



DOOR-PANEL ADHESIVES APPLICATION SOLUTIONS



Various products where timber sheets or door leaves are connected/glued together on top of the prior sheet or the honeycomb material usually used for door production.

Advantages

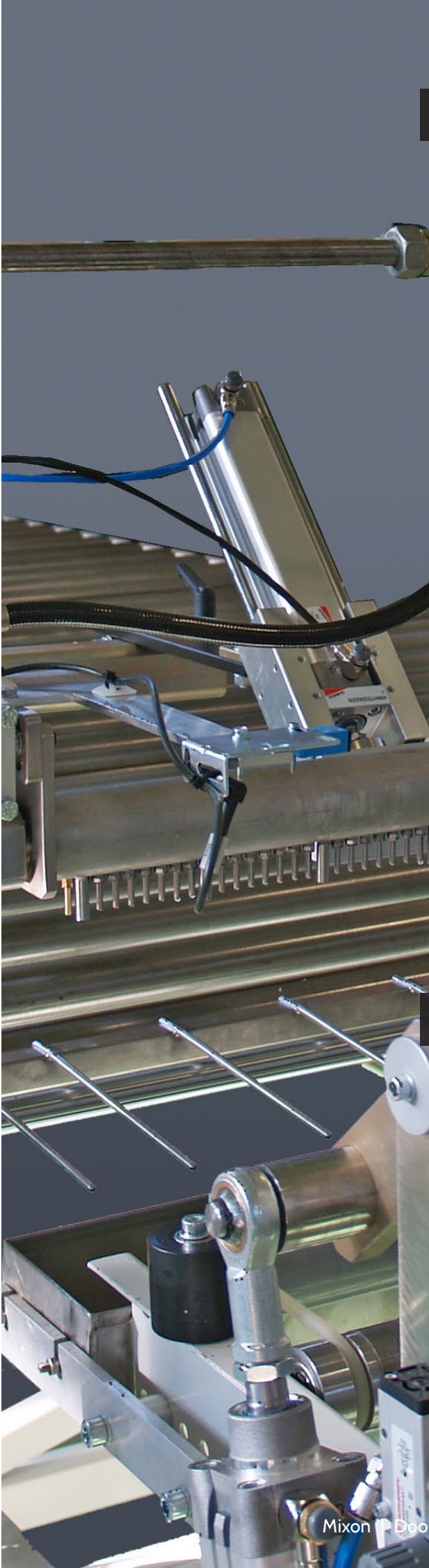
of our door/panel application system:

- Can deal with all types of adhesive systems
- Tailor made solutions based on standard Mixon components
- Adhesive application with a start/stop system, for accurate application of adhesive on the door leaf
- Applicable for various widths
- All parts available from stock for quick spare-part deliveries
- Optimized control system to help the operator to produce rational batches

■ Choice of materials and components

We have designed the equipment for long lasting reliable performance. This means that we use the state of the art materials and components like:

- High-end stainless steel qualities
- Ceramics
- High value rubbers and plastics like Viton, HEPDM, PTFE and PEAK
- Control systems of Mitsubishi/Siemens
- Operator panel with integrated LCD touch screen
- Valves for the hydraulic system of Sun
- Components are standard Mixon stock parts or bespoke components
- Very advanced coatings to preserve the materials from acid attack



Application areas

for door/panel application

Various products where timber sheets or door leaves are connected/glued together on top of the prior sheet or the honeycomb material usually used for door production.

The products which are produced according the principle are:

- Doors (inner and outer)
- Interior wood panels
- Multiplex panels
- Other non-bearing panels
- Other customized solution

Adhesive systems

for mixed/separate application:

Our solutions deal with the following adhesive systems:

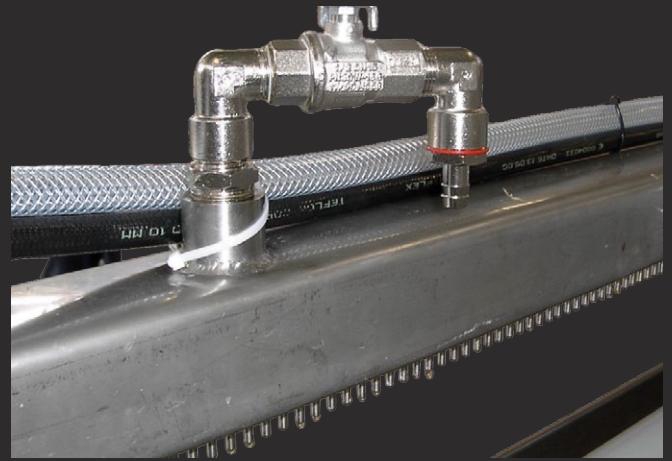
- One component systems like: PVAc, PUR
- Two component systems in mixed application like PRF, EPI, MUF, MF, UF, PVAc etc.

