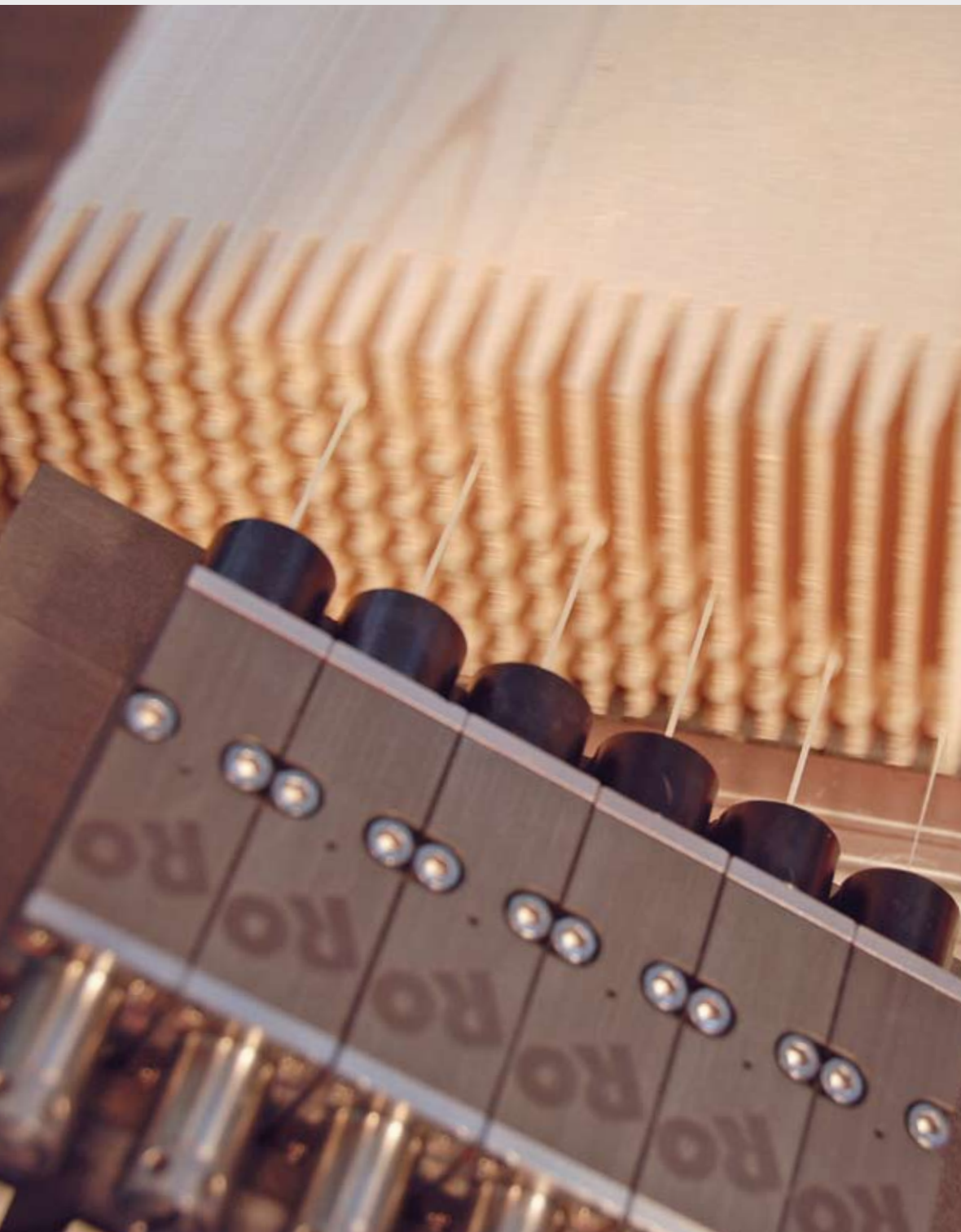


# RO

## PurTech, PurTack Application Systems for 1C-PUR adhesives

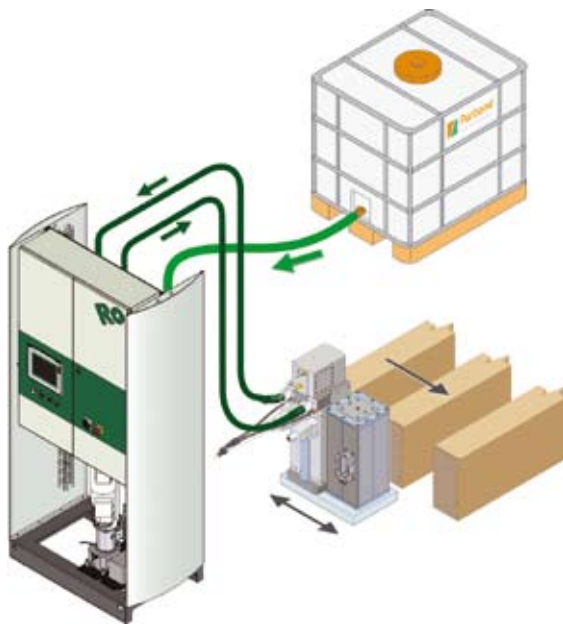


**Robatech**  
Gluing Technology

# PurTech

Modular application system for fibre-free 1C-PUR adhesives

## Finger Jointing



### Non-contact finger jointing - adhesive application FJ SV

The new HB S-adhesive line of Purbond is used increasingly to connect wooden parts by means of finger jointing. The dynamic PurTech application technique developed by Robatech in close cooperation with Purbond permits to apply the adhesive precisely from a distance of 20-40 mm. Both horizontal and vertical application is possible.

