

4900 ASSEMBLY

TABLE 1 - PORT SIZE AND TYPE

FITTING CODE	FITTING TYPE
98	1" NPT FEMALE
88	1 1/4" NPT FEMALE
24	1 1/2" NPT FEMALE
32	2" NPT FEMALE
76	AS5202-16 (1" SAE)
80	AS5202-20 (1 1/4" SAE)
78	AS5202-24 (1 1/2" SAE)
32S	AS5202-32 (2" SAE)
98SW	1" SOCKET WELD*
24SW	1 1/2" SOCKET WELD*
32SW	2" SOCKET WELD*

*Socket weld ports available for stainless steel housings only

Tubing socket weld ports are also available per special order

TABLE 2 - HOUSING MATERIAL

HOUSING CODE	MATERIAL	PRESSURE RATING*
T	316/316L STAINLESS STEEL	8000 psi
A	7075 ALUMINUM	6000 psi

*Pressure rating based on filter head and body; depending on port size selection, the filter assembly pressure rating may decrease

TABLE 3 - MICRON RATING

ELEMENT MEDIA	MATERIAL	MICRON '3a' CODE	RATING		ELEMENT '3b' CODE
			NOM	ABS	
WIRE MESH	316 S.S. WIRE MESH	2X	2	10	G
		05	5	18	
		10	10	25	
		20	20	40	
		40	40	75	
		75	75	100	
		100	100	200	
		200	200	300	
RMF*	316 RANDOM METAL FIBER	1	-	1	R
		3	-	3	
		5	-	5	
		10	-	10	
		20	-	20	
		100	-	100	
GLASS FIBER β RATING ≥ 200	GLASS FIBER	B1	-	1	F
		B3	-	3	
		B5	-	5	
		B10	-	10	
		B25	-	25	
CELLULOSE	CELLULOSE	03	3	-	A
		10	10	-	
		25	25	-	

ELEMENT MEDIA	MATERIAL	MICRON '3a' CODE	RATING		ELEMENT '3b' CODE
			GAS ABS	LIQUID ABS	
SINTERED 316/NICKEL	SINTERED 316 S.S OR SINTERED NICKEL	0.2	0.2	1.4	P
		0.5	0.3	2.2	
		1	0.7	3.3	
		2	2	9	
		5	5	13	
		10	13	20	
		20	20	35	
		10	10	15	
SINTERED BRASS	SINTERED BRASS	20	20	27	B
		40	40	52	
		100	100	100	

*Initial efficiency for RMF elements is greater than 98% for all particle sizes

TABLE 4 - COLLAPSE RATING

RATING CODE	RATING
D	4500 psi WIRE MESH
E	4500 psi RMF
A	300 psi GLASS FIBER
C	3250 psi GLASS FIBER
P	150 psi CELLULOSE
R	300 psi CELLULOSE
F	2000 psi 316 SINTERED

REVISIONS			
DRAWING REV	DESCRIPTION	DATE	APPROVED
-	ECO 1162: INITIAL RELEASE	10/29/15	KAM
A	ECO 1250: ADDED NEW ACC PORT COMBINATIONS AND BYPASS BOM	5/3/16	KK
B	ECO 1299: UPDATE SOCKET WELD PORT CODES	7/29/16	KH
C	ECO 1427: UPDATED SINTERED MEDIA TO MOTT CATALOG DATA	5/17/17	JB
D	ECO 1553: UPDATED OVERALL HEIGHT ON SHEET 2	11/22/17	TJ
E	ECO 1602: ADDED DIMENSION FOR ELEMENT CLEARANCE ON SHEET 2	2/8/18	TJ
F	ECO 1684: UPDATED MICRON RATINGS TABLE	7/11/2018	DJ
G	ECO 1755: UPDATED MATERIAL AND GLASS FIBER B RATING NOTE ON MICRON RATINGS TABLE.	10/11/18	JB
H	ECO 1988: UPDATED FITTING CODES FOR AS5202-32 AND ALL SOCKET WELD PORTS	3/4/2019	JS

TABLE 5 - O-RING MATERIAL

O-RING CODE	MATERIAL
M	TEFLON
M1	TEFLON per AMS 3678C-1-B
E	EPR
E1	V138-95
S	SILICONE
L	BUNA, 70 DUROMETER
K	BUNA, 90 DUROMETER
HNBR	HNBR
H	4079 KALREZ
N	VITON
MN	TEFLON COATED VITON

