

- NOTES:
1. STAINLESS STEEL WOVEN MESH ELEMENTS ARE BUBBLE POINT TESTED PER NFC DEN02-12
  2. PARTS ARE CLEANED TO ASSEMBLY PER NFC OPMF-500
  3. ASSEMBLY PER NFC PSM04-05
  4. BOM CONTROLLED PER DMF01-01
  5. SEE PAGE 2 FOR BOM
  6. SINTERED MEDIA DATA REFERENCED TO MOTT LITERATURE; PARTICLE EFFICIENCY 99.9% OR HIGHER
  7. OUTER DIAMETER DIMENSIONS [REFERENCE ONLY]. SEE PIECE PART DRAWINGS FOR TOLERANCING

| REVISIONS    |  |           |          |
|--------------|--|-----------|----------|
| DRAWING REV. | DESCRIPTION  | DATE      | APPROVED |
| L            | ECO 1657: UPDATED 17-4 HEAT TREAT FROM H900 TO H1150       | 5/8/18    | KH       |
| M            | ECO 1684: UPDATED FILTRATION RATINGS                       | 6/26/2018 | AO       |
| N            | ECO 2153: UPDATED WORKING MATERIAL CODE 3 TO INCLUDE MONEL | 6/6/2019  | LW       |
| O            | ECO 2347: MEDIA GRADE 02 ADDED                             | 9/27/19   | JB       |
| O1           | ECO 2786: UPDATED MICRON RATING OPTIONS                    | 3/10/2020 | JB       |
| O2           | ECO 2788: UPDATED TEFLON TO PTFE                           | 6/3/2020  | DJ       |
| O3           | ECO 3254: BROKE OUT NICKEL MICRON CODES                    | 8/13/2020 | CD       |

**TABLE 1 - WORKING MATERIAL**

| CODE 1 | WORKING PRESSURE | MATERIAL  |
|--------|------------------|---|
| 3      | 3000 PSI         | 6061-T651 ALUMINUM PER AMS QQ-A-200/8 ANODIZED PER MIL-A-8625 TYPE II CLASS 2 CHEM FILM RACK MARKS PER MIL-DTL-5541 |
|        |                  | 303 S.S. PER AMS QQ-S-763   |
|        |                  | 316/316L S.S. PER AMS QQ-S-763  |
|        |                  | BRASS C3600   |
|        |                  | MONEL 405 PER ASTM B164   |
| 4      | 6000PSI          | 17-4 PH STAINLESS STEEL CONDITION H1150 PER ASTM A 564/564M   |
|        |                  | 316/316L S.S. PER AMS QQ-S-763  |
|        |                  | MONEL 405 PER ASTM B164   |

**TABLE 3 - HOUSING MATERIAL**

| CODE 3 | HOUSING MATERIAL   |
|--------|--|
| A      | 6061-T651 ALUMINUM PER AMS QQ-A-200/8 ANODIZED PER MIL-A-8625 TYPE II CLASS 2 CHEM FILM RACK MARKS PER MIL-DTL-5541                |
| G      | FOR 3000 PSI RATING: 303 S.S. PER AMS QQ-S-763<br>FOR 6000 PSI RATING: 17-4 PH STAINLESS STEEL CONDITION H1150 PER ASTM A 564/564M |
| T      | 316/316L S.S. PER AMS QQ-S-763   |
| B      | BRASS C3600  |
| M      | MONEL 405 PER ASTM B164  |

