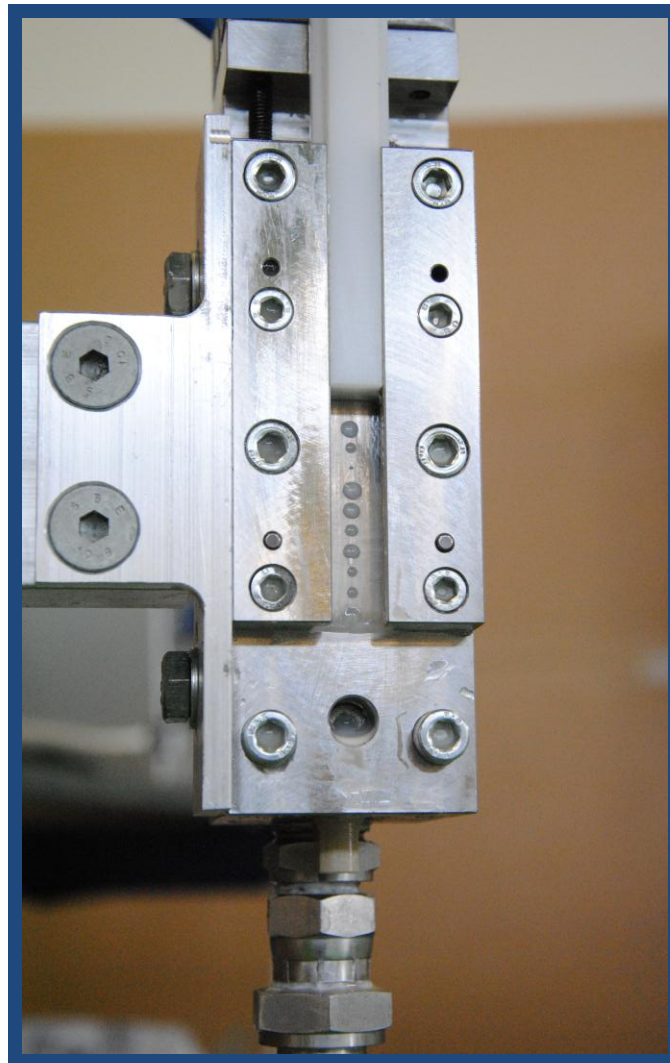




Glue application for finger-jointing by contact-less method



Finger-joint application for separate application of adhesives 2400-CL series.

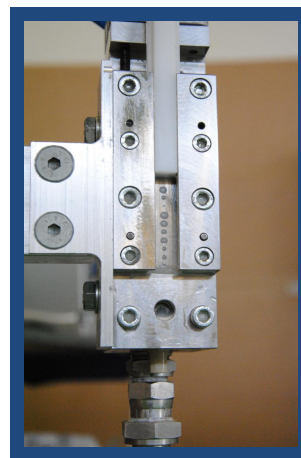
The principle is based on **contact-less** application, which means no physical contact between the application head and the jointed timber.

This system is developed for the separate application of glue and hardener for MUF systems, but can also be used for other adhesive systems.

The glue and hardener are sprayed on the top of fingers of the timber. Due to the fully separate application and the lack of physical contact with the timber this system takes away all disadvantages of the glue matrices method.

- Technical capabilities:**
- 2 application heads, adjustable in application height
 - One head for glue (MUF) and
 - One head for hardener (MUF)
 - For FJ speed up to 300 m/min while applying glue
 - Glue + hardener capacity between 1,0 up to 15 kg/min
 - Application width for the timber: between 25mm and 400mm
 - Mixing ratio for 100:100, but also other combinations are possible
 - Full integration with any OEM FJ supplier
 - All adjustable parameters and storage of production data
 - Easy to upgrade the machine due to “standard components” system