TABLE 6 - OPTIONAL ACCESSORIES

ACC. CODE	DESCRIPTION
DR1	1/8"-27 NPT BOWL DRAIN
DR2	1/4"-18 NPT BOWL DRAIN
DR3	AS5202-2 (1/8" SAE) BOWL DRAIN
DR4	AS5202-4 (1/4" SAE) BOWL DRAIN
EE	40 psid ELEC. SWITCH
R*	50 psid BYPASS PORT
V	40 psid VISUAL INDICATOR
VR	VISUAL INDICATOR + BYPASS PORT
EER	ELEC. SWITCH + BYPASS PORT
H	BOWL HANDLES (1/2" BAR)
S1	1/8"-27 NPT DP PORTS
S2	1/4"-18 NPT DP PORTS
S3	AS5202-02 (1/8" SAE) DP PORTS
S4	AS5202-04 (1/4" SAE) DP PORTS

*SEE BYPASS BOM ON SHEET 5 FOR REQUIRED PARTS

ASSEMBLY: 49 - -

EXAMPLE: 49 - -

REPLACEMENT ELEMENT: 549 -

EXAMPLE: 549 -

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 Rg UNLESS NOTED, VISUAL INSPECTION ONLY REQUIRED
IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.
NFC WORKMANSHIP STANDARD DMF01-24 APPLIES



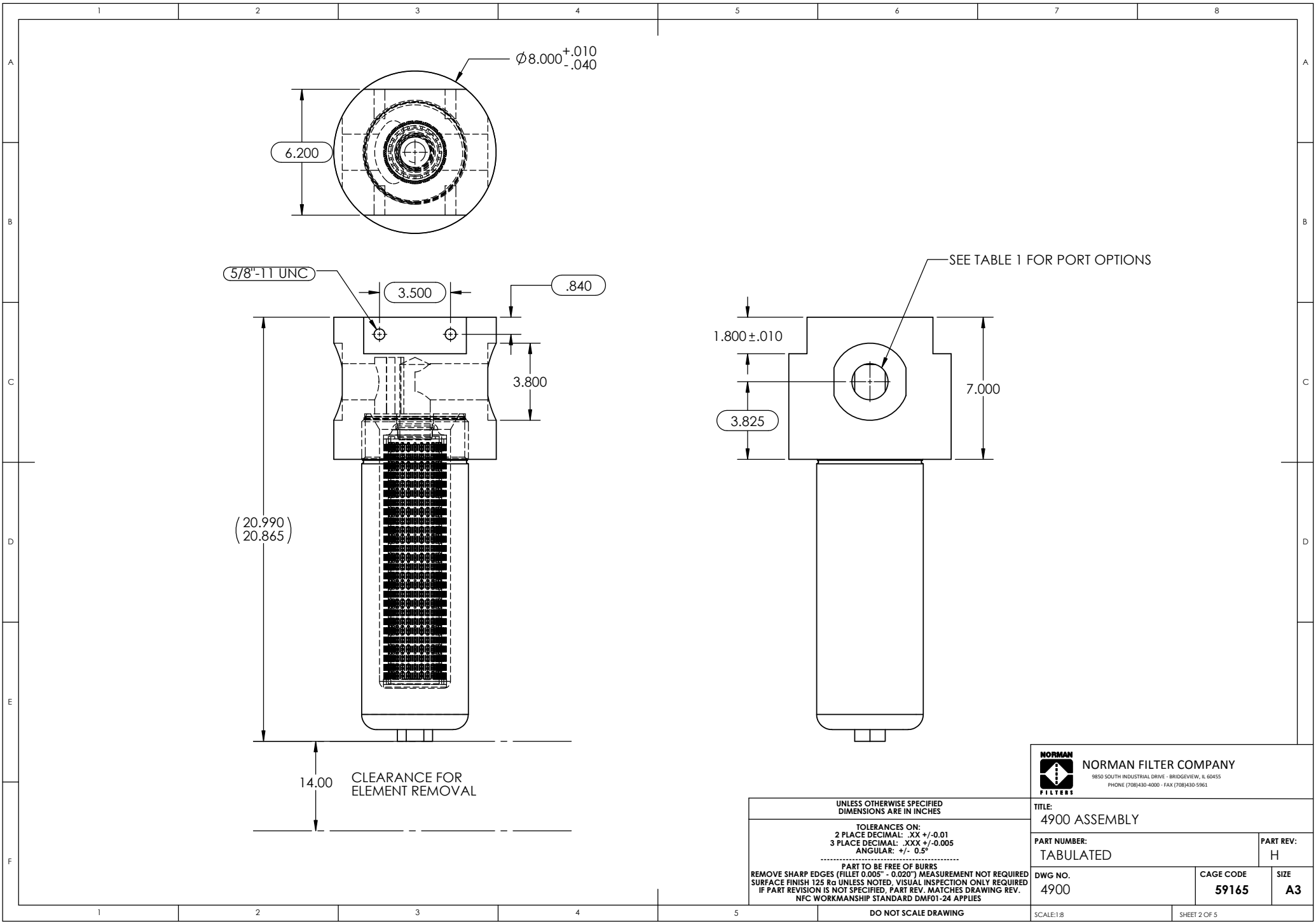
NORMAN FILTER COMPANY
9850 SOUTH INDUSTRIAL DRIVE - BRIDGEVIEW, IL 60455
PHONE (708)430-4000 - FAX (708)430-5961


