<table>
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<th>Series</th>
<th>Page Number</th>
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<tbody>
<tr>
<td>(N)AC1000-6000</td>
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<td>FRL Combination Units - Modular Type</td>
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<td>(N)AC1010-4010</td>
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<td>(N)AR</td>
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<td>Air Regulator</td>
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<td>(N)AW</td>
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<td>(N)AV2000/3000/4000</td>
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<td>Soft Start-Up Valve</td>
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<td>IS1000</td>
<td>5.13</td>
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<td>Pressure Switch</td>
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## AIR PREPARATION PRODUCTS

<table>
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<tr>
<td>(N)VHS</td>
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<td>Y - Spacer</td>
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<td>APP Accessories - Modular Type</td>
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<td>(N)AM</td>
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<td>High Efficiency Odor Removal Filter</td>
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<td>Water Separator</td>
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<td>Product Code</td>
<td>Description</td>
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<td>(N)AP100</td>
<td>Pressure Control Valve</td>
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<td>(N)AR</td>
<td>Pilot Operated Pressure Regulator</td>
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<td>(N)ARJ1020F</td>
<td>Miniature Regulator</td>
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<td>(N)AL</td>
<td>Lubricator - High Flow Series</td>
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<tr>
<td>(N)AD</td>
<td>Auto Drain</td>
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<tr>
<td>ADH4000</td>
<td>Heavy Auto Drain</td>
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<tr>
<td>(N)VBA</td>
<td>Booster Regulator</td>
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<td>Pressure Gauges</td>
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<td>GZ46</td>
<td>Vacuum Gauges</td>
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<tr>
<td>(N)AN</td>
<td>Silencer</td>
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<tr>
<td>ANA1/ANB1</td>
<td>High Noise Reduction Type Silencer</td>
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<tr>
<td>(N)AMC</td>
<td>Exhaust Cleaner</td>
</tr>
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</table>
1. Polycarbonate Bowls can be attacked by a wide variety of chemicals (see List below for examples). These cause embrittlement and subsequent brittle failure, or softening. Metal Bowls should be specified for use in the presence of aggressive chemicals.

2. It is strongly recommended that metal bowl guards are specified to provide additional protection from mechanical damage to polycarbonate bowls.

3. Before air treatment units are commissioned, and after any adjustment or maintenance has been carries out, the following points should be checked before connection to air supplies.
   - All fittings and spacers are finally attached
   - All removable spacers are securely screwed/latched into position

4. Polycarbonate bowls should be regularly inspected.

<table>
<thead>
<tr>
<th>Some of the Materials that will Attack Polycarbonate Plastic Bowls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
</tr>
<tr>
<td>Acetic acid</td>
</tr>
<tr>
<td>Acetone</td>
</tr>
<tr>
<td>Acrylonitrile</td>
</tr>
<tr>
<td>Caustic soda solution</td>
</tr>
<tr>
<td>Ammonia</td>
</tr>
<tr>
<td>Ammonium fluoride</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
</tr>
<tr>
<td>Ammonium sulphide</td>
</tr>
<tr>
<td>Antifreeze</td>
</tr>
<tr>
<td>Benzene</td>
</tr>
<tr>
<td>Benzoic acid</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
</tr>
<tr>
<td>Bromobenzene</td>
</tr>
<tr>
<td>Brake fluids</td>
</tr>
<tr>
<td>Butyric acid</td>
</tr>
<tr>
<td>Carboxylic acid</td>
</tr>
<tr>
<td>Carbon disulphide</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>Caustic potash solution</td>
</tr>
<tr>
<td>Chlorobenzene</td>
</tr>
<tr>
<td>Chloroform</td>
</tr>
</tbody>
</table>
**F.R.L. Combination Units**

**5.1 MODULAR TYPE**

(N)AC1000–(N)AC6000 M5–1"

- Combination of filter, regulator and lubricator including mounting bracket and pressure gauge

**How To Order**

**Filter/Regulator/Lubricator**

- **Japanese Model**
  - 10 ... M5
  - 20 ... 1/8
  - 30 ... 1/4
  - 50 ... 3/4
  - 60 ... 1

- **North American Model**
  - N ... M5X0.8
  - 01 ... 1/8
  - 02 ... 1/4
  - 03 ... 3/8
  - 04 ... 1/2
  - 06 ... 3/4
  - 10 ... 1

- **Port Size**
  - Manual drain
  - Auto drain

**Dimensions**

**NAC1000, 2000**

- Model: NAC1000
  - Combination: NAF1000
  - Port Size: M5x0.8
  - Body Size: 91
  - Min. operating conditions for autodrain: 1 Bar / 14.5 PSI
  - Ambient and media temperature: 5 ~ 60°C / 40~140°F
  - Filtration: Standard: 5µm
  - Recommended oil: Turbin oil ISO VG32
  - Bowl material: Polycarbonate
  - Construction/Regulator: Relieving type
  - Accessories (standard): Bowl guard

**NAC2000**

- Model: NAC2000
  - Combination: NAF2000
  - Port Size: 1/8, 1/4
  - Body Size: 125

**NAC3000, 4000, 5000, 6000**

- Model: NAC3000
  - Combination: NAF3000
  - Port Size: 3/8
  - Body Size: 156.5

- Model: NAC4000
  - Combination: NAF4000
  - Port Size: 1/2
  - Body Size: 238

- Model: NAC5000
  - Combination: NAF5000
  - Port Size: 3/4
  - Body Size: 271.5

- Model: NAC6000
  - Combination: NAF6000
  - Port Size: 1
  - Body Size: 315

**With auto drain**

- Float type: B
  - Differential pressure type: B

**Symbols**

- Filter
- Regulator
- Lubricator

**Note:**

- 0.5 Bar = 0.05MPa
- 7 Bar = 0.7MPa
- 8.5 Bar = 0.85MPa

**Conditions:**

- Supply pressure—7 Bar. Setting pressure—5 Bar
- Flow quoted at 1 bar pressure drop
**AIR PREPARATION**

**F.R.L. COMBINATION UNITS**

For further technical details on this product, request catalog reference E5G, N5-G1 & N5-G3.

**Symbols**

- **Filter**
- **Regulator**
- **Lubricator**

**Technical Specifications**

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>NAC1010</th>
<th>NAC2010</th>
<th>NAC3010</th>
<th>NAC4010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Combination</strong></td>
<td>Filter regulator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NAW1000</td>
<td>NAW2000</td>
<td>NAW3000</td>
<td>NAW4000</td>
</tr>
<tr>
<td><strong>Lubricator</strong></td>
<td>NAL1000</td>
<td>NAL2000</td>
<td>NAL3000</td>
<td>NAL4000</td>
</tr>
<tr>
<td><strong>Port Size</strong></td>
<td>M5x0.8</td>
<td>1/8”</td>
<td>03</td>
<td>1/8”</td>
</tr>
<tr>
<td><strong>Port Size for Pressure Gauge</strong></td>
<td>1/16”</td>
<td>1/8”</td>
<td>1/8”</td>
<td>1/4”</td>
</tr>
<tr>
<td><strong>Maximum Supply Pressure</strong></td>
<td>15 Bar / 220 PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Operating Pressure</strong></td>
<td>9.9 Bar / 145 PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regulating Range</strong></td>
<td>0.5 ~ 7 Bar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Max Flow Rate in/min</strong></td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Min Operating Conditions for Autodrain</strong></td>
<td>1 Bar / 14.5 PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ambient and Media Temperature</strong></td>
<td>5 ~ 60°C / 40 ~ 140°F</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>Standard: 5µm</td>
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<tr>
<td><strong>Recommended Oil</strong></td>
<td>Turbine oil ISO VG32</td>
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<tr>
<td><strong>Bowl Material</strong></td>
<td>Polycarbonate</td>
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<td></td>
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<tr>
<td><strong>Construction / Regulator</strong></td>
<td>Relieving type</td>
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<tr>
<td><strong>Accessories (standard)</strong></td>
<td>Bowl guard</td>
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<tr>
<td><strong>Port Thread</strong></td>
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*Conditions: Supply pressure—7 Bar. Setting pressure—5 Bar Flows quoted at 1 Bar pressure drop 0.5 ~ 7 Bar = 8 ~ 100 PSI*

**Dimensions NAC1010, 2010**

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<tr>
<th>Model</th>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
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<tr>
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<td>109.5</td>
<td>50.5</td>
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<td>26</td>
<td>25</td>
<td>29</td>
<td>20</td>
<td>4.5</td>
<td>7.5</td>
<td>5</td>
<td>17.5</td>
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<td>38.5</td>
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<td>164.5</td>
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<td>56.8</td>
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<td>45</td>
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<td>11.7</td>
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<td>70.5</td>
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**Dimensions NAC3010, 4010**

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<th>E</th>
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<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
</tr>
</thead>
</table>

**How to Order**

Filter/Regulator, Lubricator

(N)AC 10 — G

- **Body Size**
  - 10 ... M5
  - 20 ... 1/8
  - 30 ... 1/4
  - 40 ... 3/8

- **Port Size**
  - M5 ... M5x0.8
  - 01 ... 1/8
  - 02 ... 1/4
  - 03 ... 3/8
  - 04 ... 1/2

- **Drain**
  - Manual Drain
  - Auto Drain

**Port Thread**

- J ... RC(PT)* Remove (N) when ordering
- N ... NPT*
- F ... G(PF)* Remove (N) when ordering

**Symbols**

- **Filter**
- **Regulator**
- **Lubricator**

**Technical Specifications**

**Model**

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<td><strong>Combination</strong></td>
<td>Filter regulator</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>NAW1000</td>
<td>NAW2000</td>
<td>NAW3000</td>
<td>NAW4000</td>
</tr>
<tr>
<td><strong>Lubricator</strong></td>
<td>NAL1000</td>
<td>NAL2000</td>
<td>NAL3000</td>
<td>NAL4000</td>
</tr>
<tr>
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<td>M5x0.8</td>
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<tr>
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<td>1/4</td>
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<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Min Operating Conditions for Autodrain</strong></td>
<td>1 Bar / 14.5 PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ambient and Media Temperature</strong></td>
<td>5 ~ 60°C / 40 ~ 140°F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>Standard: 5µm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recommended Oil</strong></td>
<td>Turbine oil ISO VG32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bowl Material</strong></td>
<td>Polycarbonate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Construction / Regulator</strong></td>
<td>Relieving type</td>
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<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td><strong>Port Thread</strong></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Conditions: Supply pressure—7 Bar. Setting pressure—5 Bar Flows quoted at 1 Bar pressure drop 0.5 ~ 7 Bar = 8 ~ 100 PSI*
### Air Filter Series (N)AF

- Port Size M5 – 1”
- Autodrain available
- New super efficient 5µm Poly-element
- Quick release bowl guard on some sizes
- High flow

#### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>NA1000</th>
<th>NA2000</th>
<th>NA3000</th>
<th>NA4000</th>
<th>NA5000</th>
<th>NA6000</th>
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<tbody>
<tr>
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<td>1/4”</td>
<td>1/4”</td>
<td>1/2”</td>
<td>1”</td>
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<td>140</td>
<td>1050</td>
<td>2800</td>
<td>5000</td>
<td>7000</td>
<td>8000</td>
</tr>
<tr>
<td>Max supply pressure</td>
<td>1.5MPa / 220PSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. operating pressure</td>
<td>1MPa / 145PSI</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ambient and media temperature</td>
<td>5 ~ 60°C / 40~140°F</td>
<td></td>
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<tr>
<td>Filtration</td>
<td>Standard: 5µm</td>
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<td></td>
</tr>
<tr>
<td>Bowl material</td>
<td>Polycarbonate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowl capacity cm³</td>
<td>4</td>
<td>15</td>
<td>20</td>
<td>45</td>
<td>130</td>
<td>130</td>
</tr>
</tbody>
</table>

#### How to Order Air Filter (N)AF

- J ……Japanese
- N ……North American

#### Body Size

- 1000 M5
- 2000 1/4”
- 3000 1/4”
- 4000 1/2”
- 5000 1”
- 6000 1”

#### Port Size

- M5 01
- M5 02
- M5 03
- M5 04
- M5 06
- M5 10

#### Port thread

- ... Rc (PT)* Remove (N) when ordering
- N ……NPT
- F ……G(PF)* Remove (N) when ordering

#### Model

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>P</th>
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<td>273</td>
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#### Accessories

- Poly Filter Sintered Bronze Applicable
- Element Filter Element 5µm Filter Series
- 111134-5B ......... NAF1000
- 1112914-5B ......... NAF2000
- 1111511-5B ......... NAF3000
- 11116103-5B ......... NAF4000
- 1111724A ......... NAF5000
- 1112825A ......... NAF6000

Note: Sintered bronze and Poly-elements are not interchangeable.
REGULATOR SERIES (N)AR

- Port Size M5 – 1”
- “Q” and “P” compensation
- Design includes panel mount ring
- High flow
- Non-modular, higher flow and precision type regulators are available (see index)
- Check valve option available
- Built in gauge available

TECHNICAL SPECIFICATIONS

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<tr>
<th>Model</th>
<th>NAR1000</th>
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How To Order

Pressure Regulator

(N)AR

- ...Japanese
- N ....North American

BODY SIZE

10 ....M5
20 ...1/8
25 ...1/4
30 ...3/8
40 ...1/2
50 ...3/4
60 ...1"

Gauge

0 ....Relieving
6 ....With Check Valve

PORT SIZE

M5 ....M5
01 ...1/8
02 ...1/4
03 ...3/8
04 ...1/2
06 ...3/4
10 ....1"

PORT THREAD

- ...Rc(PT)* Remove (%) when ordering
- F ....PF
- N ....NPT* Remove (%) when ordering

ACCESSORIES

- ...Without
- G ....Gauge for NAR**01 type
- B ....Bracket

REGULATOR RANGE

- ....Standard
- 1 ....Low pressure 0.2~2 Bar
- R ....For right to left flow (with Built-in Gauge Type only)
- M ....Metal Seal Type
- N ....Non-Relieving Type

ACCESSORIES

PRESSURE REGULATOR

Bracket
B120 ..................... NAR1000
B220 ..................... NAR2000/2500
B320 ..................... NAR3000
B420 ..................... NAR4000
B540 ..................... NAR5000
B640 ..................... NAR6000

PRESSURE GAUGES

See Pressure Gauges Page

* 0.7MPa supply, pressure = 0.5MPa, Pressure drop ΔP = 0.1MPa; Note 1) 14.4~125PSI (AR*060)

- 0.7MPa supply, pressure = 0.5MPa, Pressure drop ΔP = 0.1MPa; Note 1) 14.4~125PSI (AR*060)
**AIR PREPARATION**

**MODULAR TYPE**

### Dimensions

#### NAR1000~NAR5000

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<tr>
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**Courtesy of Steven Engineering, Inc.**

230 Ryan Way, South San Francisco, CA 94080-6370

Main Office: (650) 588-9200

Outside Local Area: (800) 258-9200

www.stevenengineering.com
**Lubricator Series (N)AL**

- Port Size M5 – 1”
- Precise adjustment
- Uniform lubrication even at extremely low flow rates
- Over 97% of atomized oil particles <10 microns
- Quick release bowl guard on some sizes

### Technical Specifications

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*Conditions: Supply pressure - 0.5MPa  Number of DROPS - 5 drops/min ISOVG32, 20°C Max Flow Data Ø0.5mpa Supply 0.03MPa Pressure Drop

### How to Order

**Lubricator**

- ......Japanese
- ......North American

**Body Size**

- 1000 M5
- 2000 1/8
- 3000 1/4
- 4000 3/8
- 5000 1/2
- 6000 3/4

**Port Size**

- M5
- 1/8
- 1/4
- 3/8
- 1/2
- 3/4
- 1

**Port Thread**

- .....Rc(PF)* Remove (N) when ordering
- .....PF
- .....NPT* Remove (N) when ordering

**Accessories**

- .....W/O Bracket
- .....With Bracket

### Dimensions

**Body Size**

- NAL1000•NAL2000
- NAL3000•NAL4000
- NAL5000•NAL6000

**Accessories**

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</table>
Filter Regulator Series (N)AW

- Port Size M5 – ¼"*
- Differential or float type autodrain
- Quick release bowl guard on some sizes
- High flow
- 5μm filter element
- Built in gauge available

**Technical Specifications**

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<thead>
<tr>
<th>Model</th>
<th>NAW1000</th>
<th>NAW2000</th>
<th>NAW2001</th>
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<td>Standard: 5µm</td>
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<tr>
<td>Bowl Capacity cm³</td>
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<td>15</td>
<td>20</td>
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<tr>
<td>Bowl Material</td>
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<td>Polycarbonate</td>
<td>Polycarbonate</td>
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<tr>
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<td>Relieving type</td>
<td>Relieving type</td>
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<tr>
<td>Accessory (Standard)</td>
<td>Bowl Guard</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

*0.7MPa supply, 0.5MPa static set pressure, 0.1MPa pressure drop / 0.05~0.7MPa

**How To Order**

- (N)AW 0
- Body Size
  - 10 … M5
  - 20 … ¾
  - 30 … ½
  - 40 … ¾
- 0 … Standard
  - 1 … With Built-in Gauge
  - 2 … With Built-in Gauge for right to left flow
  - (1 & 2 available for body sizes 20~40 only)
- Port Thread
  - Rc(PT)* Remove (N) when ordering
  - FF
  - NPT*
- Port Size
  - M5 … M5
  - 01 … ¾
  - 02 … ¼
  - 03 … ¾
  - 04 … ¼
  - 06 … ¾

**Accessories**

- Filter Element 5µm
  - 11134-5 … NAW1000
  - 11294-5B … NAW2000
  - 111511-5B … NAW3000
  - 11104-5B … NAW4000
  - 11173-5B … NAW5000
  - 11074-5B … NAW6000
- Bracket
  - B120 … NAW1000
  - B220 … NAW2000
  - B320 … NAW3000
  - B420 … NAW4000

**Optional Specs**

- Without
- D … W/ Auto Drain
- B … Bracket
### Air Preparation Modular Type

#### Dimensions NAW1000•2000

![Image](https://via.placeholder.com/150)

#### Dimensions NAW3000•4000

![Image](https://via.placeholder.com/150)

#### Dimensions NAW2001

![Image](https://via.placeholder.com/150)

#### Dimensions NAW3001 - 4001

![Image](https://via.placeholder.com/150)

### Table

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>ØN</th>
<th>P</th>
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<td>4.5</td>
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<td>2.0</td>
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<td>86.5 Differential pressure</td>
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<td>55</td>
<td>3.3</td>
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<td>262.5</td>
<td>112</td>
<td>70</td>
<td>10.5</td>
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<td>288 Float</td>
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### Table

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<td>45</td>
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<td>60.8</td>
<td>41</td>
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<td>54</td>
<td>8.5</td>
<td>10.5</td>
<td>70</td>
<td>2.3</td>
<td>52.5</td>
<td>73</td>
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**Courtesy of Steven Engineering, Inc.**

230 Ryan Way, South San Francisco, CA 94080-6370

Main Office: (650) 588-9200

Outside Local Area: (800) 258-9200

www.stevenengineering.com
**Technical Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>NAFM2000</th>
<th>NAFM3000</th>
<th>NAFM4000</th>
</tr>
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<tbody>
<tr>
<td>Port Size</td>
<td>1/8”</td>
<td>1/4”</td>
<td>1/4”</td>
</tr>
<tr>
<td>Flow Rate l/min*</td>
<td>200</td>
<td>450</td>
<td>1100</td>
</tr>
<tr>
<td>Max Supply Pressure</td>
<td>1.5MPa / 220PSI</td>
<td>1.5MPa / 220PSI</td>
<td>1.5MPa / 220PSI</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1MPa / 145PSI</td>
<td>1MPa / 145PSI</td>
<td>1MPa / 145PSI</td>
</tr>
<tr>
<td>Min Operating Pressure</td>
<td>0.05MPa / 8PSI</td>
<td>0.05MPa / 8PSI</td>
<td>0.05MPa / 8PSI</td>
</tr>
<tr>
<td>Bowl Material</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
</tr>
</tbody>
</table>

**Accessories**

- **Bowl Guard**: - • •
- **Japanese**: -
- **North American**: N

**Mist Separators are also available in larger port sizes - see:**

**Filters: High Efficiency**

**Dimensions**

**Mist Separator NAFM2000**

- With Auto Drain (Differential pressure type)

**Dimensions**

**Mist Separator NAFM3000 • 4000**

- With Auto Drain (Float type)

**How To Order**

**Mist Separator (N)AFM**

- R (PT)** Remove (N) when ordering
- F ..........PF
- N ..........NPT** Remove (N) when ordering

**Port Size**

- 01 ... 1/8
- 02 ... 1/4
- 03 ... 3/8
- 04 ... 1/2
- 06 ... 3/4

**Optional Specs**

**Body Size**

- 2000 1/8”
- 3000 1/4”
- 4000 1/2”

**Symbol**

- A M

**How To Order Mist Separator**

**Symbols**

**How To Order**

**Mist Separator**

**Filter Element**

- 630611 ...............NAFM2000
- 630617 ...............NAFM3000
- 630623 ...............NAFM4000

**Filter Elements should be changed after 1 year or when a pressure drop of 1 Bar is reached.**

**Bracket**

- B240 ...............NAFM2000
- B340 ...............NAFM3000
- B440 ...............NAFM4000

**With auto drain**

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>NAFM2000</td>
<td>1/8 1/4</td>
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<td>87.5</td>
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<td>40</td>
<td>17</td>
<td>30</td>
<td>22</td>
<td>8.4</td>
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<td>2.3</td>
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<td>132.5</td>
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<td>16</td>
<td>41</td>
<td>23</td>
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<td>2.3</td>
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<td>8.5</td>
<td>10.5</td>
<td>70</td>
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</tr>
<tr>
<td>NAFM4000-06</td>
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<td>25</td>
<td>8.5</td>
<td>10.5</td>
<td>70</td>
<td>2.3</td>
<td>73</td>
</tr>
</tbody>
</table>
**Micro-Mist Separator Series (N)AFD**

- **Port Size**: ¼” – ¾”
- **Removes more than 99.9999% of oil mist**
- **0.01µm filter element**
- **Quick release metal bowl guard on some sizes**
- **Automatic or manual drain**