- Advantages:**
- No cured glue, else then in the timber joint
 - Extremely little cleaning activities
 - Application of glue and hardener outside the finger-jointer, means:
 - no speed decrease for glue moment
 - no glue spill in the FJ
 - Long life time equipment, over 15 years!
 - Very easy for the operator, no fine adjustments
 - Flexible, can meet any OEM FJ machine
 - In principle glue no waste

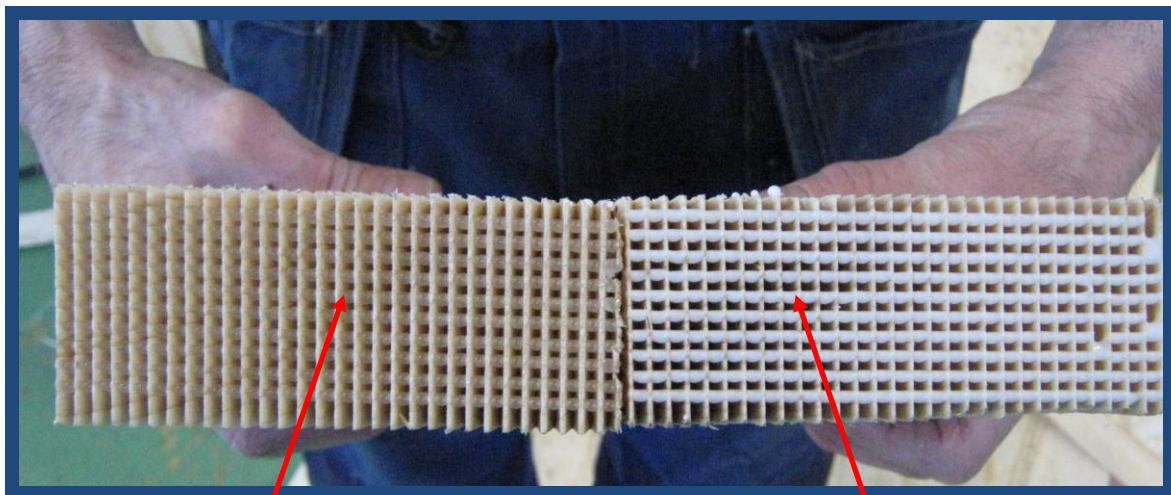


Application head with automatic adjustment of application height.



Separate application of adhesive

The application of glue and hardener, applied separately on the finger tops. As alternative both the glue and hardener can be applied on the same end. This will be done in such a way, that the glue and hardener alternate on the top of the fingers.



Glue

Hardener

Vertical on the jointed timber the glue and hardener are applied. For single sided application the glue and hardener can be applied in sequence after each other

The verification of the application

As the adhesive is visible on top of the jointed timber, it is now possible to overview if the adhesive is applied correctly.

Together with a camera system supplier we have developed a solution where each adhesive application moment will be controlled.

The control for contact-less application will over-view:

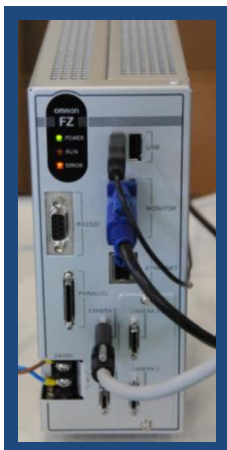
- The application of glue and hardener
- The right amount of glue and hardener
- The complete application (100% coverage) for both components on the jointed timber

The verification system exists of a set of:

- One or two cameras (depending on the size of the jointed timber)
- A lighting system
- A PC including software



