AUTOMATIC BRUSH HEADER

AFFORDABLY AUTOMATE HEADER
CLEANING & REDUCE NOZZLE PLUGGING

Spraying Systems Co.
Experts in Spray Technology
AUTOMATIC BRUSH HEADERS
SAVE TIME, IMPROVE QUALITY & BOOST PRODUCTIVITY

ELIMINATE MANUAL BRUSH OPERATION IN EXISTING APPLICATIONS & MANUAL CLEANING ENTIRELY IN NEW APPLICATIONS

If you have manual brush-type headers, our new motor/control package offers an economical way to eliminate the need for operator intervention to rotate the brushes. Retrofitting brush-type headers is fast and easy. In less than 10 minutes, the motor can be installed on the header and the control unit mounted in a convenient location for operation. The unit can be set to clean at predetermined intervals, eliminating the need for any operator intervention. The unit can also be placed in manual mode, which enables the activation of individual brushes by an operator.

If you are experiencing nozzle plugging and haven’t yet invested in brush-type headers, our Automatic Brush Header is an ideal solution. Maintenance time due to clogged nozzles can be eliminated. And, because the cleaning cycle occurs without interrupting operation, machine uptime is maximized.

BENEFITS

- **Affordable, automated solution.** Operator intervention is minimized or eliminated – no need to have workers rotating handwheels
- **Suitable for use with all brush-type headers up to 3” in diameter**
- **Easy operation.** Cleaning cycles occur automatically when used with the programmable timer. Otherwise, activation requires a simple push of a button. The brushes wipe the nozzles and the dirty water is flushed away
- **Control up to four headers with a single control unit.** Options are available for controlling more Automatic Brush Headers with a single control unit upon request – the control panel can be integrated with the mill’s central control system via ethernet IP or used as a standalone control panel
- **Easy installation.** A brush header can be retrofitted from a manual wheel to automatic operation with just four bolts and an insert adaptor pin
- **Virtually maintenance free.** Aside from gear lubrication once a year, the Automatic Brush Header requires no maintenance

IDEAL FOR:

- Continuous annealing and galvanizing lines
- Cooling in hot/cold annealing and pickling lines

Spraying Systems Co.
A CLOSER LOOK AT THE AUTOMATIC BRUSH HEADER

An internal rotating brush assembly scrubs the interior wall of the header as well as each disc-type shower nozzle orifice or strainer to prevent clogging and help ensure long nozzle wear life. In just a few seconds, debris is swept away through the flush-out valve, restoring full liquid flow to the system without contaminating the sprayed surface. If multiple units are installed, the system will then sequence to the next unit. And, there’s no need to stop the system. The brushes operate without disruption to normal processes.

ShowerJet nozzles are most often used with our Automatic Brush Header. A lock ring on the header holds the nozzles in place. ShowerJet nozzles that produce a flat spray pattern have stainless steel orifices. VeeJet® flat spray nozzles with adapters are also commonly used.

The control unit includes a PLC with touchscreen for easy operation. It can be used as a standalone control device or can be integrated with a central control system.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>MOTOR</th>
<th>BRUSH HEADER</th>
<th>CONTROL PANEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply: 240 VAC/3 phase/60 Hz</td>
<td>Max working pressure: 100 psi (6.9 bar)</td>
<td>Included: touchscreen, power supply, circuit breaker and motor protection circuit breaker</td>
</tr>
<tr>
<td>Motor speed: 1340 r/min.</td>
<td>Max pipe size: 3'</td>
<td>IP level: IP54</td>
</tr>
<tr>
<td>Reduction ratio: 1:60</td>
<td>Max pipe length: 20 ft. (6 m)</td>
<td>PLC choice: Allen-Bradley™ with Ethernet IP for easy integration or Siemens®</td>
</tr>
<tr>
<td>IP level: IP55</td>
<td>Frequency of cleaning range: 0.1 days – 7 days</td>
<td>Standard control panels available to handle either 1, 2, 3 or 4 automatic brush headers. Custom control panels are available up to 54 automatic brush headers</td>
</tr>
<tr>
<td>Environment temperature: 32 ~140°F (0 ~ 60°C)</td>
<td>Cleaning period: 15 seconds</td>
<td></td>
</tr>
<tr>
<td>Cabinet dimension: 16&quot; W x 20&quot; H x 8&quot; D (41 W x 51 H x 20 D cm)</td>
<td>Control methods: manual or automatic (timer)</td>
<td></td>
</tr>
</tbody>
</table>

spray.com   |   1.800.95.SPRAY   |   Intl. Tel: 1.630.665.5000
AUTOMATIC BRUSH HEADER SPECIFICATION WORKSHEET

To obtain a no obligation quotation on our new Automatic Brush Header, please review the worksheet that follows and contact your local Spray Specialist to discuss the specifications of your application.

HEADER INFORMATION

Qty. headers required: ______________________ (in./mm/degrees)
Pipe length (PL): ______________________
Theoretical coverage (TC): ______________________
Support distance (SD): ______________________
Bracket inlet (B1): ______________________
Bracket outlet (B2): ______________________
Spray height (SH): ______________________
Spray angle (SA): ______________________
Outlet angle (OA): ______________________
End to edge (ED): ______________________
End to motor side (EH) – min./max.: ______________________
Nozzle spacing (NS): ______________________
Inlet to nozzle (IL): ______________________
Outlet to nozzle (OL): ______________________

CONTROLLER INFORMATION

One Control Panel with ______________________
Brush Header* (1, 2, 3, 4 or custom)
PLC Brand ______________________ and Touchscreen* (Allen-Bradley™ w/ Ethernet IP or Siemens®)

(*Required)

First to last (FL): ______________________
Pipe material: ______________________ (316LSS or 304LSS)
Inlet type (M): ______________________
(NPT or BSPT) (1.5, 2.0, 2.5, 3)
Outlet type/size: ______________________ (Hose barb) / (1.5/2)
AutoBrush Mounting Side: ______________________
(tending or drive side)
Oscillating stroke length: ______________________ (in. or mm)
Only applies if integrated with oscillator
Spray coverage: ______________________
(single or double)
Qty. of nozzles: ______________________

PROCESS CONDITIONS

Operating pressure: ______________________
(max 100 psi, 6.9 bar)
Total flow: ______________________
(gpm or lpm)
Operating temperature: ______________________
(°F or °C)
Liquid sprayed: ______________________

Spraying Systems Co.*
Experts in Spray Technology

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Defaults

<table>
<thead>
<tr>
<th>Defaults</th>
<th>Minimums</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL: 4.0&quot; (101.6 mm)</td>
<td>IL: 4.0&quot; (101.6 mm)</td>
</tr>
<tr>
<td>SA: 60°</td>
<td>Pressure: 40 psi (2.8 bar)</td>
</tr>
<tr>
<td>Inlet: (M) NPT</td>
<td>Pipe size: 1-1/2&quot;</td>
</tr>
<tr>
<td>Spray overlap: 1</td>
<td>NS: 2.0&quot; (50.8 mm)</td>
</tr>
<tr>
<td>OA: 0 (zero)</td>
<td></td>
</tr>
<tr>
<td>Materials: 316LSS</td>
<td></td>
</tr>
<tr>
<td>Temp. &lt; 100 F (38°C)</td>
<td></td>
</tr>
<tr>
<td>Power Req’d: 240VAC/3ph/60Hz</td>
<td></td>
</tr>
<tr>
<td>Control Panel Mat’l: Painted Steel</td>
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<tr>
<td>Control Method: Auto Timer &amp; Manual</td>
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