

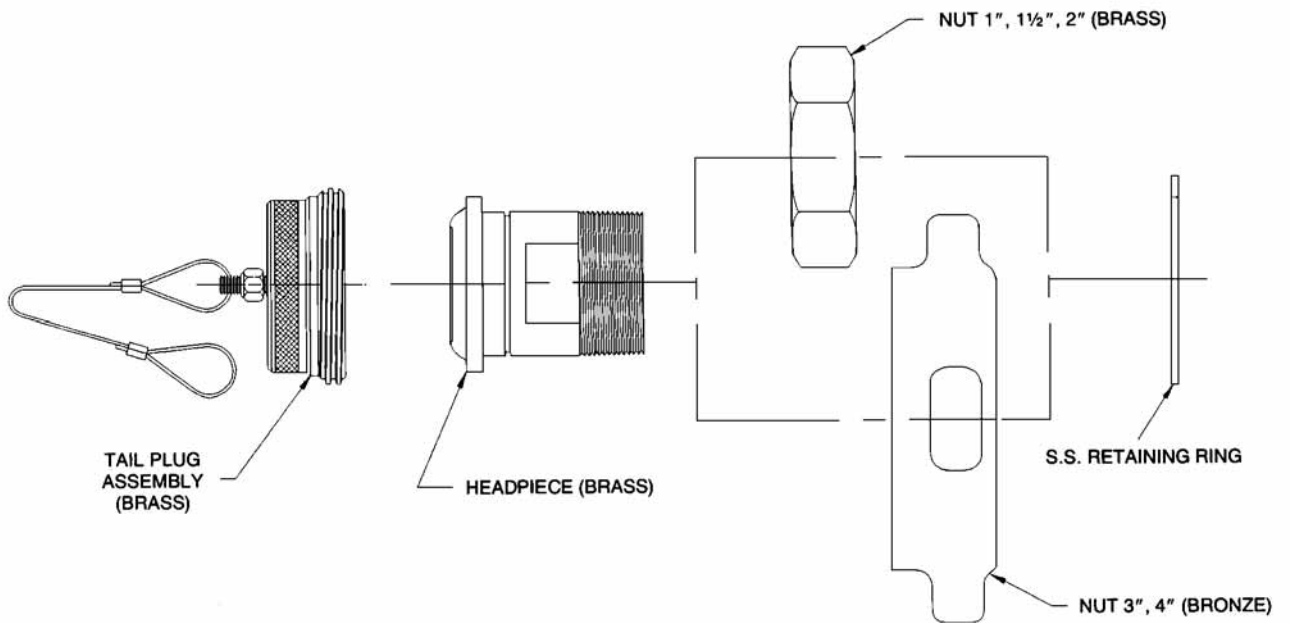
CGA-Standard Carbon Dioxide Liquid & Vapor Transfer Connections



800-422-2790 • 610-791-2402 (f)

