

THE MOST TRUSTED FITTINGS IN NORTH AMERICA

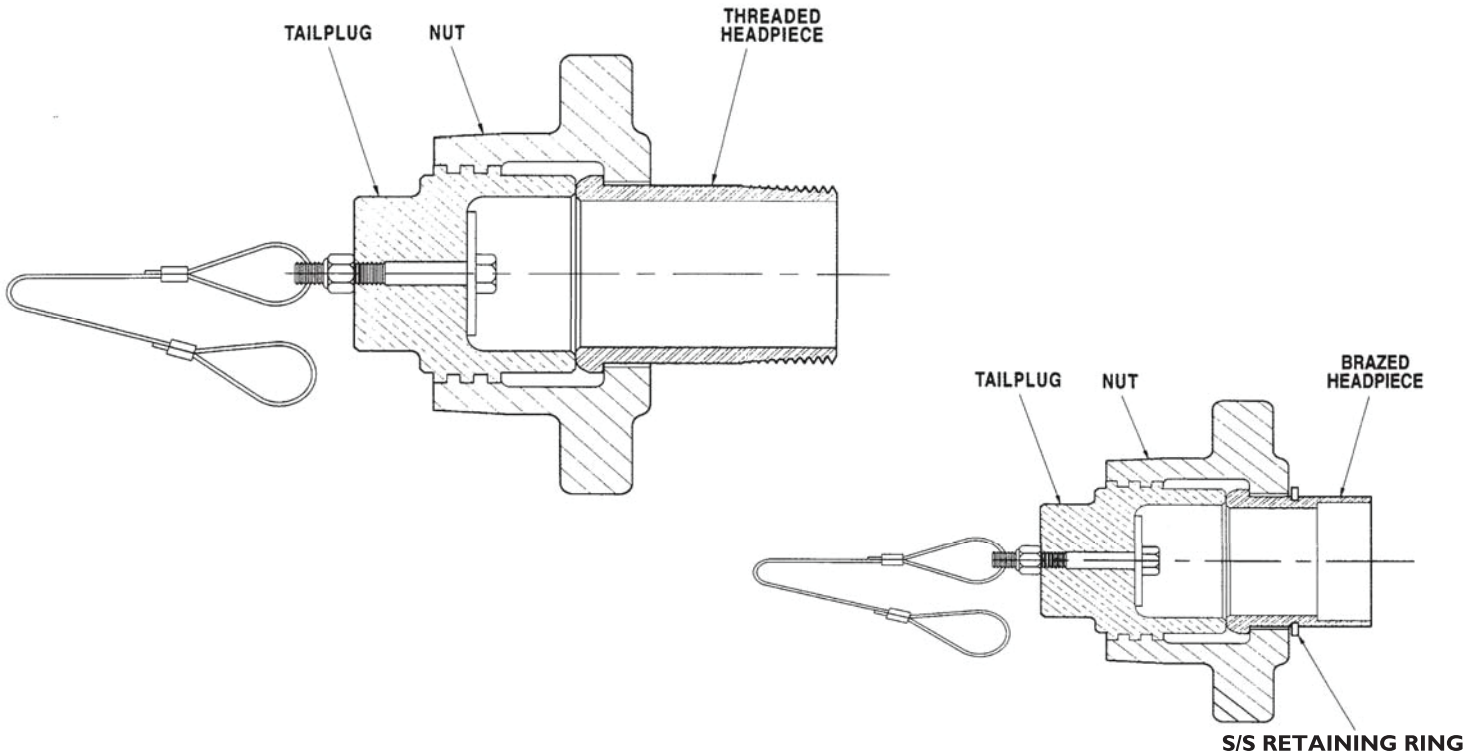
NITROGEN ■ OXYGEN ■ ARGON CGA STANDARD CRYOGENIC LIQUID TRANSFER CONNECTIONS CATALOG

CGA FITTINGS

- Designed for safe and reliable cryogenic liquid transfer
- Fully compliant with CGA V6
- Easier and quicker for operators and drivers to connect and disconnect
- Worlds largest inventory of CGA Liquid Transfer Fittings



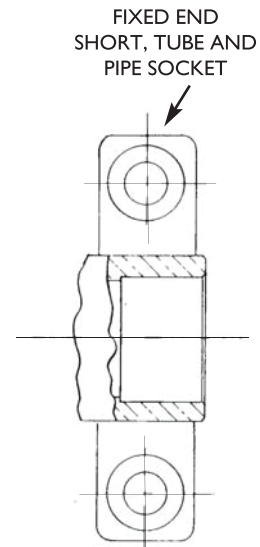
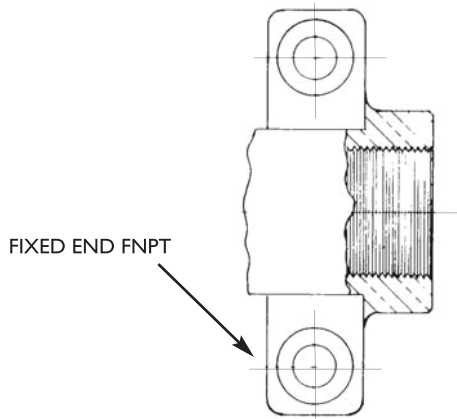
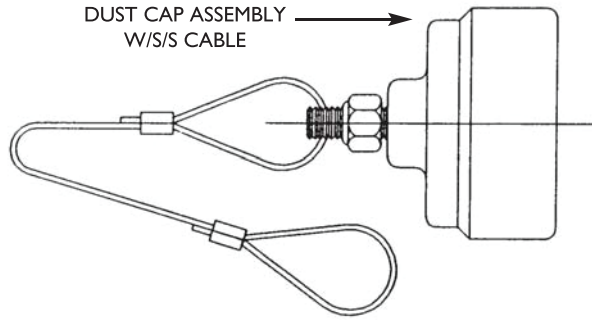
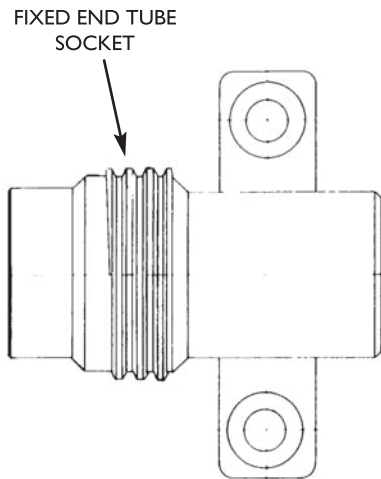
BRAZED AND THREADED HOSE END ASSEMBLY



NOTE: All assembly numbers are for bronze nuts and naval brass headpieces. For stainless steel, order as individual items.

