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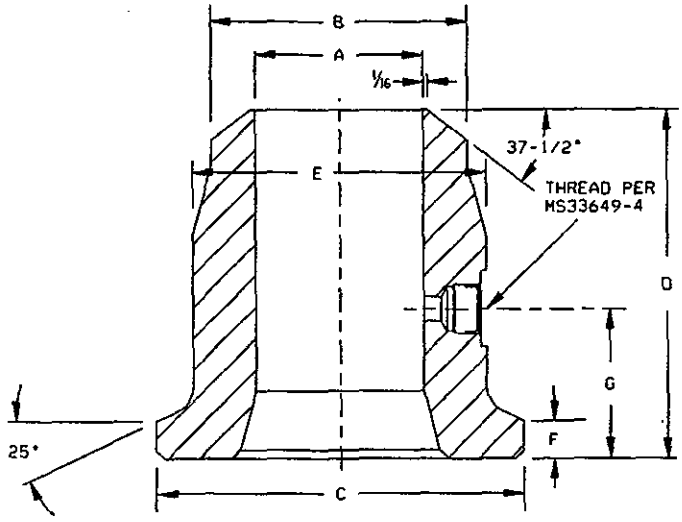
FED SUP CLASS
4730



MATERIAL CODE: ADD A AFTER DASH NO. TO DENOTE SA-105-GR11.
ADD B AFTER DASH NO. TO DENOTE SA-182-F316.

TEMPERATURE RANGE: SEE MATERIAL SPECIFICATION.

NOTES:

1. ALL MATERIALS ARE PER ASTM SPECIFICATIONS
2. ALL DIMENSIONS ARE IN INCHES.
3. TOLERANCE: SEE KC161.
4. FOR DESIGN FEATURE PURPOSES, THIS DRAWING TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.
5. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON THE DATE OF INVITATION FOR BID.
6. HUB PRESSURE RATING IS THE LOWER OF EITHER THE VENDOR'S PRESSURE LIMIT ON THE HUB OR KSC'S PRESSURE LIMIT ON THE FITTING WHICH SCREWS INTO THE THREADED HOLE.
7. THIS PIPE SIZE DOES NOT HAVE A STANDARD VENDOR HUB.
8. DO NOT USE THIS STANDARD FOR ITEMS WHICH CANNOT BE IDENTIFIED BY THE LIMITATIONS CONTAINED HEREIN.
9. ALL PARTS NOT MANUFACTURED BY GRAY TOOL CO. MUST BE CERTIFIED BY THE MANUFACTURER TO BE INTERCHANGEABLE WITH THE GRAY TOOL PART NUMBER.

EXAMPLE OF PART NOS. BASIC PART NUMBER KC168-3A
- MATERIAL CODE
- DASH NUMBER

APPROVED SOURCE: COMMERCIAL PARTS CAN BE PURCHASED FROM: VETCO-GRAY INC. 10777 NW FWY P.O. BOX 2291, HOUSTON, TX 77001-2291.

ALTERNATE SOURCES:

OTECO EQUIPMENT COMPANY
2811 TROUT STREET
P.O. BOX 1849
HOUSTON, TX 77251-1849

REFLANGE, INC.
5730 CENTRALCREST
HOUSTON, TX 77092

REVISED: (D) CHANGED APPROVED SOURCE. 10-2-92

APPROVED: 2-6-76

CUSTODIAN: JOHN F. KENNEDY SPACE CENTER		
PROCUREMENT SPEC. NONE	HUB, PRESSURE TAPPED	STANDARD PART KC168
COORDINATION STATUS KSC DE		SHEET 1 OF 3

