and edge material administration
- 15 Hedgehog buffer with manual sorting

MES technology with 3Tec

Furniture parts production in batch size 1 together with serial

- ▶ **Automatic floor storage for raw and reusable boards**
- ▶ **2 Cutting Centers and 1 BMA CUT**
- ▶ **Labelling of component parts**
- ▶ **Planning and optimization of production orders**
- ▶ **Buffer for edgebanding**
- ▶ **Feed for A parts**
- ▶ **4 single-sided edgebanders**
- ▶ **Manual sorting and stack building according to diverse criteria**

Production data import and preparation

- ▶ All data relevant to production is imported from the ERP system
- ▶ Production data stored in MS-SQL database
- ▶ Planning and cutting plan optimization (except BIMA CUT)
- ▶ Data preparation for edgebanding
- ▶ Edgebander preview and edge material administration
- ▶ Handling of re-productions and quick shots

Control system

Warehouse management and control of automatic floor storage system

Preparation of A material

Material flow control

- ▶ Tracking of individual parts
- ▶ Labelling
- ▶ Buffer management
- ▶ Connections to production machines
- ▶ Monitoring via barcode scanning

Inter-process feedback

Production status display for all production steps

System-wide display elements

- ▶ Operator guidance
- ▶ Diagnostics and error recovery