TITLE: 4900 ASSEMBLY		
PART NUMBER: TABULATED		PART REV: H
DWG NO. 4900	CAGE CODE 59165	SIZE A3

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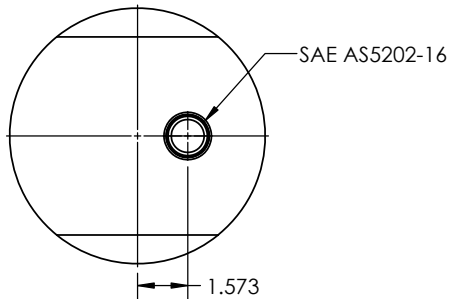
SHEET 1 OF 5

DO NOT SCALE DRAWING

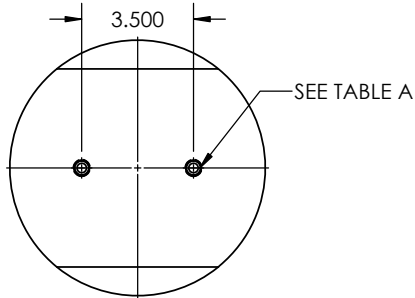


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TITLE: 4900 ASSEMBLY			
PART NUMBER: TABULATED			PART REV: H
DWG NO. 4900	CAGE CODE 59165		SIZE A3
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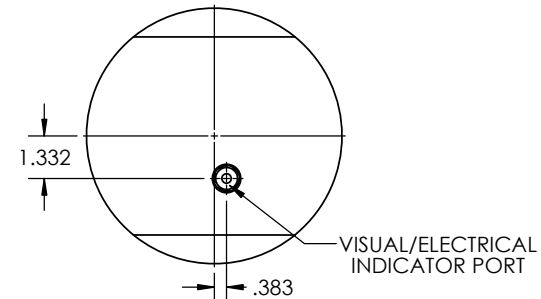
BYPASS RELIEF DO NOT USE WITH S-PORTS