Micro-Mist Separators are also available in larger port sizes - see: Filters: High Efficiency

---

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>NAFD2000</th>
<th>NAFD3000</th>
<th>NAFD4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>¼”</td>
<td>½”</td>
<td>¾”</td>
</tr>
<tr>
<td>Flow Rate</td>
<td>120</td>
<td>240</td>
<td>600</td>
</tr>
<tr>
<td>Max Supply Pressure</td>
<td>1.5MPa / 220PSI</td>
<td>1MPa / 145PSI</td>
<td>0.85MPa / 85PSI</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1MPa / 145PSI</td>
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<td>0.5MPa / 50PSI</td>
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<tr>
<td>Min Operating Pressure</td>
<td>0.05MPa / 8PSI</td>
<td>0.05MPa / 8PSI</td>
<td>0.05MPa / 8PSI</td>
</tr>
<tr>
<td>Bowl Material</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Accessory (Standard)</td>
<td>Bowl Guard</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

---

**How To Order**

- **AFD**
- **N** (Japanese)
- **N** (North American)

**Body Size**

- 2000 ¼”
- 3000 ¼”
- 4000 ¼”

**Port Size**

- M5
- M10
- M14
- M18

**Port Thread**

- Rc(PT)* Remove (N) when ordering
- R...NPT

**Accessories**

- Filter Element
  - 63092 ……………………………NAFD2000
  - 63093 ……………………………NAFD3000
  - 63094 ……………………………NAFD4000

- Bracket
  - B240 ……………………………NAFD2000
  - B340 ……………………………NAFD3000
  - B440 ……………………………NAFD4000
  - B540 ……………………………NAFD4000-06

**Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>NAFD2000</th>
<th>NAFD3000</th>
<th>NAFD4000</th>
</tr>
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<tr>
<td>Min Operating Pressure</td>
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<td>Bowl Material</td>
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<td>Polycarbonate</td>
</tr>
<tr>
<td>Accessory (Standard)</td>
<td>Bowl Guard</td>
<td>-</td>
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</tbody>
</table>

---

**Symbols**

- **MIST SEPARATOR**
- **ACCESSORIES**
- **MIST SEPARATOR**
- **Filter Element**
- **Bracket**

**Technical Specifications**

- **Model**
- **Port size**
- **Flow Rate** in/min
- **Max Supply Pressure**
- **Max Operating Pressure**
- **Min Operating Pressure**
- **Bowl Material**
- **Accessories**

**How To Order**

- **AFD**
- **N** (Japanese)
- **N** (North American)

**Body Size**

- 2000 ¼”
- 3000 ¼”
- 4000 ¼”

**Port Size**

- M5
- M10
- M14
- M18

**Port Thread**

- Rc(PT)* Remove (N) when ordering
- R...NPT

**Accessories**

- Filter Element
  - 63092 ……………………………NAFD2000
  - 63093 ……………………………NAFD3000
  - 63094 ……………………………NAFD4000

- Bracket
  - B240 ……………………………NAFD2000
  - B340 ……………………………NAFD3000
  - B440 ……………………………NAFD4000
  - B540 ……………………………NAFD4000-06

**Dimensions**

<table>
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**Symbols**

- **MIST SEPARATOR**
- **ACCESSORIES**
- **MIST SEPARATOR**
- **Filter Element**
- **Bracket**

**Technical Specifications**

- **Model**
- **Port size**
- **Flow Rate** in/min
- **Max Supply Pressure**
- **Max Operating Pressure**
- **Min Operating Pressure**
- **Bowl Material**
- **Accessories**

**How To Order**

- **AFD**
- **N** (Japanese)
- **N** (North American)

**Body Size**

- 2000 ¼”
- 3000 ¼”
- 4000 ¼”

**Port Size**

- M5
- M10
- M14
- M18

**Port Thread**

- Rc(PT)* Remove (N) when ordering
- R...NPT

**Accessories**

- Filter Element
  - 63092 ……………………………NAFD2000
  - 63093 ……………………………NAFD3000
  - 63094 ……………………………NAFD4000

- Bracket
  - B240 ……………………………NAFD2000
  - B340 ……………………………NAFD3000
  - B440 ……………………………NAFD4000
  - B540 ……………………………NAFD4000-06

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<td>Polycarbonate</td>
</tr>
<tr>
<td>Accessory (Standard)</td>
<td>Bowl Guard</td>
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**SOFT START-UP VALVE SERIES (N)AV 2000, 3000, 4000 ¼, ⅜, ½"**

- Combined Soft Start and Dump Valve
- Compatible with Modular Series FRL
- Large Cv Factor
- Low Power
- Air Supply and Exhaust can be operated manually

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
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<th>NAV2000</th>
<th>NAV3000</th>
<th>NAV4000</th>
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<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Proof Pressure</td>
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<td>1.5MPa / 220PSI</td>
<td>1.5MPa / 220PSI</td>
</tr>
<tr>
<td>Operating Pressure Range</td>
<td>1MPa / 145PSI</td>
<td>1MPa / 145PSI</td>
<td>1MPa / 145PSI</td>
</tr>
<tr>
<td>Pressure Gauge Port Size</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Ambient and Fluid Temperature</td>
<td>0 ~ 60°C* / 32~140°F</td>
<td>0 ~ 60°C* / 32~140°F</td>
<td>0 ~ 60°C* / 32~140°F</td>
</tr>
<tr>
<td>CV Factor</td>
<td>P→A 1.19 2.20 3.60</td>
<td>A→R 1.39 2.89 4.49</td>
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</tr>
<tr>
<td>Weight (kg)</td>
<td>0.27</td>
<td>0.48</td>
<td>0.74</td>
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**Electrical Spec**

- Coil Rated Voltage: 110, 240V AC (50/60Hz); 12, 24V DC
- Allowable Voltage Fluctuation: ±15% to +10% of rated voltage
- Coil Insulation Type: Type B equivalent (130°C)
- Apparent Power AC (Power Consumption): 5.6VA (50Hz) Holding 3.4VA (2.1W)/50Hz
- Power Consumption DC: 1.8W
- Electrical Connector: DIN 43650 (industrial form)
- Semi-Standard Spec: With indicator light and surge voltage suppressor
- Pilot Valve Manual Override: Non-locking push type

*Use dry air when temperature is low.

**Symbols**

- P
- A
- R

**The NAV valve pictured together with an NAW series Filter/Regulator and an NAN series Silencer. (To order these items, see Air Preparation section (NAW) and Valves section (NAN)**

**HOW TO ORDER SOFT START-UP VALVE**

**Model**

- (N)AV 00

**Body Size**

- 20 …⅛
- 30 …⅜
- 40 …½

**Port Thread**

- ……Japanese
- N ……North American

**Port Size**

- 02 …⅛ (NAV2000 only)
- 03 …⅜ (NAV3000 only)
- 04 …½ (NAV4000 only)

**Coil Rated Voltage**

- 3 ……110V AC (50/60Hz)
- 4 ……240V AC (50/60Hz)
- 5 ……24V DC
- 6 ……12V DC

**Indicator Light and Surge Voltage Suppressor**

- ……None
- 5 ……With surge voltage suppressor only
- Z ……With Indicator light and surge voltage suppressor

**Dimensions**

See Next Page
### Module Type – Accessories

#### Dimensions DIN Connector

![DIN Connector Diagram]

#### Example of NAC3000 + Soft Start-Up Valve

![Valve Example Diagram]

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Pressure gauge Mounting port</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAV2000-02-D</td>
<td>1/4</td>
<td>66</td>
<td>125.5</td>
<td>31</td>
<td>22</td>
<td>40</td>
<td>67.5 10.5 29 23.5 M4X0.7 depth 4.5</td>
</tr>
<tr>
<td>NAV2000-02-DZ</td>
<td>1/4</td>
<td>76</td>
<td>132.5</td>
<td>36</td>
<td>24</td>
<td>48</td>
<td>70.5 3.5 28 27.5 M5X0.8 depth 5</td>
</tr>
<tr>
<td>NAV3000-03-D</td>
<td>3/8</td>
<td>98</td>
<td>147.5</td>
<td>47</td>
<td>32</td>
<td>52</td>
<td>82.5 6.5 42 37 M6X1 depth 6</td>
</tr>
<tr>
<td>NAV3000-03-DZ</td>
<td>3/8</td>
<td>84.5</td>
<td>27.5</td>
<td>10.5</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAV4000-04-D</td>
<td>1/2</td>
<td>100</td>
<td>162.5</td>
<td>51</td>
<td>41</td>
<td>63</td>
<td>99.5 10.5</td>
</tr>
<tr>
<td>NAV4000-04-DZ</td>
<td>1/2</td>
<td>100</td>
<td>162.5</td>
<td>51</td>
<td>41</td>
<td>63</td>
<td>99.5 10.5</td>
</tr>
</tbody>
</table>

### Safety Note

1. This valve cannot prevent cylinders shooting out when a closed-center solenoid valve is used, or equipment driving with a load factor of 50% or more.
2. When a regulator is to be mounted on the secondary side, use a check valve regulator (NAR**60). Standard regulators (NAR2000, 3000, 4000) do not allow large volume back-flow.
3. Mount a lubricator, as necessary, on the primary side (P port side) of the valve. When the lubricator is mounted on the secondary side (A port side), oil back-flows and is exhausted from port R.
**Pressure Switch: Series IS1000**

- Reed Switch Type Design
- Compact
- Pressure setting made easy by Scale Plate
- Type M Sandwiches between Air Preparation Units: Type E acts as an End Connector

**Technical Specifications**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof Pressure</td>
<td>1MPa / 145PSI</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>0.7MPa / 100PSI</td>
</tr>
<tr>
<td>Setting Range (off)</td>
<td>0.1<del>0.4MPa / 14.5</del>60PSI</td>
</tr>
<tr>
<td>Differential Pressure</td>
<td>Less than 0.08MPa / 12PSI</td>
</tr>
<tr>
<td>Ambient &amp; Fluid Temperature</td>
<td>5 ~ 60°C / 40~140ºF</td>
</tr>
<tr>
<td>Type of Actuation</td>
<td>1a (N.O.)</td>
</tr>
<tr>
<td>Switch Capacity</td>
<td>AC2VA • DC2W</td>
</tr>
<tr>
<td>Operating Voltage (AC, DC)</td>
<td>12V, 24V, 48V, 100V</td>
</tr>
<tr>
<td>Max Operating Current</td>
<td>AC, DC 12V ~ 48V: 50mA</td>
</tr>
</tbody>
</table>

**How To Order Pressure Switch**

Modular end unit pressure switch including Y20 or Y30 type yoke clips and extended lead to switch (3 metres):
- IS1000M-2Y-X201 2000 Series
- IS1000M-3Y-X201 3000 Series
- IS1000M-4Y-X201 4000 Series
- IS1000M-6Y-X201 5/6000 Series
- IS1000E-202Y-X201 ...2000 Series ⅓
- IS1000E-303Y-X201 ...3000 Series ⅓

**Dimensions Pressure Switch IS1000M**

- Model: IS1000M
- Dimensions: A 73.5, B 62.6, C 23, D 28

**Dimensions Pressure Switch IS1000E**

- Model: IS1000E
- Dimensions: A 87, B 66, C 17.5

The switches shown DO NOT come with Yoke Clips attached.

