By supplying compressed air,

**Large blow and vacuum flow rate available**

- **A blow flow rate 4 times** the supply air
  A discharge flow rate 4 times the supply air can be generated. Contributes to reduction in flow consumption if discharge requires flow rate.

- **A vacuum flow rate 3 times** the supply air
  A suction flow rate 3 times the supply air can be generated. Contributes to reduction in flow consumption if suction requires flow rate.

- **Large passage diameter available for suction of machining chips, particles, etc.**

- **Dust bag available**

- **Mounting bracket available**

- **Maintenance free**
  No regular motor maintenance is necessary compared with an electric blower.

**Application Examples**

**Blow**
- Blowing away water droplets
- Blowing away machining chips

**Vacuum**
- Resin part marking
- System powder collection
- Transferring materials such as pellets

* SMC does not guarantee the entire system. Please think of the system shown above as an example. A workpiece that is harder than the body material (aluminum alloy) may damage to the inside of the body, causing the performance to lower. The compatibility should be judged by the customer before adopting the product.
### Exhaust Characteristics

**ZH10-X185**

- **Body material:** Aluminum alloy
- **Seal material:** NBR
- **Bracket material:** Stainless steel
- **Dust bag material:** Polyester
- **Dust bag filtration:** 10
- **Fluid:** Air
- **Supply pressure range:** 0 to 0.7 MPa
- **Ambient and fluid temperature:** -5 to 80°C (without freezing or condensation)
- **Weight (g) (Note 2):** 92 (101)
- **Bracket assembly:** ZH-BK1-10-A
- **Dust bag assembly:** ZH-DB1-10-A

**Note 1:** The C value as well as the effective area is a theoretical value.

**Note 2:** ( ): Weight including the bracket

**Recommended Sonic Conductance and Solenoid Valves (Reference)**

<table>
<thead>
<tr>
<th>Model</th>
<th>ZH10-X185</th>
<th>ZH20-X185</th>
<th>ZH30-X185</th>
<th>ZH40-X185</th>
</tr>
</thead>
<tbody>
<tr>
<td>C (Effective area [mm²])</td>
<td>1.7</td>
<td>4.2</td>
<td>8.9</td>
<td>15.3</td>
</tr>
</tbody>
</table>

**Note 6:** This is the total recommended value for all devices on the upstream side including the piping to the valve and vacuum flow.

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**Warning**

1. Because suctioned matter is ejected together with exhaust, do not direct an exhaust port at a person or equipment.
2. Do not use in an atmosphere having corrosive gases, chemicals, sea water, water steam, or where there is direct contact with any of these.
3. Refer to back page 50 for Safety Instructions and pages 49 to 51 for Vacuum Equipment Precautions.
ZH□-□□-X185 Series

Dimensions

ZH□0-□□-X185

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>øB</th>
<th>øC</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>Sa</th>
<th>Sb</th>
<th>T</th>
<th>U</th>
<th>V</th>
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</thead>
<tbody>
<tr>
<td>ZH10□-□□-X185</td>
<td>73</td>
<td>34</td>
<td>19</td>
<td>10</td>
<td>12.2</td>
<td>16.2</td>
<td>69.8</td>
<td>31</td>
<td>4</td>
<td>35</td>
<td>27</td>
<td>4.5</td>
<td>35</td>
<td>18</td>
<td>1</td>
<td>13</td>
<td>Rc1/8</td>
<td>28</td>
<td>M3 x 0.5</td>
<td>5</td>
<td>300</td>
<td>150</td>
<td>190</td>
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<tr>
<td>ZH20□-□□-X185</td>
<td>119.5</td>
<td>55</td>
<td>32</td>
<td>15</td>
<td>18.5</td>
<td>23.5</td>
<td>111</td>
<td>48</td>
<td>4</td>
<td>56</td>
<td>48</td>
<td>4.5</td>
<td>56.5</td>
<td>29</td>
<td>1</td>
<td>21.6</td>
<td>Rc1/4</td>
<td>44</td>
<td>M4 x 0.7</td>
<td>8</td>
<td>400</td>
<td>200</td>
<td>250</td>
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</table>

ZH□30□□-X185

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>øB</th>
<th>øC</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>Sa</th>
<th>Sb</th>
<th>T</th>
<th>U</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZH30□-□□-X185</td>
<td>158</td>
<td>70</td>
<td>50</td>
<td>20</td>
<td>22.5</td>
<td>28.5</td>
<td>146.5</td>
<td>60.5</td>
<td>5</td>
<td>70</td>
<td>60</td>
<td>5.5</td>
<td>72</td>
<td>37</td>
<td>2</td>
<td>30</td>
<td>Rc1/4</td>
<td>59</td>
<td>M4 x 0.7</td>
<td>10</td>
<td>500</td>
<td>250</td>
<td>310</td>
</tr>
<tr>
<td>ZH40□-□□-X185</td>
<td>203</td>
<td>90</td>
<td>64</td>
<td>25</td>
<td>27.2</td>
<td>33.5</td>
<td>196.8</td>
<td>74.5</td>
<td>6</td>
<td>90</td>
<td>78</td>
<td>6.5</td>
<td>92</td>
<td>47</td>
<td>2.3</td>
<td>42</td>
<td>Rc3/8</td>
<td>76</td>
<td>M4 x 0.7</td>
<td>500</td>
<td>250</td>
<td>310</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) This thread portion is intended for use in manufacturing processes. Applying rotational torque to the thread or using it for mounting may result in a change in the characteristics of the product at the time of shipment. Therefore, do not apply rotational torque to the thread or use it for mounting.

Note 2) It is recommended that you use hoses that have an I.D. of øC and are made of a soft material as the hoses to be connected to the suction port and the discharge port. The use of commercially available hose bands to secure the hoses will ensure more reliable hose connections. Please note that the characteristics of the suction flow and discharge flow may change according to hose length.