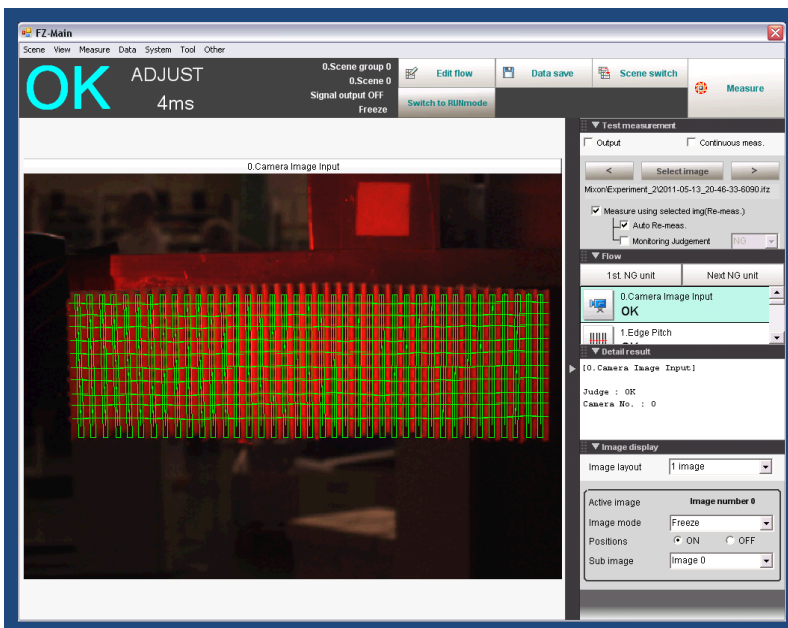
Camera & lighting system



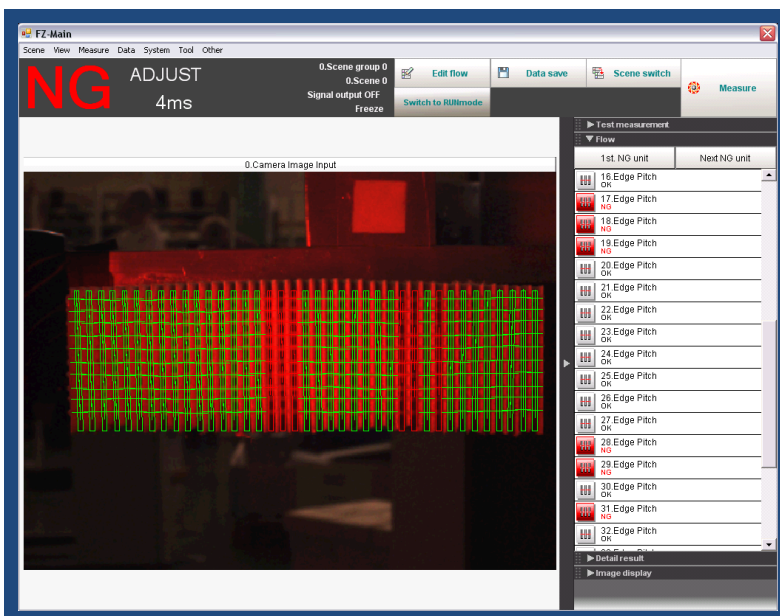
PC and software to control the correct application

Each application will be marked by a “OK” or “N(ot) G(ood)”.

The camera takes a picture after each adhesive application moment. The software calculates immediately if the glue and hardener are applied according to the prior set protocol. This means that each application will be validated and “approved” or “not approved”. This will be shown on a screen for the operator. In the program various receipts are saved, which makes the control of various dimensions of jointed timber easy to apply.



Approved application



Not approved application



Technical details:

Application:	Separate, 1 component glue, 1 component hardener
Width:	Between 25mm and 350mm
FJ profile:	Any type
FJ speed:	Up to 300 m/min
Capacity:	Between 1,0 and 15 kg per minute
Mixing ratio:	100: 50 up to 100:200, down to 50:100
Pump principle:	Double acting displacement pump
Flow meter:	Yes
Control system:	Mitsubishi
Cooling:	Yes as an option
Glue type:	All glue types that are designed for this application
Electricity:	400V, 16A, 50Hz
Compressed air:	6 bar, 250 L/min

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