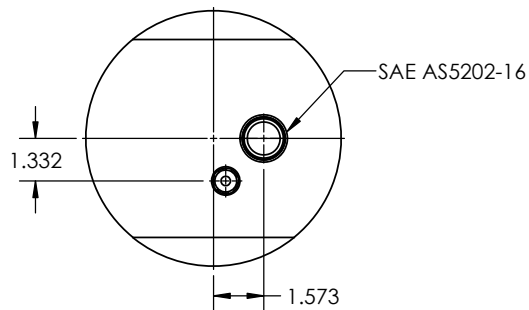
DP PORTS



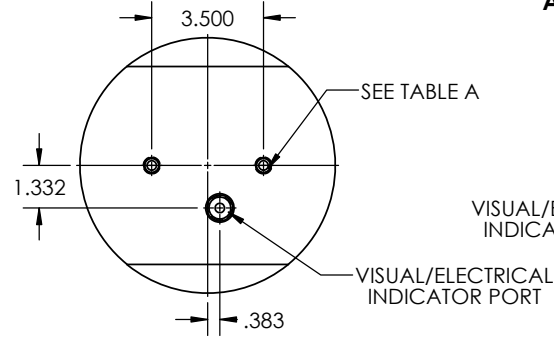
VISUAL INDICATOR



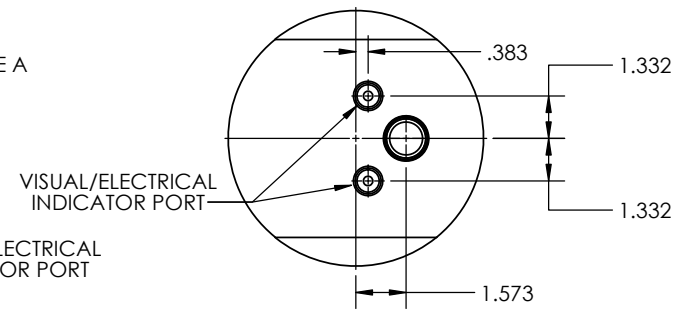
BYPASS RELIEF AND VISUAL INDICATOR



VISUAL INDICATOR AND DP PORTS



BYPASS RELIEF, ELECTRICAL INDICATOR AND VISUAL INDICATOR



BYPASS RELIEF WITH S-PORTS

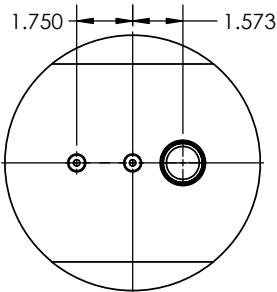


TABLE A - HEAD ACCESSORY PORT OPTIONS	
PN CODE	DESCRIPTION
R	50 psid BYPASS PORT
V	40 psid VISUAL INDICATOR
VR	VISUAL INDICATOR + BYPASS PORT
SX	DP PORTS, SEE TABLE B FOR 'X'
VSX	VISUAL INDICATOR + DP PORTS

TABLE B - DP PORT SIZING OPTIONS	
'X' CODE	DESCRIPTION
1	1/8"-27 NPT DP PORTS
2	1/4"-18 NPT DP PORTS
3	AS5202-08 (1/8" SAE) DP PORTS
4	AS5202-04 (1/4" SAE) DP PORTS

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 Rg UNLESS NOTED, VISUAL INSPECTION ONLY REQUIRED
IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.
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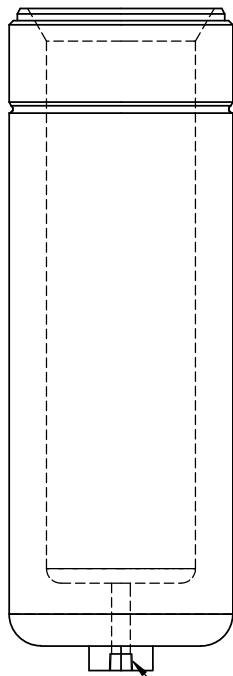
TITLE: 4900 ASSEMBLY		PART REV: H
PART NUMBER: TABULATED		
DWG NO. 4900	CAGE CODE 59165	SIZE A3

DO NOT SCALE DRAWING

SCALE:1:4

SHEET 3 OF 5

DRAIN PORT OPTION



SEE TABLE C

BOWL WITH OPTIONAL HANDLES

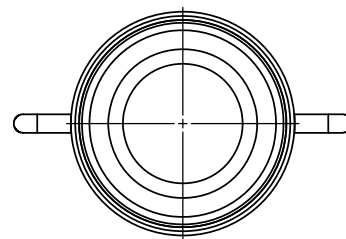
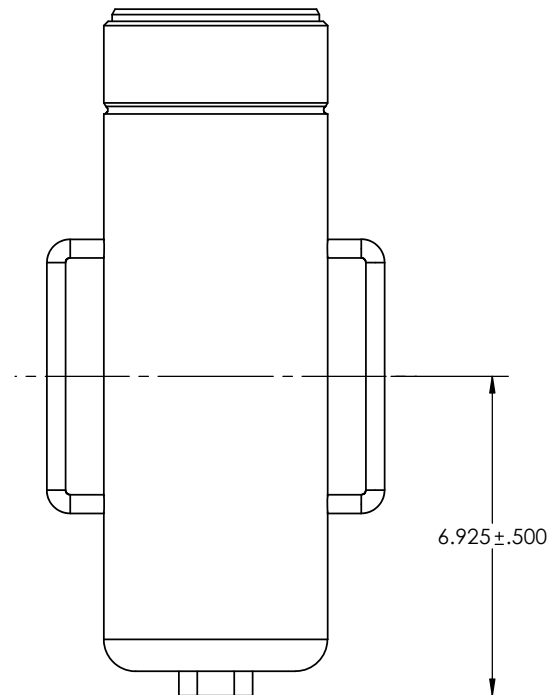


TABLE C - BOWL DRAIN SIZING OPTIONS	
CODE	DESCRIPTION
DR1	1/8"-27 NPT BOWL DRAIN
DR2	1/4"-18 NPT BOWL DRAIN
DR3	AS5202-2 (1/8" SAE) BOWL DRAIN
DR4	AS5202-4 (1/4" SAE) BOWL DRAIN

