

| ZONE | REV | DESCRIPTION | DATE | APPROVED |
|------|-----|-------------------------------|---------|--------------------|
| | | INITIAL ISSUE. ECP 833-95-020 | 95-1-11 | <i>[Signature]</i> |

REVISION CONTROL

THIS DRAWING HAS BEEN GENERATED AND IS MAINTAINED BY A CAD SYSTEM. CHANGES SHALL ONLY BE INCORPORATED AS DIRECTED BY THE DESIGN ACTIVITY.

- NOTES:
- APPLICABLE STANDARDS/SPECIFICATIONS:
ANSI Y14.5M-1982, DIMENSIONING AND TOLERANCING MIL-STD-12, ABBREVIATIONS FOR USE ON DRAWINGS, AND IN SPECIFICATIONS
MIL-STD-100, ENGINEERING DRAWING PRACTICES
MIL-STD-130, IDENTIFICATION MARKING OF U.S. MILITARY PROPERTY
FED-STD-H28, SCREW-THREAD, STANDARD FOR
MIL-S-901, SHOCK TESTS, (HIGH IMPACT) SHIPBOARD MACHINERY
MIL-STD-167, MECHANICAL VIBRATION OF SHIPBOARD EQUIPMENT
L.P.-378, PLASTIC SHEET AND STRIP, THIN GAUGE, POLYOLEFIN
PPP-C-795, CUSHIONING MATERIAL, PACKAGING
ASTM D5118/D5118M, FABRICATION OF FIBER BOARDS SHIPPING BOXES
MIL-STD-2101, CLASSIFICATION OF CHARACTERISTICS
MIL-STD-105, SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES

- REQUIREMENTS:
2.1 THE FILTER FURNISHED SHALL MEET OR EXCEED THE REQUIREMENTS SPECIFIED ON THIS DRAWING.
2.2 ALL FILTERS TO BE INSPECTED 100% FOR EACH MAJOR REQUIREMENT. FAILURE TO CONFORM TO ANY MAJOR REQUIREMENT SHALL BE CAUSE TO REJECT THE FILTER AS DEFECTIVE.
2.3 THE FILTER ELEMENT SHOWN AS A DASHED OUTLINE ON THE BODY OF THIS DRAWING DEFINES THE MAXIMUM SPACE ENVELOPE ALLOWED. THE FILTER SHALL NOT EXCEED THE DIMENSIONS GIVEN.
2.4 THE FILTER SHALL BE DELIVERED WITH ZYTEL 101 PELLETS INSTALLED WHICH WILL HAVE AN INTERFERENCE FIT SO THAT THEY ARE NOT EASILY REMOVED (SEE VIEW A-A).

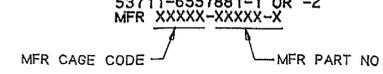
- GENERAL SPECIFICATIONS:
3.1 FLUID MEDIA IS GASEOUS AIR.
3.2 ALL FILTER MATERIAL IS 300 SERIES CRES.
3.3 OPERATING PRESSURE IS 100 PSI MAX IN THE FORWARD FLOW DIRECTION, 700 PSI MAX IN THE REVERSE FLOW DIRECTION.
3.4 OPERATING TEMPERATURE IS -30° F TO 120° F.
3.5 OVERALL LENGTH IS 5.90 INCHES MAX.
3.6 FILTER SHALL BE RE-USABLE WITH NO LOOSE PIECES.

- FILTER ELEMENT SPECIFICATIONS:
4.1 THE ELEMENT IS RATED AT 18 MICRON FILTRATION, WITH A MAX PRESSURE DROP OF 10 PSI FLOWING 157 TO 173 SCFM AT 30 PSIA INLET PRESSURE, EITHER DIRECTION.
4.2 THE COLLAPSE PRESSURE (REVERSE FLOW) IS 900 PSID, MIN.
4.3 THE BURST PRESSURE (FORWARD FLOW) IS 150 PSID, MIN.