**TABLE 4 - ELEMENT**

| ELEMENT MATERIAL |  | MICRON RATING |         |            | COLLAPSE PRESSURE |                   |
|------------------|--|---------------|---------|------------|-------------------|-------------------|
| CODE 4a          | MATERIAL   | CODE 4b       | NOMINAL | ABSOLUTE   | CODE 4c           | COLLAPSE PRESSURE |
| F                | GLASS FIBER  | B1            | --      | 1          | C                 | 3250 [PSID]       |
|                  |  | B3            | --      | 3          |                   |                   |
|                  |  | B5            | --      | 5          |                   |                   |
|                  |  | B10           | --      | 10         |                   |                   |
|                  |  | B25           | --      | 25         |                   |                   |
| G                | PLEATED WOVEN WIRE MESH 316L STAINLESS STEEL MATERIAL PER AMS QQ-S-763 | 2X            | 2       | 10         | V                 | 4500 [PSID]       |
|                  |  | 02            | 2       | 12         |                   |                   |
|                  |  | 05            | 5       | 18         |                   |                   |
|                  |  | 10            | 10      | 25         |                   |                   |
|                  |  | 20            | 20      | 40         |                   |                   |
|                  |  | 40            | 40      | 75         |                   |                   |
|                  |  | 75            | 75      | 100        |                   |                   |
| R                | RANDOM METAL FIBER 316L STAINLESS STEEL METAL PER ASTM A-555           | 1             | --      | 1          | E                 | 4500 [PSID]       |
|                  |  | 3             | --      | 3          |                   |                   |
|                  |  | 5             | --      | 5          |                   |                   |
|                  |  | 10            | --      | 10         |                   |                   |
|                  |  | 20            | --      | 20         |                   |                   |
| B                | SINTERED TIN/BRONZE  | 10            | --      | 10         | X                 | 1500 [PSID]       |
|                  |  | 75            | 75      | 150        |                   |                   |
|                  |  | 100           | 100     | 200        |                   |                   |
| W                | NICKEL 200/201 WIRE MESH   | 10            | 10      | 25         | V                 | 4500 [PSID]       |
|                  |  | 75            | 75      | 150        |                   |                   |
|                  |  | 100           | 100     | 200        |                   |                   |
| ELEMENT MATERIAL |  | MICRON RATING |         |            | COLLAPSE PRESSURE |                   |
| CODE 4a          | MATERIAL   | CODE 4b       | GAS ABS | LIQUID ABS | CODE 4c           | COLLAPSE PRESSURE |
| P                | POROUS SINTERED 316L STAINLESS STEEL                                   | 0.2           | 0.2     | 1.4        | F                 | 3000 [PSID]       |
|                  |  | 0.5           | 0.3     | 2.2        |                   |                   |
|                  |  | 1             | 0.7     | 3.3        |                   |                   |
|                  |  | 2             | 2       | 9          |                   |                   |
|                  |  | 5             | 5       | 13         |                   |                   |
| N                | NICKEL 200/201 SINTERED  | 2             | 2       | 9          | K                 | 3000 [PSID]       |
|                  |  | 5             | 5       | 13         |                   |                   |
|                  |  | 10            | 13      | 20         |                   |                   |