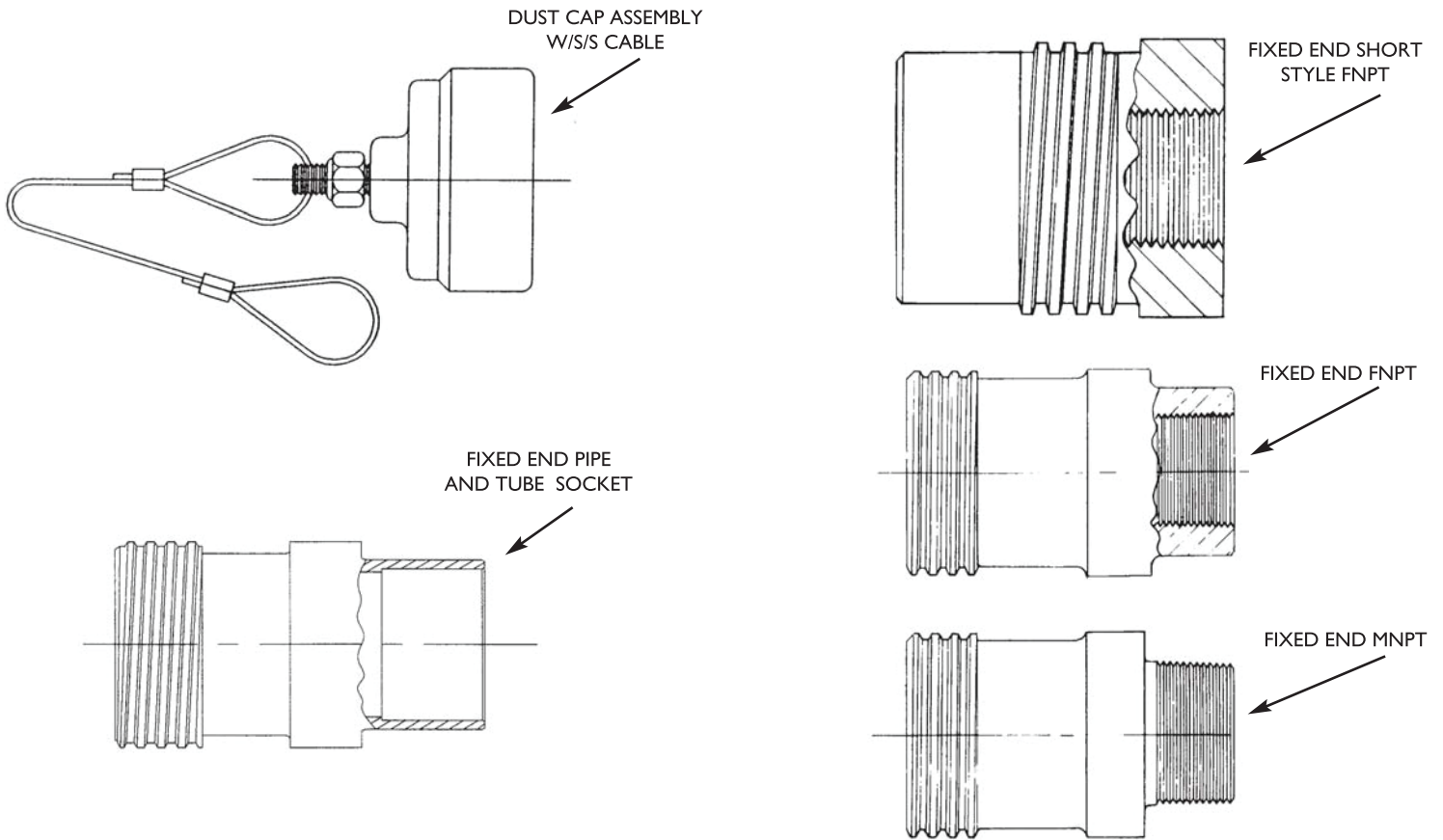
ACME PART NO.	LIQUID SERVICE	FITTING SIZE	HOSE SIZE	HOSE END TYPE	CGA DESIGNATION
590-003-15	Nitrogen	1½"	1½"	Threaded	NI-150
590-007-25	Nitrogen	2½"	2½"	Threaded	NI-250
590-035-25	Nitrogen	2½"	2"	Threaded	NI-250
580-007-15	Argon	1½"	1½"	Threaded	AR-150
580-003-25	Argon	2½"	2½"	Threaded	AR-250
580-045-25	Argon	2½"	2"	Threaded	AR-250
540-002-15	Oxygen	1½"	1½"	Threaded	OX-150
540-017-20	Oxygen	2"	2"	Threaded	OX-200
540-009-30	Oxygen	3"	3"	Threaded	OX-300
540-035-30	Oxygen	3"	2"	Threaded	OX-300
540-057-30	Oxygen	3"	2½"	Threaded	OX-300
590-028-15	Nitrogen	1½"	1½"	Brazed	NI-150
590-034-25	Nitrogen	2½"	2½"	Brazed	NI-250
590-036-25	Nitrogen	2½"	2"	Brazed	NI-250
580-042-15	Argon	1½"	1½"	Brazed	AR-150
580-044-25	Argon	2½"	2½"	Brazed	AR-250
580-046-25	Argon	2½"	2"	Brazed	AR-250
540-015-15	Oxygen	1½"	1½"	Brazed	OX-150
540-029-20	Oxygen	2"	2"	Brazed	OX-200
540-031-30	Oxygen	3"	3"	Brazed	OX-300
540-052-30	Oxygen	3"	2"	Brazed	OX-300

FIXED END ASSEMBLY - CAST TYPE



ACME PART NO.	LIQUID SERVICE	FITTING SIZE	END CONNECTIONS	CGA CONNECTIONS
590-015-15	Nitrogen	1 1/2"	1 1/2" FNPT	NI-150
590-016-15	Nitrogen	1 1/2" Short	1 1/2" Tube Socket	NI-150
590-020-15	Nitrogen	1 1/2"	1 1/2" Tube Socket	NI-150
590-042-15	Nitrogen	1 1/2"	1 1/2" Pipe Socket	NI-150
590-040-25	Nitrogen	2 1/2"	2" Tube Socket	NI-250
580-029-15	Argon	1 1/2"	1 1/2" FNPT	AR-150
580-031-15	Argon	1 1/2" Short	1 1/2" Tube Socket	AR-150
580-040-15	Argon	1 1/2"	1 1/2" Tube Socket	AR-150
580-047-15	Argon	1 1/2"	1 1/2" Pipe Socket	AR-150
580-020-25	Argon	2 1/2"	2" Tube Socket	AR-250
540-018-15	Oxygen	1 1/2"	1 1/2" Tube Socket	OX-150
540-049-15	Oxygen	1 1/2"	1 1/2" FNPT	OX-150
540-050-15	Oxygen	1 1/2" Short	1 1/2" Tube Socket	OX-150
540-077-15	Oxygen	1 1/2"	1 1/2" Pipe Socket	OX-150
540-016-20	Oxygen	2"	2" Tube Socket	Ox-200
540-051-20	Oxygen	2" Short	2" Tube Socket	OX-200

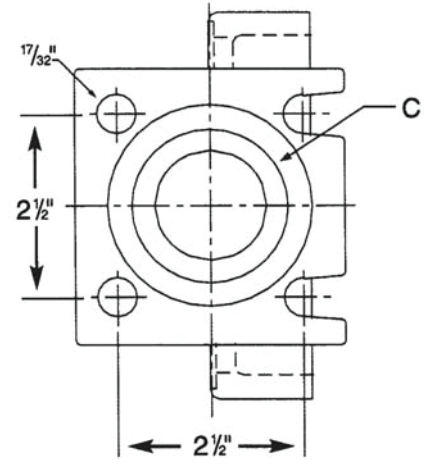
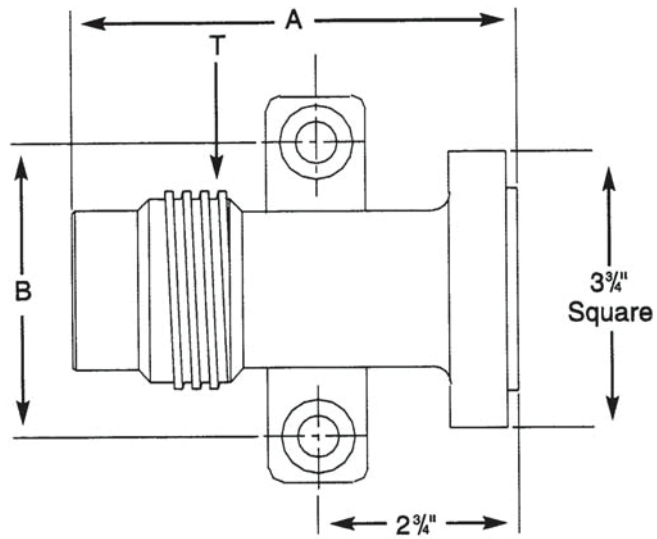
FIXED END ASSEMBLY - MACHINE TYPE



NOTE: All assembly numbers are for naval brass fixed ends. For stainless steel, order as individual items.

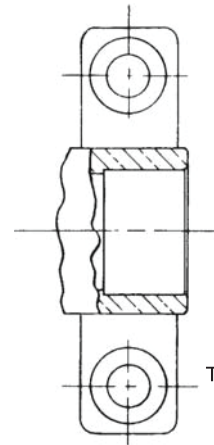
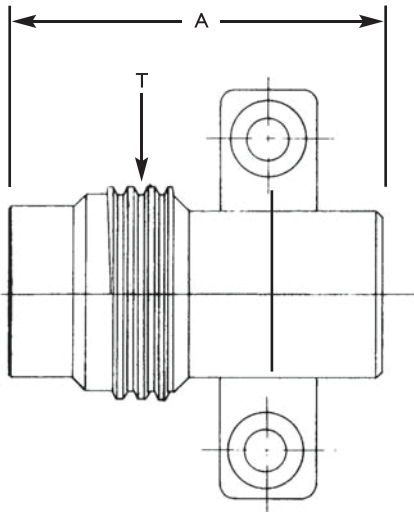
ACME PART NO.	LIQUID SERVICE	FITTING SIZE	END CONNECTIONS	CGA DESIGNATION
590-012-15	Nitrogen	1½"	1½" FNPT	NI-150
590-013-15	Nitrogen	1½"	1½" MNPT	NI-150
590-027-15	Nitrogen	1½"	1½" Tube Socket	NI-150
590-012-15	Nitrogen	1½"	1½" FNPT	NI-150
590-017-25	Nitrogen	2½"	2½" FNPT	NI-250
590-019-25	Nitrogen	2½"	2" FNPT Short Style	NI-250
590-033-25	Nitrogen	2½"	2½" Tube Socket	NI-250
590-048-25	Nitrogen	2½"	2½" Pipe Socket	NI-250
580-012-15	Argon	1½"	1½" FNPT	AR-150
580-013-15	Argon	1½"	1½" MNPT	AR-150
580-019-15	Argon	1½"	1¼" MNPT	AR-150
580-027-15	Argon	1½"	1½" Pipe Socket	AR-150
580-028-15	Argon	1½"	1" Pipe Socket	AR-150
580-041-15	Argon	1½"	1½" Tube Socket	AR-150
580-051-15	Argon	1½"	1½" FNPT	AR-150
580-038-25	Argon	2½"	2½" FNPT	AR-250
580-039-25	Argon	2½"	2" FNPT Short Style	AR-250
580-043-25	Argon	2½"	2½" Tube Socket	AR-250
580-048-25	Argon	2½"	2½" Pipe Socket	AR-250
540-014-15	Oxygen	1½"	1½" Tube Socket	OX-150
540-045-15	Oxygen	1½"	1½" MNPT	OX-150
540-046-15	Oxygen	1½"	1½" FNPT	OX-150
540-019-20	Oxygen	2"	2" Tube Socket	OX-200
540-047-20	Oxygen	2"	2" FNPT	OX-200
540-030-30	Oxygen	3"	3" Tube Socket	OX-300
540-048-30	Oxygen	3"	3" FNPT	OX-300
540-085-30	Oxygen	3"	2½" Pipe Socket	OX-300