FED SUP CLASS
4730

DASH NO.	PIPE SIZE	PIPE SCHED.	HUB SIZE	OPERATING PRESSURE RATING (PSIG) MAT'L CODE -A	OPERATING PRESSURE RATING (PSIG) MAT'L CODE -B	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	DIMENSIONS E	DIMENSIONS F	DIMENSIONS G	MATERIAL CODE -A SA-105 GRII GRAYLOC STK NO.	MATERIAL CODE -B SA-182 F-316 GRAYLOC STK NO.
-1	½	40	1GR5	9600	9600	.622	.840	2.000	4.313	2.688	.313	2.188	I-4839-A1	I-4839-B1
-2		80				.546							I-4839-A2	I-4839-B2
-3		160	1GR4			.466							I-4839-A3	I-4839-B3
-4		XXS				.252							I-4839-A4	I-4839-B4
-5	¾	40	1GR7	8784	8180	.824	1.050						I-4839-A5	I-4839-B5
-6		80				.742							I-4839-A6	I-4839-B6
-7		160	1GR4	9600	9600	.614							I-4839-A7	I-4839-B7
-8		XXS	1GR5			.434							I-4839-A8	I-4839-B8
-9	1	40	1GR11	4211	4340	1.049	1.315						I-4839-A9	I-4839-B9
-10		80				.957							I-4839-A10	I-4839-B10
-11		160	1GR7	8784	8180	.815							I-4839-A11	I-4839-B11
-12		XXS	1GR5	9600	9600	.599							I-4839-A12	I-4839-B12
-13	1½	40	1½GR14	6547	6040	1.610	1.900	3.125		3.250	.437	2.313	I-4839-A17	I-4839-B17
-14		80				1.500							I-4839-A18	I-4839-B18
-15		160				1.338							I-4839-A19	I-4839-B19
-16		XXS				1.100							I-4839-A20	I-4839-B20
-17	2	40	2GR20	4870	4640	2.067	2.375	3.625	4.500	3.688			I-4839-A21	I-4839-B21
-18		80				1.939							I-4839-A22	I-4839-B22
-19		160				1.689							I-4839-A23	I-4839-B23
-20		XXS	2GR14	9600	9600	1.503							I-4839-A24	I-4839-B24
-21	2½	40	2½-3GR25	6617	6000	2.469	2.875	5.000	5.000	5.000	.500	2.375	I-4839-A25	I-4839-B25
-22		80				2.323							I-4839-A26	I-4839-B26
-23		160	2½-3GR20	9600	9600	2.125							I-4839-A27	I-4839-B27
-24		XXS				1.771							I-4839-A28	I-4839-B28
-25	3	40	2½-3GR27	3635	3480	3.068	3.500	5.000	5.000	5.000	.500		I-4839-A29	I-4839-B29
-26		80				2.900							I-4839-A30	I-4839-B30
-27		160	2½-3GR25	6617	6000	2.626							I-4839-A31	I-4839-B31
-28		XXS				2.300							I-4839-A32	I-4839-B32
-29	3½	40	4GR34	4637	4340	3.548	4.000	6.000	5.375	6.000	.500	2.688	I-4839-A33	I-4839-B33
-30		80				3.364							I-4839-A34	I-4839-B34
-31		XXS	4GR27	7	7	2.728							I-4839-A35	I-4839-B35

REVISED: 6 CHANGED APPROVED SOURCE ON SHEET 1. 10-2-92

APPROVED: 2-6-76

CUSTODIAN: JOHN F. KENNEDY SPACE CENTER

PROCUREMENT SPEC.
NONE

COORDINATION STATUS
KSC DE

HUB, PRESSURE TAPPED

STANDARD PART
KC168

SHEET 2 OF 3

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FED SUP CLASS
4730

DASH NO.	PIPE SIZE	PIPE SCHED.	HUB SIZE	OPERATING PRESSURE RATING (PSIG) MAT'L CODE -A	OPERATING PRESSURE RATING (PSIG) MAT'L CODE -B	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	DIMENSIONS E	DIMENSIONS F	DIMENSIONS G	MATERIAL CODE -A SA-105 GR11 GRAYLOC STK NO.	MATERIAL CODE -B SA-182 F-316 GRAYLOC STK NO.
-32	4	40	4GR40	2493	2460	4.026	4.500	6.000	5.000	6.000	.500	2.688	I-4839-A36	I-4839-B36
-33		80				3.826							I-4839-A37	I-4839-B37
-34		160	4GR34	4637	4340	3.438			5.375				I-4839-A38	I-4839-B38
-35		XXS	4GR31	7969	7120	3.152							I-4839-A39	I-4839-B39
-36	5	40	5GR52	2703	2580	5.047	5.563	7.500	5.250	7.500	.625	2.938	I-4839-A40	I-4839-B40
-37		80				4.813							I-4839-A41	I-4839-B41
-38		160	5GR46	5149	4720	4.313			5.563				I-4839-A42	I-4839-B42
-39		XXS	5GR40	7839	6700	4.063			5.750				I-4839-A43	I-4839-B43
-40	6	40	6GR62	3192	2960	6.065	6.625	9.250	6.000	9.250	.750	3.250	I-4839-A44	I-4839-B44
-41		80				5.761							I-4839-A45	I-4839-B45
-42		160	6GR52	5944	5080	5.189			6.625		.812		I-4839-A46	I-4839-B46
-43		XXS				4.897							I-4839-A47	I-4839-B47

REVISED: (D) CHANGED APPROVED SOURCE ON SHEET 1. 10-2-92

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PROCUREMENT SPEC.
NONE

COORDINATION STATUS
KSC DE

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SHEET 3 OF 3