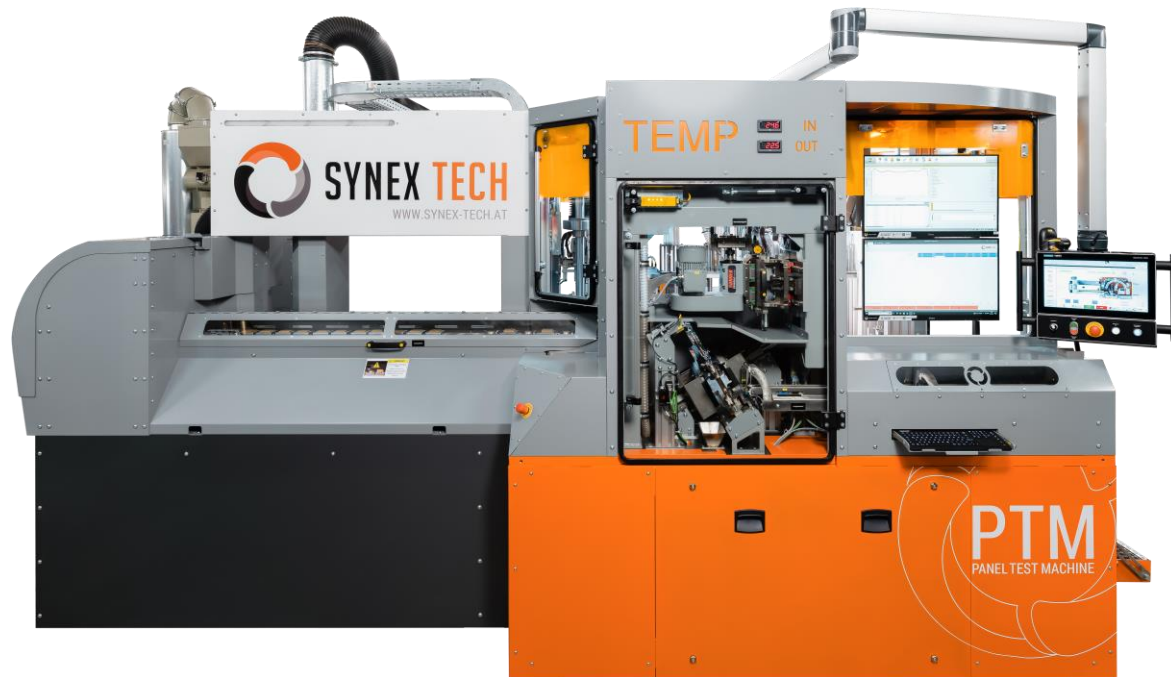


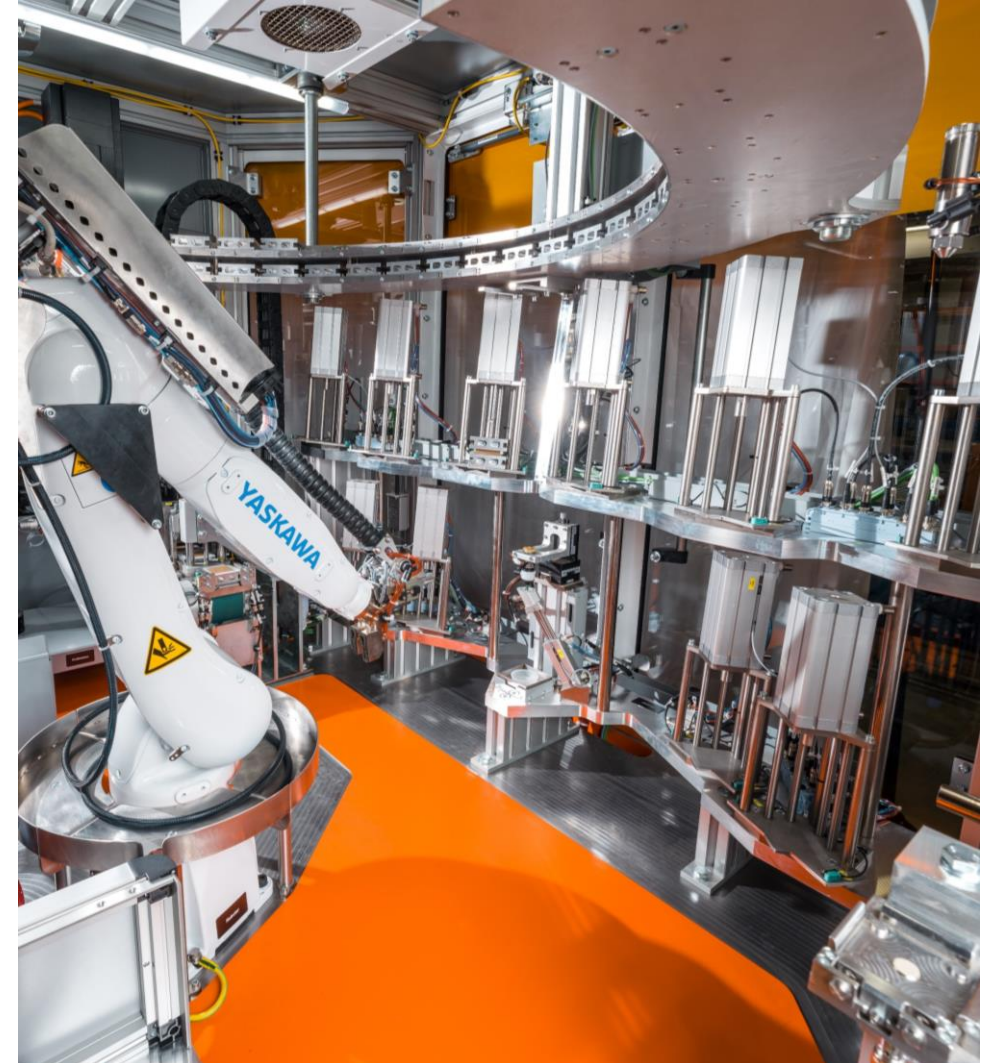
AUTOMATION | DATA QUALITY | OPTIMISATION | SAVINGS



SYN WOOD
PANEL TEST MACHINE

SYN WOOD PTM

- Fully automatic panel testing machine
- Patented system
- Simple operation
- MDF, HDF, OSB & chipboards
- Test results 24/7
- 20 samples in 90 minutes



ADVANTAGES



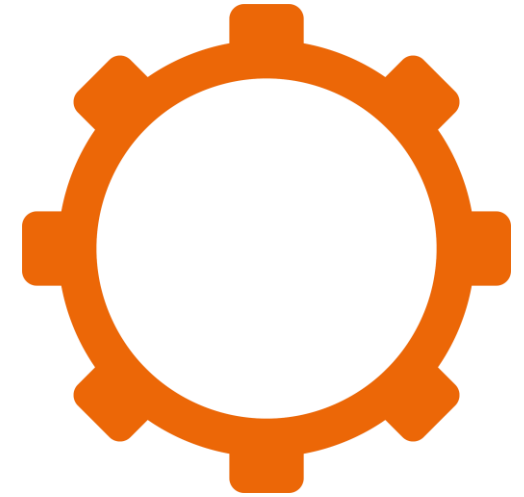
COST REDUCTION

Reduction of glue content & prevention of rejects



REPEATABILITY

Consistent test results & absolute repeatability



RESOURCES

Automatic test mode around the clock

TECHNICAL DATA

DETAILS OF THE SYSTEM

- 2 200 x 4 900 x 2 500 mm
- 6 040 kg
- 400 V supply voltage
- 50 Hz frequency
- 6 bar compressed air supply
- GRECON density profile measuring device
- DÖSCHER microwave moisture analyser
- YASKAWA robot

DETAILS OF THE TEST SPECIMENS

- 50 mm width (+/- 0.5 mm)
- 50 mm length (+/- 0.5 mm)
- 3-50 mm height (1-60 mm upon request)
- Rectangular cutting (+/- 0.3°)

