

# AIR PREPARATION EQUIPMENT NAF INLINE FILTERS

## Features

- Pipe or Bracket Mounted Point of Use Filters
- Used in conjunction with NAR and NAL models
- Quick Release Bayonet Bowl Connection
- Easy Change Filter Elements
- Transparent Filter Bowl For Element Inspection
- Semi Automatic (pull for drain) or Fully Automatic Drain
- Modular Connection Technology



| NAF         |      | 3000      | 10        | D             |                |
|-------------|------|-----------|-----------|---------------|----------------|
| Series Type |      | Body Size | Port Size |               | Drain Type     |
| AF          | BSPP | 1000      | M5        | M5 (10-32UNF) | Semi-Automatic |
| NAF         | NPT  | 2000      | 01        | 1/8           | D              |
|             |      | 3000      | 02        | 1/4           |                |
|             |      | 4000      | 03        | 3/8           |                |
|             |      | 5000      | 04        | 1/2           |                |
|             |      |           | 06        | 3/4           |                |
|             |      |           | 10        | 1             |                |

| SPECIFICATIONS        |   |                            |                             |                            |                     |                             |
|-----------------------|---|----------------------------|-----------------------------|----------------------------|---------------------|-----------------------------|
| Model                 | 1000-M5   | 2000-01/02                 | 3000-02/03                  | 4000-03/04                 | 4000/06             | 5000-06/10                  |
| Port Size             | M5 (10-32UNF)   | 1/8 & 1/4                  | 1/4 & 3/8                   | 3/8 & 1/2                  | 3/4                 | 3/4 & 1                     |
| Filtration Efficiency | 25µ Sintered Bronze (5µ & 40µ Available + Polyethylene) |                            |                             |                            |                     |                             |
| Max Working Pressure  | 10bar(g) / 150psi(g)                                    |                            |                             |                            |                     |                             |
| Proof Pressure        | 15bar(g) / 220psi(g)                                    |                            |                             |                            |                     |                             |
| Working Temperature   | 5-60° / 41-140°F  |                            |                             |                            |                     |                             |
| Rated Flow            | 110l/min<br>4CFM  | 750l/min<br>27CFM          | 1500l/min<br>54CFM          | 4000l/min<br>143CFM        | 6000l/min<br>212CFM | 7000l/min<br>250CFM         |
| Weight                | 0.07kg / 0.15lb   | 0.19kg/0.4lb               | 0.29kg/0.6lb                | 0.55kg/1.2lb               | 0.58kg/1.3lb        | 1.08kg/2.4lb                |
| Liquid Capacity       | 4cm <sup>3</sup> /0.14oz                                | 15cm <sup>3</sup><br>0.5oz | 20cm <sup>3</sup><br>0.68oz | 45cm <sup>3</sup><br>1.5oz |                     | 130cm <sup>3</sup><br>4.4oz |
| Materials             | Body  | Die Cast Zinc              | Die Cast Aluminum           |                            |                     |                             |
|                       | Bowl  | Polycarbonate              |                             |                            |                     |                             |
|                       | Bowl Guard  | no bowl guard              |                             | Painted Steel              |                     |                             |

**Features**

- Pipe or Bracket Mounted Point of Use Pressure Regulators
- Panel Mount Feature
- Incorporated panel lock nut
- Includes Gauge and Mounting Bracket
- Used in conjunction with NAF and NAL models
- Mounts to other models using brackets
- Set pressure up to 10bar (g) or 150psi
- Die cast aluminum body
- Adjustment knob locks into position



| NAR         |      | 3000      | 10        |               |
|-------------|------|-----------|-----------|---------------|
| Series Type |      | Body Size | Port Size |               |
| AR          | BSPP | 1000      | M5        | M5 (10-32UNF) |
| NAR         | NPT  | 2000      | 01        | 1/8           |
|             |      | 3000      | 02        | 1/4           |
|             |      | 4000      | 03        | 3/8           |
|             |      | 5000      | 04        | 1/2           |
|             |      |           | 06        | 3/4           |
|             |      |           | 10        | 1             |