INTEGRAL FLANGE CAST FIXED END ASSEMBLY

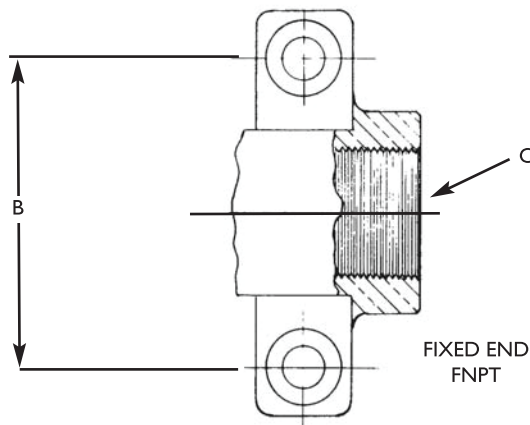


ACME PART NO.	LIQUID SERVICE	SIZE	CGA DESIGNATIONS	"T" THREAD SIZE	A		B		C
					INCHES	MM	INCHES	MM	END CONNECTIONS
590-123-15	Nitrogen	1 1/2"	NI-150	2.4-4 Stub Acme	6.125	155.6	4.000	101.6	4 bolt flg w/tongue
580-123-15	Argon	1 1/2"	AR-150	2.7-4 Stub Acme	6.125	155.6	4.000	101.6	4 bolt flg w/tongue
540-123-15	Oxygen	1 1/2"	OX-150	2.5-4 Stub Acme	6.125	155.6	4.000	101.6	4 bolt flg w/tongue

Precision machined to Compressed Gas Association standards. Material red brass casting ASTM-B62.



FIXED END
TUBE AND PIPE SOCKET



FIXED END
FNPT

ACME PART NO.	LIQUID SERVICE	SIZE	CGA DESIGNATION	"T" THREAD SIZE	A		B		C
					INCHES	MM	INCHES	MM	END CONNECTIONS
590-021-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.875	123.8	4.000	101.6	1½" Tube Socket
590-037-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.875	123.8	4.000	101.6	1½" FNPT
590-038-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.125	104.8	4.000	101.6	1½" Tube Socket
590-041-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.125	104.8	4.000	101.6	1½" Pipe Socket
590-022-25	Nitrogen	2½"	NI-250	3.5-4 Acme	5.062	128.6	4.000	101.6	2" Tube Socket
580-021-15	Argon	1½"	AR-150	2.7-4 Stub Acme	4.875	123.8	4.000	101.6	1½" Tube Socket
580-034-15	Argon	1½"	AR-150	2.7-4 Stub Acme	4.093	104.0	4.000	101.6	1½" Tube Socket
580-035-15	Argon	1½"	AR-150	2.7-4 Stub Acme	4.875	123.8	4.000	101.6	1½" FNPT
580-076-15	Argon	1½"	AR-150	2.7-4 Stub Acme	4.875	123.8	4.000	101.6	1½" Pipe Socket
580-022-25	Argon	2½"	AR-250	3.813-4 Acme	5.062	128.6	4.000	101.6	2" Tube Socket
540-020-15	Oxygen	1½"	OX-150	2.5-4 Acme	4.375	111.1	4.000	101.6	1½" Tube Socket
540-036-15	Oxygen	1½"	OX-150	2.5-4 Acme	4.375	111.1	4.000	101.6	1½" FNPT
540-038-15	Oxygen	1½"	OX-150	2.5-4 Acme	3.625	92.1	4.000	101.6	1½" Tube Socket
540-076-15	Oxygen	1½"	OX-150	2.5-4 Acme	4.375	111.1	4.000	101.6	1½" Pipe Socket
540-021-20	Oxygen	2"	OX-200	3-4 Acme	4.875	123.8	4.000	101.6	2" Tube Socket
540-028-20	Oxygen	2"	OX-200	3-4 Acme	3.625	92.1	4.000	101.6	2" Tube Socket

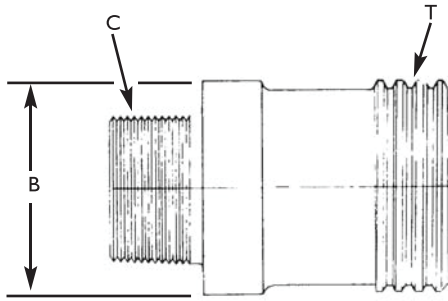
FIXED END MACHINED WITH MILLED FLATS TO ACCEPT HOLD DOWN BRACKETS

Precision machined to Compressed Gas Association standards.