*Note:
The pressure switches can be mounted on both IN and OUT sides on (N)AIF, (N)AR, (N)AFM, and (N)AFD units but cannot be mounted in this way on (N)AW units when the handle of an (N)AR Series Regulator faces upwards.

*Symbols

**The IS1000E shown together with a Filter/Regulator Series AW**
SHUT OFF VALVE SERIES (N)VHS (3 PORT RELIEVING)

Relieves the Downstream Pressure for System Servicing
Visual Position Indication

Series NVHS 3 Port Valves provide a means to prevent accidental start-ups while personnel are cleaning or servicing equipment. When in the exhaust position, the valve may be padlock-secured.

To eliminate any uncertainty of valve status, a window displays when the valve is in supply or exhaust position.

* Simple user modification allows lock in pressure supply position.

Lockable Unit. Color may not be available as shown.

DIMENSIONS SERIES (N)VHS SHUT-OFF VALVE

HOW TO ORDER SERIES (N)VHS SHUT-OFF VALVES

BODY SIZE AND APPLICABLE FRL SERIES
2 .... 2000
3 .... 2500, 3000
4 .... 4000
5 .... 5000, 6000

LOCKING OPTION
0 ..... Standard
5 ..... Lockable

INPUT PORT SIZE
01 .... 1/8
02 .... 1/4
03 .... 3/8
04 .... 1/2
06 .... 3/4
10 .... 1

HANDLE COLOR OPTIONS
- ......... Black Handle; Silver Body
X116 ...... Red Handle (Lockable); Silver Body - Standard
X1 ......... Red Handle; Red Body
### Modular Type – Accessories

#### L Type Bracket

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>R</th>
<th>L</th>
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</thead>
<tbody>
<tr>
<td>Y10L</td>
<td>20</td>
<td>12</td>
<td>4.5</td>
<td>3.25</td>
<td>5</td>
<td>8</td>
<td>2.25</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Y20L</td>
<td>24</td>
<td>15</td>
<td>5.5</td>
<td>3.30</td>
<td>5</td>
<td>10</td>
<td>2.75</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Y30L</td>
<td>35</td>
<td>16</td>
<td>7</td>
<td>4.41</td>
<td>7</td>
<td>11.35</td>
<td>3.5</td>
<td>45</td>
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</tr>
<tr>
<td>Y40L</td>
<td>40</td>
<td>19</td>
<td>9</td>
<td>4.50</td>
<td>7</td>
<td>14</td>
<td>4.5</td>
<td>50</td>
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<tr>
<td>Y50L</td>
<td>40</td>
<td>19</td>
<td>9</td>
<td>4.50</td>
<td>7</td>
<td>14</td>
<td>4.5</td>
<td>50</td>
<td></td>
</tr>
<tr>
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<td>24</td>
<td>12</td>
<td>4.75</td>
<td>7</td>
<td>15</td>
<td>6</td>
<td>62.5</td>
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#### T Type Bracket

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>R</th>
<th>L</th>
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</thead>
<tbody>
<tr>
<td>Y10T</td>
<td>20</td>
<td>12</td>
<td>4.5</td>
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<td>5</td>
<td>8</td>
<td>40</td>
<td>2.25</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Y20T</td>
<td>24</td>
<td>15</td>
<td>5.5</td>
<td>3.30</td>
<td>5</td>
<td>10</td>
<td>40</td>
<td>2.75</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Y30T</td>
<td>35</td>
<td>16</td>
<td>7</td>
<td>4.41</td>
<td>7</td>
<td>11.35</td>
<td>3.5</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y40T</td>
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<td>19</td>
<td>9</td>
<td>4.50</td>
<td>7</td>
<td>14</td>
<td>4.5</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y50T</td>
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<td>19</td>
<td>9</td>
<td>4.50</td>
<td>7</td>
<td>14</td>
<td>4.5</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y60T</td>
<td>50</td>
<td>24</td>
<td>12</td>
<td>4.75</td>
<td>7</td>
<td>15</td>
<td>6</td>
<td>62.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How To Order

#### Spacer for L-Type Bracket
- **1000 Series:** Y10L, B110L
- **2000 Series:** Y20L, B210L
- **3000 Series:** Y30L, B310L
- **4000 Series:** Y40L, B410L
- **4000-06 Series:** Y50L, B510L
- **5/6000 Series:** Y60L, B610L

#### Spacer for T-Type Bracket
- **1000 Series:** Y10T, B110T
- **2000 Series:** Y20T, B210T
- **3000 Series:** Y30T, B310T
- **4000 Series:** Y40T, B410T
- **4000-06 Series:** Y50T, B510T
- **5/6000 Series:** Y60T, B610T

---

**Dimensions**

**Model A**

<table>
<thead>
<tr>
<th>Model</th>
<th>Applicable Model</th>
</tr>
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<tbody>
<tr>
<td>Y10</td>
<td>NAC100-NAC1040</td>
</tr>
<tr>
<td>Y20</td>
<td>NAC2000-NAC2040</td>
</tr>
<tr>
<td>Y30</td>
<td>NAC3500-NAC3540</td>
</tr>
<tr>
<td>Y40</td>
<td>NAC4000-NAC4040</td>
</tr>
<tr>
<td>Y50</td>
<td>NAC4000-06-NAC4040-60</td>
</tr>
<tr>
<td>Y60</td>
<td>NAC5000-5500-6000</td>
</tr>
</tbody>
</table>

---

**How To Order Spacer**

- **Y10** (1000 Series)
- **Y20** (2000 Series)
- **Y30** (3000 Series)
- **Y40** (4000 Series)
- **Y50** (4000-06 Series)
- **Y60** (5/6000 Series)

---

**How To Order L Type Bracket**

- **1000 Series:** Y10L, B110L
- **2000 Series:** Y20L, B210L
- **3000 Series:** Y30L, B310L
- **4000 Series:** Y40L, B410L
- **4000-06 Series:** Y50L, B510L
- **5/6000 Series:** Y60L, B610L

---

**How To Order T Type Bracket**

- **1000 Series:** Y10T, B110T
- **2000 Series:** Y20T, B210T
- **3000 Series:** Y30T, B310T
- **4000 Series:** Y40T, B410T
- **4000-06 Series:** Y50T, B510T
- **5/6000 Series:** Y60T, B610T

---

** Courtesy of Steven Engineering, Inc.  
230 Ryan Way, South San Francisco, CA 94080-6370  
Main Office: (650) 588-9200  
Outside Local Area: (800) 258-9200  
www.stevenengineering.com**
**END BLOCK ADAPTOR**

- **Port Sizes:** M5 ~ 1” Rc
- **Allows for easy installation and maintenance**

### Dimensions

**Piping Adaptor**

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10-M5</td>
<td>M5x0.8</td>
<td>16</td>
<td>17.5</td>
<td>14</td>
</tr>
<tr>
<td>E20-N01</td>
<td>⅛</td>
<td>23</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>E20-N02</td>
<td>⅛</td>
<td>26</td>
<td>34.2</td>
<td>29</td>
</tr>
<tr>
<td>E30-N02</td>
<td>⅛</td>
<td>33</td>
<td>42.2</td>
<td>35</td>
</tr>
<tr>
<td>E40-N02</td>
<td>⅛</td>
<td>50</td>
<td>42.2</td>
<td>35</td>
</tr>
<tr>
<td>E50-N06</td>
<td>⅜</td>
<td>36</td>
<td>44</td>
<td>46.2</td>
</tr>
<tr>
<td>E60-N10</td>
<td>⅜</td>
<td>40</td>
<td>54</td>
<td>55.2</td>
</tr>
</tbody>
</table>

**Check Valve Series (N)AKM**

The Check Valve Spacer is designed to prevent back flow of lubricated air from a lubricator when both lubricated and non-lubricated supplies are required.

### Dimensions

**Check Valve Series NAKM**

**Symbols**

- **Port Size**
  - 01 ... ⅛
  - 02 ... ⅛
  - 03 ... ⅜

- **Port Thread**
  - ... Rc(PT)* Remove (N) when ordering
  - N ... NPT

**Model**

- NAKA2000
- NAKA3000
- NAKA4000
- NAKA5000
- NAKA6000

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAKA2000</td>
<td>⅛</td>
<td>40</td>
<td>40</td>
<td>18</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>NAKA3000</td>
<td>⅛</td>
<td>40</td>
<td>40</td>
<td>18</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>NAKA4000</td>
<td>⅛</td>
<td>40</td>
<td>54</td>
<td>42</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>NAKA5000</td>
<td>⅛</td>
<td>40</td>
<td>54</td>
<td>42</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>NAKA6000</td>
<td>⅛</td>
<td>40</td>
<td>54</td>
<td>42</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>
### Branching Units

**Dimensions T Take Off**

- Cannot be installed adjacent to combined filter/regulator unit.

**Dimensions X Take Off**

- Fits between modular units using 'Y' Type Connectors.

### Table: Branching Units Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y11-M5</td>
<td>M5x0.8</td>
<td>8</td>
<td>12</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Y21-01</td>
<td>1/8</td>
<td>10</td>
<td>29</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Y31-01</td>
<td>1/8</td>
<td>11</td>
<td>33</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Y41-03</td>
<td>3/8</td>
<td>14</td>
<td>39</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Y51-02</td>
<td>1/4</td>
<td>14</td>
<td>24</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Y52-03</td>
<td>3/8</td>
<td>14</td>
<td>24</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Y61-03</td>
<td>3/8</td>
<td>15</td>
<td>30</td>
<td>50.5</td>
<td></td>
</tr>
<tr>
<td>Y61-04</td>
<td>1/2</td>
<td>15</td>
<td>30</td>
<td>50.5</td>
<td></td>
</tr>
</tbody>
</table>

### How To Order

- **Take-Off Type**
  - 1 ..... "T" Type
  - 4 ..... "X" Type

- **Thread Type**
  - Nil ...... Rc(PT)
  - N ...... NPT

- **Port Size**
  - M5 ...... M5 x 0.8
  - 01 ...... 1/8
  - 02 ...... 1/4
  - 03 ...... 3/8
  - 04 ...... 1/2

### Applicable FRL Series

- 1 ..... 1000
- 2 ...... 2000
- 3 ...... 3000
- 4 ....... 4000
- 5 ...... 4000-06
- 6 ...... 5000, 6000
**AIR PREPARATION**

**FILTERS: HIGH EFFICIENCY**

**HIGH FLOW AIR FILTER SERIES (N)AF**

- Port Sizes 1½- 2” Rc, NPT, PF
- 5µm Filter Element
- High Efficiency Drainage
- Bowl Guard Standard

### ACCESSORIES AIR FILTER

Filter Elements

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11345-58</td>
<td>NAF800</td>
</tr>
<tr>
<td>11352-58</td>
<td>NAF900</td>
</tr>
</tbody>
</table>

### HOW TO ORDER

**AIR FILTER**

- (N)AF800-12 (1½)
- (N)AF800-14 (1½)
- (N)AF900-20 (2)

**AIR FILTER WITH AUTODRAIN**

- (N)AF811-12 (1½)
- (N)AF811-14 (1½)
- (N)AF911-20 (2)

**Note** (N)AF

AF - Japanese
NAF - North American

### SYMBOLS

### DIMENSIONS

**AIR FILTER MODELS (N)AF800/900**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)AF800</td>
<td>150</td>
<td>410</td>
<td>33</td>
<td>1½. 16</td>
</tr>
<tr>
<td>(N)AF900</td>
<td>200</td>
<td>488</td>
<td>46</td>
<td>2</td>
</tr>
</tbody>
</table>

**AIR FILTER MODELS (N)AF811/911**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)AF811</td>
<td>150</td>
<td>420</td>
<td>33</td>
<td>1½. 16</td>
</tr>
<tr>
<td>(N)AF911</td>
<td>200</td>
<td>519</td>
<td>46</td>
<td>2</td>
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</tbody>
</table>

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Max Flow Rate (in/min)</th>
<th>Drain Capacity (cm³)</th>
<th>Max Operating Pressure (MPa/PSI)</th>
<th>Ambient &amp; Fluid Temp</th>
<th>Bowl</th>
</tr>
</thead>
<tbody>
<tr>
<td>½”</td>
<td>9000</td>
<td>180</td>
<td>15MPa (145PSI)</td>
<td>5<del>60ºC / 40</del>140ºF</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>2”</td>
<td>15000</td>
<td>180</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Flows are for 0.7MPa Supply, 0.01MPa Pressure Drop.