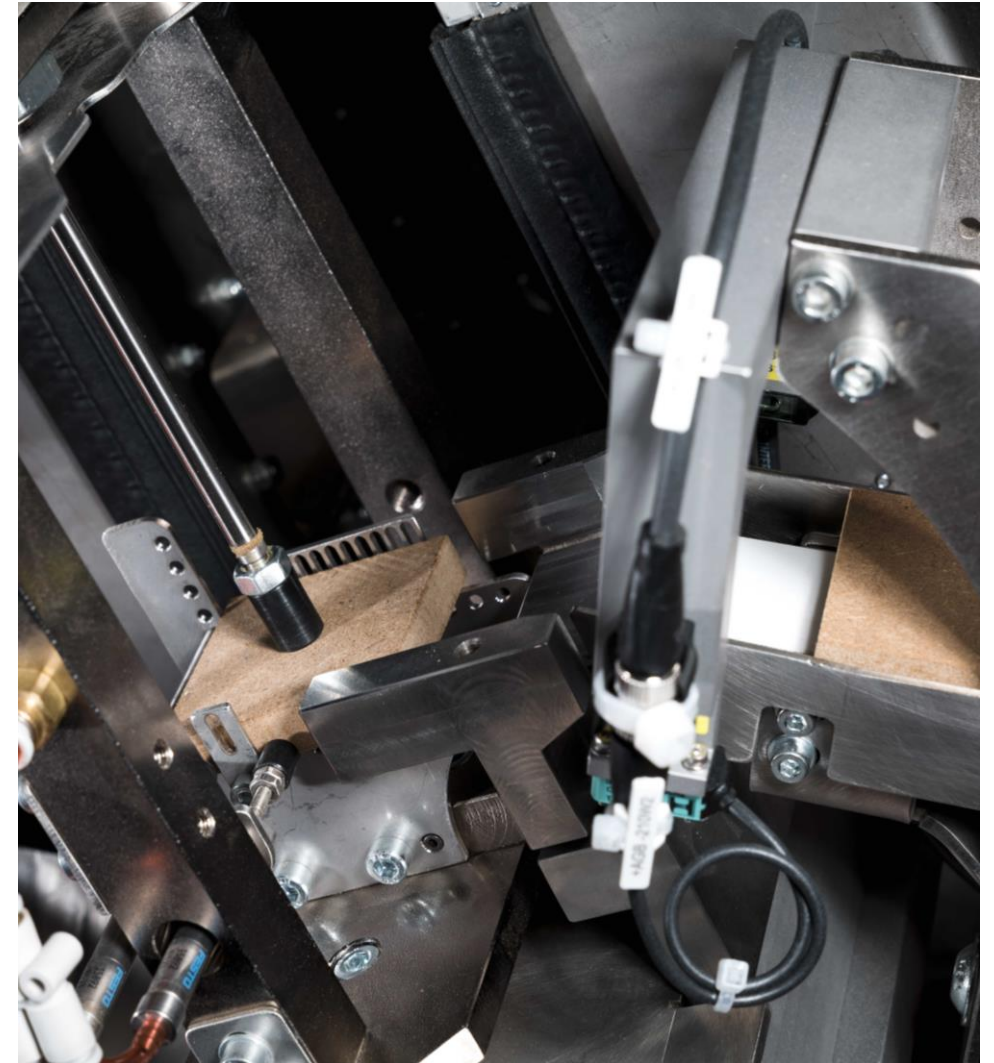
OPERATION

- 1 Place 1-10 test specimens (50 x 50 x 3-60 mm) on the conveyor belt
- 2 Select test combination
- 3 Start automatic mode
- 4 Run through test cycle
- 5 Perform visual inspection
- 6 Start cleaning the yokes



