## Air Preparation Products
### P3N Series

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**P3NF Particulate Filters – Hi-Flow**

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Excellent water removal efficiency
- Metal bowl with sight gauge
- Large filter element surface guarantees low pressure drop and increased element life
- Twist drain as standard, optional auto float drain
- 3/4", 1", 1-1/2" port, NPT & BSPP

### Operating information

- **Supply pressure (max):** 0 to 250 psig (0 to 17.2 bar)
- **Operating temperature:** 32°F to 175°F (0°C to 80°C)
- **Flow capacity:**
  - High flow: 3/4" 270 scfm (127.4 dm³/s, ANR)
  - 1" 300 scfm (141.6 dm³/s, ANR)
  - 1-1/2" 300 scfm (141.6 dm³/s, ANR)
- **Bowl capacity:** 18.0 oz.
- **Sump capacity:** 6.8 oz.
- **Weight:**
  - 3/4", 1" 3.5 lb (1.6 kg)
  - 1-1/2" 4.6 lb (2.1 kg)

† scfm = Standard cubic feet per minute at 90 psig inlet and 5 psig pressure drop, with 40 micron element.

### Ordering information:

- **Port size** | **Description** | **Part number**
- 3/4" | Metal bowl, sight gauge, twist drain | P3NFA96GSM
- 3/4" | Metal bowl, sight gauge, auto float drain | P3NFA96GSA
- 1" | Metal bowl, sight gauge, twist drain | P3NFA98GSM
- 1" | Metal bowl, sight gauge, auto float drain | P3NFA98GSA
- 1-1/2" | Metal bowl, sight gauge, twist drain | P3NFA9PGSM
- 1-1/2" | Metal bowl, sight gauge, auto float drain | P3NFA9PGSA

* 1" port body with 1-1/2" port block.

### Engineering Level

- **Current** A

### Port Type

- 
  - **G thread (BSPP) female**
  - **NPT female**

* 3/4 & 1 inch meets ISO 1179-1 standard.

### Port Size

- 
  - **3/4" (w/o port blocks)**
  - **1" (w/o port blocks)**
  - **1-1/2" port blocks (w/ 1" ported body)**

### Bowl

- **Metal bowl with sight gauge**

### Element

- **G 40 micron**

Note: BSPP ported units supplied using NPT ported bodies and BSPP port block kits.
Hi-Flow Particulate Filters

Material Specifications

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body, bowl</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Deflector</td>
<td>Plastic</td>
</tr>
<tr>
<td>Drain</td>
<td>Plastic</td>
</tr>
<tr>
<td>Element</td>
<td>Plastic</td>
</tr>
<tr>
<td>Adsorber (optional)</td>
<td>Activated charcoal</td>
</tr>
<tr>
<td>Seals</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Sight gauge</td>
<td>Polyamide (nylon)</td>
</tr>
</tbody>
</table>

Repair and Service Kits

- Metal bowl / sight gauge / auto float drain: P3NKA00BSA
- Metal bowl / sight gauge / twist drain: P3NKA00BSM
- Bowl latch kit: C11A33
- DPI replacement kit: PS781P
- Automatic float drain: PS506P
- Twist drain: PS512P
- 40 micron element: P3NKA00ESG
- 5 micron element: P3NKA00ESE
- Adsorber element: P3NKA00ESA
- Mounting bracket kit*: P3NKA00MW
- Sight gauge kit: P3NKA00PE

* If 1-1/2 BSPP E02 fittings are required, use P3NKA00BMW.

Flow Charts

P3NF 3/4" Particulate Filter

Flow Characteristics

- Primary Pressure: bar
  - 2.4 bar
  - 6.2 bar
  - 10.3 bar
- Primary Pressure: psig
  - 35 psig
  - 90 psig
  - 150 psig

P3NF 1" & 1-1/2" Particulate Filter

Flow Characteristics

- Primary Pressure: bar
  - 2.4 bar
  - 6.2 bar
  - 10.3 bar
- Primary Pressure: psig
  - 35 psig
  - 90 psig
  - 150 psig

Inches (mm)

- 5.91 (150)
- 3.62 (92)
- 3.62 (92)
- 1.38 (35)
- 10.95 (278)
- 9.57 (243)
- 4.92 (125)

Bowl removal clearance.
P3NF Coalescing Filters – Hi-Flow

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Metal bowl with sight gauge
- Large filter element surface guarantees low pressure drop and increased element life
- Twist Drain as standard, optional automatic float drain
- 3/4", 1", 1-1/2" ports (NPT, BSPP)