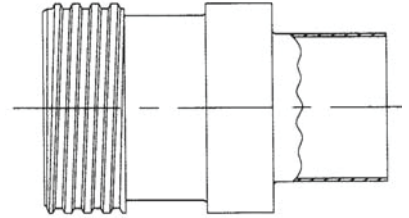
Material naval brass per ASTM-B-21

Material 304 S/S ASTM-A276

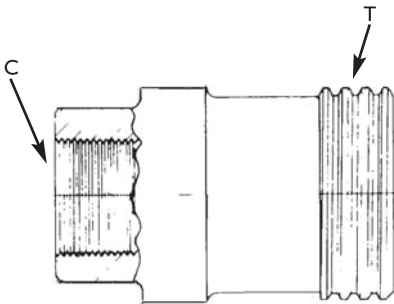
Material 316L S/S ASTM-A276



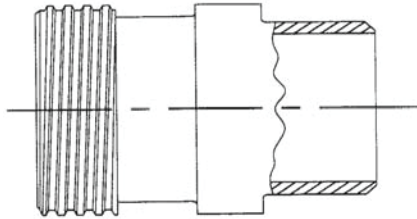
FIXED END MNPT



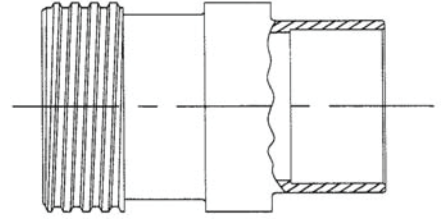
O.D. TUBE BWE



FIXED END FNPT



FIXED END SCH 10 BWE



FIXED END TUBE AND PIPE SOCKET

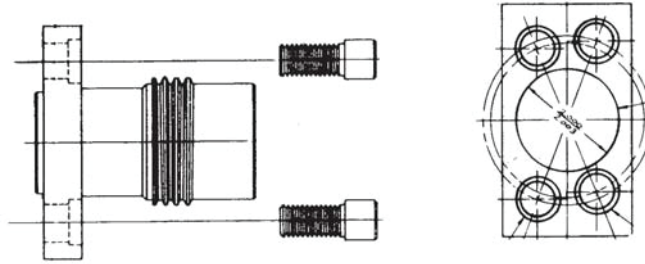
ACME PART NO.	LIQUID SERVICE	SIZE	CGA CONNECTIONS	MATERIAL	"T" THREAD SIZE	A	B	C
						INCHES	INCHES	END CONNECTIONS
590-014-15	Nitrogen	1 1/2"	NI-150	Naval Brass	2.4-4 Stub Acme	4.250	2.750	1 1/2" MNPT
590-023-15	Nitrogen	1 1/2"	NI-150	Naval Brass	2.4-4 Stub Acme	4.250	2.750	1 1/2" Tube Socket
590-039-15	Nitrogen	1 1/2"	NI-150	Naval Brass	2.4-4 Stub Acme	4.250	2.750	1 1/2" FNPT
590-058-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" O.D. Tube BWE
590-060-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Tube Socket
590-061-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Pipe Socket
590-062-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" FNPT
590-063-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" MNPT
590-064-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Sch 10 BWE
590-065-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	3.250	2.750	1/4" FNPT
590-067-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	3.250	2.750	1/4" FNPT
590-068-15	Nitrogen	1 1/2"	NI-150	Naval Brass	2.4-4 Stub Acme	3.250	2.750	1/4" FNPT
590-069-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	2" MNPT
590-070-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Pipe Socket
590-071-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Tube Socket
590-072-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" FNPT
590-073-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" MNPT
590-074-15	Nitrogen	1 1/2"	NI-150	304 S/S	2.4-4 Stub Acme	4.250	2.750	1 1/2" Sch 10 BWE
590-079-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	5.125	2.750	1 1/2" O.D. Tube BWE
590-090-15	Nitrogen	1 1/2"	NI-150	316L S/S	2.4-4 Stub Acme	4.750	2.750	2" O.D. Tube BWE
590-094-15	Nitrogen	1 1/2"	NI-150	Naval Brass	2.4-4 Stub Acme	4.250	2.750	1 1/2" Pipe Socket
ASK-40-0014	Nitrogen	2 1/2"	NI-250	Naval Brass	3.5-4 Acme	3.125	3.750	2" FNPT-Short
590-024-25	Nitrogen	2 1/2"	NI-250	Naval Brass	3.5-4 Acme	4.625	3.750	2 1/2" Tube Socket
590-029-25	Nitrogen	2 1/2"	NI-250	Naval Brass	3.5-4 Acme	4.625	3.750	2 1/2" FNPT
590-043-25	Nitrogen	2 1/2"	NI-250	304 S/S	3.5-4 Acme	4.625	3.750	3" Sch 10 BWE
590-044-25	Nitrogen	2 1/2"	NI-250	304 S/S	3.5-4 Acme	4.625	3.750	2 1/2" Tube Socket
590-051-25	Nitrogen	2 1/2"	NI-250	304 S/S	3.5-4 Acme	4.625	3.750	2 1/2" Sch 10 BWE

ACME PART NO	LIQUID SERVICE	SIZE	CGA CONNECTIONS	MATERIAL	"T" THREAD SIZE	A	B	C
						INCHES	INCHES	END CONNECTIONS
590-053-25	Nitrogen	2½"	NI-250	Naval Brass	3.5-4 Acme	3.125	3.750	2½" FNPT Short
590-057-25	Nitrogen	2½"	NI-250	Naval Brass	3.5-4 Acme	4.625	3.750	2½" Pipe Socket
590-075-25	Nitrogen	2½"	NI-250	316L S/S	3.5-4 Acme	4.625	3.750	2" FNPT
590-076-25	Nitrogen	2½"	NI-250	Naval Brass	3.5-4 Acme	4.625	3.750	3" FNPT
590-077-25	Nitrogen	2½"	NI-250	304 S/S	3.5-4 Acme	3.125	3.750	2½" Pipe Socket
590-078-25	Nitrogen	2½"	NI-250	304 S/S	3.5-4 Acme	4.625	3.750	2½" Pipe Socket
590-083-25	Nitrogen	2½"	NI-250	304 S/S	3.5-4 Acme	4.625	3.750	3" FNPT
590-084-25	Nitrogen	2½"	NI-250	316L S/S	3.5-4 Acme	4.625	3.750	3" FNPT
590-085-25	Nitrogen	2½"	NI-250	304 S/S	3.5-4 Acme	3.250	3.750	¼" FNPT
590-086-25	Nitrogen	2½"	NI-250					2" MNPT
580-014-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1" Pipe Socket
580-015-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1½" Pipe Socket
580-016-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1½" MNPT
580-017-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1¼" MNPT
580-023-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1½" Tube Socket
580-033-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	4.250	2.750	1½" FNPT
580-060-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" Tube Socket
580-061-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" Pipe Socket
580-062-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" FNPT
580-063-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" MNPT
580-064-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" Sch 10BWE
580-065-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	3.250	2.750	¼" FNPT
580-067-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	3.250	2.750	¼" FNPT
580-068-15	Argon	1½"	AR-150	Naval Brass	2.7-4 Stub Acme	3.250	2.750	¼" FNPT
580-070-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" Tube Socket
580-071-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" Pipe Socket
580-072-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" FNPT
580-073-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" MNPT
580-074-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" Sch 10 BWE
580-078-15	Argon	1½"	AR-150	304 S/S	2.7-4 Stub Acme	4.250	2.750	1½" O.D. Tube BWE
580-079-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	1½" O.D. Tube BWE
580-090-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	4.250	2.750	2" O.D. Tube BWE
ASK-40-0015	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	3.187	3.837	2" FNPT Short
580-024-25	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	4.687	3.837	2½" Tube Socket
580-036-25	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	4.687	3.837	2½" FNPT
580-052-25	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	4.687	3.837	3" FNPT
580-057-25	Argon	2½"	AR-250	304 S/S	3.813-4 Acme	4.687	3.837	3" Sch 10 BWE
580-069-25	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	3.188	3.837	2½" FNPT Short
580-075-25	Argon	2½"	AR-250	Naval Brass	3.813-4 Acme	4.687	3.837	2½" Pipe Socket
580-080-25	Argon	2½"	AR-250	304 S/S	3.813-4 Acme	4.687	3.837	3" FNPT
580-081-25	Argon	2½"	AR-250	316L S/S	3.813-4 Acme	4.687	3.837	3" FNPT
580-082-25	Argon	2½"	AR-250	304 S/S	3.813-4 Acme	4.687	3.837	2½" Sch 10 BWE
580-085-25	Argon	2½"	AR-250	304 S/S	3.813-4 Acme	3.312	3.837	¼" FNPT
540-023-15	Oxygen	1½"	OX-150	Naval Brass	2.5-4 Acme	4.250	2.750	1½" Tube Socket
540-037-15	Oxygen	1½"	OX-150	Naval Brass	2.5-4 Acme	4.125	2.750	1½" FNPT
540-041-15	Oxygen	1½"	OX-150	Naval Brass	2.5-4 Acme	4.250	2.750	1½" MNPT
540-060-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.125	2.750	1½" Tube Socket
540-061-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.125	2.750	1½" Pipe Socket
540-062-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.125	2.750	1½" FNPT
540-063-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.250	2.750	1½" MNPT
540-064-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.125	2.750	1½" Sch 10 BWE
540-065-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	3.125	2.750	¼" FNPT
540-067-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	3.125	2.750	¼" FNPT
540-068-15	Oxygen	1½"	OX-150	Naval Brass	2.5-4 Acme	3.125	2.750	¼" FNPT
540-070-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.125	2.750	1½" Tube Socket
540-071-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.125	2.750	1½" Pipe Socket
540-072-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.125	2.750	1½" FNPT
540-073-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.250	2.750	1½" MNPT
540-074-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.125	2.750	1½" Sch 10 BWE
540-078-15	Oxygen	1½"	OX-150	304 S/S	2.5-4 Acme	4.750	2.750	1½" O.D. Tube BWE
540-079-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.750	2.750	1½" O.D. Tube BWE
540-090-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	4.750	2.750	2" O.D. Tube BWE
540-094-15	Oxygen	1½"	OX-150	Naval Brass	2.5-4 Acme	4.250	2.750	1½" Pipe Socket
540-022-20	Oxygen	2"	OX-200	Naval Brass	3-4 Acme	4.500	3.250	2" Tube Socket
540-039-20	Oxygen	2"	OX-200	Naval Brass	3-4 Acme	4.500	3.250	2" FNPT
540-075-20	Oxygen	2"	OX-200	304 S/S	3-4 Acme	4.500	3.250	2" Sch 10 BWE
540-024-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	3" Tube Socket
540-040-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	3" FNPT
540-058-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	2" Pipe Socket
540-069-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	3.000	4.250	3" FNPT Short
540-080-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	2½" Pipe Socket
540-082-30	Oxygen	3"	OX-300	304 S/S	4.25-4 Acme	4.500	4.250	3" Sch 10 BWE
540-089-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	3" MNPT
540-091-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	3" Pipe Socket
540-092-30	Oxygen	3"	OX-300	Naval Brass	4.25-4 Acme	4.500	4.250	2½" FNPT

FIXED END ASSEMBLY BRAZED BLOCK

Material

- ◆ Naval Brass ASTM B21
- ◆ Bolts 304 Stainless Steel



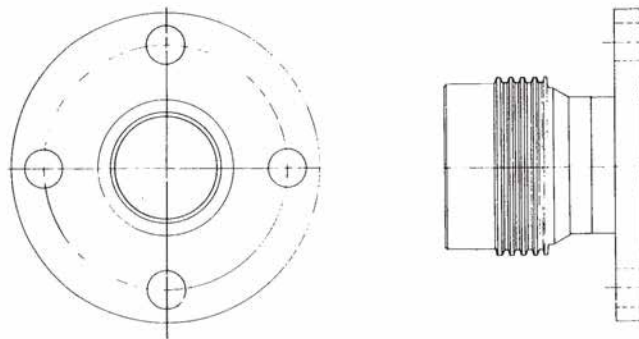
FIXED END ASSEMBLY - BRAZED BLOCK

ACME PART NO.	LIQUID SERVICE	SIZE	CGA CONNECTIONS
ASK-40-0434	Nitrogen	1½"	NI-150
ASK-40-0454	Argon	1½"	AR-150
ASK-40-0416	Oxygen	1½"	OX-150