| SPECIFICATIONS            |                             |                   |                         |                     |                         |                     |
|---------------------------|-----------------------------|-------------------|-------------------------|---------------------|-------------------------|---------------------|
| Model                     | 1000-M5                     | 2000-01/02        | 3000-02/03              | 4000-03/04          | 4000/06                 | 5000-06/10          |
| Port Size                 | M5 (10-32UNF)               | 1/8 & 1/4         | 1/4 & 3/8               | 3/8 & 1/2           | 3/4                     | 3/4 & 1             |
| Pressure Gauge Port       | 1/16                        | 1/8               | 1/4                     |                     |                         |                     |
| Pressure Adjustment Range | 0.5-8.5bar(g) / 7-128psi(g) |                   |                         |                     |                         |                     |
| Max Working Pressure      | 10bar(g) / 150psi(g)        |                   |                         |                     |                         |                     |
| Proof Pressure            | 15bar(g) / 220psi(g)        |                   |                         |                     |                         |                     |
| Working Temperature       | 5-60° / 41-140°F            |                   |                         |                     |                         |                     |
| Rated Flow                | 100l/min<br>4CFM            | 550l/min<br>19CFM | 2500l/min<br>88CFM      | 6000l/min<br>212CFM |                         | 8000l/min<br>282CFM |
| Weight                    | 0.08kg / 0.18lb             | 0.27kg/0.6lb      | 0.41kg/0.9lb            | 0.84kg/1.8lb        | 0.94kg/2lb              | 1.19kg/2.6lb        |
| Materials                 | Body                        | Die Cast Zinc     | Die Cast Aluminum Alloy |                     |                         |                     |
|                           | Deck                        | Reinforced Nylon  |                         |                     | Die Cast Aluminum Alloy |                     |
|                           | Diaphragm                   | Nitrile Rubber    |                         |                     |                         |                     |

# AIR PREPARATION EQUIPMENT NAL AIR LUBRICATORS

## Features

- Pipe or Bracket Mounted Point of Use Lubricators
- Used in conjunction with NAF and NAR models
- Quick Release Bayonet Bowl Connection
- Adjustable Lubrication Rate
- Easy Change Filter Elements
- Transparent Oil Reservoir for Easy Inspection
- Modular Connection Technology



**NAL**

**3000**

**10**

| Series Type |      | Body Size | Port Size |               |
|-------------|------|-----------|-----------|---------------|
| AF          | BSPP | 1000      | M5        | M5 (10-32UNF) |
| NAF         | NPT  | 2000      | 01        | 1/8           |
|             |      | 3000      | 02        | 1/4           |
|             |      | 4000      | 03        | 3/8           |
|             |      | 5000      | 04        | 1/2           |
|             |      |           | 06        | 3/4           |
|             |      |           | 10        | 1             |

## SPECIFICATIONS

| Model                | 1000-M5                  | 2000-01/02                  | 3000-02/03                  | 4000-03/04                  | 4000/06             | 5000-06/10          |
|----------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|---------------------|
| Port Size            | M5 (10-32UNF)            | 1/8 & 1/4                   | 1/4 & 3/8                   | 3/8 & 1/2                   | 3/4                 | 3/4 & 1             |
| Max Working Pressure | 10bar(g) / 150psi(g)     |                             |                             |                             |                     |                     |
| Proof Pressure       | 15bar(g) / 220psi(g)     |                             |                             |                             |                     |                     |
| Working Temperature  | 5-60° / 41-140°F         |                             |                             |                             |                     |                     |
| Lubrication Oil      | ISOVG32 or Equivalent    |                             |                             |                             |                     |                     |
| Rated Flow           | 95l/min<br>3.5CFM        | 800l/min<br>28CFM           | 1700l/min<br>60CFM          | 5000l/min<br>177CFM         | 6300l/min<br>222CFM | 7000l/min<br>250CFM |
| Weight               | 0.07kg / 0.15lb          | 0.22kg/0.5lb                | 0.29kg/0.6lb                | 0.55kg/1.2lb                | 0.58kg/1.3lb        | 1.08kg/2.4lb        |
| Oil Capacity         | 7cm <sup>3</sup> /0.24oz | 25cm <sup>3</sup><br>0.85oz | 50cm <sup>3</sup><br>1.69oz | 130cm <sup>3</sup><br>4.4oz |                     |                     |
| Materials            | Body                     | Die Cast Zinc               | Die Cast Aluminum           |                             |                     |                     |
|                      | Bowl                     | Polycarbonate               |                             |                             |                     |                     |
|                      | Bowl Guard               | no bowl guard               |                             | Painted Steel               |                     |                     |