OPERATING MODE

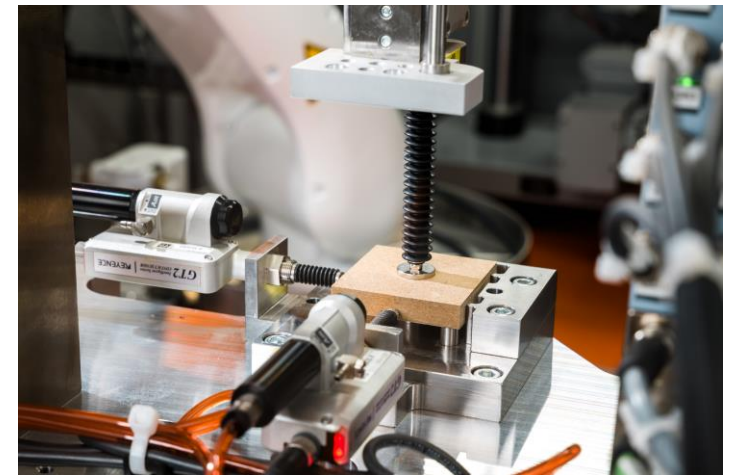
- Fully automatic testing system
- Non-destructive tests
 - Measuring & weighing
 - Raw density profile measurement
 - Moisture measurement
- Destructive tests
 - Perpendicular tensile strength test
 - Surface soundness test
- Various test combinations possible



OPERATING MODE

WEIGHING & MEASURING

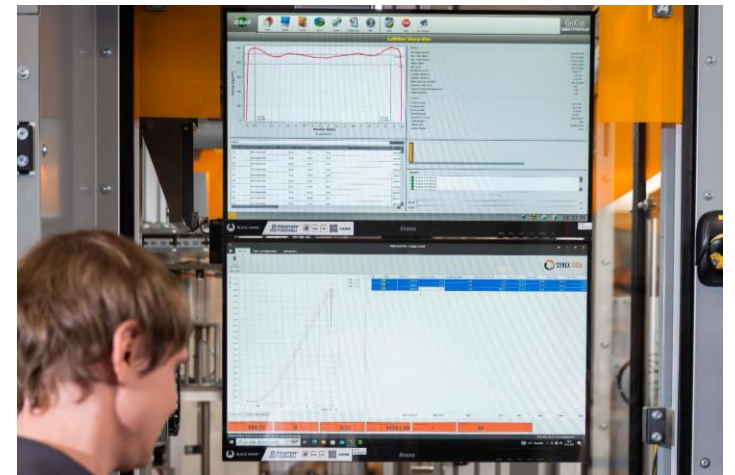
- Raw density of the test specimen is calculated
- Weighing station
test specimen is weighed to an accuracy of 0.001 g
- Measuring station
test specimen is measured to an accuracy of 0.01 mm



OPERATING MODE

RAW DENSITY PROFILE MEASUREMENT

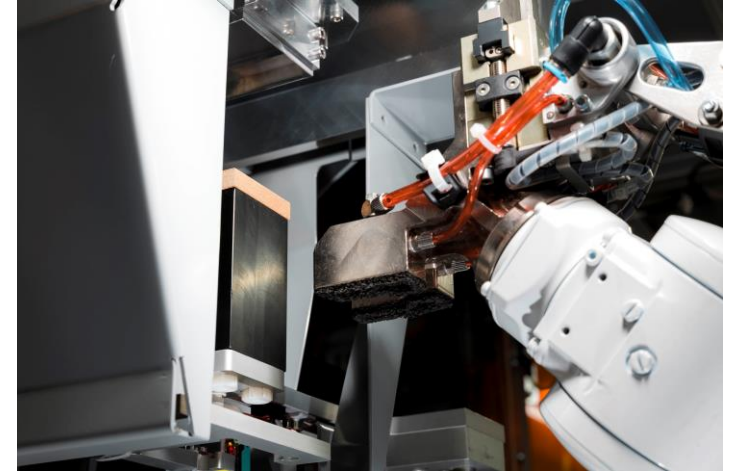
- GRECON DENSITYPROFILER
- X-ray technology
- Resulting measurement graphic is displayed on a screen
- Values are transferred to the data system
- Can be filled by hand for manual testing