The workpiece is moved past the applicator head or the applicator head past the workpiece, depending on the equip-

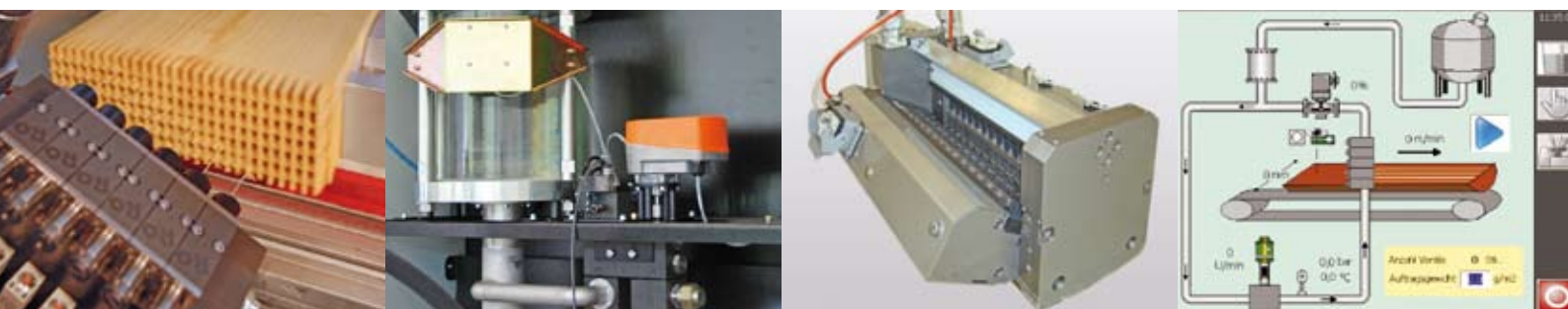
ment concept. In both cases the appropriate number of valves are activated (spaced at 9 mm) to suit the height of the workpiece, and the applicator head is centered at the same time. The high switching precision of the valves in the millisecond range guarantees the edge precision at beginning and end of the workpiece. The adhesive enters the jointing profile as a result of the dynamics of the adhesive jet so that the adhesive bead remains anchored in the position where it is applied.