**TABLE 2 - END FITTING SELECTION CHART**

| CASE                          | PLUG          | TUBE SIZE - 1/4" DASH SIZE - '4' PIPE SIZE - N/A |              | TUBE SIZE - 3/8" DASH SIZE - '6' PIPE SIZE - 1/8" |              | TUBE SIZE - 1/2" DASH SIZE - '8' PIPE SIZE - 1/4" |              | TUBE SIZE - 3/4" DASH SIZE - '12' PIPE SIZE - 1/2" |              | TUBE SIZE - 1" DASH SIZE - '16' PIPE SIZE - 3/4" |              |
|-------------------------------|---------------|--|--------------|---|--------------|---|--------------|--|--------------|--|--------------|
|                               |               | CODE 2a  | BODY LENGTH  | CODE 2a   | BODY LENGTH  | CODE 2a   | BODY LENGTH  | CODE 2a  | BODY LENGTH  | CODE 2a  | BODY LENGTH  |
| END CONNECTIONS               |               | OUTER DIAMETER - 1.250"                          |              | OUTER DIAMETER - 1.750"                           |              | OUTER DIAMETER - 1.750"                           |              | OUTER DIAMETER - 2.250"                            |              | OUTER DIAMETER - 2.500"                          |              |
| INLET                         | OUTLET        |  |              |   |              |   |              |  |              |  |              |
| FNPT                          | FNPT          |  |              | 22  | 4.750 ± .020 | 23  | 6.000 ± .015 | 25   | 7.750 ± .020 | 26   | 8.75 ± .030  |
| FNPT                          | F O-RING THD. |  |              | 92  | 4.750 ± .035 | 93  | 6.000 ± .020 | 95   | 7.750 ± .020 | 96   | 8.750 ± .015 |
| FNPT                          | M O-RING THD. |  | N/A          | 52  | 4.625 ± .035 | 53  | 5.875 ± .030 | 55   | 7.562 ± .030 | 56   | 8.625 ± .030 |
| FNPT                          | M 37° FLARE*  |  |              | 152   | 4.625 ± .035 | 153   | 5.875 ± .030 | 155  | 7.562 ± .030 | 156  | 8.625 ± .030 |
| F O-RING THD.                 | FNPT          |  | N/A          | 162   | 4.750 ± .015 | 163   | 6.000 ± .015 | 165  | 7.750 ± .020 | 166  | 8.750 ± .035 |
| F O-RING THD.                 | F O-RING THD. | 11   | 4.810 ± .030 | 12  | 4.750 ± .030 | 13  | 6.000 ± .020 | 15   | 7.750 ± .020 | 16   | 8.750 ± .020 |
| F O-RING THD.                 | M O-RING THD. | 61   | 4.560 ± .030 | 62  | 4.625 ± .030 | 63  | 5.875 ± .030 | 65   | 7.562 ± .030 | 66   | 8.625 ± .035 |
| F O-RING THD.                 | M 37° FLARE*  | 101  | 4.560 ± .030 | 102   | 4.625 ± .030 | 103   | 5.875 ± .030 | 105  | 7.562 ± .030 | 106  | 8.625 ± .035 |
| M O-RING THD.                 | FNPT          |  | N/A          | 72  | 4.380 ± .010 | 73  | 5.625 ± .010 | 75   | 7.188 ± .015 | 76   | 8.375 ± .025 |
| M O-RING THD.                 | F O-RING THD. | 81   | 4.370 ± .025 | 82  | 4.380 ± .025 | 83  | 5.625 ± .015 | 85   | 7.188 ± .015 | 86   | 8.375 ± .010 |
| M O-RING THD.                 | M O-RING THD. | 141  | 4.120 ± .025 | 142   | 4.255 ± .025 | 143   | 5.500 ± .025 | 145  | 7.000 ± .025 | 146  | 8.250 ± .025 |
| M O-RING THD.                 | M 37° FLARE*  | 171  | 4.120 ± .025 | 172   | 4.255 ± .025 | 173   | 5.500 ± .025 | 175  | 7.000 ± .025 | 176  | 8.25 ± .025  |
| M 37° FLARE*                  | FNPT          |  | N/A          | 112   | 4.297 ± .010 | 113   | 5.625 ± .010 | 115  | 7.188 ± .015 | 116  | 8.375 ± .025 |
| M 37° FLARE*                  | F O-RING THD. | 121  | 4.370 ± .025 | 122   | 4.297 ± .025 | 123   | 5.625 ± .015 | 125  | 7.188 ± .015 | 126  | 8.375 ± .010 |
| M 37° FLARE*                  | M O-RING THD. | 131  | 4.120 ± .025 | 132   | 4.255 ± .025 | 133   | 5.500 ± .025 | 135  | 7.000 ± .025 | 136  | 8.250 ± .025 |
| M 37° FLARE*                  | M 37° FLARE*  | 41   | 4.120 ± .025 | 42  | 4.255 ± .025 | 43  | 5.500 ± .025 | 45   | 7.000 ± .025 | 46   | 8.25 ± .025  |
| <b>ELEMENT SIZE CODE - 2b</b> |               | 411  |              | 412   |              | 413   |              | 415  |              | 416  |              |
| MINIMUM WALL THICKNESS "t"    |               | .267   |              | .308  |              | .328  |              | .345   |              | .365   |              |

FEMALE O-RING THREADS CUT PER **AS - 5202**  
 MALE O-RING THREADS CUT PER **AS - 930**  
 MALE 37° FLARE CUT PER **AS - 4395**

**TABLE 5 - O-RING MATERIAL**

| CODE 5 | MATERIAL               |
|--------|------------------------|
| M      | PTFE                   |
| M1     | PTFE PER AMS 3678C-1-B |
| E      | ETHYL. PROP.           |
| E1     | V1238-95               |
| S      | SILICONE               |
| L      | BUNA-N 70 DUROMETER    |
| K      | BUNA 90 DUROMETER      |
| HNBR   | HNBR                   |
| H      | KALREZ-4079            |
| N      | VITON                  |
| MN     | PTFE COATED VITON      |
| P      | POLYPROPYLENE          |

VITON AND KALREZ ARE REG. T.M. OF DUPONT CORP.