**Features**

- Pipe or Bracket Mounted Point of Use Pressure Regulators
- Panel Mount Feature
- Incorporated panel lock nut
- Includes Gauge and Mounting Bracket
- Used in conjunction with NAL models
- Mounts to NAL models using T type brackets
- Set pressure up to 10bar (g) or 150psi
- Die cast aluminum body
- Adjustment knob locks into position

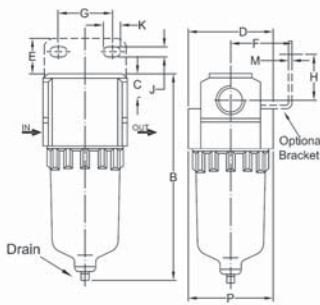


| NAW         |      | 3000      |  | 10        |               | D          |                |
|-------------|------|-----------|--|-----------|---------------|------------|----------------|
| Series Type |      | Body Size |  | Port Size |               | Drain Type |                |
| AW          | BSPP | 1000      |  | M5        | M5 (10-32UNF) |            | Semi-Automatic |
| NAW         | NPT  | 2000      |  | 01        | 1/8           | D          | Auto           |
|             |      | 3000      |  | 02        | 1/4           |            |                |
|             |      | 4000      |  | 03        | 3/8           |            |                |
|             |      | 5000      |  | 04        | 1/2           |            |                |
|             |      |           |  | 06        | 3/4           |            |                |
|             |      |           |  | 10        | 1             |            |                |

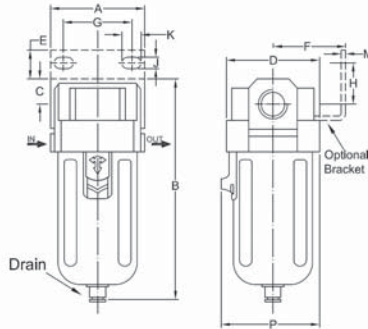
| SPECIFICATIONS            |   |                            |                             |                            |                     |                             |
|---------------------------|---|----------------------------|-----------------------------|----------------------------|---------------------|-----------------------------|
| Model                     | 1000-M5   | 2000-01/02                 | 3000-02/03                  | 4000-03/04                 | 4000/06             | 5000-06/10                  |
| Port Size                 | M5 (10-32UNF)   | 1/8 & 1/4                  | 1/4 & 3/8                   | 3/8 & 1/2                  | 3/4                 | 3/4 & 1                     |
| Filtration Efficiency     | 25µ Sintered Bronze (5µ & 40µ Available + Polyethylene) |                            |                             |                            |                     |                             |
| Pressure Adjustment Range | 0.5-8.5bar(g) / 7-128psi(g)                             |                            |                             |                            |                     |                             |
| Max Working Pressure      | 10bar(g) / 150psi(g)                                    |                            |                             |                            |                     |                             |
| Proof Pressure            | 15bar(g) / 220psi(g)                                    |                            |                             |                            |                     |                             |
| Working Temperature       | 5-60° / 41-140°F  |                            |                             |                            |                     |                             |
| Rated Flow                | 110l/min<br>4CFM  | 550l/min<br>20CFM          | 2000l/min<br>71CFM          | 4000l/min<br>143CFM        | 4500l/min<br>159CFM | 5500l/min<br>197CFM         |
| Weight                    | 0.09kg / 0.20lb   | 0.36kg/0.8lb               | 0.56kg/1.2lb                | 1.09kg/2.4lb               | 1.15kg/2.5lb        | 1.71kg/3.7lb                |
| Liquid Capacity           | 4cm <sup>3</sup><br>0.14oz                              | 15cm <sup>3</sup><br>0.5oz | 20cm <sup>3</sup><br>0.68oz | 45cm <sup>3</sup><br>1.5oz |                     | 130cm <sup>3</sup><br>4.4oz |
| Materials                 | Body  | Die Cast Zinc              | Die Cast Aluminum           |                            |                     |                             |
|                           | Bowl  | Polycarbonate              |                             |                            |                     |                             |
|                           | Bowl Guard  | no bowl guard              |                             | Painted Steel              |                     |                             |
|                           | Diaphragm   | Nitrile Rubber             |                             |                            |                     |                             |

