System for automatic desiccant filling and butyl coating of spacer frames

Efficient manufacturing process due to simplified logistics

- Combination of desiccantfiller AT and butyl BA ensures automatic processing of spacer frames
- Automatic transfer of the frames to the butyl coating robot
- Simplified logistics with first-in/first-out process
- Data transfer including muntin bar identification

Integrated frame processing
Fully automatic desiccant filling
on highest level

- Automatic filling of spacer frames with desiccant without manual intervention
- Simplified logistics with first-in/first-out process
- Shortest possible cycle times with desiccant filling and transporting in parallel operations
- Proven drilling of fill holes centered in the back of the spacer profile
- Clean and sensor-controlled filling operation
- Automatic transfer of the frames to the butyl coating robot
- Suitable for aluminum, steel, stainless steel, as well as plastic spacer profiles
- Automatic transport of the frames from frame carrier feeder to the filling station
- Drilling and filling of the two vertical sides of the frames
- Filling gap in the centre of the profile width
- Possible processing of assembled or bent frames
- Desiccant feeding by 200 litres (55 gallons) drums
- Removal of excessive desiccant grains by suction
- Desiccant grains, spheric Ø 0.5 up to 0.9 mm (0.02 – 0.04 in.)
- Automatic sealing of the filling holes with butyl
- Processing of symmetrical internal bars up to 40 mm (1.57 in.) broad
- Filling of shapes in the manual operation possible
- Stairs for platform, movable, with handrail for stable and secure use during maintenance
Precise butyl coating of spacer frames

- Step less automatic nozzle adjustment for spacer width 5 – 24 mm (0.2 – 0.94 in.)
- Manual instruction for automatic nozzle adjustment for 12 pre-adjustable spacer widths possible
- Interruption free, long term operation by using a 200 litres butyl drum pump system
- Frame transport system with servo motors for reliable application on corner section and controlling of application speed
- Positioning stops and frame guidings for high repetition precision of application
- Gentle turning of spacer frames by step less adjustable rotating speed, depending on dimension of spacer frame
- Double gripper system, automatic switching-on of outer gripper for safe support and fast turning of larger frames
- Frame feeding and take-off automatic and manual available
- Feeding of sealant to nozzles by temperature controlled pipe system
- Controlled heating circuits for gentle material treatment
- Easy operator guidance and convenient parameter input for changed operating conditions by operating panel and display
- Fault indication by diagnosis program
- Many possibilities of adaptation to local conditions due to modular design

Safe and fast turning of spacer frames, also for spacers with muntin bars (option)
desiccantfiller AT

Options:
- picker – frame carrier for buffering of spacer frames at the spacerbender
- feeder – frame carrier for buffering and transporting of spacer frames from the spacerbender to the desiccantfiller AT

<table>
<thead>
<tr>
<th>desiccantfiller AT Technical data</th>
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<tbody>
<tr>
<td>Processable dimensions</td>
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<tr>
<td>with automatic feeding (h x l)</td>
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<tr>
<td>Processable dimensions</td>
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<td>with manual feeding (h x l)</td>
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<tr>
<td>Processable spacer widths</td>
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<tr>
<td>Horizontal frame transport height</td>
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<tr>
<td>Working direction</td>
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</tbody>
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butyler BA

Options:
- Semi-automatic quick adjustment for butyl coating of different spacer heights
- Additional equipment for automatic coating of frames with muntin bars
- Coating process can be switched over for bent radius corners and key corners
- Run in conveyor for uncoated frames
- Overhead frame conveyor for storage and automatic transfer of uncoated frames
- Overhead frame conveyor for automatic takeover and storage of coated frames
- Additional equipment for frame tilting if support walls are opposed slanted
- Intermediate conveyor for adapting to spacer frame application robot
- Equipment for processing of butyl with abrasive effects

<table>
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<tr>
<td>min. 250 x 250 mm (9.84 x 9.84 in.)</td>
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<tr>
<td>max. 1800 x 1800 mm (78.7 x 78.7 in.)</td>
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<tr>
<td>or 2300 x 2500 mm (90.5 x 98.4 in.) with support wall extension</td>
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<td>Spacer width</td>
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Automatic processing in combination with butyler BA