**TABLE 6 - ACCESSORIES (OPTIONAL)**

| CODE 6  | DESCRIPTION    |
|---------|----------------|
| AS-1098 | SEAL CUT       |
| LW      | LOCKWIRE HOLES |

4300/4400 ASSEMBLY KIT:  1  2a  3  4a  4b  4c  5  6

EXAMPLE:  4  4  11  T  F -  B5  C  H -  LW

REPLACEMENT SEAL KIT:  KIT -  43 -  44  -

EXAMPLE:  KIT -  43 -  44  11 -  H

REPLACEMENT ELEMENT KIT:  2b  4a -  4b  4c  5

EXAMPLE:  411  F  B5  C  H

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ON:  
 2 PLACE DECIMAL: .XX +/-0.01  
 3 PLACE DECIMAL: .XXX +/-0.005  
 ANGULAR: +/- 0.5°

-----  
 PART TO BE FREE OF BURRS  
 REMOVE SHARP EDGES (FILLET 0.005" - 0.020") MEASUREMENT NOT REQUIRED  
 SURFACE FINISH 125 Ra UNLESS NOTED, VISUAL INSPECTION ONLY REQUIRED  
 IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.  
 NFC WORKMANSHIP STANDARD DMF01-24 APPLIES



TITLE: 4300/4400 SERIES ASSEMBLY

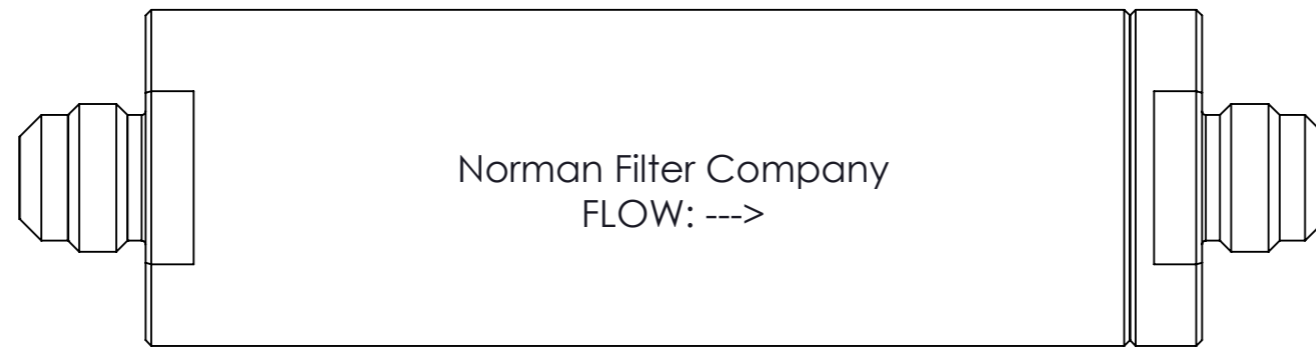
PART NUMBER: TABULATED

DWG NO. 4300-4400-ASSM

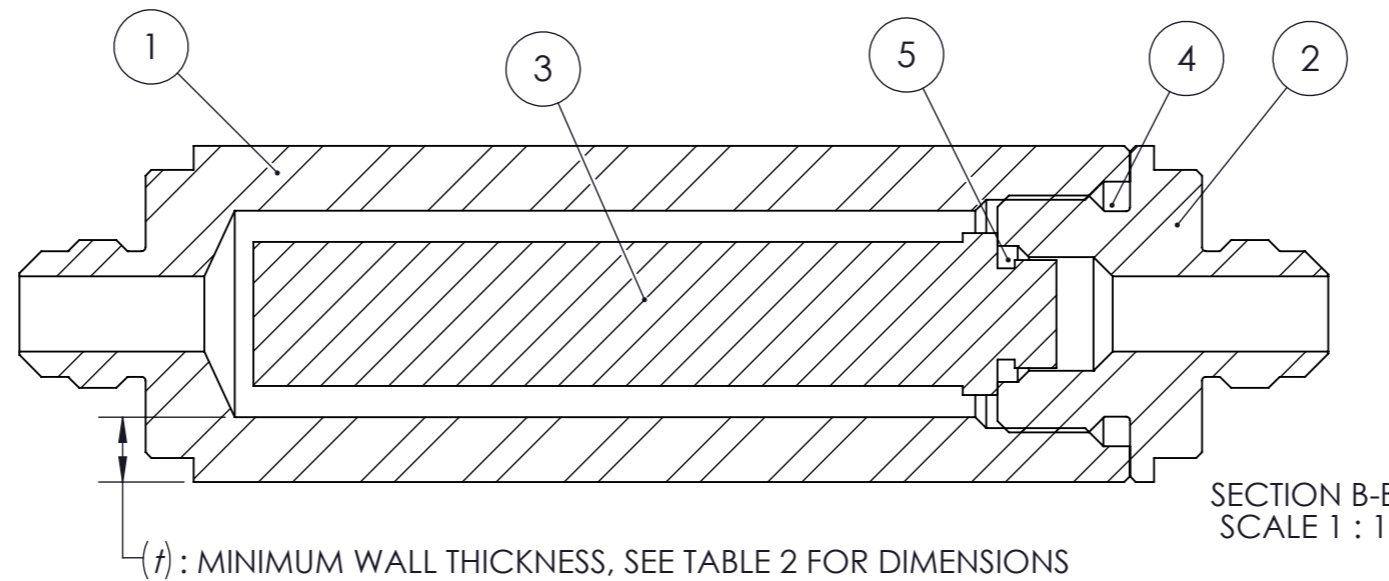
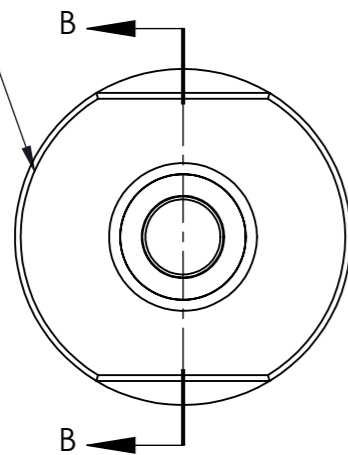
CAGE CODE 59165

SIZE A3

PART REV: O3

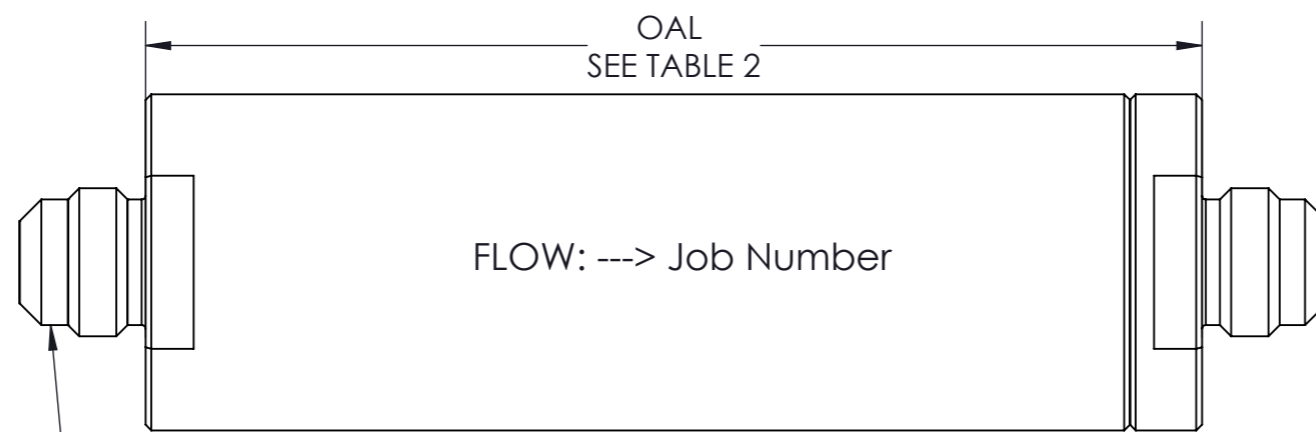


Ø OUTER DIAMETER ±  $\frac{.010}{.040}$   
SEE TABLE 2



\*NOTE: CONTACT NFC SALES FOR PN'S

| BILL OF MATERIALS |                     |      |
|-------------------|---------------------|------|
| ITEM #            | DESCRIPTION         | QTY. |
| ①                 | FILTER HOUSING CASE | 1    |
| ②                 | FILTER HOUSING PLUG | 1    |
| ③                 | ELEMENT             | 1    |
| ④                 | PLUG O-RING         | 1    |
| ⑤                 | ELEMENT O-RING      | 1    |



Markings:

Label Information:  
  