The Mixon 2500

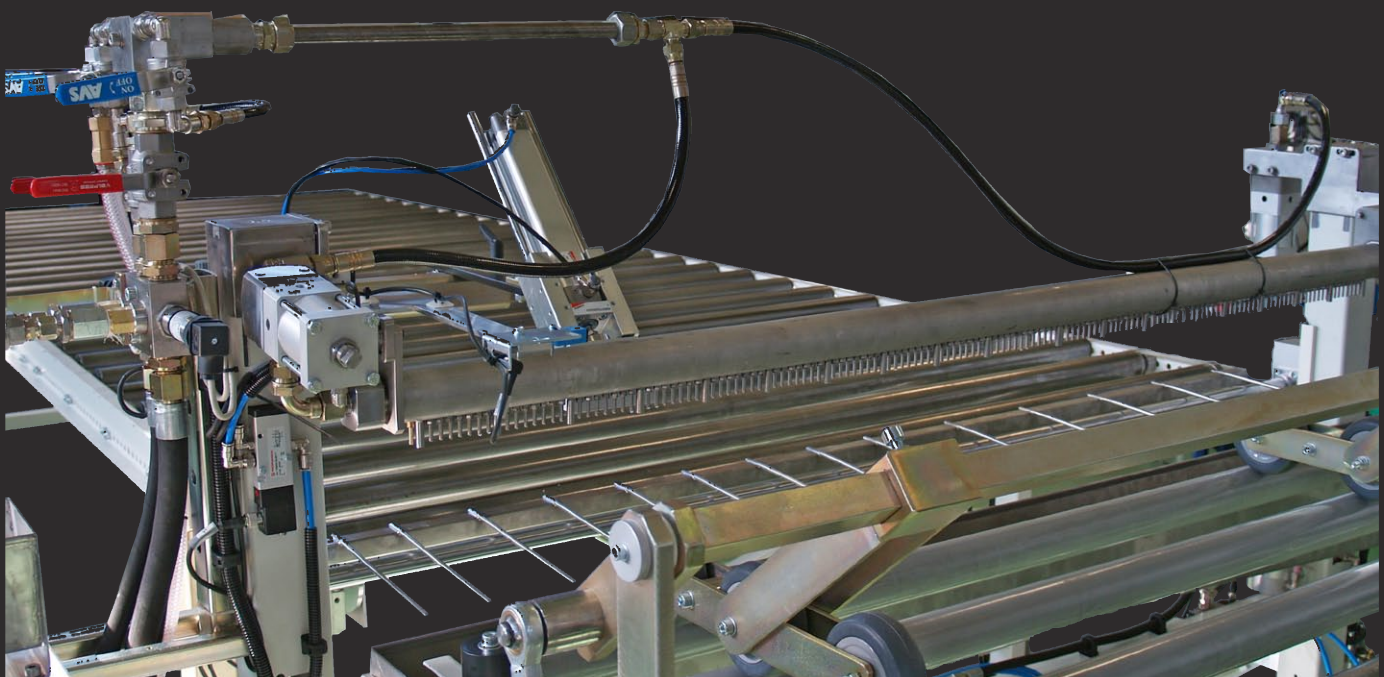
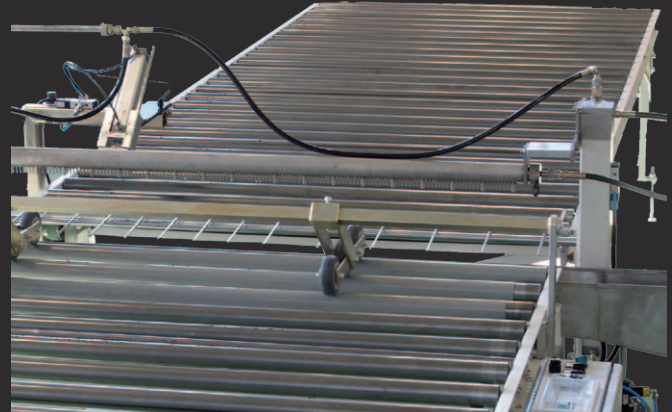
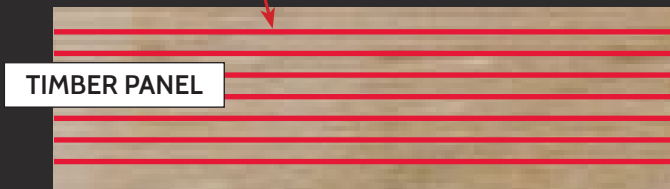
for Door/panel application solution