### Operating information

<table>
<thead>
<tr>
<th>Supply pressure (max):</th>
<th>0 to 250 psig (0 to 17.2 bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto float drain</td>
<td>15 to 250 psig (1.0 to 17.2 bar)</td>
</tr>
<tr>
<td>Operating temperature:</td>
<td>32°F to 175°F (0°C to 80°C)</td>
</tr>
<tr>
<td>Flow capacity:</td>
<td></td>
</tr>
<tr>
<td>High flow 3/4&quot;</td>
<td>130 scfm (61 dm³/s, ANR)</td>
</tr>
<tr>
<td>1&quot;</td>
<td>140 scfm (66 dm³/s, ANR)</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>140 scfm (66 dm³/s, ANR)</td>
</tr>
<tr>
<td>Bowl capacity:</td>
<td>18.0 oz.</td>
</tr>
<tr>
<td>Sump capacity:</td>
<td>6.8 oz.</td>
</tr>
<tr>
<td>Weight:</td>
<td></td>
</tr>
<tr>
<td>3/4&quot;, 1&quot;</td>
<td>3.5 lb (1.6 kg)</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>4.6 lb (2.1 kg)</td>
</tr>
<tr>
<td>† scfm = Standard cubic feet per minute at 90 psig inlet and 5 psig pressure drop</td>
<td></td>
</tr>
<tr>
<td># 1&quot; port body with 1-1/2&quot; port block</td>
<td></td>
</tr>
</tbody>
</table>

### Ordering information:

<table>
<thead>
<tr>
<th>P3NF</th>
<th>F</th>
<th>A</th>
<th>9</th>
<th>8</th>
<th>DS M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Port Size**
- 3/4" (w/o port blocks) 6
- 1" (w/o port blocks) 8
- 1-1/2" port blocks (w/ 1" ported body) P

**Element**
- Grade 6 with DPI indicator

**Bowl**
- Metal bowl with sight gauge

**Drain**
- M Twist drain
- A Auto float drain

**Port Type**
- G thread (BSPP) female 1*
- NPT female 9

* 3/4 & 1 inch meets ISO 1179-1 standard.

**Port Number**
- P3NFA96DSM
- P3NFA96DSA
- P3NFA98DSM
- P3NFA98DSA
- P3NFA9PDSM
- P3NFA9PDSA

* Most popular.

For inventory, lead times, and kit lookup, visit www.pdnplu.com
**Material Specifications**

<table>
<thead>
<tr>
<th>Part</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body, bowl</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Deflector</td>
<td>Plastic</td>
</tr>
<tr>
<td>Drain</td>
<td>Plastic</td>
</tr>
<tr>
<td>Element</td>
<td>Borosilicate &amp; felt glass fibers</td>
</tr>
<tr>
<td>Largest aerosol particle passed (Grade 6)</td>
<td>0.01 micron</td>
</tr>
<tr>
<td>Largest solid particle passed (Grade 6)</td>
<td>0.30 micron</td>
</tr>
<tr>
<td>Seals</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Sight gauge</td>
<td>Polyamide (nylon)</td>
</tr>
</tbody>
</table>

**Repair and Service Kits**

- Metal bowl / sight gauge / automatic float drain: P3NKA00BSA
- Metal bowl / sight gauge / twist drain: P3NKA00BSM
- Bowl latch kit: C11A33
- DPI replacement kit: PS781P
- Automatic float drain kit: PS506P
- Twist drain kit: PS512P
- Grade 6 element (standard): P3NKA00ESCB
- Sight gauge kit: P3NKA00PE
- Mounting bracket kit*: P3NKA00MW

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

**Flow Charts**

### Grade 6 Element

**P3NF 3/4" Coalescing Filter**

**P3NF 1" & 1-1/2" Coalescing Filter**

**Flow Characteristics**

- **P3NF 3/4 Inch Ports**
  - Primary Pressure - bar: 2.4 bar, 6.2 bar, 10.3 bar
  - Primary Pressure - psig: 35 psig, 90 psig, 150 psig
  - Pressure Drop - (psig): 35 psig, 90 psig, 150 psig

- **P3NF 1 & 1-1/2 Inch Ports**
  - Primary Pressure - bar: 2.4 bar, 6.2 bar, 10.3 bar
  - Primary Pressure - psig: 35 psig, 90 psig, 150 psig
  - Pressure Drop - (bar): 0.1 bar, 0.2 bar, 0.3 bar

**Inches (mm)**

- Bowl removal clearance: 4.92 (125)
P3NR Regulators – Hi-Flow

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation
- Solid control piston for extended life
- 3/4", 1", 1-1/2" ports (NPT, BSPP)