FIXED END ASSEMBLY RAIL CAR

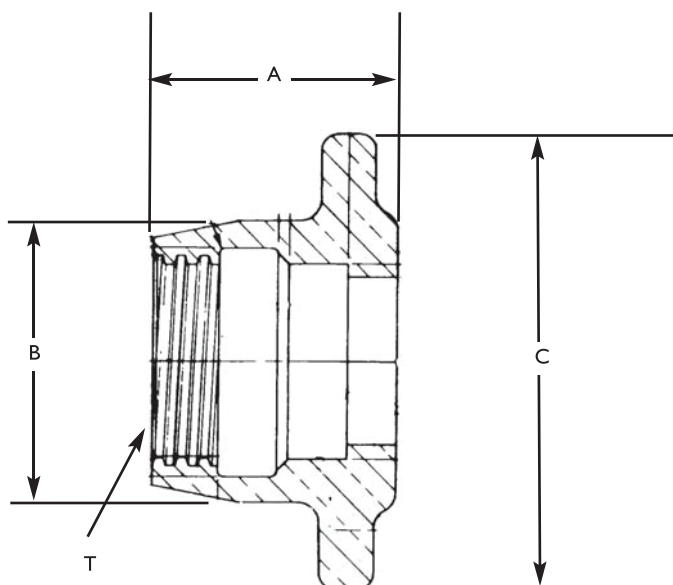
Fixed end naval brass ASTM B21

Flange naval brass or 304 stainless steel



ACME PART NO.	LIQUID SERVICE	SIZE	CGA CONNECTION	FLANGE MATERIAL
ASK-40-0440	Nitrogen	2½"	NI-250	Naval Brass
ASK-40-0441	Argon	2½"	AR-250	Naval Brass
ASK-40-0455	Oxygen	2"	OX-200	Naval Brass
ASK-40-0442	Oxygen	3"	OX-300	Naval Brass
ASK-40-0443	Nitrogen	2½"	NI-250	Stainless Steel
ASK-40-0444	Argon	2½"	AR-250	Stainless Steel
ASK-40-0456	Oxygen	2"	OX-200	Stainless Steel
ASK-40-0445	Oxygen	3"	OX-300	Stainless Steel

HOSE NUT

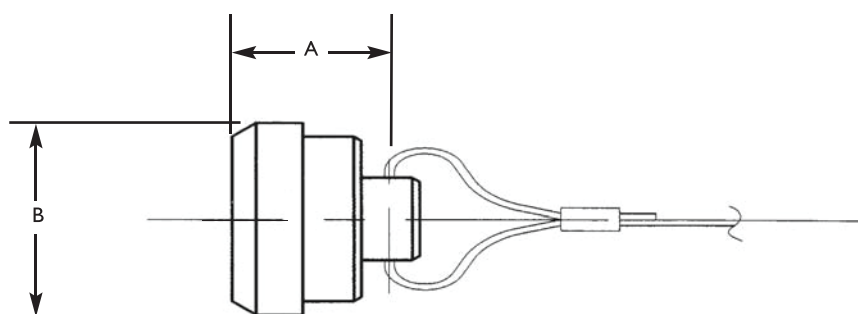


Cast Bronze per ASTM B148-9D. 316L S/S PER ASTM A 351, CF3M. Precision machined to conform to Compressed Gas Association standards for Cryogenic Liquid Transfer connections.

ACME PART NO.	LIQUID SERVICE	SIZE	CGA CONNECTION	MATERIAL	"T" THREAD SIZE	A INCHES	B INCHES	C INCHES
590-000-15	Nitrogen	1½"	NI-150	Bronze	2.4-4 Stub Acme	2.812	3.250	5.250
590-055-15	Nitrogen	1½"	NI-150	316L S/S	2.4-4 Stub Acme	2.812	3.250	5.250
590-002-25	Nitrogen	2½"	NI-250	Bronze	3.5-4 Acme	2.937	4.375	6.250
590-108-25	Nitrogen	2½"	NI-250	316L S/S	3.5-4 Acme	2.937	4.500	6.875
580-002-15	Argon	1½"	AR-150	Bronze	2.7-4 Stub Acme	2.812	3.500	5.250
580-055-15	Argon	1½"	AR-150	316L S/S	2.7-4 Stub Acme	2.812	3.500	5.250
580-000-25	Argon	2½"	AR-250	Bronze	3.813-4 Acme	2.937	4.625	6.875
580-108-25	Argon	2½"	AR-250	316L S/S	3.813-4 Acme	2.937	4.625	6.875
540-000-15	Oxygen	1½"	OX-150	Bronze	2.5-4 Acme	2.125	3.250	5.000
540-055-15	Oxygen	1½"	OX-150	316L S/S	2.5-4 Acme	2.125	3.250	5.000
540-010-20	Oxygen	2"	OX-200	Bronze	3-4 Acme	2.062	3.500	6.000
540-005-30	Oxygen	3"	OX-300	Bronze	4.25-4 Acme	2.375	5.000	6.750
540-108-30	Oxygen	3"	OX-300	316L S/S	4.25-4 Acme	2.437	5.000	6.750

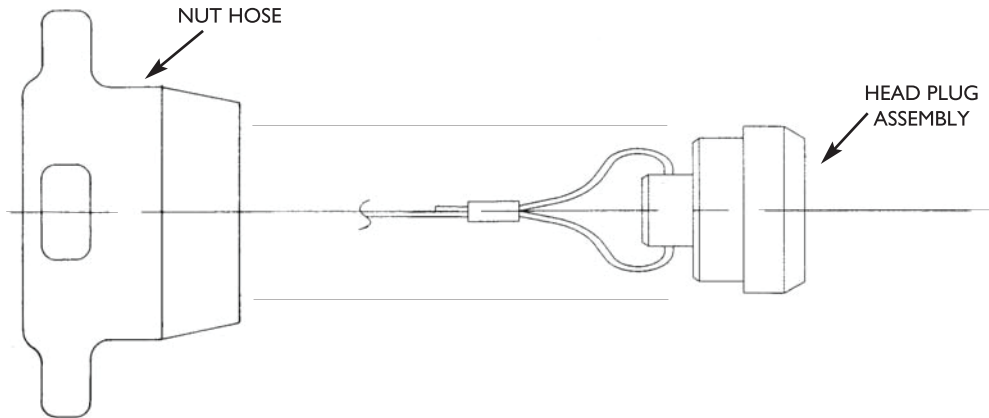
HEAD PLUG ASSEMBLY

Plug material naval brass per ASTM B-21. Cable material 316L stainless steel with 1/8" S/S aircraft cable.



ACME PART NO.	SIZE	INCHES	MM	INCHES	MM	MATERIAL
ASK-40-0021	1½"	1.312	33.4	2.312	58.7	Naval Brass
ASK-40-0024	2"	1.312	33.4	2.687	68.2	Naval Brass
ASK-40-0022	2½"	1.750	44.5	3.187	80.9	Naval Brass
ASK-40-0023	3"	1.750	44.5	3.937	100.0	Naval Brass
ASK-40-0021S	1½"	1.312	33.4	2.312	58.7	316L S/S

PRESSURE CAP ASSEMBLY



ACME PART NO.	LIQUID SERVICE	SIZE	CGA DESIGNATION
590-030-15	Nitrogen	1 1/2"	NI-150
590-032-25	Nitrogen	2 1/2"	NI-250
580-030-15	Argon	1 1/2"	AR-150
580-032-25	Argon	2 1/2"	AR-250
540-032-15	Oxygen	1 1/2"	OX-150
540-033-20	Oxygen	2"	OX-200
540-034-30	Oxygen	3"	OX-300

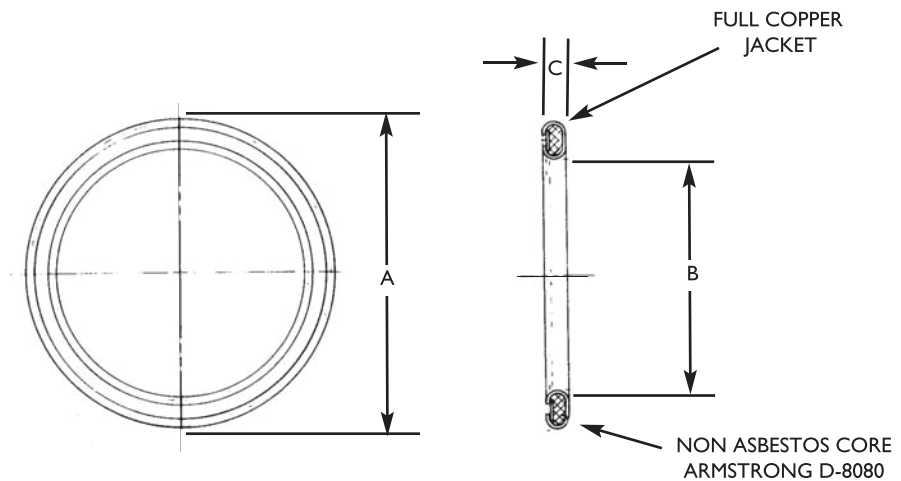
NOTE: All pressure cap assembly numbers are bronze nuts.