P/N  
Filtration  
Operating Pressure  
Element

EXAMPLE FITTINGS ONLY:  
SEE TABLE 2 FOR FITTING OPTIONS

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES

TOLERANCES ON:  
2 PLACE DECIMAL: .XX +/-0.01  
3 PLACE DECIMAL: .XXX +/-0.005  
ANGULAR: +/- 0.5°

-----  
PART TO BE FREE OF BURRS  
REMOVE SHARP EDGES (FILLET 0.005" - 0.020") MEASUREMENT NOT REQUIRED  
SURFACE FINISH 125 Ra UNLESS NOTED, VISUAL INSPECTION ONLY REQUIRED  
IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.  
NFC WORKMANSHIP STANDARD DMF01-24 APPLIES



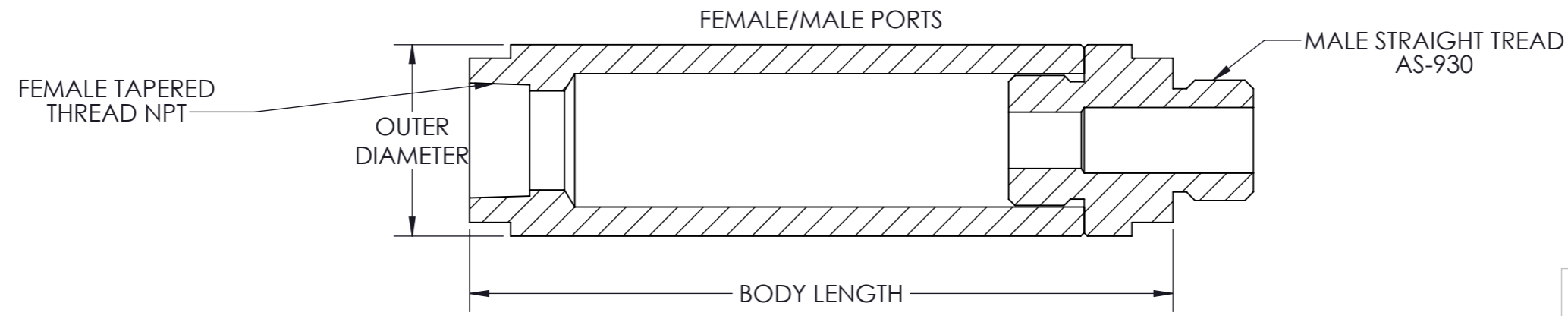
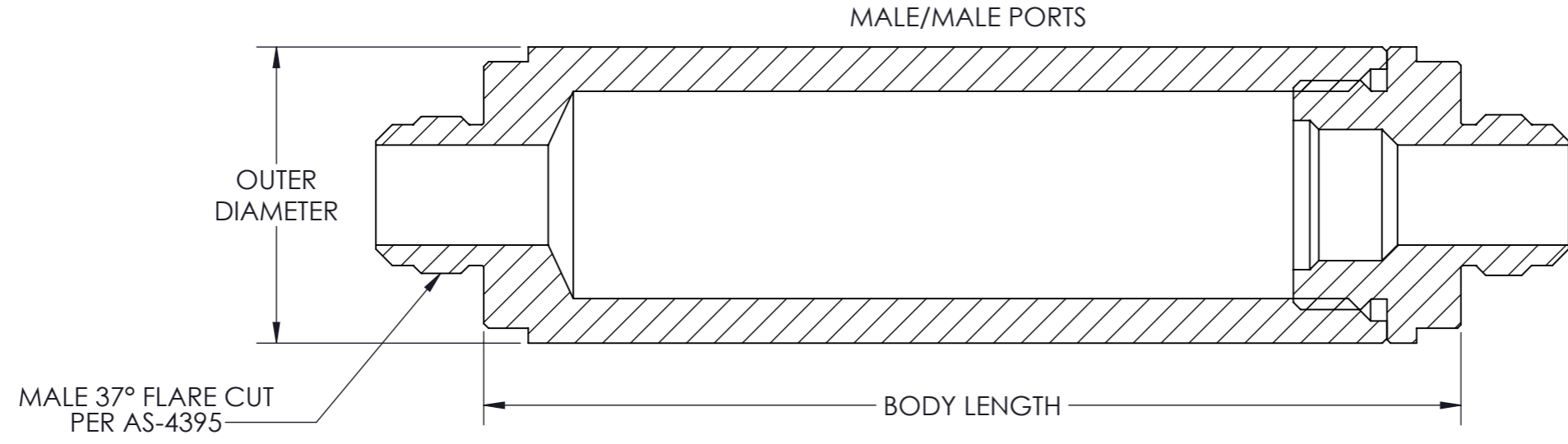
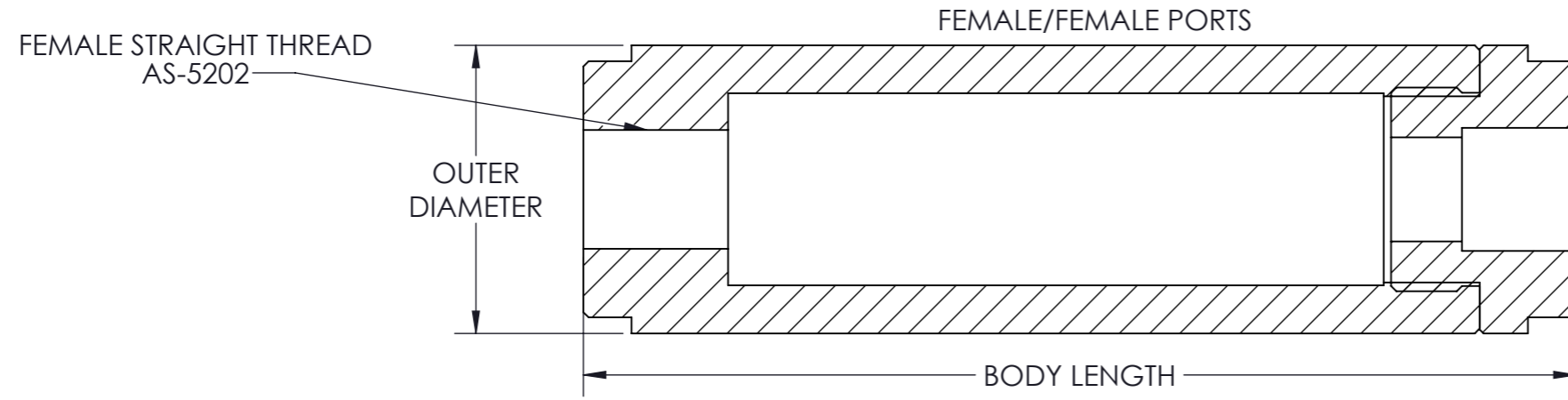
|                                     |                    |                 |
|-------------------------------------|--------------------|-----------------|
| TITLE:<br>4300/4400 SERIES ASSEMBLY |                    | PART REV:<br>03 |
| PART NUMBER:<br>TABULATED           |                    |                 |
| DWG NO.<br>4300-4400-ASSM           | CAGE CODE<br>59165 | SIZE<br>A3      |