<table>
<thead>
<tr>
<th>Port size</th>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>Without gauge</td>
<td>P3NRA96BNN</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>With 160 psi gauge</td>
<td>P3NRA96BNG</td>
</tr>
<tr>
<td>1&quot;</td>
<td>Without gauge</td>
<td>P3NRA98BNN</td>
</tr>
<tr>
<td>1&quot;</td>
<td>With 160 psi gauge</td>
<td>P3NRA98BNG</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>Without gauge</td>
<td>P3NRA9PBNN</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>With 160 psi gauge</td>
<td>P3NRA9PBNG</td>
</tr>
</tbody>
</table>

# 1" port body with 1-1/2" port block.
NOTE: 2.0 Dia. (51 mm) hole required for panel mounting.

Operating information:

Supply pressure (max): 250 psig (17.2 bar)
Operating temperature: 32°F to 175°F (0°C to 80°C)
Flow capacity:
- High flow 3/4" 200 scfm (94.4 dm³/s, ANR)
- 1" 300 scfm (141.6 dm³/s, ANR)
- 1-1/2" 300 scfm (141.6 dm³/s, ANR)
Gauge ports (2): 1/4 inch
Weight: 3/4", 1" 4.2 lb (1.9 kg)
- 1-1/2" 5.3 lb (2.4 kg)
1 scfm = Standard cubic feet per minute at 100 psig inlet, 90 psig no flow secondary setting and 10 psig pressure drop.

# 1" port body with 1-1/2" port block

Ordering information:

Note: BSPP ported units supplied using NPT ported bodies and BSPP port block kits.
Material Specifications

- **Adjusting stem**: Steel
- **Body**: Aluminum
- **Bonnet**: Aluminum
- **Knob**: Plastic
- **Piston**: Plastic
- **Poppet assembly**: Brass
- **Seals**: Nitrile
- **Springs, poppet & control**: Steel

Repair and Service Kits

- **Control knob**: P3NKA00PN
- **2" dial face 60 psig (0 to 4.1 bar), gauge**: K4520N14060
- **2" dial face 160 psig (0 to 11.0 bar), gauge**: K4520N14160
- **2" dial face 300 psig (0 to 20.7 bar), gauge**: K4520N14300
- **1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge**: K4517N14160D
- **Mounting bracket kit**: P3NKA00MW
- **Relieving**: P3NKA00RR
- **Non-relieving**: P3NKA00RN
- **1-60 psig spring**: C10A1304
- **2-125 psig spring**: C10A1308
- **5-250 psig spring**: C10A1317

*If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Flow Charts

### P3NR 3/4" Regulator

**Relief And Flow Characteristics**

<table>
<thead>
<tr>
<th>Flow (scfm)</th>
<th>Pressure Drop (psig)</th>
<th>Pressure Drop (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>100</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>150</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>200</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>300</td>
<td>90</td>
<td>60</td>
</tr>
</tbody>
</table>

### P3NR 1" & 1-1/2" Regulator

**Relief And Flow Characteristics**

<table>
<thead>
<tr>
<th>Flow (dm³/s)</th>
<th>Pressure Drop (psig)</th>
<th>Pressure Drop (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>1.5</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2.5</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

**WARNING**

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

**CAUTION:**

**REGULATOR PRESSURE ADJUSTMENT** — The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.
P3NR Pilot Controlled Regulator - Hi-Flow

- Port blocks (PB) available to provide 1-1/2” port extension to 1” ported bodies
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation
- Solid control piston for extended life
- 3/4”, 1” 1-1/2” ports (NPT, BSPP)

**Port size** | **Description** | **Part number**
---|---|---
3/4” | Without gauge | P3NRA96BPP
1” | Without gauge | P3NRA98BPP
1-1/2”* | Without gauge | P3NRA9PBPP
* 1” port body with 1-1/2” port block.

### Operating information

- **Supply pressure (max):** 250 psig (17.2 bar)
- **Operating temperature:** 32°F to 175°F (0°C to 80°C)
- **Flow capacity**: 3/4” 300 scfm (141.6 dm³/s, ANR)
- 1” 300 scfm (141.6 dm³/s, ANR)
- 1-1/2” 350 scfm (165.2 dm³/s, ANR)
- **Gauge ports (2):** 1/4 inch
- **Weight:**
  - 3/4” 3.3 lb (1.5 kg)
  - 1” 4.4 lb (2.0 kg)
- 1-1/2” # 1” port body with 1-1/2 port block

### Ordering information:

- **Port Type**
  - G thread (BSPP) female 1*
  - NPT female 9
  * 3/4” & 1” meets ISO 1179-1 standard.
- **Port Size**
  - 3/4” (w/o port blocks) 6
  - 1” (w/o port blocks) 8
  - 1-1/2” port blocks (w/ 1” ported body) P

Note: BSPP ported units supplied using NPT ported bodies and BSPP port block kits.
Material Specifications