OPERATING MODE

MOISTURE MEASUREMENT

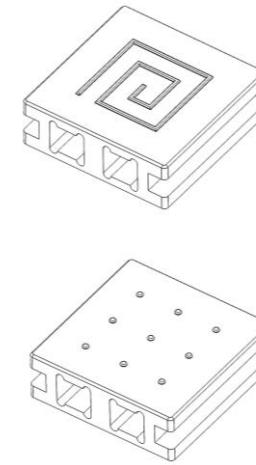
- DÖSCHER MOISTUREGUARD
- Microwave technology
- Measured values are compared with the stored calibration curve
- Values are transferred to the data system



OPERATING MODE

GLUING & HARDENING

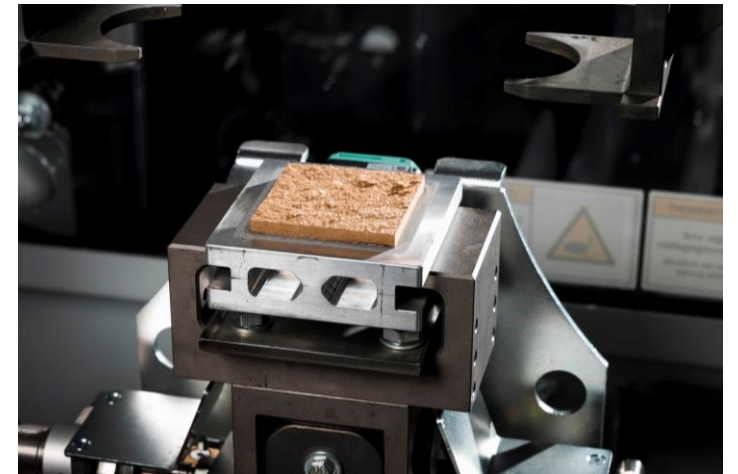
- Adhesive is applied automatically
- Test specimens are pressed with yokes
- 10 curing stations
- Quantity, pattern & position can be defined
- Absolute repeatability & homogeneity



OPERATING MODE

PERPENDICULAR TENSILE STRENGTH TEST ACC. EN 319

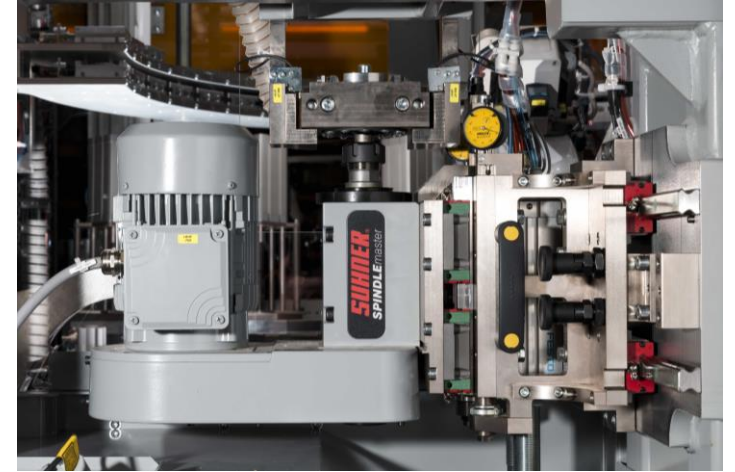
- Test specimen is inserted into the testing machine
- Specimen holders are gimbal-mounted
- Automatic pre-adjustment & fixing of the test yokes
- Under tension the fixation of the gimbal-mounted bearing is released
- Force & displacement are recorded
- Values are transferred to data system