Mixon's system for mixing and dosing for door/panel application is based on 26 years of experience.

In order to apply the adhesives fast, adequate and reproducible we use our reliable components and have completed the machinery with high-end control systems.



Adhesive application in strings on the top of the panel



■ Dosage

The glue and hardener are dosed and pressurized by double working displacement pumps. Either the adhesive will be mixed before application or, if required the glue and hardener can be applied separately.

The system will apply the adhesive only on the top of the door leaf, by an advanced start/stop system. Because of the start/stop we prevent that adhesive will be applied on the front- and back end of the door/panel leaf.

■ Application

As each producer has its own type of production process and a variety of application widths we tailor make each machine according to the customer's needs.

The door leaf is transported to the in-feed line. The Mixon system detects the leaf and will transfer the leaf to the start-end of the application system. The adhesive spreader beam with nozzles is moved to the top of the door leaf, in order to assure a correct start of all glue nozzles over the complete width. The in-feed line will now forward the door leaf under the adhesive curtain and apply the

required glue spread. The end of the leaf is detected and the adhesive application will stop. This process will be repeated for the next adhesive application.

The pressure in the dosage system is in the order of 40 to 60 bar, which gives the pre-requisites to achieve fast and accurate adhesive application in the joint by a correct start and stop of the glue cycle per panel or door leaf. By our mix-safe control system we safeguard that the adhesive components are applied on the application area.

■ Control system

A separate operator panel placed at the working position of the operator, will allow to make all needed application adjustments. Adjustments will be visible direct for the operator.

The panel is equipped with an LCD touch screen, with simple "windows-like" menus for easy changes of the glue operation. By storing the application set-points in

the memory, it's easy to recall the perfect input parameters by changes of let's say timber dimensions. This receipt handling will in all extent help the operator to quickly adjust the machine to new set-points, without losing valuable time to optimize the production.

Dosage test equipment for quick and reliable check of the applied adhesive spread and adhesive mixing ratio.

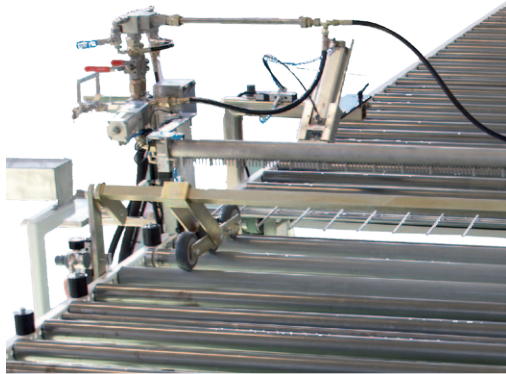
■ Cleaning

The adhesive will be mixed just before the application, which leads to a very limited amount of mixed glue in the dosage machine.

In order to reduce the adhesive spill, we recommend to apply cooling of the application beam. This will lengthen the Open Time of the glue and by that reduce the spill of the adhesive.

A cleaning system of compressed air and warm water will evacuate this mixed glue at the end of the production cycle.

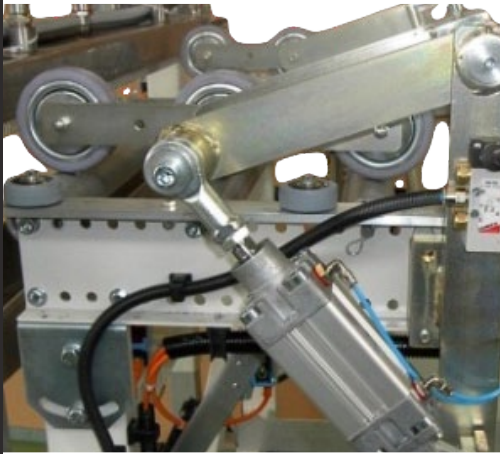
If you have other questions please contact us or find more information on our web site www.mixon.se.