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting stem</td>
<td>Steel</td>
</tr>
<tr>
<td>Body</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Bonnet</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Piston</td>
<td>Plastic</td>
</tr>
<tr>
<td>Poppet assembly</td>
<td>Brass</td>
</tr>
<tr>
<td>Seals</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Springs – poppet</td>
<td>Steel</td>
</tr>
</tbody>
</table>

Repair and Service Kits

- 2" dial face 60 psig (0 to 4.1 bar), gauge: K4520N14060
- 2" dial face 160 psig (0 to 11.0 bar), gauge: K4520N14160
- 2" dial face 300 psig (0 to 20.7 bar), gauge: K4520N14300
- 1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge: K4517N14160D
- Mounting bracket kit*: P3NKA00MW
- Relieving P3NKA00PD

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Flow Charts

**P3NR 3/4” Regulator**

Relief And Flow Characteristics

**P3NR 1” & 1-1/2” Regulator**

Relief And Flow Characteristics

**WARNING**

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed Maximum primary pressure rating.
P3NE Filter / Regulator – Hi-Flow

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Excellent water removal efficiency
- Metal bowl with sight gauge
- Large filter element surface guarantees low pressure drop and increased element life
- Twist drain as standard, optional auto drain
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation
- Solid control piston for extended life
- 3/4", 1", 1-1/2" # ports (NPT, BSPP)

Operating information:

Supply pressure (max): 0 to 250 psig (0 to 17.2 bar)
Operating temperature: 32°F to 175°F (0°C to 80°C)
Flow capacity†:
- High flow 3/4" 250 scfm (118 dm³/s, ANR)
- 1" 250 scfm (118 dm³/s, ANR)
- 1-1/2" 250 scfm (118 dm³/s, ANR)
Bowl capacity: 18.0 oz.
Sump capacity: 6.8 oz.
Weight:
- 3/4" 5.3 lb (2.4 kg)
- 1" 5.3 lb (2.4 kg)
- 1-1/2" 6.43 lb (2.9 kg)
† scfm = Standard cubic feet per minute at 90 psig inlet and 5 psig pressure drop with 40 micron element

Ordering information:

<table>
<thead>
<tr>
<th>P3N</th>
<th>E</th>
<th>A</th>
<th>9</th>
<th>8</th>
<th>G</th>
<th>S</th>
<th>M</th>
<th>B</th>
<th>N</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; Metal bowl, sight gauge, twist drain</td>
<td>P3NEA96GSMBNN</td>
<td>3/4&quot; Metal bowl, sight gauge, auto float drain</td>
<td>P3NEA96GSABNN</td>
<td>1&quot; Metal bowl, sight gauge, twist drain</td>
<td>P3NEA98GSMBNN</td>
<td>1&quot; Metal bowl, sight gauge, auto float drain</td>
<td>P3NEA98GSABNN</td>
<td>1-1/2&quot; Metal bowl, sight gauge, twist drain</td>
<td>P3NEA9PGSMBNN</td>
<td>1-1/2&quot; Metal bowl, sight gauge, auto float drain</td>
</tr>
</tbody>
</table>

Element: 40 micron G

Port Type
- G thread (BSPP) female 1*
- NPT female 9
* 3/4 & 1 inch meets ISO 1179-1 standard.

Note: BSPP ported units supplied using NPT ported bodies and BSPP port block kits.

Port size Description Part number
3/4" Metal bowl, sight gauge, twist drain P3NEA96GSMBNN
3/4" Metal bowl, sight gauge, auto float drain P3NEA96GSABNN
1" Metal bowl, sight gauge, twist drain P3NEA98GSMBNN
1" Metal bowl, sight gauge, auto float drain P3NEA98GSABNN
1-1/2" Metal bowl, sight gauge, twist drain P3NEA9PGSMBNN
1-1/2" Metal bowl, sight gauge, auto float drain P3NEA9PGSABNN

* 1" port body with 1-1/2" port block.

Catalog 0700P-8
Air Preparation Products
P3N Products

For inventory, lead times, and kit lookup, visit www.pdnplu.com

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics
Material Specifications

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting stem</td>
<td>Steel</td>
</tr>
<tr>
<td>Body, bonnet, bowl</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Drain</td>
<td>Plastic</td>
</tr>
<tr>
<td>40 micron element (standard)</td>
<td>Plastic</td>
</tr>
<tr>
<td>5 micron element (optional)</td>
<td>Plastic</td>
</tr>
<tr>
<td>Adsorber element (optional)</td>
<td>Activated charcoal</td>
</tr>
<tr>
<td>Knob</td>
<td>Plastic</td>
</tr>
<tr>
<td>Piston</td>
<td>Plastic</td>
</tr>
<tr>
<td>Seals</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Sight gauge</td>
<td>Polyamide (nylon)</td>
</tr>
<tr>
<td>Poppet &amp; control, spring</td>
<td>Steel</td>
</tr>
</tbody>
</table>