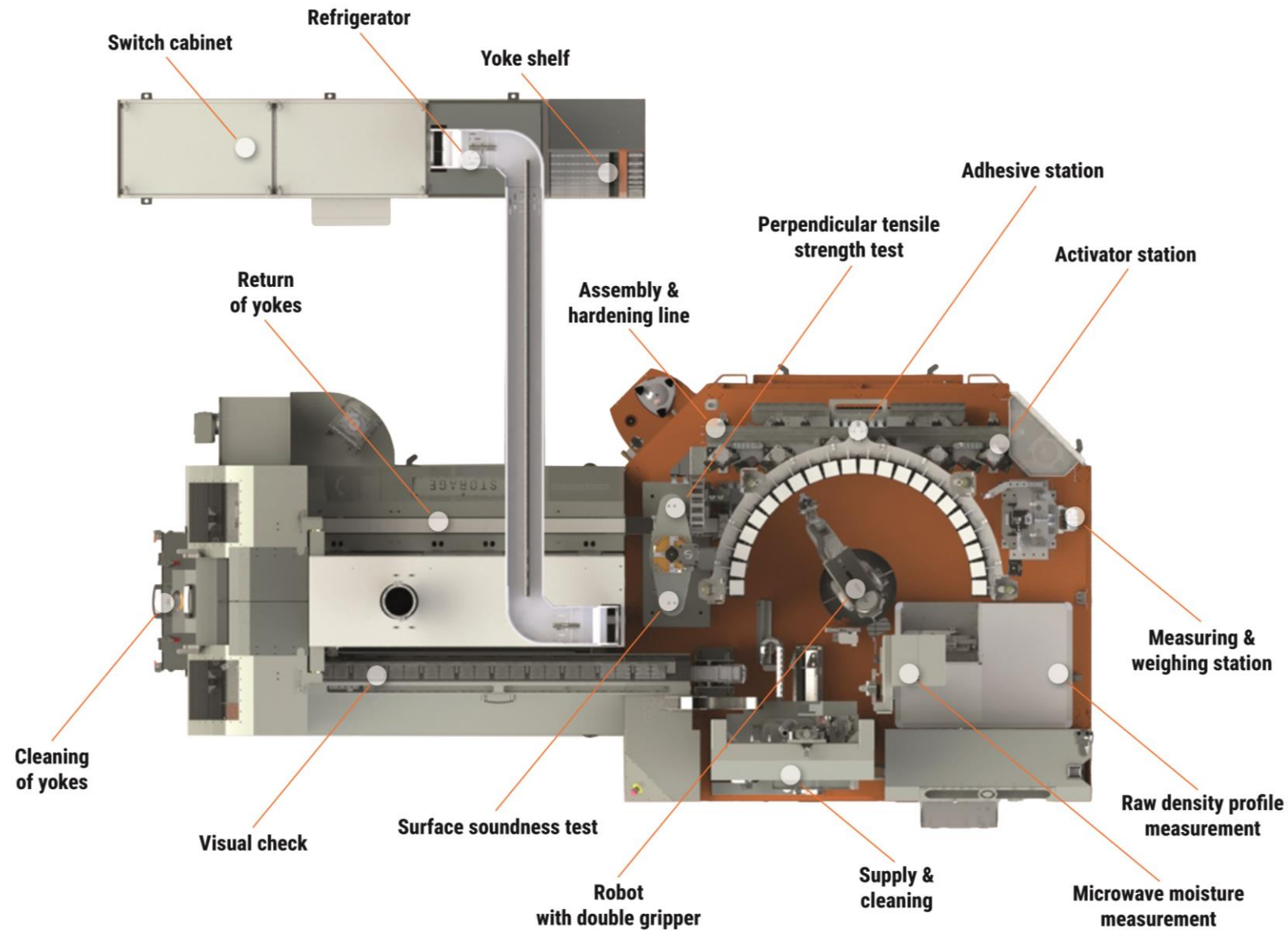
OPERATING MODE

SURFACE SOUNDNESS TEST ACC. EN 311

- Test specimen is placed on a processing station
- 0.3 mm annular groove is milled in
- Special test yoke for surface soundness test
- Test specimen is bonded with standard & special yoke
- Samples are fed to the testing machine & tested
- Values are transferred to the data system



CONSTRUCTION OF THE SYSTEM



SYNEX TECH GMBH

- 2010
- Bad Goisern am Hallstättersee
- 50 employees
- Special mechanical engineering
- Automation
- Customised solutions for individual requirements
- Serial production (SYN WOOD, SYN AIR & DRILL-X)
- Wood-based material, EPS, metal, plastic, automotive



REFERENCES