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 Rg UNLESS NOTED; VISUAL INSPECTION ONLY REQUIRED
IF PART REVISION IS NOT SPECIFIED, PART REV. MATCHES DRAWING REV.
NFC WORKMANSHIP STANDARD DMF01-24 APPLIES

DO NOT SCALE DRAWING



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4900 ASSEMBLY

PART NUMBER:
TABULATED

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4900

CAGE CODE
59165

PART REV:
H

SIZE
A3

SCALE:1:4

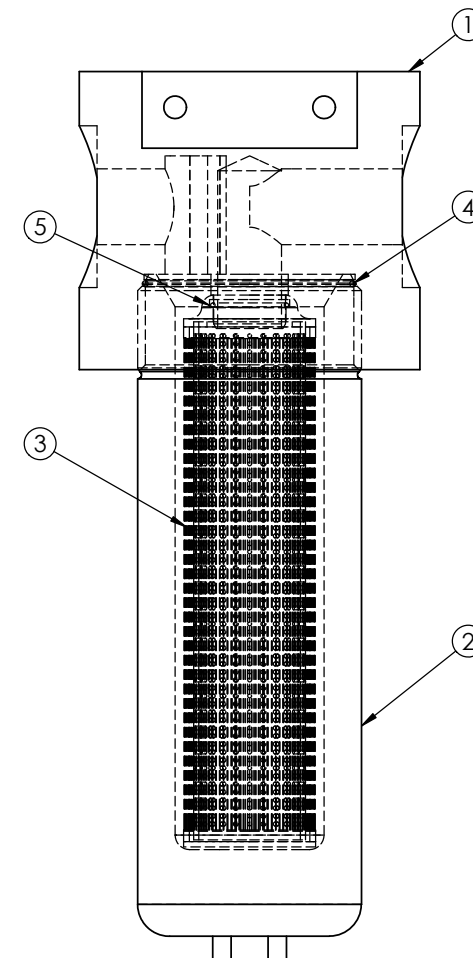
SHEET 4 OF 5

TABLE D - O-RING MATERIAL		
FILTER ASSEMBLY CODE	MATERIAL	O-RING PART # XX CODE
M	TEFLON	01
M1	TEFLON per AMS 3678C-1-B	02
2	EPR	03
E1	V138-95	04
S	SILICONE	05
L	BUNA, 70 DUROMETER	06
K	BUNA, 90 DUROMETER	07
HNBR	HNBR	15
H	4079 KALREZ	16
N	VITON	18
MN	TEFLON COATED VITON	18-01

BILL OF MATERIALS				
ITEM #	PART #	DESCRIPTION	MATERIAL	QTY
1	49XX	HEAD, FILTER	TABLE 1 AND TABLE 2; IF HEAD ACCESSORY PORTS ARE NEEDED SEE TABLE 6	1
2	49866X-S	BOWL, FILTER	TABLE 2; IF BOWL ACCESSORIES ARE NEEDED SEE TABLE 6	1
3	549X-XX	ELEMENT, FILTER	TABLE 3 CODE 3a, TABLE 3 CODE 3b, AND TABLE 4	1
4	5248X	O-RING, HOUSING	TABLE D	1
5	5924X	O-RING, ELEMENT	TABLE D	1

BOM FOR SHEET 1 EXAMPLE ASSEMBLY NUMBER				
ITEM #	PART #	DESCRIPTION	MATERIAL	QTY
1	4932T-EE	HEAD, FILTER	316/316L STAINLESS STEEL	1
2	49866T-S	BOWL, FILTER	316/316L STAINLESSS STEEL	1
3	549G-2XD	ELEMENT, FILTER	STAINLESS STEEL WIRE MESH	1
4	524818-01	O-RING, HOUSING	TEFLON COATED VITON	1
5	592418-01	O-RING, ELEMENT	TEFLON COATED VITON	1

BYPASS BOM				
ITEM #	PART #	DESCRIPTION	MATERIAL	QTY
1	49-REFPLG	PLUG	316/316L STAINLESS STEEL	1
2	49-RELSRING	SPRING	STAINLESS STEEL	1
3	49-RELPOP	POPPET	316/316L STAINLESS STEEL	1
4	5026XX	PLUG SEAL	SEE TABLE D FOR XX CODE	1
5	5119XX	POPPET SEAL		1



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TOLERANCES ON:
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ANGULAR: +/- 0.5°

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DWG NO. 4900	CAGE CODE 59165
	SIZE A3

DO NOT SCALE DRAWING

SCALE:1:8

SHEET 5 OF 5