Repair and Service Kits

- Metal bowl, sight gauge / auto float drain: P3NKA00BSA
- Metal bowl, sight gauge / twist drain: P3NKA00BSM
- Bowl latch kit: C11A33
- Control knob: P3NKA00PN
- Auto float drain: PS506P
- Twist drain: PS512P
- 40 micron element: P3NKA00ESG
- 5 micron element: P3NKA00ESE
- Adsorber element: P3NKA00ESA
- 2" dial face 60 psig (0 to 4.1 bar), gauge: K4520N14060
- 2" dial face 160 psig (0 to 11.0 bar), gauge: K4520N14160
- 2" dial face 300 psig (0 to 20.7 bar), gauge: K4520N14300
- 1-3/4" digital round face: K4517N14160D
- Mounting bracket kit*: P3NKA00MW
- Relieving: P3NKA00RR
- Non-relieving: P3NKA00RN
- Sight gauge kit: P3NKA00PE
- 1-60 psig spring: C10A1304
- 2-125 psig spring: C10A1308
- 5-250 psig spring: C10A1317

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

**WARNING**

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

**CAUTION:**

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.
**P3NL Mist Lubricators – Hi-Flow**

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Proportional oil delivery over a wide range of air flows
- Bowl can be filled while air line is under pressure
- Transparent sight dome for 360° visibility
- Integral 3/4", 1" ports (NPT, BSPP)

### Ordering information:

- **Engineering Level**: Current A
- **Port Type**
  - G Thread (BSPP) female 1*
  - NPT female 9
  - *3/4 & 1 inch meet ISO 1179-1 Standard.

### Operating information

- **Supply pressure (max)**: 250 psig (17.2 bar)
- **Operating temperature**: 32°F to 175°F (0°C to 80°C)
- **Flow capacity**: 3/4" 240 scfm (113.3 dm³/s, ANR)
  
  1" 250 scfm (118 dm³/s, ANR)
  
  1-1/2" 260 scfm (122.7 dm³/s, ANR)

- **Minimum flow**: 6.6 scfm (3.1 dm³/s, ANR) at 100 psig (6.9 bar)
- **Bowl capacity**: 18.0 oz.
- **Weight**: 3/4", 1" 3.5 lb (1.6 kg)
  
  1-1/2" 4.6 lb (2.1 kg)
  
  † scfm = Standard cubic feet per minute at 90 psig inlet and 5 psig pressure drop.

### Note: All configured BSPP ported units are supplied using NPT ported bodies and BSPP port block kits.

### Suggested Lubricant

**F442 Oil**

Petroleum based oil of 100 to 200 SUS viscosity at 100°F (38°C) and an aniline point greater than 200°F (93°C)

(Do not use oils with additives, compounded oils containing solvents, graphite, detergents, or synthetic oils.)
Material Specifications

Body, bowl: Aluminum
Injector meter block & base assembly: Plastic
Seals: Nitrile
Sight dome: Polycarbonate
Sight gauge: Polyamide (nylon)

Repair and Service Kits

Adjustment knob: P04121
Metal bowl / sight gauge / twist drain: P3NKA00BSM
Metal bowl / sight gauge / no drain: P3NKA00BSN
Bowl latch kit: C11A33
Twist drain kit: PS512P
Fill cap kit: P3NKA00PL
Sight dome kit, polycarbonate: PS740P
Sight dome kit, nylon: PS740N
Sight gauge kit: P3NKA00PE
Pressure fill adapter kit: P3NKA00PK
Service kit: P3NKA00RL
Mounting bracket kit*: P3NKA00MW
Oil (1 quart): F442001
Oil (1 gallon): F442002
Oil (12 quart case): F442003
Oil (4 gallon case): F442005

* If 1-1/2 BSPP E02 fittings are required, use P3NKA00BMW.

Air Preparation Products

P3N Products

Flow Charts

P3NL 3/4" Lubricator

P3NL 1" & 1-1/2" Lubricator

Material Specifications

Body, bowl: Aluminum
Injector meter block & base assembly: Plastic
Seals: Nitrile
Sight dome: Polycarbonate
Sight gauge: Polyamide (nylon)

Repair and Service Kits

Adjustment knob: P04121
Metal bowl / sight gauge / twist drain: P3NKA00BSM
Metal bowl / sight gauge / no drain: P3NKA00BSN
Bowl latch kit: C11A33
Twist drain kit: PS512P
Fill cap kit: P3NKA00PL
Sight dome kit, polycarbonate: PS740P
Sight dome kit, nylon: PS740N
Sight gauge kit: P3NKA00PE
Pressure fill adapter kit: P3NKA00PK
Service kit: P3NKA00RL
Mounting bracket kit*: P3NKA00MW
Oil (1 quart): F442001
Oil (1 gallon): F442002
Oil (12 quart case): F442003
Oil (4 gallon case): F442005

* If 1-1/2 BSPP E02 fittings are required, use P3NKA00BMW.
**Popular Combinations:** Inlet pressure 90 psig (6.2 bar), and 0.3 psig (5 bar) pressure drop.