- TEST REQUIREMENTS:
5.1 ONE UNIT OF EACH UNIQUE DESIGN SHALL UNDERGO THE FOLLOWING:
A. SHOCK TEST IAW MIL-S-901 GRADE A, CLASS 1, TYPE A, HULL MOUNTED
B. VIBRATION TEST IAW MIL-STD-167, TYPE 1
C. PRESSURE DROP TEST AT RATED INLET PRESSURE AND FLOWRATE. SEE NOTE 4.1.
D. COLLAPSE PRESSURE TEST AT RATED VALUE. SEE NOTE 4.2.
E. BURST PRESSURE TEST AT RATED VALUE. SEE NOTE 4.3.
F. CONTAMINATION TEST
THE FILTER, INSTALLED IN A SUITABLE TEST SETUP, SHALL BE SUBJECTED TO THE FOLLOWING TEST IN BOTH THE FORWARD AND REVERSE FLOW DIRECTIONS:
WHILE FLOWING AT LEAST 160 SCFM AIR, SLOWLY ADD 1 GRAM OF COARSE GRADE DUST AS DEFINED BY SAE J726 WITH A PARTICLE DISTRIBUTION OF 0-200 MICRONS. THE PRESSURE DROP ACROSS THE FILTER SHALL BE 25 PSID OR LESS. THE FILTER SHALL THEN BE BLOWN DOWN WITH AIR IN THE OPPOSITE DIRECTION, CLEANED IN AN ULTRASONIC SINK FOR 1/2 HOUR AND FLOW TESTED IN THE TEST DIRECTION. PRESSURE DROP AFTER CLEANING SHALL BE 12 PSID OR LESS IN THE TEST DIRECTION.
5.2 100% OF ALL FILTERS ARE TO BE BUBBLE-POINT TESTED. THIS TEST IS FOR THE LARGEST PARTICLE PASSED FOR A MAXIMUM PARTICLE SIZE OF 18 MICRONS.
5.3 PREVIOUSLY QUALIFIED VENDORS NEED ONLY PERFORM TEST DESCRIBED IN 5.2 AND ALL OTHER MAJOR REQUIREMENTS. ALL OTHER VENDORS MUST PERFORM TESTS DESCRIBED IN 5.1 (A THROUGH F) AND 5.2.

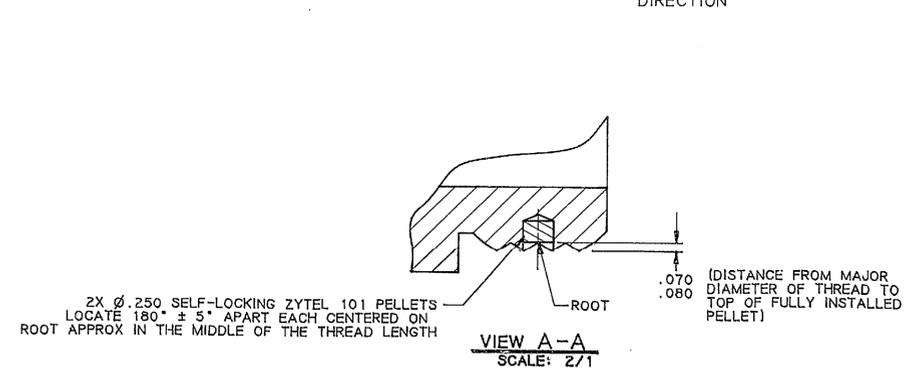
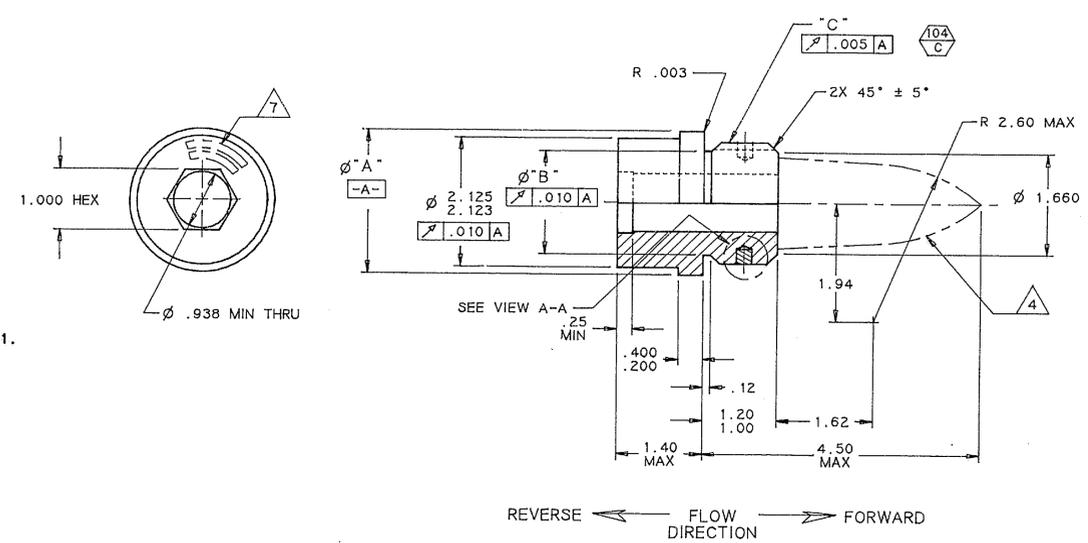
- FILTERS, WITH ZYTEL 101 PELLETS INSTALLED, SHALL BE PACKAGED IN INDIVIDUAL PLASTIC BAGS CONFORMING TO THE REQUIREMENTS OF L-P-378 TYPE 1, CLASS 1, GRADE B, FINISH 1 AND THICKNESS OF .004. SEALED TO PRECLUDE THE POSSIBILITY OF CONTAMINANTS ENTERING THEM PREMATURELY. THE BAGGED FILTER SHALL BE INDIVIDUALLY WRAPPED IN PROTECTIVE BUBBLE WRAP CONFORMING TO THE REQUIREMENTS OF PPP-C-795 CLASS 1, AND INDIVIDUALLY BOXED IN ACCORDANCE WITH ASTM D5118/D5118M. THE INDIVIDUAL BOXES CAN THEN BE PACKAGED TOGETHER IN THE APPROPRIATE QUANTITIES FOR SHIPMENT.
SPARE ZYTEL 101 PELLETS (2 PER FILTER) SHALL BE PACKAGED SEPARATELY IN QUANTITIES OF 24 AND INCLUDED WITH FILTER SHIPMENT, UNLESS OTHERWISE STATED ON THE PURCHASE ORDER. MINIMUM PACKAGING REQUIREMENTS TO MEET OR EXCEED THAT OF THE FILTERS.