| NAF FILTER Dimensions (mm) |    |     |    |    |    |    |    |    |     |      |     |    |
|----------------------------|----|-----|----|----|----|----|----|----|-----|------|-----|----|
| Model                      | A  | B   | C  | D  | E  | F  | G  | H  | J   | K    | M   | P  |
| 1000-M5                    | 25 | 66  | 7  | 25 | -  | -  | -  | -  | -   | -    | -   | 27 |
| 2000-01/02                 | 40 | 98  | 11 | 40 | 17 | 30 | 27 | 22 | 5.4 | 8.4  | 2.3 | 40 |
| 3000-02/03                 | 53 | 133 | 14 | 53 | 16 | 41 | 40 | 23 | 6.5 | 8    |     | 56 |
| 4000-03/04                 | 70 | 169 | 18 | 70 | 17 | 50 | 54 | 26 | 8.5 | 10.5 |     | 73 |
| 4000-06                    | 75 | 173 | 20 | 70 | 14 | 50 |    | 25 |     |      | 90  |    |
| 5000-06/10                 | 90 | 248 | 24 | 90 | 23 | 70 | 66 | 35 | 11  | 13   | 3.2 | 90 |

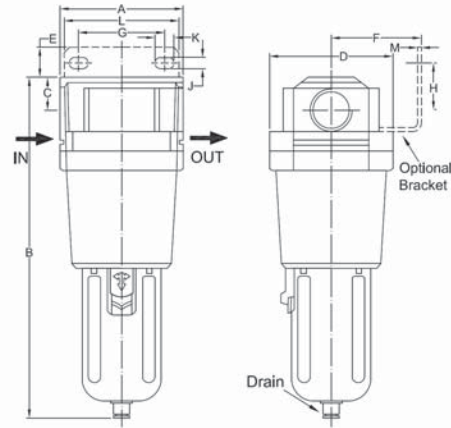
1000 & 2000 Series



3000 & 4000 Series

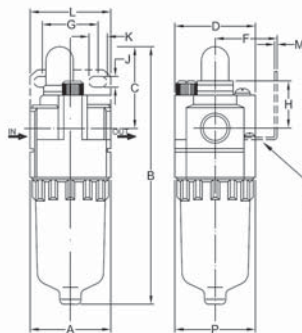


5000 Series

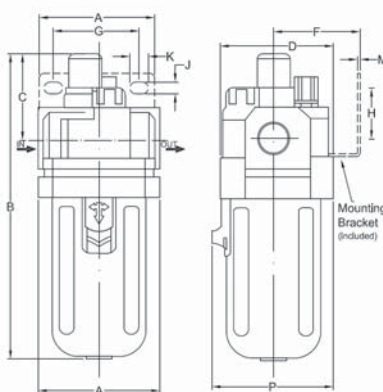


| NAL LUBRICATOR Dimensions (mm) |    |     |    |    |    |    |    |    |     |      |     |    |
|--------------------------------|----|-----|----|----|----|----|----|----|-----|------|-----|----|
| Model                          | A  | B   | C  | D  | E  | F  | G  | H  | J   | K    | M   | P  |
| 1000-M5                        | 25 | 66  | 7  | 25 | -  | -  | -  | -  | -   | -    | -   | 27 |
| 2000-01/02                     | 40 | 98  | 11 | 40 | 17 | 30 | 27 | 22 | 5.4 | 8.4  | 2.3 | 40 |
| 3000-02/03                     | 53 | 133 | 14 | 53 | 16 | 41 | 40 | 23 | 6.5 | 8    |     | 56 |
| 4000-03/04                     | 70 | 169 | 18 | 70 | 17 | 50 | 54 | 26 | 8.5 | 10.5 |     | 73 |
| 4000-06                        | 75 | 173 | 20 | 70 | 14 | 50 |    | 25 |     |      | 90  |    |
| 5000-06/10                     | 90 | 248 | 24 | 90 | 23 | 70 | 66 | 35 | 11  | 13   | 3.2 | 90 |