COPPER CLAD GASKET (DOUBLE JACKET) OR VIRGIN TEFLON®

Oxygen clean and certified.

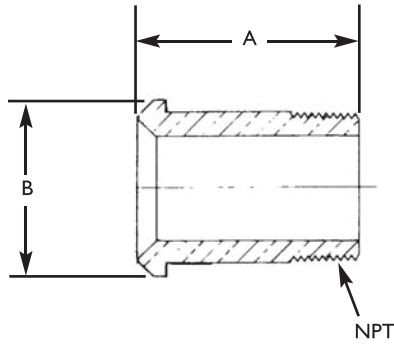
25 Copper gaskets per package

100 Teflon gaskets per package



ACME PART NO.	SIZE	A		B		C		MATERIAL
		INCHES	MM	INCHES	MM	INCHES	MM	
ASK-40-0045	1 1/2"	1.94	49.3	1.50	38.1	.09	2.29	Copper
ASK-40-0047	2 1/2"	3.00	76.2	2.50	63.5	.09	2.29	Copper
ASK-40-0048	3"	3.69	93.7	3.00	76.2	.09	2.29	Copper
ASK-40-0016	1 1/2"	1.94	49.3	1.50	38.1	.09	2.29	Teflon
ASK-40-0017	2"	2.44	62.0	2.00	50.8	.09	2.29	Teflon
ASK-40-0018	2 1/2"	3.00	76.2	2.50	63.5	.09	2.29	Teflon
ASK-40-0019	3"	3.687	93.6	3.00	76.2	.09	2.29	Teflon

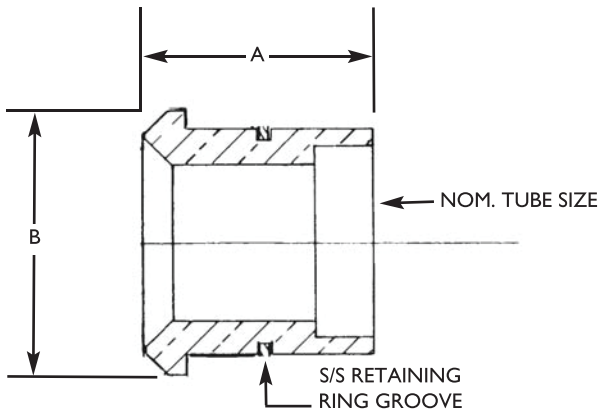
HEAD PIECE THREADED



Precision machined to Compressed Gas Association standards. Material naval brass per ASTM-B-21
Material 304 S/S ASTM-A276
Material 316L S/S ASTM-A276

ACME PART NO.	SIZE	NPT	MATERIAL	A	B
				INCHES	INCHES
ASK-40-0003	1 1/2" hose x 1 1/2" nut	1 1/2"-11 1/2	Naval Brass	2.750	2.187
ASK-40-0130	1 1/2" hose x 1 1/2" nut	1 1/2"-11 1/2	Naval Brass	3.250	2.187
ASK-40-0082	1 1/2" hose x 2 1/2" nut	1 1/2"-11 1/2	Naval Brass	4.750	3.180
ASK-40-0080	1 1/2" hose x 3" nut	1 1/2"-11 1/2	Naval Brass	4.750	3.937
ASK-40-0084	1 1/2" hose x 1 1/2" nut	1 1/2"-11 1/2	316L S/S	2.750	2.187
ASK-40-0118	1 1/2" hose x 1 1/2" nut	1 1/2"-11 1/2	304 S/S	2.750	2.187
ASK-40-0020	2" hose x 2" nut	2"-11 1/2	Naval Brass	3.000	2.687
ASK-40-0050	2" hose x 2 1/2" nut	2"-11 1/2	Naval Brass	4.000	3.180
ASK-40-0051	2" hose x 3" nut	2"-11 1/2	Naval Brass	3.750	3.937
ASK-40-0127	2" nose x 2" nut	2"-11 1/2	304 S/S	3.000	2.687
ASK-40-0125	2" nose x 2 1/2" nut	2"-11 1/2	304 S/S	4.000	3.180
ASK-40-0126	2" nose x 3" nut	2"-11 1/2	304 S/S	3.750	3.937
ASK-40-0004	2 1/2" nose x 2 1/2" nut	2 1/2"-8	Naval Brass	3.625	3.180
ASK-40-0097	2 1/2" nose x 3" nut	2 1/2"-8	Naval Brass	4.000	3.937
ASK-40-0129	2 1/2" nose x 2 1/2" nut	2 1/2"-8	304 S/S	3.625	3.180
ASK-40-0131	2 1/2" nose x 3" nut	2 1/2"-8	304 S/S	4.000	3.937
ASK-40-0006	3" nose x 3" nut	3"-8	Naval Brass	3.625	3.937
ASK-40-0128	3" nose x 3" nut	3"-8	304 S/S	3.625	3.937

HEAD PIECE BRAZE END AND SCHEDULE 10 BWE (NOT PICTURED)

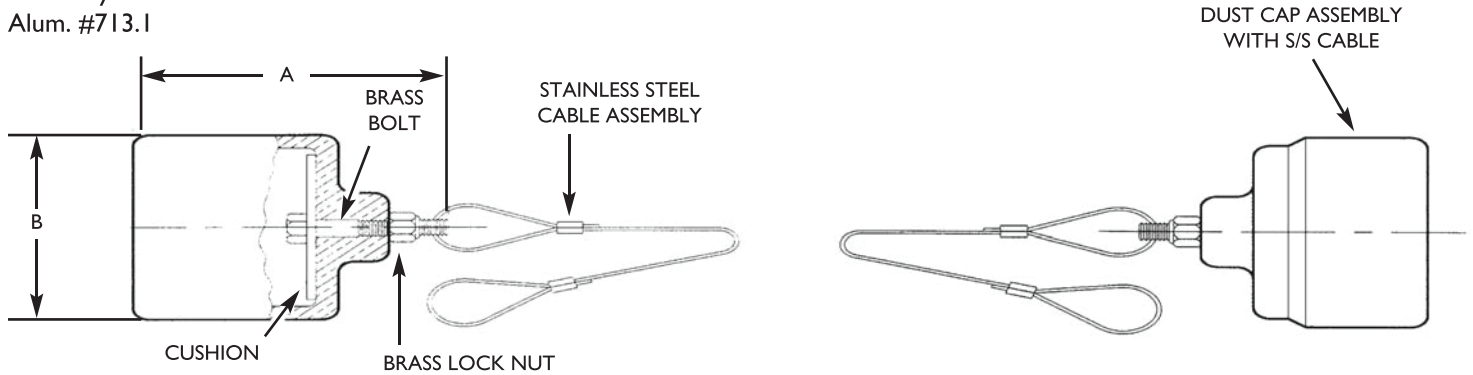


Precision machined to Compressed Gas Association standards. Material naval brass per ASTM-B-21
Material 304 S/S ASTM-A276
Material 316L S/S ASTM-A276

ACME PART NO.	SIZE	TUBE OR SIZE	MATERIAL	A	B
ASK-40-0049	1 1/2" hose x 1 1/2" nut	1 1/2" Tube Mate	Naval Brass	2.750	2.187
ASK-40-0052	1 1/2" hose x 1 1/2" nut	1 1/2" Tube Socket	Naval Base	1.687	2.187
ASK-40-0116	1 1/2" hose x 1 1/2" nut	1 1/2" Pipe BWE	316L S/S	4.000	2.187
ASK-40-0135	1 1/2" hose x 1 1/2" nut	1 1/2" O.D. Tube BWE	316L S/S	4.250	2.187
ASK-40-0117	1 1/2" hose x 1 1/2" nut	1 1/4" Pipe Socket	304 S/S	1.687	2.187
ASK-40-0119	1 1/2" hose x 1 1/2" nut	1/2" Pipe BWE	304 S/S	2.750	2.187
ASK-40-0053	2" hose x 2" nut	2" Tube Socket	Naval Brass	1.937	2.687
ASK-40-0054	2" Hose x 2 1/2" nut	2" Tube Socket	Naval Brass	2.937	3.180
ASK-40-0033	2" hose x 3" nut	2" Tube Socket	Naval Brass	2.687	3.937
ASK-40-0034	2 1/2" hose x 2 1/2" nut	2 1/2" Tube Socket	Naval Brass	2.062	3.180
ASK-40-0120	2 1/2" hose x 2 1/2" nut	2 1/2" Pipe BWE	304 S/S	3.625	3.180
ASK-40-0032	3" hose x 3" nut	3" Tube Socket	Naval Brass	2.000	3.937
ASK-40-0121	3" hose x 3" nut	3" Tube BWE	304 S/S	3.625	3.937