I have various dimensions of my door products, do I need various machines?

■ No, as the length of the door is not a limiting factor, any length will be detected and application will be likewise.

The width of the machine can be adjusted to various widths. This means that you most likely can cover your production with one of our solutions.



When I change glue system, do I need to change the whole Mixon solution?

■ No normally we can offer our services by changing one of the pumps. Our standard components can easily be changed for minimum costs, but maximum flexibility.

Spare parts, how can Mixon help me?

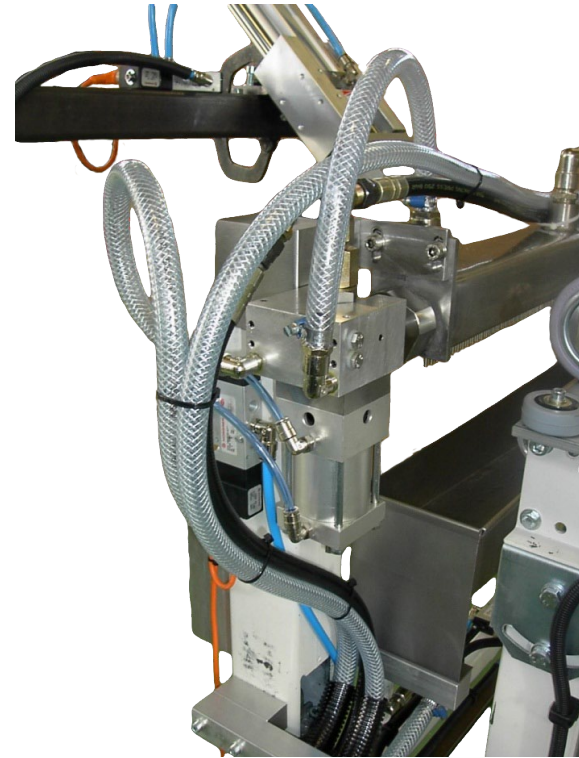
■ The absolute majority of the components we use in our machines are on stock at Mixon.

After you have placed the spare part order you will normally receive the spares within 24 to 48 hours, of course depending on your coordinates.



Do I need to cool the application, due to production circumstances with a high temperature?

■ As relatively much adhesive is stored in the glue beam we recommend to cool the application to lengthen the Open Time and therefore can reduce the number of purges during a production stop.



My production is on the other side of the world, what kind of quick assistance can Mixon offer?

■ Normally we can assist direct per phone or email. However we recommend the customer to invest in the option “remote control”. This gives us the possibility to look into the program of the PLC by the www. This is a very quick and free service we can offer our customers to address issues.

Further we recommend our customers to agree on an annual preventive service, which normally gives full production availability during one year after the service.



Specifications

of our solutions

■ Hydraulic

Model	Capacity (l/min)	width 1	width 2	width 3
Mixed application				
Mixon 2553H/1	1,0 – 4,8	1.000 mm	1.300 mm	1.500 mm
Mixon 2554H/1	1,7 – 8,3	1.000 mm	1.300 mm	1.500 mm
Mixon 2555H/1	2,6 - 13,2	1.000 mm	1.300 mm	1.500 mm
Mixon 2556H/1	5,3 - 26,5	1.000 mm	1.300 mm	1.500 mm

■ Ratio & Measures

Mixing ratio	100:10 up to 100:200
Application width	As indicated in table
Weight	Between 400 kg and 800 kg dep on width and length
Dimensions (l x b x h)	1.000 x 800 x 1.800 mm

■ Needed connections

Compressed air	6 bar, 100 l/min
Warm water	40–45 °C, at 6–8 bar
Electricity	400 V/50 Hz/3-phase/ 10 A or 230 V/50 Hz/3-phase/ 16 A

■ Pneumatic

Model	Capacity (l/min)	width 1	width 2	width 3
Mixed application				
not available	-	-	-	-
not available	-	-	-	-
not available	-	-	-	-
not available	-	-	-	-

■ Ratio & Measures

Mixing ratio	not relevant
Application width	not relevant
Weight	not relevant
Dimensions (l x b x h)	not relevant

■ Needed connections

Compressed air	not relevant
Warm water	not relevant
Electricity	not relevant

Mixon | Door-Panel Application Solutions | 2500 Series