# **ROBOTAPE** by Innovative Automation



## ADHESIVE FOAM SPLICE JOINTS

### **3 WAYS TO PROCESS A SPLICE**

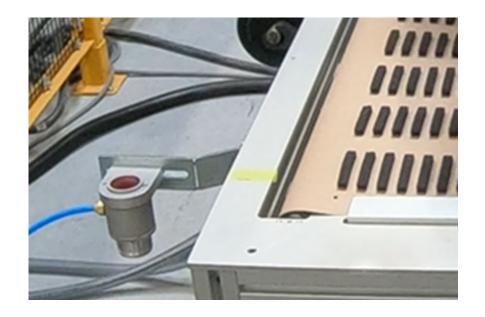
#### 1) Apply / Use it

Functional splices can sometimes be applied to the finished part and accepted by the end user. 'Standard splices' with a gap, may also be accepted by the end user if a gap in the tape has no impact on the part design. These are the simplest options that offer the advantage of eliminating a purge cycle and utilizing 100% of material.



#### b) Air jet

A pneumatic air jet above a waste basket can be utilized as a simple solution to purge some material types such as crushed EPDM or neoprene. Double sided tapes such as VHB usually do not work with an air purge but can be tested on a case by case basis. This is a simple solution that can handle long purge lengths easily.



The RoboTape machine can apply the splice joint to the customer part and output a signal to indicate which part or piece contains the splice joint. This signal can be used to:

- Lock the part in its nest
- Notify an operator to remove the tape and re-run the part
- Notify an operator to rework the part offline
- Reject the part

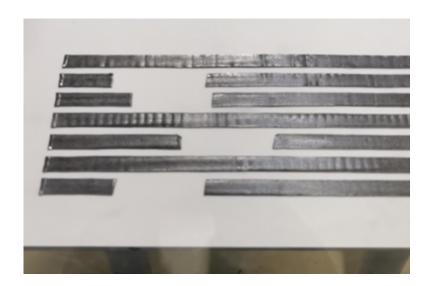
These solutions are simple and eliminate the need for a purge sequence and area. They are effective for applications without adhesion promoter.

#### 3) Purge

When a splice joint is not permitted on the part the material must be purged to eliminate the section of material containing the splice.

#### a) Sacrificial surface

A sacrificial surface such as paper, mounted to a plate can be used to dispose of the tape. Lines of a chosen length are programmed onto the surface and when a splice is indicated the robot can begin to lay strips on the paper until the splice is eliminated and the robot can then return to the part in progress. The amount of tape that must be disposed of will vary depending on the length of the tape needed on the part and where the splice is within that length.



	Functional Splice Apply to Part	Rework Part	Purge Paper	Purge Air Jet
Zero Material Waste	$\checkmark$			
Fastest Cycle Time	$\checkmark$			
No Additional Tooling	$\checkmark$	$\checkmark$		
Does Not Require Customer Approval		$\checkmark$	$\checkmark$	$\checkmark$
Ideal for Long Pieces	$\checkmark$	$\checkmark$		
No Special Splice Tape		$\checkmark$	$\checkmark$	$\checkmark$
No Part Rework	$\checkmark$		$\checkmark$	$\checkmark$