DUST CAP ASSEMBLY

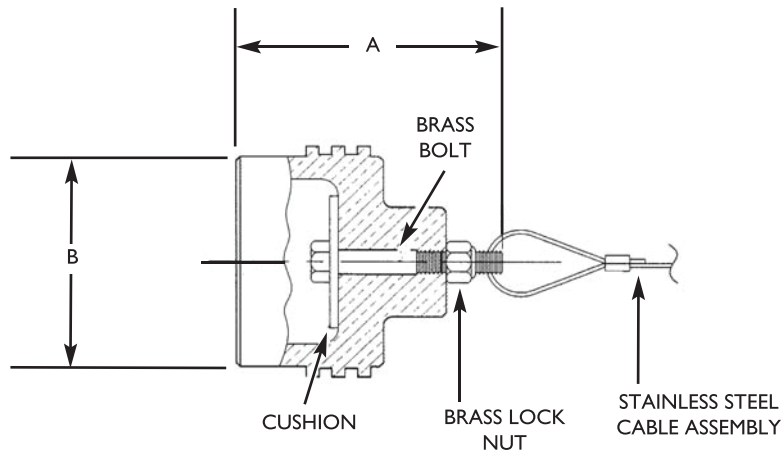
Cap material cast aluminum, black anodized.
Tenzalloy ASTM-B179
Alum. #713.1



ACME PART NO.	LIQUID SERVICE	SIZE	CGA DESIGNATION	"T" THREAD SIZE	A		B	
					INCHES	MM	INCHES	MM
590-004-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.250	108.0	2.875	73.0
590-008-25	Nitrogen	2½"	NI-250	3.5-4 Acme	4.250	108.0	4.093	104.0
580-008-15	Argon	1½"	AR-150	2.7-4 Stub Acme	4.250	108.0	2.812	71.4
580-004-25	Argon	2½"	AR-250	3.813-4 Acme	4.250	108.0	3.937	100.0
540-004-15	Oxygen	1½"	OX-150	2.5-4 Acme	3.250	83.0	3.000	76.2
540-012-20	Oxygen	2"	OX-200	3-4 Acme	3.250	83.0	3.500	88.9
540-008-30	Oxygen	3"	OX-300	4.25-4 Acme	3.500	89.0	4.812	122.2

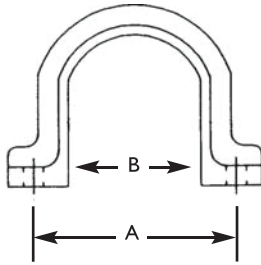
TAIL PLUG ASSEMBLY

Plug material cast aluminum, black anodized.
Tenzalloy B-179
Alum. #713.1



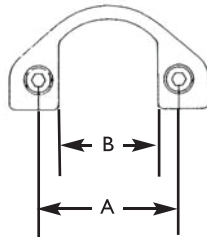
ACME PART NO.	LIQUID SERVICE	SIZE	CGA DESIGNATION	"T" THREAD SIZE	A	
					INCHES	MM
590-001-15	Nitrogen	1½"	NI-150	2.4-4 Stub Acme	4.000	101.6
590-006-25	Nitrogen	2½"	NI-250	3.5-4 Acme	4.000	101.6
580-006-15	Argon	1½"	AR-150	2.76-4 Stub Acme	4.000	101.6
580-001-25	Argon	2½"	AR-250	3.813-4 Acme	4.000	101.6
540-001-15	Oxygen	1½"	OX-150	2.5-4 Acme	3.500	88.9
540-013-20	Oxygen	2"	OX-200	3-4 Acme	3.500	88.9
540-006-30	Oxygen	3"	OX-300	4.25-4 Acme	3.750	95.3

FIXED END CLAMP
For Machined Type Fixed Ends
 Furnished complete with Bolt Assembly



ACME PART NO.	FIXED END SIZE	A		B		MATERIAL
		INCHES	MM	INCHES	MM	
ASK-40-0026	1 1/2"	4.00	101.6	2.25	57.2	Bronze
ASK-40-0027	2"	4.50	114.3	2.75	69.9	Bronze
ASK-40-0028	2 1/2"	5.00	127.0	3.25	82.6	Bronze
ASK-40-0029	3"	5.50	139.7	3.75	95.3	Bronze
ASK-40-0141	1 1/2"	4.000	101.6	2.250	57.2	304 S/S
ASK-40-0142	2 1/2"	5.000	127.0	3.250	82.6	304 S/S

FIXED END CLAMP, RIGHT ANGLED
For Machined Type Fixed Ends
 Furnished complete with Bolt Assembly



ACME PART NO	FIXED END SIZE	A		B		MATERIAL
		INCHES	MM	INCHES	MM	
ASK-40-0079	1 1/2"	3.250	120.7	2.250	57.2	Bronze
*ASK-40-0083	1 1/2"	3.250	120.7	2.250	57.2	Bronze

*Argon Only

STAINLESS STEEL
CABLE ASSEMBLY



ACME PART NO.	A
ASK-40-0144	32"

BOLT ASSEMBLY

For Fixed End Clamp
 Material - stainless steel. Type 304



ACME PART NO.	"T" THREAD SIZE	A
ASK-40-0025	1/2"-13 UNC	2 3/4"

FORGED BRASS FLANGES 4-BOLT HOLE SOLDER TYPE WITH TONGUE

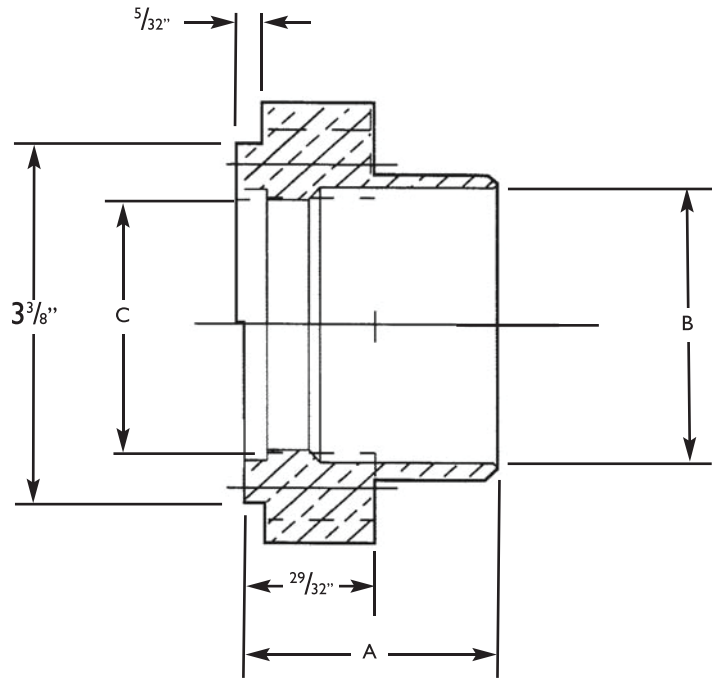
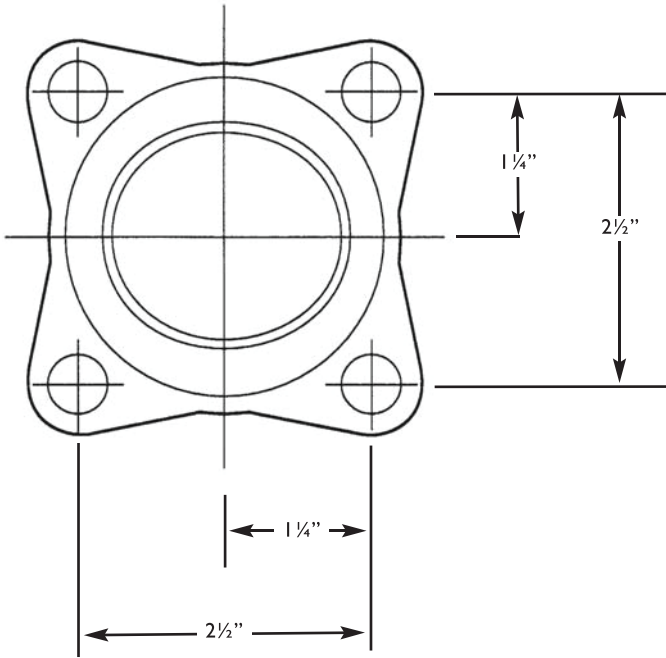
4-Bolt Hole Forged Flanges - with Tongue