[Courtesy of Steven Engineering, Inc.]

230 Ryan Way, South San Francisco, CA 94080-6370
Main Office: (650) 588-9200
Outside Local Area: (800) 258-9200
www.stevenengineering.com
MIST SEPARATOR SERIES (N)AM

Port Sizes 1/8, 1/4, 3/8, 1/2, 3/4, 1" *
Removes 99.9% of Oil Mist and Fine Particles down to 0.3µm
Manual or Automatic Drain
Cartridge Type Element for easy replacement
Small additional clearance required for cartridge replacement

Mist Separators are also available for the Modular Range of Air Preparation Products

MIST SEPARATOR SERIES (N)AM

<table>
<thead>
<tr>
<th>Model</th>
<th>Port NPT</th>
<th>A mm</th>
<th>B mm</th>
<th>C mm</th>
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<tbody>
<tr>
<td>NAM150-N02D</td>
<td>159</td>
<td>60</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM250-N03D</td>
<td>172</td>
<td>76</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM350-N04D</td>
<td>204</td>
<td>90</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM450-N06D</td>
<td>225</td>
<td>106</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM550-N10D</td>
<td>259</td>
<td>122</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM650-N14D</td>
<td>281</td>
<td>160</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>NAM850-N14D</td>
<td>353</td>
<td>220</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

(Clearance required for cartridge change)

TECHNICAL SPECIFICATIONS

- Max Operating Pressure: 1MPa / 145PSI
- Min Operating Pressure: 0.05MPa / 8PSI
- Ambient & Fluid Temp: 5~60ºC / 40~140ºF
- Filtration Degree: 0.3µm
- Oil Mist Removal: 99.9%
- Max Flow Rate (l/min)*
  - NAM150: 300
  - NAM250: 750
  - NAM350: 1500
  - NAM450: 2,200
  - NAM550: 3,500
  - NAM650: 6,000
  - NAM850: 12,000

*0.7MPa Supply, 0.03MPa or less pressure drop

Note) (N)AM
- AM - Japanese
- NAM - North American

ACCESSORIES

Bracket
NAM150 ............... BM51
NAM250 ............... BM52
NAM350 ............... BM53
NAM450 ............... BM54
NAM550 ............... BM55
NAM650 ............... BM56
NAM850 ............... BM57

Filter element
NAM150 ............... AM-EL150
NAM250 ............... AM-EL250
NAM350 ............... AM-EL350
NAM450 ............... AM-EL450
NAM550 ............... AM-EL550
NAM650 ............... AM-EL650
NAM850 ............... AM-EL850
GD40-2-01 ............... Differential pressure gauge

GD40-2-01 ............... Differential pressure gauge

BODIESIZE

150 ... 1/8 Basis
250 ... 1/4 Basis
350 ... 3/8 Basis
450 ... 1/2 Basis
550 ... 3/4 Basis
650 ... 1 Basis
850 ... 1 1/2 Basis

THREAD
- R ... Rc(PT)* Remove (N) when ordering
- G ... G(PF)* Remove (N) when ordering
- N ... NPT

OPTIONS
- Y ... Drain Guide 1/4 Internal Thread
- M ... With Drain Lock M5 Screw
- R ... IN, OUT Reverse Direction

PORT SIZE

01 ... 1/8
02 ... 1/4
03 ... 3/8
04 ... 1/2
06 ... 3/4
10 ... 1
14 ... 1 1/2
20 ... 2

SUB-STANDARD SPECIFICATIONS

Y ...... Drain Guide 1/4 Internal Thread
M ...... With Drain Lock M5 Screw
R ...... IN, OUT Reverse Direction

* Remove (N) when ordering

** Remove (N) when ordering
**AIR PREPARATION**

**FILTERS: HIGH EFFICIENCY**

---

### MICRO MIST SEPARATOR SERIES (N)AMD

- **Port Sizes**: 1/4, 1/2, 3/4, 1, 1 1/2, 2
- **Removes**: Oil, Water, and Dirt from Compressed Air
- **Efficiency**: 99.9999%
- **Particle Removal**: Down to 0.01µm
- **Oil Carry-over**: Less than 0.08 p.p.m.
- **Cartridge Type Element**: For easy replacement
- **Small Additional Clearance**: Required for cartridge replacement

---

#### HOW TO ORDER MIST SEPARATOR SERIES (N)AMD

**Body Size**
- 150 ... 1/8 Basis
- 250 ... 1/4 Basis
- 350 ... 3/8 Basis
- 450 ... 1/2 Basis
- 550 ... 3/4 Basis
- 650 ... 1 Basis
- 850 ... 1 1/2 Basis

**Thread**
- **N** ... NPT
- **F** ... G(P)T
- **R** ... Remove (N) when ordering

**Options**
- **C** ... NC Autodrain
- **D** ... NO Autodrain
- **Y** ... Drain Guide 1/4 Internal Thread
- **M** ... With Drain Lock M5 Screw
- **R** ... IN, OUT Reverse Direction

---

#### ACCESSORIES MIST SEPARATOR SERIES (N)AMD

- **Brackets**
  - NAMD150 ... BM51
  - NAMD250 ... BM52
  - NAMD350 ... BM53
  - NAMD450 ... BM54
  - NAMD550 ... BM55
  - NAMD650 ... BM56
  - NAMD850 ... BM57
- **Filter Element**
  - NAMD150 ... AMD-EL150
  - NAMD250 ... AMD-EL250
  - NAMD350 ... AMD-EL350
  - NAMD450 ... AMD-EL450
  - NAMD550 ... AMD-EL550
  - NAMD650 ... AMD-EL650
  - NAMD850 ... AMD-EL850
- **GD40-2-01** ... Differential pressure gauge

---

#### TECHNICAL SPECIFICATIONS

- **Max Operating Pressure**
  - 1MPa / 145PSI
- **Minimum Operating Pressure**
  - 0.2MPa / 8PSI
- **Filtration Degree**
  - 99.9%
- **Filtration Degree**
  - 0.01µm
- **Max Flow Rate**: In/min*
  - NAMD150 - 200
  - NAMD250 - 250
  - NAMD350 - 350
  - NAMD450 - 2000
  - NAMD550 - 3500
  - NAMD650 - 6000
  - NAMD850 - 12000

---

#### SYMBOLS

- (Clearance required for cartridge change)

---

**Note**

- (N)AMD
  - AMD ... Japanese
  - NAMD ... North American

---

**DIMENSIONS MIST SEPARATOR SERIES NAMD**

<table>
<thead>
<tr>
<th>Model</th>
<th>Port NPT</th>
<th>A mm</th>
<th>B mm</th>
<th>C mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAMD150-N02</td>
<td>1⁄4</td>
<td>159</td>
<td>63</td>
<td>10</td>
</tr>
<tr>
<td>NAMD250-N03</td>
<td>3⁄8</td>
<td>172</td>
<td>76</td>
<td>10</td>
</tr>
<tr>
<td>NAMD350-N04</td>
<td>1⁄2</td>
<td>204</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>NAMD450-N06</td>
<td>3⁄4</td>
<td>225</td>
<td>106</td>
<td>10</td>
</tr>
<tr>
<td>NAMD550-N10</td>
<td>1</td>
<td>259</td>
<td>122</td>
<td>10</td>
</tr>
<tr>
<td>NAMD650-N14</td>
<td>1 1⁄2</td>
<td>361</td>
<td>160</td>
<td>10</td>
</tr>
<tr>
<td>NAMD850-N20</td>
<td>2</td>
<td>473</td>
<td>220</td>
<td>10</td>
</tr>
</tbody>
</table>

*0.7MPa supply, 0.02MPa pressure drop

---

**SUB-STANDARD SPECIFICATIONS**

- Note: (N)AMD
  - AMD ... Japanese
  - NAMD ... North American

---

**Courtesy of Steven Engineering, Inc.**

- 230 Ryan Way, South San Francisco, CA 94080-6370
- Main Office: (650) 588-9200
- Outside Local Area: (800) 258-9200
- www.stevenengineering.com
Odor Removal Filter Series (N)AMF

- Port Sizes 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 2
- Activated Carbon Filter Element with large filtration area (1420 m²/g) for the removal of hydrocarbon and organic vapors
- 99.9999% Efficient
- Particle removal down to 0.01µm
- Cartridge Type Element for easy replacement
- Small additional clearance required for cartridge replacement

Media: Compressed air - filtered to 10 micron
Operating Pressure: 0.05 - 1MPa / 8~145PSI
Operating Temperature: 5 - 60°C / 40~140°F
Max Flow Rate (m³/min)*

*0.7MPa supply, 0.015MPa pressure drop

Symbols:
- (N)AMF - Japanese
- NAMF - North American

Technical Specifications:

<table>
<thead>
<tr>
<th>Media</th>
<th>Compressed air - filtered to 10 micron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>0.05 - 1MPa / 8~145PSI</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>5 - 60°C / 40~140°F</td>
</tr>
<tr>
<td>Max Flow Rate (m³/min)</td>
<td>NAMF150 - 200</td>
</tr>
<tr>
<td></td>
<td>NAMF250 - 500</td>
</tr>
<tr>
<td></td>
<td>NAMF350 - 1000</td>
</tr>
<tr>
<td></td>
<td>NAMF450 - 2000</td>
</tr>
<tr>
<td></td>
<td>NAMF550 - 3500</td>
</tr>
<tr>
<td></td>
<td>NAMF650 - 6000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Media</th>
<th>Compressed air - filtered to 10 micron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>0.05 - 1MPa / 8~145PSI</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>5 - 60°C / 40~140°F</td>
</tr>
<tr>
<td>Max Flow Rate (m³/min)</td>
<td>NAMF150 - 200</td>
</tr>
<tr>
<td></td>
<td>NAMF250 - 500</td>
</tr>
<tr>
<td></td>
<td>NAMF350 - 1000</td>
</tr>
<tr>
<td></td>
<td>NAMF450 - 2000</td>
</tr>
<tr>
<td></td>
<td>NAMF550 - 3500</td>
</tr>
<tr>
<td></td>
<td>NAMF650 - 6000</td>
</tr>
</tbody>
</table>