DO NOT SCALE DRAWING

SCALE:1:2

SHEET 2 OF 3


NOTE:  
1. SEE TABLE 2 FOR DIMENSIONS



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES

TOLERANCES ON:  
2 PLACE DECIMAL: .XX +/-0.01  
3 PLACE DECIMAL: .XXX +/-0.005  
ANGULAR: +/- 0.5°

-----  
PART TO BE FREE OF BURRS  
REMOVE SHARP EDGES (FILLET 0.005" - 0.020") MEASUREMENT NOT REQUIRED  
SURFACE FINISH 125 Ra UNLESS NOTED, VISUAL INSPECTION ONLY REQUIRED  
IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.  
NFC WORKMANSHIP STANDARD DMF01-24 APPLIES

|   |                            |
|---|----------------------------|
|  <b>NORMAN FILTER COMPANY</b><br><small>9850 SOUTH INDUSTRIAL DRIVE - BRIDGEVIEW, IL 60455<br/>PHONE (708)430-4000 - FAX (708)430-5961</small> |                            |
| <b>TITLE:</b><br>4300/4400 SERIES ASSEMBLY  |                            |
| <b>PART NUMBER:</b><br>TABULATED  | <b>PART REV:</b><br>03     |
| <b>DWG NO.:</b><br>4300-4400-ASSM   | <b>CAGE CODE:</b><br>59165 |
| <b>SIZE:</b><br>A3  |                            |
| DO NOT SCALE DRAWING  |                            |
| SCALE:1:2   | SHEET 3 OF 3               |