New HVA 88200 Series

**OEM Integration.** All our products are engineered to be compatible with the latest Semiconductor tools and offer a retrofit solution for upgrading previous generation tools. Whether it is an etch, CVD, PVD cluster tool or implanter, HVA offers easy OEM Integration for all your MESC applications. Our valves come equipped with standard interfaces for 150, 200, 300 and 450mm technologies.

**Flexible Design.** If you need more flexibility, we can design specific sizes and interfaces for your transfer or load lock application up to 4000mm.

**Process Compatible.** Every valve leaves our factory with the highest quality MIL SPEC type II Anodize finish. The inherent design of the HVA valve accommodates operation in high process temperatures up to 150°C. Higher temperature options available.

**Vacuum Performance.** Body and gate are precision machined from High Grade 6061 T6 billet. No welding or casting is involved in the manufacturing process for reduced out gassing. When you use an HVA valve you know you are getting the best vacuum performance possible.

**System Reliability.** HVA valves are equipped with hardened stainless steel shafts and our moly wiper protection system to ensure the valves continue to operate during multiple substrate breakages and extends the service interval to >2,000,000 cycles.

**Easy Service / Cost Effective.** We design our products to be maintenance friendly. Standard service items can be exchanged by end user during a regular minor service reducing downtime and service costs.

**Lifetime Warranty.** You can be confident you have made the smart choice. We back up our craftsmanship on every valve that leaves the factory with our limited lifetime warranty*

(*) standard service items, o-rings, bellows excluded. Frequency dependent on process conditions

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88200 Series Standard Technical Specifications

**Materials**
- Valve body and gate: 6061-T6 Aluminum
- Welded bellows: AM-350
- Driveshaft and pins: Hardened stainless steel
- Bonnet / gate seals: Viton® o-ring std, FFKM option

**Vacuum**
- Pressure Range: $1 \times 10^{-5}$ mbar
- Helium leak rate: $<2 \times 10^{-9}$ mbar/s
- Differential pressure closed: 1.5 bar in either direction
- Maximum Δ pressure before opening: $\leq 30$ mbar

**Bakeout Temperature**
- Body: without solenoid
- Actuator: 150°C
- 60°C

**Mechanism**
- Pneumatic air service: 2 - 7 bar
- Solenoid (Upon power loss valve remains in same position): 4.3 Watts
- Position indicator, max: 115 VAC or 28 VDC, 20 mA

**Mounting Position**
- any

**Cycles Until Service**
- >2,000,000 cycles dependent on process

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**Ordering Guide**

**Pneumatic with Viton® Bonnet**

<table>
<thead>
<tr>
<th>mm x DN</th>
<th>inch</th>
<th>Model Number Bolted Body</th>
<th>Model Number Clamped Body</th>
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<tbody>
<tr>
<td>32 x 220</td>
<td>1.26 x 8.74</td>
<td>88212-0109RXJ</td>
<td>88212-0109RXK</td>
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<td>32 x 332</td>
<td>1.26 x 13.07</td>
<td>88212-0113RXJ</td>
<td>88212-0113RXK</td>
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<td>46 x 236</td>
<td>1.81 x 9.29</td>
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<td>50 x 336</td>
<td>1.97 x 13.23</td>
<td>88212-0213RXJ</td>
<td>88212-0213RXK</td>
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<td>1.97 x 19.13</td>
<td>88212-0219RXJ</td>
<td>88212-0219RXK</td>
</tr>
</tbody>
</table>

Includes reed switch position indicator and 120VAC solenoid. For 24V DC solenoid change to: 8821|1-.