NAMF150-N02
- NPT: 1/8
- A: 139
- B: 63
- C: 10

NAMF250-N03
- NPT: 3/8
- A: 152
- B: 76
- C: 10

NAMF350-N04
- NPT: 1/2
- A: 184
- B: 90
- C: 10

NAMF450-N06
- NPT: 3/4
- A: 205
- B: 106
- C: 10

NAMF550-N10
- NPT: 1
- A: 238
- B: 122
- C: 10

NAMF650-N14
- NPT: 1 1/2
- A: 321
- B: 160
- C: 10

NAMF850-N20
- NPT: 2
- A: 403
- B: 220
- C: 10

Accessories:

- Bracket
  - NAMF150: BM51
  - NAMF250: BM52
  - NAMF350: BM53
  - NAMF450: BM54
  - NAMF550: BM55
  - NAMF650: BM56
  - NAMF850: BM57

- Filter element
  - NAMF150: NAMF-EL150
  - NAMF250: NAMF-EL250
  - NAMF350: NAMF-EL350
  - NAMF450: NAMF-EL450
  - NAMF550: NAMF-EL550
  - NAMF650: NAMF-EL650
  - NAMF850: NAMF-EL850

How To Order Odor Removal Filter Series (N)AMF:

- Model:
  - NAMF150
  - NAMF250
  - NAMF350
  - NAMF450
  - NAMF550
  - NAMF650
  - NAMF850
- Port NPT
- Body Size
  - 150: 1/8 Basis
  - 250: 1/4 Basis
  - 350: 3/8 Basis
  - 450: 1/2 Basis
  - 550: 3/4 Basis
  - 650: 1 Basis
  - 850: 1 1/2 Basis
- Thread
  - *RC(PT): Remove (N) when ordering
  - *G(PF): Remove (N) when ordering
  - NPT: NPT

Note: (N)AMF

How To Order Odor Removal Filter Series (N)AMF:

- Model:
  - NAMF150
  - NAMF250
  - NAMF350
  - NAMF450
  - NAMF550
  - NAMF650
  - NAMF850
- Port NPT
- Body Size
  - 150: 1/8 Basis
  - 250: 1/4 Basis
  - 350: 3/8 Basis
  - 450: 1/2 Basis
  - 550: 3/4 Basis
  - 650: 1 Basis
  - 850: 1 1/2 Basis
- Thread
  - *RC(PT): Remove (N) when ordering
  - *G(PF): Remove (N) when ordering
  - NPT: NPT
FILTERS: WATER SEPARATOR

WATER SEPARATOR SERIES AMG

- Port Sizes ¼, ⅜, ½, ¾, 1, 1½, 2"*
- Removes 99.9% of Water Droplets
- Automatic Drain as Standard
- Element is resistant to clogging
- Small additional clearance required for cartridge replacement

TECHNICAL SPECIFICATIONS

Max Operating Pressure 1MPa / 145PSI
Min Operating Pressure 0.15MPa / 22PSI
Ambient & Fluid Temp 5~60°C / 40~140°F
Max Flow Rate l/min* AMG150 300
AMG250 750
AMG350 1500
AMG450 2200
AMG550 3500
AMG650 6000
AMG850 12000

*0.7MPa Supply, 0.03MPa or less pressure drop

HOW TO ORDER

WATER SEPARATOR SERIES AMG

AMG

BODY SIZE
150 ... 1/8 Basis
250 ... 1/4 Basis
350 ... ¾ Basis
450 ... 1/2 Basis
550 ... 3/4 Basis
650 ... 1 Basis
850 ... 1 1/2 Basis

THREAD
- ... Rc(PT)* Remove (N) when ordering
T ... G(PF)* Remove (N) when ordering
N ... NPT

OPTIONS
Nil ... None
B ... Bracket
C ... NC Autodrain
D ... NO Autodrain

PORT SIZE
01 ... 1/8
02 ... 1/4
03 ... 3/8
04 ... 1/2
06 ... 3/4
10 ... 1
14 ... 1 1/2
20 ... 2

ACCESSORIES

Bracket
AMG150 ... BM51
AMG250 ... BM52
AMG350 ... BM53
AMG450 ... BM54
AMG550 ... BM55
AMG650 ... BM56
AMG850 ... BM57

DIMENSIONS

WATER SEPARATOR SERIES AMG

SYMBOLS

( Clearance required for cartridge change)
**Pressure Control Valve**

The (N)AP Series pressure relief regulator is an adjustable relief valve with a control range of 18 ~ 100PSI. If a pressure greater than the set pressure is reached, the unit will open, closing when pressure is less than set pressure.

### Technical Specifications

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>(N)AP100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>1⁄8” (01), 1⁄4” (02)</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1MPa / 145PSI</td>
</tr>
<tr>
<td>Relieving Range</td>
<td>0.05 - 0.7MPa / 18-100PSI</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>5 - 60ºC / 40-140ºF</td>
</tr>
<tr>
<td>Body Material</td>
<td>Aluminum Die Cast</td>
</tr>
</tbody>
</table>

### How To Order

- **(N)AP100**
- Japanese: Rc
- North American: N

**Thread**
- Rc(PT)*
- Remove (N) when ordering
- NPT

### Accessories

- **Series (N)AP100**
- Bracket: B21-1P

---

*Black Handle available in North America*
Pressure Regulator
Pilot Assisted

- Compact, Lightweight Construction
- High Flow Capacity
- Stable Accurate Pressure Control

TechniCal SpecifiCations

<table>
<thead>
<tr>
<th>Pressure Regulating Range (Bar)</th>
<th>0.5 – 8.5</th>
<th>NAR425</th>
<th>NAR625</th>
<th>NAR825</th>
<th>NAR925</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>Flow Rate In/min 7bar supply, 1 bar pressure drop</td>
<td>8,000</td>
<td>14,000</td>
<td>18,000</td>
<td>22,000</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions
Pilot Operated Pressure Regulator

Model | A | B | C | D | E | G | H | I | J | Bracket Dimensions |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NAR425</td>
<td>80</td>
<td>141</td>
<td>37</td>
<td>67</td>
<td>71 (72)</td>
<td>3</td>
<td>50</td>
<td>.48</td>
<td>80</td>
<td>B24</td>
</tr>
<tr>
<td>NAR625</td>
<td>98</td>
<td>152</td>
<td>40</td>
<td>78</td>
<td>76.5 (77.5)</td>
<td>7</td>
<td>87</td>
<td>.52</td>
<td>90</td>
<td>B25</td>
</tr>
<tr>
<td>NAR825</td>
<td>126</td>
<td>217</td>
<td>75</td>
<td>110</td>
<td>92.5 (93.5)</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NAR925</td>
<td>160</td>
<td>242</td>
<td>89</td>
<td>140</td>
<td>107.5 (108.5)</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

How To Order
Pilot Operated Pressure Regulator

- (N)AR 25

Options
- B ...... Bracket
- G ...... Gauge

Port Size
- 01 ...... 1/8
- 02 ...... 1/4
- 03 ...... 3/8
- 04 ...... 1/2
- 06 ...... 3/4
- 10 ...... 1
- 14 ...... 1/2
- 20 ...... 2

Body Size
- 4 ...... 1/2
- 6 ...... 1
- 8 ...... 1/2
- 9 ...... 2

Pressure
- 25 ...... 0.5 ~ 0.3MPa

Thread
- R ...... Rc (PT)* Remove (N) when ordering
- F ...... F (PF)
- N ...... NPT

Symbols

Models
- NAR425
- NAR625
- NAR825
- NAR925

Accessories
Pilot Operated Pressure Regulator
Mounting Bracket
B24 ........................................... NAR425
B25 ........................................... NAR625

Dimensions
Bracket Dimensions

 Courtesy of Steven Engineering, Inc.
230 Ryan Way, South San Francisco, CA 94080-6370
Main Office: (650) 588-9200
Outside Local Area: (800) 258-9200
www.stevenengineering.com
MINIATURE REGULATOR SERIES NARJ

MINIATURE REGULATOR (N)ARJ1020F

- Compact Design
- Piston Construction offers High Frequency and Long Life
- One-Touch Tube Connection
- Panel Mount

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>NARJ1020F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>Air</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>0.1<del>0.7MPa / 14.5</del>100PSI</td>
</tr>
<tr>
<td>Max Pressure</td>
<td>0.8MPa / 120PSI</td>
</tr>
<tr>
<td>Temperature</td>
<td>5<del>60°C / 40</del>140°F</td>
</tr>
<tr>
<td>Piping</td>
<td>IN: M5x0.8 male</td>
</tr>
<tr>
<td></td>
<td>OUT: Ø4, Ø6</td>
</tr>
</tbody>
</table>

FLOW SPECIFICATIONS

Primary Pressure – 7 Bar

PRESSURE SPECIFICATIONS

Test condition-(initial setting
Primary pressure—7 Bar
Secondary pressure—2 Bar
Flow rate—10l/min

HOW TO ORDER

MINIATURE REGULATOR (N)ARJ1020F

NARJ1020F — M5 —

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARJ1020F-M5-04</td>
<td>21</td>
<td>10.4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NARJ1020F-M5-06</td>
<td>22</td>
<td>12.8</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

DIMENSIONS SERIES NARJ

Panel Mount Dimension

Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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230 Ryan Way, South San Francisco, CA 94080-6370  
Main Office: (650) 588-9200  
Outside Local Area: (800) 258-9200  
www.stevenengineering.com
LUBRICATOR SERIES (N)AL

Port Sizes 1½~2
Atomizes Lubricant into fine particles at a uniform rate
Drip Rate easily monitored with Sight Dome
Can be filled under pressure
Bowl Guard Standard
Damper precludes oil flooding

HOW TO ORDER LUBRICATOR SERIES NAL

NAL800-N12 (1¼ NPT)
NAL800-N14 (1½ NPT)
NAL900-N20 (2 NPT)

SYMBOLS

DIMENSIONS LUBRICATOR

TYPICAL APPLICATION

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>NAL800</th>
<th>NAL900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Supply pressure</td>
<td>1.5MPa / 220PSI</td>
<td>1MPa / 145PSI</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1MPa / 145PSI</td>
<td></td>
</tr>
<tr>
<td>Operating Temp Range</td>
<td>5<del>60°C / 40</del>140ºF</td>
<td></td>
</tr>
<tr>
<td>Recommended lubricant</td>
<td>Turbine oil #1 (ISO VG32)</td>
<td></td>
</tr>
<tr>
<td>Bowl</td>
<td>Polycarbonate</td>
<td></td>
</tr>
<tr>
<td>Pipe Size</td>
<td>1 ¼, 1 ½, 2</td>
<td></td>
</tr>
<tr>
<td>Min Flow for Oil Drip</td>
<td>650</td>
<td>1800</td>
</tr>
<tr>
<td>Oil Capacity (cm³)</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Flow Rate (l/min)</td>
<td>12500</td>
<td>16500</td>
</tr>
</tbody>
</table>