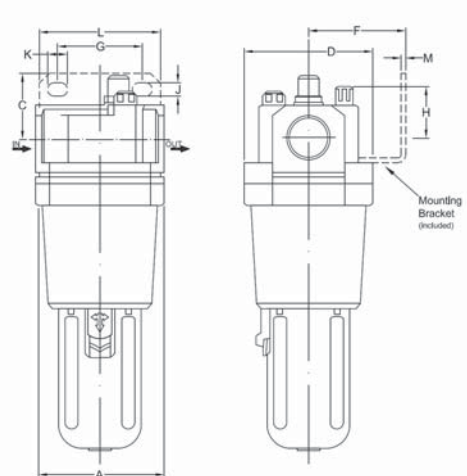
NAL1000 & 2000



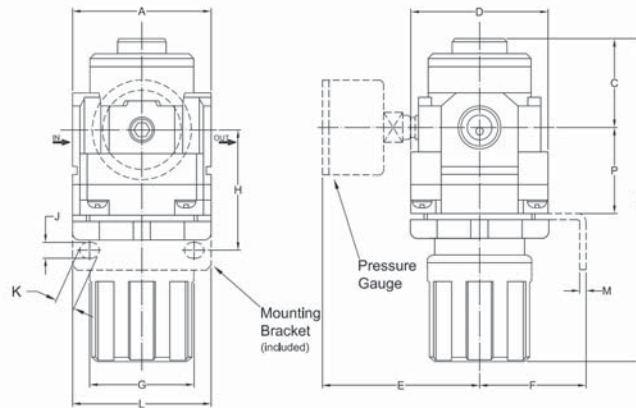
NAL3000 & 4000



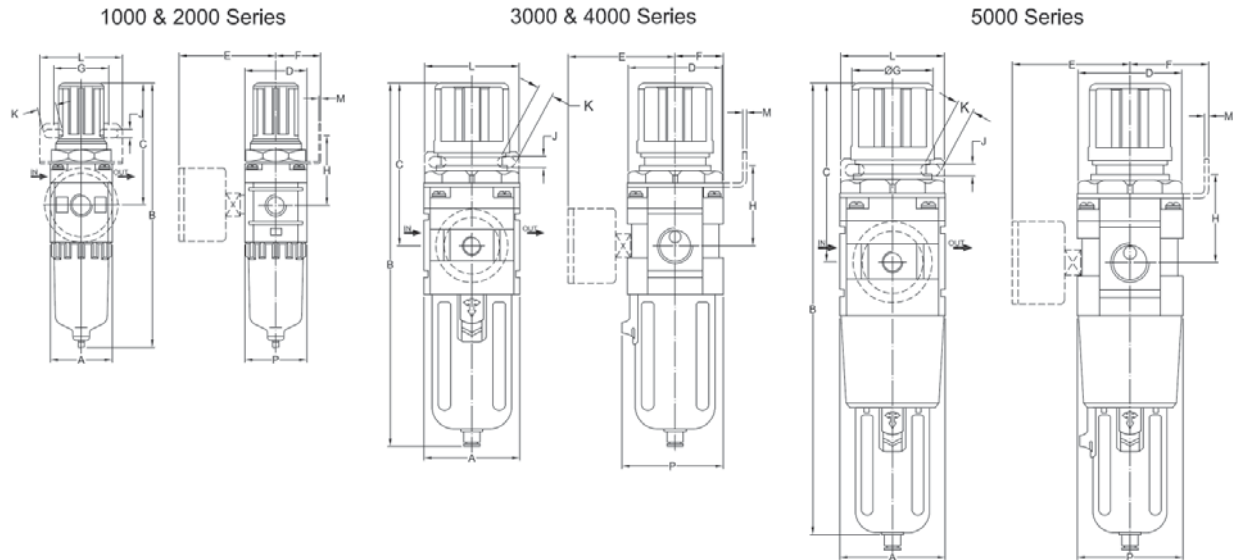
NAL5000



| NAR REGULATOR Dimensions (mm) |    |     |    |    |    |    |    |     |     |      |    |     |    |
|-------------------------------|----|-----|----|----|----|----|----|-----|-----|------|----|-----|----|
| Model                         | A  | B   | C  | D  | E  | F  | G  | H   | J   | K    | L  | M   | N  |
| 1000-M5                       | 25 | 62  | 11 | 25 | 26 | 28 | 30 | 4.5 | 6.5 | 6.5  | 40 | 2   | 21 |
| 2000-01/02                    | 40 | 95  | 17 | 40 | 57 | 30 | 34 | 45  | 5.4 | 15   | 55 | 2.3 | 34 |
| 3000-02/03                    | 53 | 128 | 35 | 53 | 61 | 41 | 40 | 46  | 6.5 | 8    | 53 |     | 43 |
| 4000-03/04                    | 70 | 150 | 38 | 70 | 66 | 50 | 54 | 54  | 8.5 | 10.5 | 70 |     | 53 |
| 4000-06                       | 75 | 155 | 41 | 70 | 70 | 50 | 54 | 56  |     |      | 70 |     |    |
| 5000-06/10                    | 90 | 168 | 48 | 90 | 76 | 70 | 66 | 66  | 11  | 13   | 90 | 3.2 |    |



| NAW FILTER REGULATOR Dimensions (mm) |    |     |     |    |    |    |    |    |     |      |    |     |    |
|--------------------------------------|----|-----|-----|----|----|----|----|----|-----|------|----|-----|----|
| Model                                | A  | B   | C   | D  | E  | F  | G  | H  | J   | K    | L  | M   | P  |
| 1000-M5                              | 25 | 110 | 51  | 25 | 26 | 25 | 28 | 30 | 4.5 | 6.5  | 40 | 2   | 28 |
| 2000-01/02                           | 40 | 165 | 78  | 40 | 57 | 30 | 34 | 45 | 5.4 | 15.4 | 55 | 2.3 | 40 |