### Filter/Regulator + Lubricator Combinations, metal bowl, manual twist drain

<table>
<thead>
<tr>
<th>Port size</th>
<th>Bowl type</th>
<th>Relief type</th>
<th>Manual twist drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCA96SGMNNLNA</td>
</tr>
<tr>
<td>1&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCA98SGMNNLNA</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCA9PSGMNNLNA</td>
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</tbody>
</table>

### Filter + Regulator + Lubricator Combinations, metal bowl, manual twist drain

<table>
<thead>
<tr>
<th>Port size</th>
<th>Bowl type</th>
<th>Relief type</th>
<th>Manual twist drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCB96SGMNNLNA</td>
</tr>
<tr>
<td>1&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCB98SGMNNLNA</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>Metal, twist drain</td>
<td>Relieving</td>
<td>P3NCB9PSGMNNLNA</td>
</tr>
</tbody>
</table>

**Notes:** All combo part numbers are with regulator knob in up position.

- BSPP ported units supplied using NPT ported bodies and BSPP port block kits.
- 1" Port body with 1-1/2" port block

### Ordering information:

```
<table>
<thead>
<tr>
<th>P3N</th>
<th>C</th>
<th>A</th>
<th>9</th>
<th>6</th>
<th>S</th>
<th>G</th>
<th>M</th>
<th>N</th>
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<th>L</th>
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<tr>
<td></td>
<td>2-unit, hi-flow, metal bowl</td>
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<tr>
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<td></td>
<td>1&quot; (w/o port blocks)</td>
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<td></td>
<td>1-1/2&quot; port blocks (w/ 1&quot; ported body)</td>
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<td>Metal bowl w/ sight gauge</td>
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</table>
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**Note:** All configured BSPP ported units are supplied using NPT ported bodies and BSPP port block kits.
Catalog 0700P-8
(Revised 02-12-18)

Modular Combinations

Repair and Service Kits

P3NCA (Modular 2-unit)

<table>
<thead>
<tr>
<th>Kit Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting bracket kit</td>
<td>P3NKA00MW</td>
</tr>
<tr>
<td>Replacement body cover</td>
<td>P3NKA00PM</td>
</tr>
<tr>
<td>Individual NPT 3/4&quot; Port block kits</td>
<td>P3NKB96CP</td>
</tr>
<tr>
<td>Individual NPT 1&quot; Port block kits</td>
<td>P3NKB98CP</td>
</tr>
<tr>
<td>Individual NPT 1-1/2&quot; Port block kits</td>
<td>P3NKB99CP</td>
</tr>
<tr>
<td>Individual BSPP 3/4&quot; Port block kits</td>
<td>P3NKB16CP</td>
</tr>
<tr>
<td>Individual BSPP 1&quot; Port block kits</td>
<td>P3NKB18CP</td>
</tr>
<tr>
<td>Individual BSPP 1-1/2&quot; Port block kits</td>
<td>P3NKB1BCP</td>
</tr>
<tr>
<td>Combination NPT 3/4&quot; Port block kits</td>
<td>P3NKB96CL</td>
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<tr>
<td>Combination NPT 1&quot; Port block kits</td>
<td>P3NKB98CL</td>
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<tr>
<td>Combination NPT 1-1/2&quot; Port block kits</td>
<td>P3NKB9BCL</td>
</tr>
<tr>
<td>Combination BSPP 3/4&quot; Port block kits</td>
<td>P3NKB16CL</td>
</tr>
<tr>
<td>Combination BSPP 1&quot; Port block kits</td>
<td>P3NKB18CL</td>
</tr>
<tr>
<td>Combination BSPP 1-1/2&quot; Port block kits</td>
<td>P3NKB1BCL</td>
</tr>
</tbody>
</table>

Note: 2-piece filter and regulator (F+R) assemblies require a (P3NKXXCCP) port block kit.

WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Modular Assembly

P3N (Modular 3-unit)
Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

⚠️ WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

1. GENERAL INSTRUCTIONS

1.1. Scope: This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters, Pressure Regulators, and Lubricators), Vacuum products and related accessory components.

1.2. Fail-Safe: Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.


1.4. Distribution: Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Parker valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

1.5. User Responsibility: Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Parker and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the appropriate valve, FRL, Vacuum component, or accessory.
- Assuring that all user’s performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
- Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
- Assuring compliance with all applicable government and industry standards.

1.6. Safety Devices: Safety devices should not be removed, or defeated.

1.7. Warning Labels: Warning labels should not be removed, painted over or otherwise obscured.

1.8. Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the product being considered or used, or call 1-800-CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

2.1. Flow Rate: The flow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate flow and pressure for the desired application.

2.2. Pressure Rating: Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.

2.3. Temperature Rating: Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.

2.4. Environment: Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can endanger the useful life and lead to premature failure of a product.

2.5. Lubrication and Compressor Carryover: Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.

2.6. Polycarbonate Bowls and Sight Glasses: To avoid potential polycarbonate bowl failures:

- Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
- Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
- Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.

For inventory, lead times, and kit lookup, visit www.pdnplu.com

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics
2.7. Chemical Compatibility: For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5.

2.8. Product Rupture: Product rupture can cause death, serious personal injury, and property damage.
- Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
- Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
- Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1. Component Inspection: Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.