Flow rate quoted at: 0.5MPa supply
0.03MPa pressure drop

HOW TO ORDER LUBRICATOR SERIES AL

AL800-12 (1¼ PT)
AL800-14 (1½ PT)
AL900-20 (2 PT)

Courtesy of Steven Engineering, Inc.
230 Ryan Way, South San Francisco, CA 94080-6370
Main Office: (650) 588-9200
Outside Local Area: (800) 258-9200
www.stevenengineering.com
Auto Drain Series (N)AD

- Port Sizes 1/4~1
- Float Type Automatic Drain Valve

**Technical Specifications**

<table>
<thead>
<tr>
<th>Type</th>
<th>(N)AD402</th>
<th>(N)AD600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>1.5~9.9 Bar</td>
<td>3~9.9 Bar</td>
</tr>
<tr>
<td></td>
<td>22~145PSI</td>
<td>45~145PSI</td>
</tr>
<tr>
<td>Max Supply Pressure</td>
<td>15 Bar / 220PSI</td>
<td></td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>9.9 Bar / 145PSI</td>
<td></td>
</tr>
<tr>
<td>Ambient &amp; Fluid Temperature</td>
<td>5<del>60°C / 40</del>140°F</td>
<td></td>
</tr>
<tr>
<td>Port Size</td>
<td>1/2</td>
<td>3/4, 1</td>
</tr>
<tr>
<td>Drain Port</td>
<td>3/4</td>
<td>3/4, 1</td>
</tr>
</tbody>
</table>

**Dimensions**

AD Series Auto Drains

- AD402
- AD600

**How to Order**

Auto Drain Series AD
- AD402-02 (1/4) PT
- AD402-03 (3/8) PT
- AD402-04 (1/2) PT
- AD600-06 (3/4) PT
- AD600-10 (1) PT

Auto Drain Series NAD
- NAD402-N02 (1/4) NPT
- NAD402-N03 (3/8) NPT
- NAD402-N04 (1/2) NPT
- NAD600-N06 (3/4) NPT
- NAD600-N10 (1) NPT

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230 Ryan Way, South San Francisco, CA 94080-6370
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Outside Local Area: (800) 258-9200
www.stevenengineering.com
SERIES ADH 4000 HEAVY AUTO DRAIN

- Long Life
- Reliable
- Large Capacity
- No Risk of Back Pressure
- Easy Operation and Maintenance

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Drain Type</td>
<td>Float Type</td>
</tr>
<tr>
<td>Auto Drain Valve Type</td>
<td>Normally Open</td>
</tr>
<tr>
<td>Max Supply Pressure</td>
<td>1.5 MPa / 220PSI</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1.0 MPa / 145PSI</td>
</tr>
<tr>
<td>Operating Pressure Range</td>
<td>0.05 ~ 1.0 MPa (8~145PSI)</td>
</tr>
<tr>
<td>Ambient and Fluid Temperature</td>
<td>Compressed Air 5 ~ 60°C (non-freezing)</td>
</tr>
<tr>
<td>Max Exhaust Drain</td>
<td>400 cc/min (at pressure 0.7MPa, water)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.2kg (with bracket: 1.3kg)</td>
</tr>
<tr>
<td>Color</td>
<td>Light Grey</td>
</tr>
</tbody>
</table>

HOW TO ORDER
SERIES ADH 4000 HEAVY AUTO DRAIN

**ACCESSORIES**

- Bracket BM58
- Ball Valve Piping Kit ADH-C400
- Silencer for Drain 2506-004-X228

**Note:** The Ball Valve Piping Kit includes a ball valve, two barrel nipples and an elbow. It can be fitted to the inlet of the unit and allows it to be isolated for examination and maintenance.
M6 Hex Cap Bolt
(applicable hex. wrench normal size 5)
M6 Hex Cap Bolt
(applicable hex. wrench normal size 5)

Pilot Exhaust Port (both sides)
Bleed Valve
Flushing Button

Bracket Mounting Hole (both sides)
Drain Inlet 1/2 Female Thread
See "How To Order" for type of thread.

Bracket (Option)
(Space for maintenance)

Sight Glass (both sides)
Optional Specification
Reference Figure of Assembly

Piping example of ball valve piping set

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BOOSTER REGULATOR SERIES (N)VBA

- Increases Main Line Pressure
- Compact Design
- Protects Downstream Equipment from Pressure Fluctuations
- Increases the power of actuator without changing to a larger cylinder
- No need for electrical input
- Optional Air Tanks for high demand
- Pressure Gauges and Silencers included
- Remote Adjustment possible

1MPa = 145PSI

<table>
<thead>
<tr>
<th>Specification</th>
<th>(N)VBA1</th>
<th>(N)VBA2, (N)VBA4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Increase Ratio</td>
<td>Max 2:1</td>
<td>Max 2:1</td>
</tr>
<tr>
<td>Media</td>
<td>Air</td>
<td>Air</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>3MPa</td>
<td>1.5MPa</td>
</tr>
<tr>
<td>Max Working Pressure</td>
<td>2MPa</td>
<td>1MPa</td>
</tr>
<tr>
<td>Set Pressure Range</td>
<td>0.2 ~ 2MPa</td>
<td>0.2 ~ 1MPa</td>
</tr>
<tr>
<td>Ambient and Media Temp Range</td>
<td>0 ~ 50°C / 32 ~ 125°F</td>
<td>0 ~ 50°C / 32 ~ 125°F</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not Required</td>
<td>Not Required</td>
</tr>
<tr>
<td>Installation</td>
<td>Horizontal</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Pressure Adjustable Mechanism</td>
<td>Relieving Type</td>
<td>Relieving Type</td>
</tr>
</tbody>
</table>

*Pressure IN=OUT=10 Bar
**Pressure IN=OUT=5 Bar

- Body Size
  1 …… Handle
  2 …… Air Pilot (VBA 2000, 4000 only)

- Pressure Adjustment
  1 …… Handle
  2 …… Air Pilot (VBA 2000, 4000 only)

- Pressure Range
  0 …… 1MPa Max (2000, 4000 Series)
  1 …… 2MPa Max (1000 Series)

- How To Order
  (N)VBA Booster Regulator

- Symbol

- Installation
  The Booster Regulator should be installed with its piston in a horizontal position.

- Accessories
  (N)VBA Booster Regulator

- Spares Kits
  KT-VBA2100-P …………..(N)VBA2000 Series
  KT-VBA4100-P …………..(N)VBA4000 Series
AIR OPERATED PRODUCTS
BOOSTER REGULATOR

(N)VBA1
FLOW CHARACTERISTICS

Pressure P2 Bar
Secondary air flow l/min

<table>
<thead>
<tr>
<th>Secondary air flow (l/min)</th>
<th>Pressure P2 (Bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>200</td>
<td>5</td>
</tr>
<tr>
<td>300</td>
<td>10</td>
</tr>
<tr>
<td>400</td>
<td>15</td>
</tr>
</tbody>
</table>

(N)VBA2, (N)VBA4
FLOW CHARACTERISTICS

Example:
(N)VBA 4
P1 = 5 bar
P2 = 8 bar
Then maximum flow demand = 1000 l/min

These graphs illustrate the time required to increase pressure in a closed tank e.g. (V)BA 1
If we wish to increase tank pressure to 8 bar, where P1 = 4 bar and tank pressure = 6.4 bar:

- initial \( \frac{P_2}{P_1} = \frac{6.4}{4} = 1.6 \) (charging line from graph = 15 seconds)
- final \( \frac{P_2}{P_1} = \frac{8}{4} = 2 \) (charging line from graph = 65 seconds)

Time taken to increase pressure = 65 – 15 seconds
= 50 seconds per 10 litre volume of tank

(N)VBA1
CHARGE CHARACTERISTICS

Pressure increase ratio (P2/P1)
Charging time for 10 l (t(s))

(N)VBA2, (N)VBA4
CHARGE CHARACTERISTICS

Pressure increase ratio (P2/P1)
Charging time for 10 l (t(s))

DIMENSIONS
HANDLE TYPE
(N)VBA1110-02

<table>
<thead>
<tr>
<th>Port</th>
<th>Port</th>
<th>Pressure Gauge</th>
<th>Mounting Hole</th>
<th>EN</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>OUT</td>
<td>EXH</td>
<td></td>
<td>EN</td>
<td>Port</td>
</tr>
<tr>
<td>Silencer</td>
<td></td>
<td></td>
<td></td>
<td>EXH</td>
<td>Port</td>
</tr>
</tbody>
</table>

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**DIMENSIONS**

**Handle Type**
(N)VBA2100-03, (N)VBA4100-04

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>ØM</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)VBA2100-(N)03</td>
<td>3⁄8</td>
<td>300</td>
<td>170</td>
<td>53</td>
<td>118</td>
<td>44</td>
<td>45</td>
<td>60 5</td>
<td>18</td>
<td>15</td>
<td>–</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>(N)VBA4100-(N)04</td>
<td>1⁄2</td>
<td>404</td>
<td>207 5</td>
<td>96</td>
<td>150</td>
<td>62 8</td>
<td>62</td>
<td>90</td>
<td>17</td>
<td>15</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

**DIMENSIONS**

**Air Pilot Operated Type**
(N)VBA2200-03, (N)VBA4200-04

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)VBA2200-(N)03</td>
<td>3⁄8</td>
<td>266 5</td>
<td>53</td>
<td>118</td>
<td>44</td>
<td>45</td>
<td>60 5</td>
<td>18</td>
<td>15</td>
<td>–</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>(N)VBA4200-(N)04</td>
<td>1⁄2</td>
<td>404</td>
<td>167</td>
<td>96</td>
<td>150</td>
<td>62 8</td>
<td>62</td>
<td>90</td>
<td>17</td>
<td>15</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>
AIR PREPARATION: ACCESSORIES

PRESSURE GAUGES

3 Pressure Ranges
- Center Back or Panel Mount
- 1/8 or 1/4 Connection
- 40 or 50mm Diameter Face

How to Order Pressure Gauges

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>Pressure Range</th>
<th>Applicable Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>G27-P10-R1</td>
<td>Rc(PT)1/16</td>
<td>0 – 150 PSI</td>
<td>NAR1000 • NAW1000</td>
</tr>
<tr>
<td>K10</td>
<td>1/8NPT</td>
<td>0 – 160 PSI</td>
<td>NAR2000 • 2500 • NAW2000 • 3000</td>
</tr>
<tr>
<td>K12</td>
<td>1/4NPT</td>
<td>0 – 160 PSI</td>
<td>NAR4000 • NAW4000</td>
</tr>
<tr>
<td>K13</td>
<td>1/4NPT</td>
<td>0 – 30 PSI</td>
<td>NAR4000 • NAW4000</td>
</tr>
<tr>
<td>K20</td>
<td>1/8NPT</td>
<td>0 – 30 PSI</td>
<td>NAR2000 • 2500 • NAW2000 • 3000</td>
</tr>
</tbody>
</table>