### Process monitoring

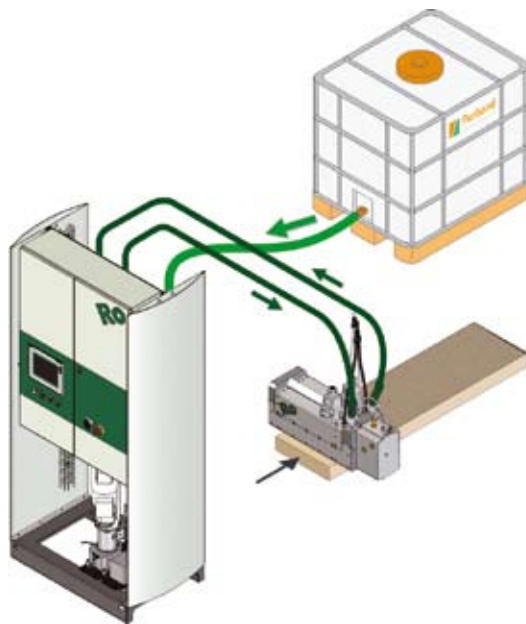
The application position in combination with quantity monitoring guarantees very high process safety. This results in a minimal contamination of the parent machine and an accordingly reduced maintenance effort. All seals which might come into contact with air feature a liquid barrier. This means that the adhesive cannot solidify and damage the seals which might lead to leakages. The gear-type feed pumps are also encapsulated.

### DACS (Dry Air Cap System)

The DACS (Pat. pend.) proactively prevents the adhesive from reacting at the nozzle tips of the valves, i.e. blocked valves belong to the past. This ensures the full availability of the system also after a longer standstill. The DACS has its own function supervision. The PurTech system stands for precision, reduced adhesive consumption, high availability, total quality thanks to PSS (Purbond Safety System) and therefore high process safety in production and sustained benefits from the investment.



## Face gluing



### Glulam with face glue application FG SV

The contactless application technique is already used in the glulam production now, but it is often inaccurate and causes contamination of the equipment and parent machine. Moreover, inaccurate start- and end-gluing leads to a considerable waste of adhesive and thereby unnecessary costs. With the new PurTech applicator system developed by Robatech the adhesive is applied highly dynamically in a precise quantity and with a defined spacing of the beads at speeds of 60-300 m/min.

The newly developed applicator head is based on Robatech's experience in other industries where high speeds and precision are state-of-the-art technology. The well-proven SX applicator valves additionally feature a liquid seal with an active flushing system. To cope with the problem of adhesive which started or finished reacting at or in the valve, Robatech has developed DACS (Dry Air Cap System) which prevents humidity from reaching the nozzle tip.

### Low maintenance effort

This results in a high availability of the system and requires hardly any maintenance effort. A good accessibility of all parts of the equipment is part of Robatech's standard design. To ensure that the adhesive is present in the valve at the correct pressure at different speeds, the system is pressurized depending on the required quantity to be applied. This is achieved by means of a servo-controlled throttle with control valve directly in the adhesive circuit. The supply and feeding system are designed modular and can deliver up to 600 kg/h of adhesive. In case of heavily fluctuating temperatures there is an optional possibility of heating or cooling the adhesive.

### Touchscreen

The pictorial representation of the entire system on the touch screen guarantees the operator a straightforward and rapid operation. An optional high-speed adhesive supervision by means of 3D scanner will also be available for surface gluing.

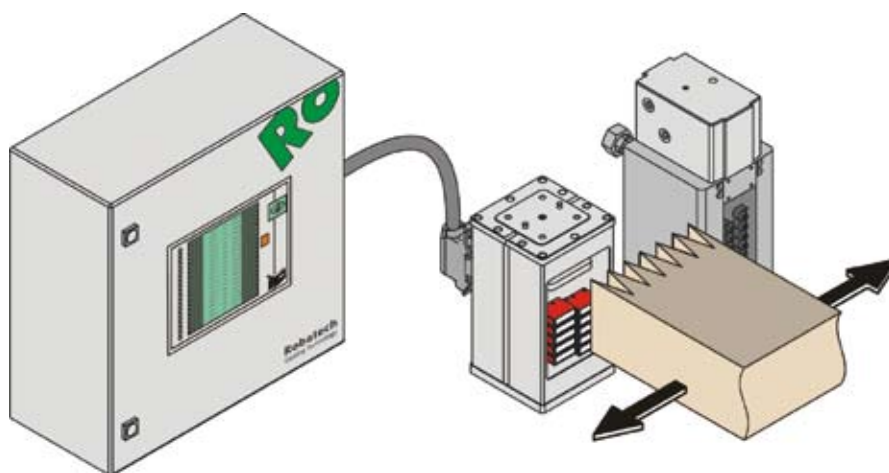
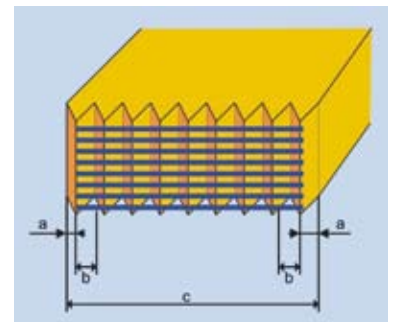