3.2. Installation Instructions: Parker published Installation Instructions must be followed for installation of Parker valves, FRLs and vacuum components. These instructions are provided with every Parker valve or FRL sold, or by calling 1-800-CPARKER, or at www.parker.com.

3.3. Air Supply: The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1. Maintenance: Even with proper selection and installation, valve, FRL and vacuum products service life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.9.

4.2. Installation and Service Instructions: Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Parker valve and FRL sold, or are available by calling 1-800-CPARKER, or by accessing the Parker web site at www.parker.com.


4.4. Visual Inspection: Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
- Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
- Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
- Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air flow and lead to unpredictable system behavior.
- Any observed improper system or component function: Immediately shut down the system and correct malfunction.
- Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.

Caution: Leak detection solutions should be rinsed off after use.

4.5. Routine Maintenance Issues:
- Remove excessive dirt, grime and clutter from work areas.
- Make sure all required guards and shields are in place.

4.6. Functional Test: Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.

4.7. Service or Replacement Intervals: It is the user’s responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can significantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
- Previous performance experiences.
- Government and / or industrial standards.
- When failures could result in unacceptable down time, equipment damage or personal injury risk.

4.8. Servicing or Replacing of any Worn or Damaged Parts: To avoid unpredictable system behavior that can cause death, personal injury and property damage:
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
- Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
- Warnings and specifications on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.

4.9. Putting Serviced System Back into Operation: Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.
1. Definitions. As used herein, the following terms have the meanings indicated.

Buyer: means any customer receiving a Quote for Products from Seller.

Goods: means any tangible part, system or component to be supplied by the Seller.

Products: means the Goods, Services and/or Software as described in a Quote provided by the Seller.

Quote: means the offer or proposal made by Seller to Buyer for the supply of Products.

Seller: means Parker-Hannifin Corporation, including all divisions and businesses thereof.

Service: means any services to be supplied by the Seller.

Software: means any software related to the Products, whether embedded or separately provided.

Terms: means the terms and conditions of this Offer of Sale or any newer version of the same as published by Seller electronically at www.Parker.com or in any other form.

2. Terms. All sales of Products by Seller are contingent upon, and will be governed by, these Terms and, these Terms are incorporated into any Quote provided by Seller to any Buyer. Buyer’s order for any Products whether communicated to Seller verbally, in writing, by electronic date interface or other electronic means shall be deemed to be an offer to buy, and no modification to these Terms will be binding on Seller unless in writing and signed by an authorized representative of Seller.

3. Price; Payment. The Products set forth in Seller’s Quote are offered for sale at the prices indicated in Seller’s Quote. Unless otherwise specifically stated in Seller’s Quote, prices are valid for thirty (30) days. Seller does not include taxes or duties; Buyer agrees to pay all such taxes or duties. Seller reserves the right to modify prices at any time to adjust for any raw material price fluctuations. Unless otherwise specified by Seller, all prices are F.C.A. Seller’s facility (INCOTERMS 2010). All sales are contingent upon, and Buyer’s payment for all purchases is due thirty (30) days from the date of invoice. Buyer shall pay for all products, services and other things furnished by Seller; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller; failure to follow instructions, and specifications provided by Seller; (e) Seller’s obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products sold hereunder is subject to such a claim, Seller may, at its sole option and expense, (i) procure a non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation.

4. Warranty. The warranty related to the Products is as follows: (i) Goods are warranted against defects in material or workmanship for a period of twelve (12) months from the date of delivery or 2,000 hours of use, whichever occurs first; (ii) Services shall be performed in accordance with generally accepted practices and the degree of skill and care that is ordinarily exercised and the measurements and standards to be used for Services shall be determined and provided for in the written contract or purchase orders issued by Buyer for the goods; (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download; (iiii) Seller’s obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products sold hereunder is subject to such a claim, Seller may, at its sole option and expense, (i) procure a non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation.

5. Claim/Dispute Resolution. Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to the Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the non-conforming product is discovered by Buyer, and in all events within the time prescribed by law. Any claim alleging a breach of warranty shall be based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without remittance due date or date of delivery.