Pressure Gauges

G27-10-R1 1/8 Connection

Dimensions

5K8-10P/4P/2.5P

4K8-10P/4P/2.5P

G27-10-R1

VACUUM GAUGES

- Scale in mmHg
- Center Back Mount
- 1/8 or 1/4 Connection
- 42mm Diameter Face

How to Order Vacuum Gauges

GZ46 — A

Thread Type
- ……Rc(PT)
N ……NPT

Connection Thread
01 … 1/8
02 … 1/4

Internal Thread
M ……M5 (10-32Nom) Female

Dimensions

Model Port Size Pressure Range Applicable Model
G27-P10-R1 Rc(PT)1/16 0 – 150 PSI NAR1000 • NAW1000
K10 1/8NPT 0 – 160 PSI NAR2000 • 2500 • NAW2000 • 3000
K12 1/4NPT 0 – 160 PSI NAR4000 • NAW4000
K13 1/4NPT 0 – 30 PSI NAR4000 • NAW4000
K20 1/8NPT 0 – 30 PSI NAR2000 • 2500 • NAW2000 • 3000

5.33
AIR PREPARATION: ACCESSORIES
SILENCERS SERIES (N)AN

SERIES (N)AN SILENCER
M3, M5, 1/8 SINTERED BRONZE
Suitable for miniature valves and pilot air exhaust ports
13 - 21 dB noise reduction

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>NAN101-01</th>
<th>NAN110-01</th>
<th>NAN120-M3</th>
<th>NAN120-M5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>1/8&quot;</td>
<td>1/8&quot;</td>
<td>M3</td>
<td>M5</td>
</tr>
<tr>
<td>Noise Reduction (dB)</td>
<td>16</td>
<td>21</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Max Operating Pressure</td>
<td>1MPa / 145PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient &amp; Fluid Temperature</td>
<td>5-150°C / 40-300°F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective Orifice mm² (Cv)</td>
<td>20 (1.1)</td>
<td>35 (1.9)</td>
<td>7 (0.05)</td>
<td>5 (0.27)</td>
</tr>
<tr>
<td>Weight (gf)</td>
<td>9.5</td>
<td>20</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

* Tapered thread ISO7/1

SYMBOLES

SERIES (N)AN SILENCER
1/4~2
Over 30 dB noise reduction
Low back pressure
Compact and easy mounting

TECHNICAL SPECIFICATIONS

Model | AN200-02 | AN200-N03 | AN400-N04 | AN500-N06 | AN600-N10 | AN700-N12 | AN800-N14 | AN900-N20 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size NPT</td>
<td>1/8&quot;</td>
<td>3/8&quot;</td>
<td>1/2&quot;</td>
<td>1&quot;</td>
<td>1 1/2&quot;</td>
<td>2&quot;</td>
<td>2 1/2&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>Effective Orifice mm² (Cv)</td>
<td>35 (1.9)</td>
<td>60 (3.3)</td>
<td>90 (5.0)</td>
<td>160 (8.8)</td>
<td>270 (15)</td>
<td>440 (24)</td>
<td>590 (33)</td>
<td>960 (53)</td>
</tr>
</tbody>
</table>

HOW TO ORDER
SERIES (N)AN SILENCER

NAN120-M3 (M3)
NAN120-M5 (M5)
NAN110-N01 (1/8 NPT)
NAN101-N01 (1/8 NPT)

NAC: 230 Ryan Way, South San Francisco, CA 94080-6370
Main Office: (650) 588-9200
Outside Local Area: (800) 258-9200
www.stevenengineering.com
**High Noise Reduction Type Silencer Series ANA1/ANB1**

- Standardized Thread and One-touch Connection
- Choice of two Orifice Sizes
- Compact, Robust Construction
- Minimum Flow Restriction for Low Back Pressure
- Wide Range of Options
- High Noise Attenuation (40dB(A)) for ANA1

### Technical Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>A1</th>
<th>B1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Operating Pressure</td>
<td>1.0MPa / 145PSI</td>
<td>1.0MPa / 145PSI</td>
</tr>
<tr>
<td>Noise Reduction Effect</td>
<td>40dB(A)</td>
<td>38dB(A)</td>
</tr>
<tr>
<td>Ambient and Fluid Temperature</td>
<td>5<del>60°C / 40</del>140°F</td>
<td>5<del>60°C / 40</del>140°F</td>
</tr>
<tr>
<td>Thread</td>
<td>R(PT) One Touch Fittings</td>
<td>R(PT) One Touch Fittings</td>
</tr>
</tbody>
</table>

### How To Order ANA1/ANB1 Series

- A1 …Noise Reduction at 40dB(A)
- B1 …Noise Reduction at 38dB(A)

### Symbols

**Port Size (Screw-in)**

- 01 ... 1/8
- 02 ... 1/4
- 03 ... 3/8
- 04 ... 1/2
- 06 ... 3/4
- 10 ... 1
- 12 ... 1 1/4
- 14 ... 1 1/2
- 20 ... 2 (A1 only)

### Dimensions

**Model (Thread Connection)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>Effective Orifice (mm²)</th>
<th>Weight (g)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA1-01</td>
<td>1/8</td>
<td>10</td>
<td>4</td>
<td>37 16 -</td>
</tr>
<tr>
<td>ANA1-02</td>
<td>1/4</td>
<td>15</td>
<td>14</td>
<td>64 22 18</td>
</tr>
<tr>
<td>ANA1-03</td>
<td>3/8</td>
<td>35</td>
<td>22</td>
<td>64 23 21</td>
</tr>
<tr>
<td>ANA1-04</td>
<td>1/2</td>
<td>60</td>
<td>36</td>
<td>98 30 24</td>
</tr>
<tr>
<td>ANA1-06</td>
<td>3/4</td>
<td>90</td>
<td>110</td>
<td>111 46 36</td>
</tr>
<tr>
<td>ANA1-10</td>
<td>1</td>
<td>160</td>
<td>180</td>
<td>132 50 41</td>
</tr>
<tr>
<td>ANA1-12</td>
<td>1 1/4</td>
<td>280</td>
<td>544</td>
<td>200 74 60</td>
</tr>
<tr>
<td>ANA1-14</td>
<td>1 1/2</td>
<td>450</td>
<td>612</td>
<td>230 74 60</td>
</tr>
<tr>
<td>ANA1-20</td>
<td>2</td>
<td>610</td>
<td>873</td>
<td>271 86 70</td>
</tr>
<tr>
<td>ANB1-01</td>
<td>1/8</td>
<td>15</td>
<td>10</td>
<td>51 22 -</td>
</tr>
<tr>
<td>ANB1-02</td>
<td>1/4</td>
<td>35</td>
<td>22</td>
<td>81 25 18</td>
</tr>
<tr>
<td>ANB1-03</td>
<td>3/8</td>
<td>60</td>
<td>35</td>
<td>93 30 21</td>
</tr>
<tr>
<td>ANB1-04</td>
<td>1/2</td>
<td>90</td>
<td>94</td>
<td>107 46 24</td>
</tr>
<tr>
<td>ANB1-06</td>
<td>3/4</td>
<td>160</td>
<td>175</td>
<td>133 50 41</td>
</tr>
<tr>
<td>ANB1-10</td>
<td>1</td>
<td>280</td>
<td>462</td>
<td>190 74 41</td>
</tr>
<tr>
<td>ANB1-12</td>
<td>1 1/4</td>
<td>450</td>
<td>612</td>
<td>230 74 60</td>
</tr>
<tr>
<td>ANB1-14</td>
<td>1 1/2</td>
<td>610</td>
<td>871</td>
<td>271 86 70</td>
</tr>
</tbody>
</table>

### Dimensions

**Model (One Touch Fittings Connection)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Applicable One Touch Fittings Size</th>
<th>Effective Orifice (mm²)</th>
<th>Weight (g)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA1-C08</td>
<td>Ø8</td>
<td>11</td>
<td>5</td>
<td>58 16</td>
</tr>
<tr>
<td>ANA1-C10</td>
<td>Ø10</td>
<td>15</td>
<td>13</td>
<td>76 22</td>
</tr>
<tr>
<td>ANA1-C12</td>
<td>Ø12</td>
<td>33</td>
<td>19</td>
<td>95 25</td>
</tr>
<tr>
<td>ANB1-C06</td>
<td>Ø6</td>
<td>8</td>
<td>5</td>
<td>52 16</td>
</tr>
<tr>
<td>ANB1-C08</td>
<td>Ø8</td>
<td>13</td>
<td>12</td>
<td>73 22</td>
</tr>
</tbody>
</table>

**Notes:**
- To install threaded versions screw in hand tight then wrench tighten 1/4 turn only.
- Avoid contact with solvents or corrosive gases.
### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size NPT</td>
<td>3/8&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>Max Air Flow (Nl/min)</td>
<td>300</td>
<td>1,000</td>
</tr>
<tr>
<td>Effective Orifice mm² (Cv)</td>
<td>16 (0.88)</td>
<td>55 (3.1)</td>
</tr>
<tr>
<td>Element Model No</td>
<td>635321</td>
<td>635521</td>
</tr>
<tr>
<td>Bracket Model No</td>
<td>BE30</td>
<td>BE50</td>
</tr>
<tr>
<td>Max Operating Temperature</td>
<td>60°C / 140°F</td>
<td></td>
</tr>
<tr>
<td>Noise Reduction</td>
<td>35dB or more</td>
<td></td>
</tr>
<tr>
<td>Oil Mist Removal</td>
<td>99.9% or more</td>
<td></td>
</tr>
<tr>
<td>Exhaust of Oil Mist</td>
<td>Drain cock</td>
<td></td>
</tr>
<tr>
<td>Option</td>
<td>Bracket*</td>
<td></td>
</tr>
</tbody>
</table>

*Bracket not available on NAMC810 and 910.

### Symbols

- \( \text{N} \) ... Japanese
- \( \text{N} \) ... North American

### How To Order

#### Exhaust Cleaner Series (N)AMC

- **Body Size**
  - 2 ... 1/4
  - 5 ... 3/4
  - 6 ... 1
  - 8 ... 1 1/2
  - 9 ... 2

- **Thread**
  - 1 ... Male
  - 2 ... Female
  (Only NAMC220, 320, 520 Special Order Only)

- **Option**
  - B ... Bracket
  - D ... Threaded Drain Port (Female)

- **Port Size**
  - 02 ... 1/4
  - 03 ... 3/8
  - 04 ... 1/2
  - 06 ... 3/4
  - 10 ... 1
  - 14 ... 1 1/2
  - 20 ... 2

- **Thread**
  - R(PT)* ... Remove (N) when ordering
  - N ... NPT

---

**Series (N)AMC Exhaust Cleaner**

- Ensures Clean Plant Air and Noise Reduction of distributing noise contamination
- Over 35 dB Noise Reduction
- Over 99.9% Oil Mist Removal

---

**How To Order (N)AMC Series (N)AMC**

Element ………See “How To Order”
Bracket ………See “How To Order”

---

**Accessories**

Series (N)AMC Exhaust Cleaner

Element ……See “How To Order”
Bracket ……See “How To Order”

---

**How To Order**

NAMC Series (N)AMC

- Element ………See “How To Order”
- Bracket ………See “How To Order”

---

**Symbols**

- \( \text{N} \) ... Japanese
- \( \text{N} \) ... North American

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**How To Order**

Exhaust Cleaner Series (N)AMC

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**Symbols**

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