## Safety and quality with the Purbond Safety System (PSS)

### Complete adhesive monitoring with PSS

The gapless documentation of the production process is becoming ever more important seeing that wooden elements are increasingly used in object construction. This prompted Robatech, in cooperation with Purbond, to develop a reliable sensor system. The system is based on the detection of an additive in the adhesive which can be detected with absolute certainty. Once installed, the system requires no further attention since all settings are predefined. After the application on the finger jointing surface each individual adhesive bead is measured for position and completeness and logged. The PSS works autonomously and accordingly able to even detect

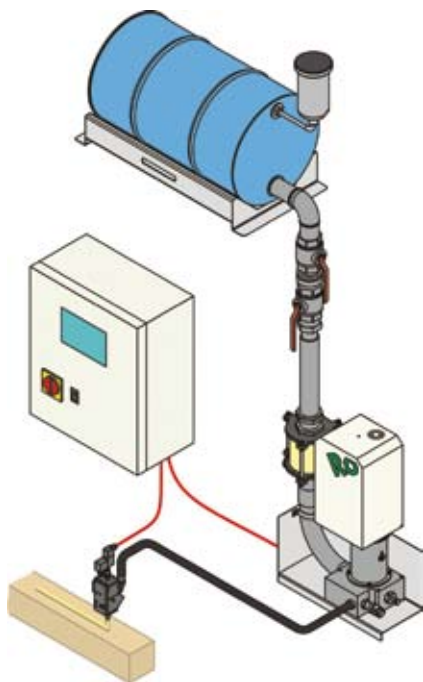
possible communication errors of the central computer. The data records of each workpiece are saved and administrated via Ethernet or Profibus on the central computer. The PSS can also be retrofitted to existing equipment. If suitably planned, a PSS can be retrofitted to the new PurTech system at any time. Sensor boxes exist for max. 10, 20 or 30 sensors, whereby only the required number need to be installed. The PSS can either be moved past the work with the applicator head or installed firmly. The PSS is the right solution wherever a high process safety and a high gluing quality are of importance.



# PurTack

Modular system solutions for fibre filled 1C-PUR adhesives

Various applications



## PurTack - the modular system technology for 1C-PUR adhesives

1C-PUR adhesives have been used in engineered wood constructions for many years. Processing of adhesive containing fibres demands adapted application equipment. PurTack stands for the reliable processing of such fibre-reinforced adhesives. The components are laid out so that no fibres can settle in the system and cause blockages. The proven liquid seal is used on all components also in the case of this system. To guarantee a reliable application, the minimum nozzle diameter is 1.6 mm. The most varied application processes such as application beam, manual valve or different automatic applicator heads are available depending on the application. A gear

pump unit with variable drive supplies the applicator heads with adhesive. One can select from different feed capacities. Depending on the expected consumption the adhesive is supplied in a 50-liter or 200-litre steel drum or a 1000-litre container. In the interest of continuous processing they supply the pump via a buffer container with level sensor. In case of a bigger distance between adhesive container and metering pump unit it is necessary to use a simple feed pump in the feed line. Robatech is the competent partner also if you process fibre-filled adhesives.



## Further components for PurTech

Apart from supplying you with the most sophisticated technology we are ready to support you with our knowledge and experience for an optimal application process in your production. In cooperation with the equipment manufacturers and adhesive producers we are available to you at any time.

### Extra performances

- Application support
- Worldwide commissioning by our own specialist
- Service worldwide
- Training on site or at our works
- Spare-parts packages
- Exchange components



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