Energy Saving

Pressure and Flow Monitoring

Low Consumption Solenoid Valves

Air Blow

- Blow gun Series VMG
- Air nozzle Series KN

Energy Saving Cylinders and Accessories

Vacuum Equipment

Pressure Boosters

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Air Blow

“Why not use wasted air?”
An estimated 70% of total air consumption is used for air blowing. Why not review your air consumption?

But the SMC model has an effective area of 30 mm².

Comparison by Switchover

Total cost comparison (Blow gun purchase price + Air cost)

<table>
<thead>
<tr>
<th>Model</th>
<th>Effective area</th>
<th>Nozzle diameter</th>
<th>Nozzle diameter</th>
<th>Effective area</th>
<th>Nozzle diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMG11W-02-03</td>
<td>Effective area 30 mm²</td>
<td>ø2</td>
<td>ø2</td>
<td>Effective area 6 mm²</td>
<td>ø3.5</td>
</tr>
<tr>
<td>VMG (Nozzle size ø2.5)</td>
<td>Effective area 30 mm²</td>
<td>ø2</td>
<td>ø2.5</td>
<td>Effective area 6 mm²</td>
<td>ø3</td>
</tr>
<tr>
<td>VMG (Nozzle size ø3)</td>
<td>Effective area 30 mm²</td>
<td>ø2</td>
<td>ø3</td>
<td>Effective area 6 mm²</td>
<td>ø4</td>
</tr>
</tbody>
</table>

Air consumption comparison (per blow gun)

- Workpiece impact pressure: 0.01 MPa
- Workpiece distance: 100 mm
- Piping: TU0805-3 m
- Blow time: 30 s/h
- Blow frequency: 10 times/h
- Working hours: 16 hrs/day

Air consumption (m³)

<table>
<thead>
<tr>
<th>Air Blowing</th>
<th>Inside the Factory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 m³</td>
<td>2,000 m³</td>
</tr>
<tr>
<td>3,000 m³</td>
<td>4,000 m³</td>
</tr>
<tr>
<td>5,000 m³</td>
<td>6,000 m³</td>
</tr>
<tr>
<td>7,000 m³</td>
<td>9,000 m³</td>
</tr>
</tbody>
</table>

Comparison by Switchover

- 0.05 m³
- 0.15 m³
- 0.2 m³
- 0.3 m³
- 0.4 m³
- 0.5 m³
- 0.6 m³
- 0.7 m³
- 0.8 m³
- 0.9 m³
- 1.0 m³

Series VMG Blow Gun

- Ergonomically designed body with patented valve design and KN nozzles produces considerably reduction in pressure losses.
- 2 connection options.
- Minimum actuation force required.

Series KN Air Nozzle

Male Thread Nozzle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nozzle-Ø (mm)</th>
<th>Piping thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMG11BU-F02</td>
<td>1.5, 6</td>
<td>R 1/4&quot;</td>
</tr>
<tr>
<td>VMG12BU-F02</td>
<td>1.5, 6</td>
<td>R 1/4&quot;</td>
</tr>
</tbody>
</table>

Low Noise Nozzle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nozzle-Ø (mm)</th>
<th>Piping thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNS-R02-075</td>
<td>ø0.75 x 4</td>
<td>R 1/4&quot;</td>
</tr>
<tr>
<td>KNS-R02-090</td>
<td>ø0.9 x 4</td>
<td>R 1/4&quot;</td>
</tr>
</tbody>
</table>

High Efficiency Nozzle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nozzle-Ø (mm)</th>
<th>Piping thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNS-R02-100</td>
<td>1</td>
<td>R 1/4&quot;</td>
</tr>
<tr>
<td>KNS-R02-150</td>
<td>1.5</td>
<td>R 1/4&quot;</td>
</tr>
</tbody>
</table>

With VMG blow guns, pressure loss is reduced in the air flow direction. Adding a KN nozzle, the effective area ratio with the upstream side is improved (increased), hence pressure loss is reduced.