| 3000-02/03                           | 53 | 211 | 93  | 53 | 61 | 41 | 40 | 46 | 6.5 | 8    | 53 |     | 56 |
| 4000-03/04                           | 70 | 263 | 112 | 70 | 71 | 50 | 54 | 54 | 8.5 | 11   | 70 |     | 73 |
| 4000-06                              | 75 | 267 | 114 |    |    |    | 74 | 56 |     |      |    | 90  |    |
| 5000-06/10                           | 90 | 338 | 116 | 90 | 76 | 50 | 54 | 62 |     |      |    |     | 90 |



## Spare Mounting Brackets

| Filters & Lubricators |                  |
|-----------------------|------------------|
| Model                 | Bracket Part Ref |
| NAF/NAL1000-M5        | n/a              |
| NAF/NAL2000-01/02     | B240             |
| NAF/NAL3000-02/03     | B340             |
| NAF/NAL4000-03/04     | B440             |
| NAF/NAL4000-06        | B540             |
| NAF/NAL5000-06/10     | B640             |



| Regulators & Filter Regulators |                  |
|--------------------------------|------------------|
| Model                          | Bracket Part Ref |
| NAF/NAL1000                    | n/a              |
| NAF/NAL2000                    | B220             |
| NAF/NAL3000                    | B320             |
| NAF/NAL4000                    | B420             |
| NAF/NAL5000                    |                  |



## FRL Brackets for Modular Construction And Wall Mounting

The typical FRL, Filter + Regulator + Lubricator, shown on the right uses two “L” brackets to join the regulator to the filter and the lubricator. These two brackets can then be attached to a wall or machine panel.