6. Limitation of Liability. In the event of a breach of Warranty, Seller will, at its option, Repair or replace the non-conforming product, re-perform the Services, or refund the purchase price paid within a reasonable period of time. In no event is Seller liable for any special, indirect, incidental, or consequential damages arising out of, or as the result of, the sale, delivery, non-delivery, services or repair of the Products, whether based on warranty, negligence, breach of contract, use of, or inability to use the products or any part thereof, Loss of data, identity, privacy, or confidentiality, or for anydamages or expenses of any nature incurred without limitation, to the cure of any Property Rights of a third party in the country of delivery of the Products by the Seller to the Buyer. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice Seller’s right to enforce that provision in the future. Invalidation of any provision hereof and the remaining provisions will remain in full force and effect.

7. Limitation of Liability. Seller shall not be liable for Buyer’s Property. Buyer shall be deemed to be a Security representative for Buyer if Seller determines, in its sole discretion, that it is necessary to protect the Seller’s interest in the Products. Buyer shall be responsible for any loss or damage to such property while it is in Seller’s possession or control.

8. Special Tools. Special Tooling includes but is not limited to tooling, jigs, fixtures and associated materials, manufactured or acquired for purposes of making the Products. Buyer shall not be entitled to retain any of such Special Tooling, save for the purposes of making the Products. Buyer shall not be entitled to receive or retain the Special Tooling, unless Buyer pays for all the costs of manufacture of such Special Tooling. In the absence of such payment, Buyer shall be subject to the liabilities and obligations associated with such Special Tooling.

9. Security Interest. To secure payment of all sums due, Seller retains a security interest in all Products delivered to Buyer and, Buyer’s acceptance of these Terms is deemed to be a Security agreement under the Uniform Commercial Code. Buyer agrees to execute and file on Buyer’s behalf all documents Seller deems necessary to perfect its security interest.

10. User Responsibility. The Buyer through its own analysis and testing, is solely responsible for making the final selection of the Products and ensuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. Buyer must analyze all aspects of the application and follow applicable industry standards, specifications, and instructions. Buyer is responsible for properly using the Products in accordance with Buyer’s intended use. Buyer’s failure to follow the instructions and specifications provided by Seller, or to use the Products for any reason; or (e) Buyer’s failure to comply with these Terms. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.

11. Cancellations and Changes. Buyer may not cancel or modify any order for any reason, except with Seller’s written consent. Any order that will be used to secure a lien on or against any Products or to secure any other security interest for which the designs are specified in whole or part by Buyer; or (iii) resulting from the use of patterns, tooling, equipment, plans, drawings, designs or specifications or other information or materials furnished by Buyer; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller; failure to follow instructions, and specifications provided by Seller; (e) Seller’s obligation to defend and indemnify Buyer. Buyer agrees to indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury, property damage, intellectual property or otherwise, by or on behalf of, or to, or asserted against, any Company employees, or any other person, arising out of: (a) improper selection, application, design, specification or other misuse of Products provided by Seller; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller’s use of specifications provided by Buyer for the design of information being requested for any reason; or (d) Buyer’s failure to comply with these Terms.

12. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights (“Intellectual Property Rights”) except as provided in this Section. Seller will defend its infringement or other property rights in the Products at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on a claim that Buyer has infringed any Intellectual Property Rights in the Products and that such infringement was materially contributed to by Seller’s failure to perform its obligations hereunder. Seller will not, unless otherwise agreed in writing and signed by an authorized representative of Seller.

13. Governing Law. These Terms and the sale and delivery of all Products are deemed to have taken place in Cuyahoga County, Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio, to the exclusive right to receive any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

14. Entire Agreement. These Terms, along with the terms set forth in each of the main body of a Quote and these Terms, the terms set forth in the main body of the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter hereof shall have no effect. These Terms may not be modified unless in writing and signed by an authorized representative of Seller.

15. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry standards, including without limitation, all laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio, to the exclusive right to receive any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

16. Governing Law. These Terms and the sale and delivery of all Products are deemed to have taken place in Cuyahoga County, Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio, to the exclusive right to receive any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

17. Entire Agreement. These Terms, along with the terms set forth in each of the main body of a Quote and these Terms, the terms set forth in the main body of the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter hereof shall have no effect. These Terms may not be modified unless in writing and signed by an authorized representative of Seller.

18. Governing Law. These Terms and the sale and delivery of all Products are deemed to have taken place in Cuyahoga County, Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio, to the exclusive right to receive any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.