Tongue Diameters $2\frac{3}{4}$ " x $2\frac{7}{64}$ "

Pressure rating: 450 PSIG

Service Temperature: -320°F to +150°F

Material: Forged Brass CA 377, ASTM B283

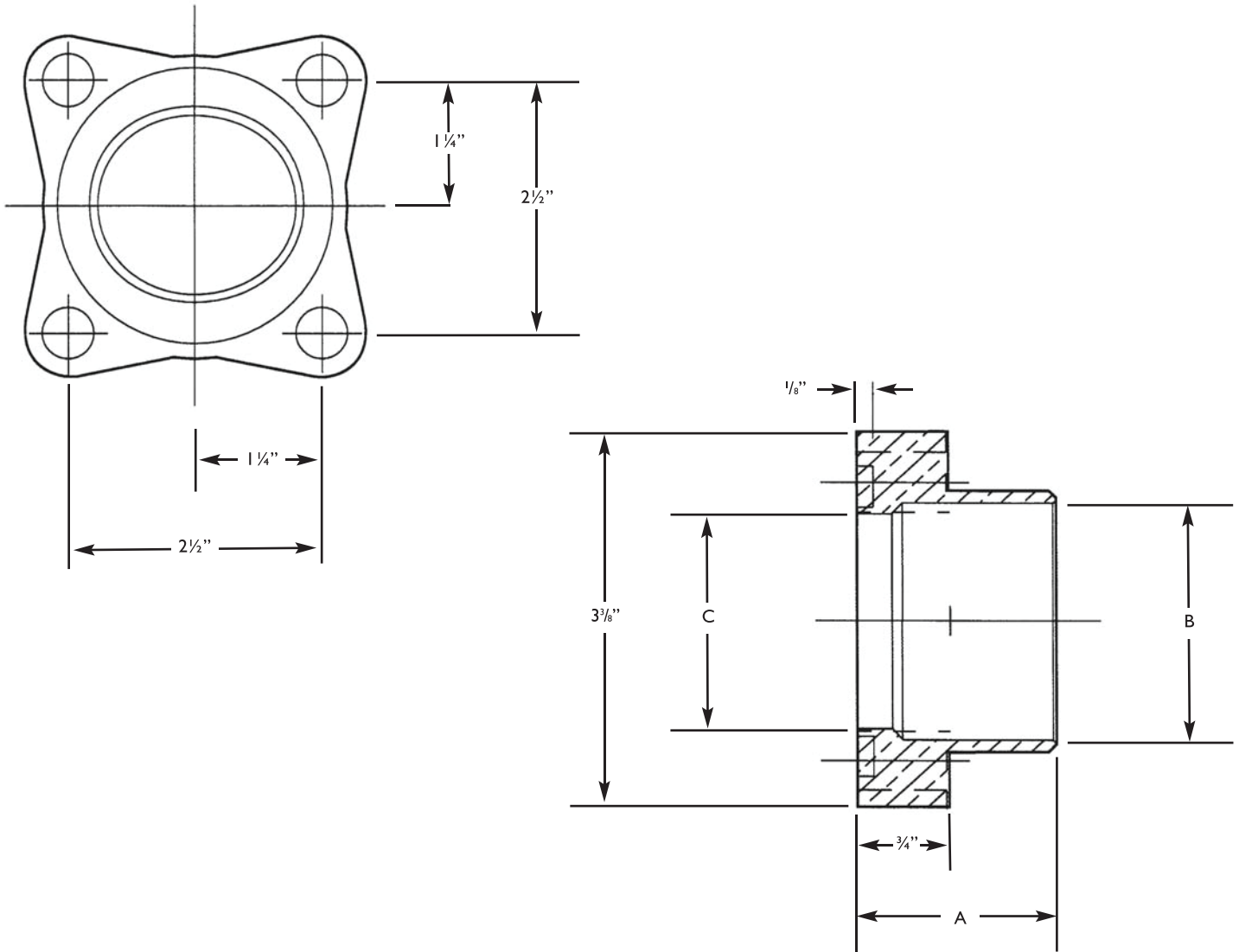


ACME PART NO.	SIZE			DIA OF BOLT HOLES	WT./EA.
	A	TUBE O.D. B	C		
ASK-40-0148	$1\frac{3}{4}$ "	$1\frac{1}{8}$ "	$1\frac{1}{16}$ "	$\frac{17}{32}$	2.06
ASK-40-0152	$1\frac{29}{32}$ "	$1\frac{5}{8}$ "	$1\frac{17}{32}$ "	$\frac{17}{32}$	1.94
ASK-40-0156	$1\frac{7}{8}$ "	$2\frac{1}{8}$ "	$1\frac{15}{16}$ "	$\frac{17}{32}$	1.63
BLIND FLANGE					
ASK-40-0150	$1\frac{7}{8}$ "	-	-	$\frac{17}{32}$	4.00

*Flange size can be mixed to create a reducing union.

FORGED BRASS FLANGES 4-BOLT SOLDER TYPE WITH GROOVE

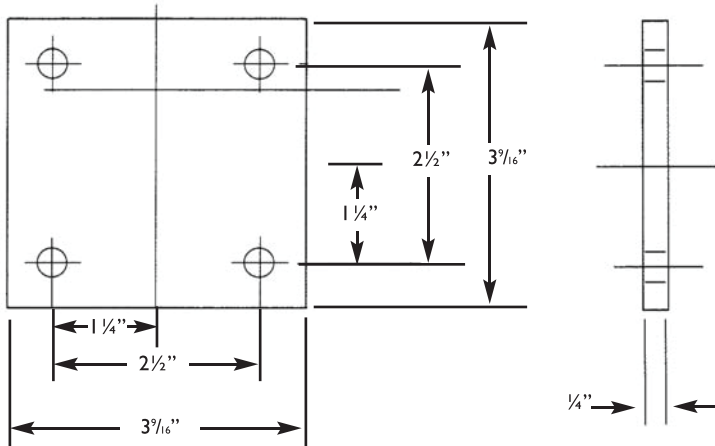
4-Bolt Hole Forged Flanges - with Groove
Groove Diameters: $2\frac{25}{32}$ " x $2\frac{1}{16}$ "



ACME PART NO.	SIZE			DIA OF BOLT HOLES	WT/EA
	A	TUBE O.D. B	C		
ASK-40-0149	$1\frac{9}{16}$ "	$1\frac{1}{8}$ "	$1\frac{1}{16}$ "	$\frac{17}{32}$	2.06
ASK-40-0153	$1\frac{3}{4}$ "	$1\frac{5}{8}$ "	$1\frac{7}{32}$ "	$\frac{17}{32}$	1.94
ASK-40-0157	$1\frac{23}{32}$ "	$2\frac{1}{8}$ "	$1\frac{5}{16}$ "	$\frac{17}{32}$	1.63
BLIND FLANGE					
ASK-40-0151	$1\frac{23}{32}$ "	—	—	$\frac{17}{32}$	4.00

*Flange size can be mixed to create a reducing union.

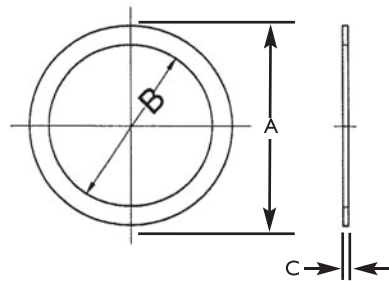
4-BOLT HOLE ALUMINUM SHIPPING PLATE



ACME PART NO.	DIA. OF BOLT HOLES	WT/EA
ASK-40-0165	17/32	.311

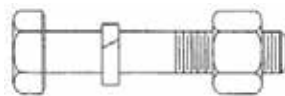
* Not for use in pressurized service. For pressure applications use proper mating blind flanges as described above and proper gasket material as described below per service chart.

GASKETS



ACME PART NO.	A	B	C	MATERIAL
ASK-40-0160	2 3/4"	2 3/16"	.063	25% glass filled Teflon
ASK-40-0162	2 3/4"	2 3/16"	.063	Klingsil C-4401

HARDWARE (SUITABLE FOR CRYOGENIC APPLICATIONS)



ACME PART NO.	DESCRIPTION	MATERIAL
ASK-40-0167	Bolt, Hex, Hd. 1/2" - 13UNC x 2 1/2" lg	ASTM A-320 Gr B8; 304 S.S.
ASK-40-0168	Nut, Hex, 1/2" - 13UNC	ASTM A-194 Gr 8T; 321 S.S.
ASK-40-0169	Washer, Lock, 1/2" medium spring	304 S.S.
ASK-40-0170	Bolting Kit, (4) per kit, (as shown)	Bolting Kit (as shown)

ACME 
CRYOGENICS
THE PINNACLE OF PERFORMANCE

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