The table below shows what is required to make an assembly using the two brackets.



| Assembly Reference | Filter Model  | Bracket | Regulator     | Bracket | Lubricator    |
|--------------------|---------------|---------|---------------|---------|---------------|
| NAC2000-01/02      | NAF2000-01/02 | B210L   | NAR2000-01/02 | B210L   | NAL2000-01/02 |
| NAC3000-02/03      | NAF3000-02/03 | B310L   | NAR3000-02/03 | B310L   | NAL3000-02/03 |
| NAC4000-03/04      | NAF4000-03/04 | B410L   | NAR4000-03/04 | B410L   | NAL4000-03/04 |
| NAC4000-06         | NAF4000-06    | B510L   | NAR4000-06    | B510L   | NAL4000-06    |
| NAC5000-06/10      | NAF5000-06/10 | B610L   | NAR5000-06/10 | B610L   | NAL5000-06/10 |

## Filter Regulator Brackets for Modular Construction And Wall Mounting

The Filter Regulator shown on the right uses one “T” style bracket for modular connection and wall or machine panel mounting.

The table below shows what is required to make an assembly using the two brackets.



| Assembly Reference | Filter Regulator | Bracket | Lubricator    |
|--------------------|------------------|---------|---------------|
| NAC2010-01/02      | NAW2000-01/02    | B210T   | NAL2000-01/02 |
| NAC3010-02/03      | NAW3000-02/03    | B310T   | NAL3000-02/03 |
| NAC4010-03/04      | NAW4000-03/04    | B410T   | NAL4000-03/04 |
| NAC4010-06         | NAW4000-06       | B510T   | NAL4000-06    |
| NAC5010-06/10      | NAW5000-06/10    | B610T   | NAL5000-06/10 |

| REPLACEMENT FILTER NAF/NAWS |                               |
|-----------------------------|-------------------------------|
| NAF/NAW                     | Description                   |
| FE2000-25                   | NAF/NAW 2000 SERIES 25 MICRON |
| FE2000-40                   | NAF/NAW 2000 SERIES 40 MICRON |
| FE2000-5                    | NAF/NAW 2000 SERIES 5 MICRON  |
| FE3000-25                   | NAF/NAW 3000 SERIES 25 MICRON |
| FE3000-40                   | NAF/NAW 3000 SERIES 40 MICRON |
| FE3000-5                    | NAF/NAW 3000 SERIES 5 MICRON  |
| FE4000-25                   | NAF/NAW 4000 SERIES 25 MICRON |
| FE4000-40                   | NAF/NAW 4000 SERIES 40 MICRON |
| FE4000-5                    | NAF/NAW 4000 SERIES 5 MICRON  |
| FE5000-25                   | NAF/NAW 5000 SERIES 25 MICRON |
| FE5000-40                   | NAF/NAW 5000 SERIES 40 MICRON |
| FE5000-5                    | NAF/NAW 5000 SERIES 5 MICRON  |



| SAFETY LOCK OUT VALVES |             |           |                            |
|------------------------|-------------|-----------|----------------------------|
| Model                  | Supply Port | Vent Port | Use with This Model Series |
| SLO2000-01             | 1/8NPT      | 1/8NPT    | 2000-01                    |
| SLO2000-02             | 1/4NPT      | 1/8NPT    | 2000-02                    |
| SLO3000-02             | 1/4NPT      | 1/4NPT    | 3000-02                    |
| SLO3000-03             | 3/8NPT      | 1/4NPT    | 3000-03                    |
| SLO4000-03             | 3/8NPT      | 3/8NPT    | 4000-03                    |
| SLO4000-04             | 1/2NPT      | 3/8NPT    | 4000-04                    |
| SLO5000-06             | 3/4NPT      | 3/8NPT    | 5000-06                    |
| SLO5000-10             | 1NPT        | 3/8NPT    | 5000-10                    |

The safety lock out valves are used to isolate machinery that the FRL assembly is attached to from the compressed air supply. This helps the user to comply to OSHA 29 CFR 1910.147. The relieving feature of these valves “dumps” air in the machinery to allow safe inspection or maintenance. The valves are able to be locked in the shut off position using a padlock type device or maintenance lock out tool.

