North American Adjustable Port Valves

Adjustable port valves are for control purposes only. They are not for tight shutoff.

GENERAL INFORMATION

Adjustable Port Valves are ideal for automatic control of fuel or air flow to meet the requirements of modern instrumentation. The adjustable port feature permits sizing the valve to fit the job, after valve has been installed. Linkages can be adjusted for full or limited valve travel.

INSTRUCTIONS – 1004 and 1014 VALVES for air at 3 psi or less

When installing valves, support piping properly so there is no undue stress on the valves. Grease or other lubricants should not be applied to valve core or curtain, since dirt adhering to the lubricant increases friction.

To adjust port area, set linkage for full valve travel. With valve handle at the wide open position, loosen screw (6) and retract the curtain fully (open) by turning knob (8) clockwise.

Set burners for slightly more than maximum desired firing rate, using individual manual valves at the burners. Turn adjusting knob (8) counterclockwise until air pressure gauge shows a slight decrease, or until desired pressure is obtained. Tighten screw (6) into one of the holes in the adjusting knob (8) to prevent accidental shifting. Adjust linkage for low fire desired.

Valve internals can be cleaned or replaced without removing the valve from the pipe line.

The following table shows the number of turns required for adjusting the curtain height from full open to fully closed.

<table>
<thead>
<tr>
<th>Valve size</th>
<th>Number of Turns from Full Open to Fully Closed</th>
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</thead>
<tbody>
<tr>
<td>B</td>
<td>27</td>
</tr>
<tr>
<td>C</td>
<td>32</td>
</tr>
<tr>
<td>D</td>
<td>48</td>
</tr>
<tr>
<td>E</td>
<td>48</td>
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<tr>
<td>F</td>
<td>72</td>
</tr>
<tr>
<td>G</td>
<td>36</td>
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</tbody>
</table>

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160°F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.
### Item No. | Item Name | Series 100 | B | C | Valve Designation | D | E | F | G
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
1 | Simple Swivel Assem. | 4, 14 | 2-5021-2 | 2-5021-2 | 2-5021-2 | 2-5021-2 | 2-5021-2 | 2-5021-2 |
2 | Control Handle | 4, 14 | 2-3434-2 | 2-3435-2 | 2-3435-2 | 2-3436-2 | 2-3436-2 | 2-3437-2 |
4 | Quadrant | 4, 14 | 2-1161-1 | 2-1162-1 | 2-1162-1 | 2-1163-1 | 2-1163-1 | 2-1163-1 |
5 | Handle Locking Screw | 4, 14 | R777-5230 | R777-5230 | R777-5230 | R777-5350 | R777-5350 | R777-5340 |
6 | Curtain Locking Screw | 4, 14 | R775-1940 | R775-1940 | R775-1940 | R775-2870 | R775-2870 | R775-3550 |
7 | Shaft | 4 | 2-0890-1 | 2-0890-2 | 2-0890-3 | 2-0890-4 | 2-0890-5 | 2-0890-6 |
14 | | | 2-0890-1A | 2-0890-2A | 2-0890-3A | 2-0890-4A | 2-0890-5A | 2-0890-6A |
8 | Curtain Adj. Screw and Knob | 4, 14 | 2-1617-1 | 2-1617-2 | 2-1617-3 | 2-1617-4 | 2-1617-5 | 2-1617-6 |
10 | Indicator Plate | 4, 14 | 2-0810-1 | 2-1137-1 | 2-1137-1 | 2-0686-1 | 2-0686-1 | 2-1613-1 |
11 | Core (Sleeve) and Curtain (Slide) Ass'y | 4, 14 | 2-5897-1 | 2-5897-3 | 2-5897-5 | 2-5897-7 | 2-5897-9 | 2-5897-11 |
13 | Body | 4, 14 | 2-1626-1 | 2-0371-1 | 2-0410-1 | 2-0405-1 | 2-0424-1 | 2-0355-2A |
14 | Flange | 4, 14 | 8765-3-B(1")/1" | 8765-4-C(2")/2" | 8765-5-C(2")/2" | 8765-6-D(3")/3" | 8765-7-D(4")/4" | 8765-8-E(6")/6" |
15 | Welding Flange | 4, 14 | — | — | — | — | — | 8765-9-F(8") |
16 | Nameplate | 4, 14 | 2-0993-1 | 2-0993-1 | 2-0993-1 | 2-0993-1 | 2-0993-1 | 2-0993-1 |
32 | Coverplate | 4, 14 | 2-0394-1 | 2-0427-1 | 2-0428-1 | 2-0429-1 | 2-0888-1 | 2-0889-1 |
33 | Collar | 4, 14 | 2-0891-1 | 2-0891-2 | 2-0891-3 | 2-0891-3 | 2-0891-3 | 2-0891-4 |
34 | Gasket | 4, 14 | 4-5371-1 | 4-5371-2 | 4-5371-3 | 4-5371-4 | 4-5371-5 | 4-5371-6 |

† The Core and curtain are ground as a unit for a precision fit and must be purchased as a set.
△ Upper Half of Body.
○ Lower Half of Body.

All Air Valves include threaded companion flanges unless suffix "W" is used, which means welding type companion flange.