- MARKING: STAMP, ETCH OR ENGRAVE THE FOLLOWING IN .12 HIGH CHARACTERS PER MIL-STD-130 IN POSITION APPROXIMATELY AS SHOWN.



- IDENTIFICATION OF THE SUGGESTED SOURCE(S) OF SUPPLY HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM(S) DESCRIBED ON THE DRAWING.
- QUALITY ASSURANCE PROVISIONS:
A. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT THE CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE OF ALL INSPECTION REQUIREMENTS AS SPECIFIED HEREIN.

- CLASSIFICATION OF CHARACTERISTICS AND INSPECTION REQUIREMENTS ARE IDENTIFIED ON THIS DRAWING AS FOLLOWS:
CLASSIFICATION NUMBER:
1 THRU 99 - CRITICAL
101 THRU 199 - MAJOR
METHOD OF INSPECTION:
S - SPECIAL INSPECTION EQUIPMENT
C - COMMERCIAL INSPECTION EQUIPMENT
V - VISUAL
- SAMPLING INSPECTION SHALL BE IN ACCORDANCE WITH MIL-STD-105.
- A FIRST ARTICLE SAMPLE IS REQUIRED WHEN SPECIFIED IN THE CONTRACT. ACCEPTANCE WILL BE BASED ON CONFORMANCE TO THE REQUIREMENTS OF THIS DRAWING.
- QUALITY CONFORMANCE INSPECTION SHALL CONSIST OF THOSE CHARACTERISTICS CLASSIFIED AS MAJOR, NOS.: 101, 102, 103, 104, AND CRITICAL, NOS.: NONE.
- ALL OTHER CHARACTERISTICS ARE SUBJECT TO INSPECTION UNDER THE CONTRACTOR'S QUALITY OR INSPECTION SYSTEM.



| ITEM IDENTIFICATION | DIMENSION | | |
|---------------------|---------------------------------------|--|--|
| | "A" DIA ¹⁰² / _C | "B" DIA | "C" THREAD ¹⁰³ / _C |
| 6557881-1 | ∅ 2.326 ∅ 2.321 | ∅ 1.700 | 2.000-4.50 UNC-2A |
| 6557881-2 | ∅ 2.576 ∅ 2.571 | ∅ 1.960 ^{1.000} / _{.005} | 2.250-4.50 UNC-2A |

| SUGGESTED SOURCE(S) OF SUPPLY | | | | |
|-------------------------------|---|----------|-----------------|---|
| PART NO. | VENDOR | CAGE NO. | VENDOR PART NO. | ITEM IDENTIFICATION |
| 6557881 | PALL AEROPOWER CORP. 6301 49TH STREET NORTH, PINELLAS PARK, FLORIDA 34665-5798 | 10989 | 28148-1 | 53711-6557881-1 MFR-10989-28148-1 |
| | | | 28148-2 | 53711-6557881-2 MFR-10989-28148-2 |
| | VACCO, PHOTOFABRICATION DIV., 10350-T VACCO ST., SOUTH EL MONTE, CA 91733 | 99517 | F3D10158-2 | 53711-6557881-1 MFR-99517-F3D10158-2 |
| | | | F3D10158-1 | 53711-6557881-2 MFR-99517-F3D10158-1 |
| | | | F3D10158-3 | 53711-6557881-2 MFR-99517-F3D10158-3 |
| | | | F3D10158-4 | 53711-6557881-1 MFR-99517-F3D10158-4 |

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VENDOR ITEM DRAWING

| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | | NAVAL UNDERSEA WARFARE CENTER DIVISION, NEWPORT NEWS, VIRGINIA ISLAND 02841 | | DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, D.C. 20362 | |
|---|-----------------------------|---|-----------------------------|---|--------------------------------|
| APPROVED | <i>[Signature]</i> 95-06-19 | APPROVED | <i>[Signature]</i> 95-06-19 | SSN688 CLASS VERTICAL LAUNCH SYSTEM FILTER, MISSILE TUBE P/V PORT | |
| CHECKED | <i>[Signature]</i> 95-06-19 | CHECKED | <i>[Signature]</i> 95-06-19 | FILE: 6557881.DRW | SYSTEM: PERSONAL DESIGNER 5.03 |
| DRAWN | R. BROWN 95-03-07 | DRAWN | R. BROWN 95-03-07 | 53711 | 6557881 |
| DATE | 95-06-19 | DATE | 95-06-19 | | |