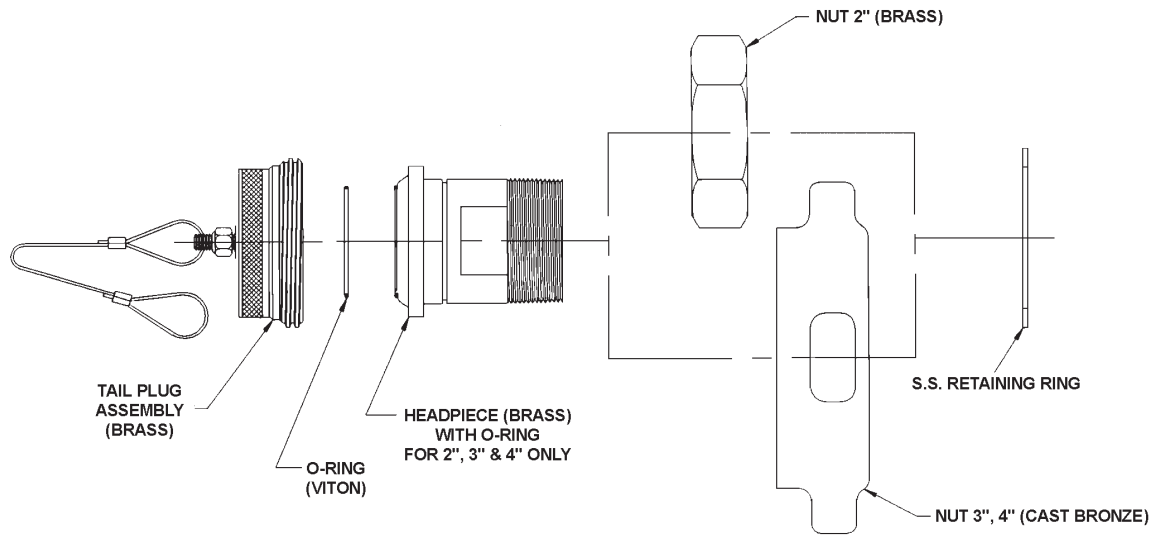
www.acmecryo.com

Hose End Assembly Carbon Dioxide



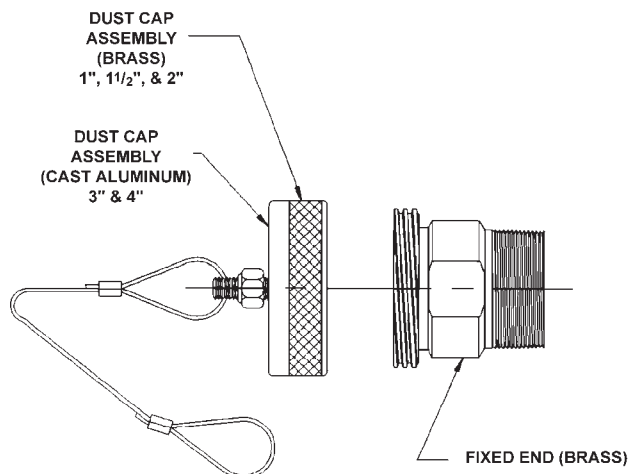
ACME PART NO.	SIZE	PRICE
320-025-10	1"	\$64.97
320-021-15	1 1/2"	87.83
320-032-20	2"	154.34
320-039-30	3"	445.08

Hose End Assembly Carbon Dioxide with O-Ring

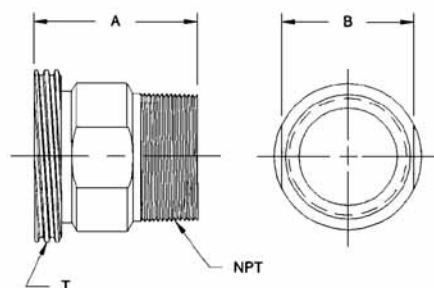


ACME PART NO.	SIZE	PRICE
320-111-20	2"	\$ 176.45
320-112-30	3"	508.95

Fixed End Assembly Carbon Dioxide



ACME PART NO.	SIZE	DUST-CAP MATERIAL	PRICE
320-026-10	1"	BRASS	\$40.13
320-020-15	1 1/2"	BRASS	51.29
320-033-20	2"	BRASS	98.38
320-040-30	3"	CAST ALUMINUM	282.32



Fixed End Carbon Dioxide (Brass)

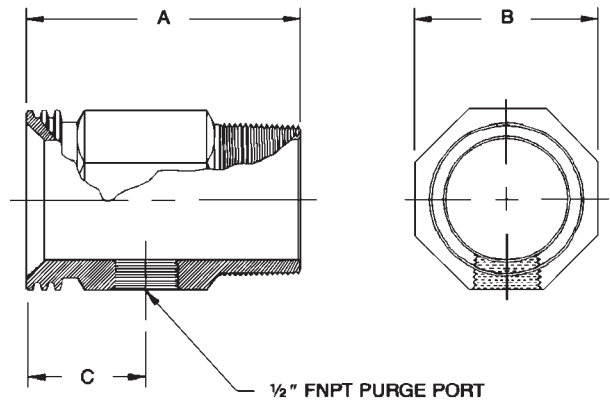
Materials:

--Forged Brass per ASTM B-283 for 1" and 1 1/2" sizes

--Brass Bar per ASTM B16 for 2", 3" and 4" sizes

ACME PART NO.	SIZE	NPT	"T" THREAD-SIZE	A		WRENCH FLATS B		PRICE
				INCHES	MM	INCHES	MM	
320-019-10FE	1"	1-11 1/2	1.687-6 Acme	2.500	63.5	1.375	34.9	\$ 17.18
320-000-15FE	1 1/2"	1 1/2-11 1/2	2.250-6 Acme	2.500	63.5	2.000	50.8	21.68
320-031-20FE	2"	2-11 1/2	3.187-6 Acme	3.000	76.2	2.500	63.5	55.89
320-038-30FE	3"	3- 8	4.500-6 Acme	4.062	103.2	3.625	92.1	194.10

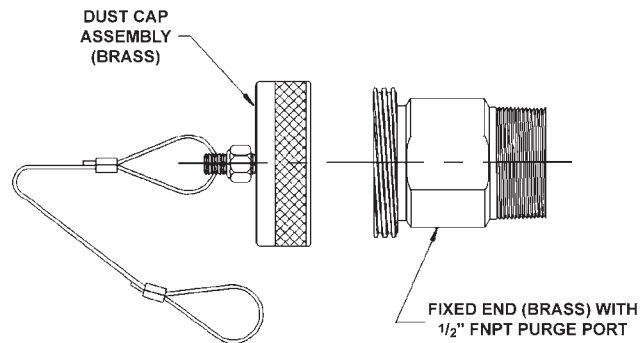
Fixed End Carbon Dioxide with 1/2" FNPT Purge Port (Brass)



Material - Brass Bar per ASTM B16

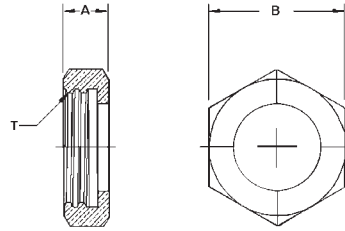
ACME PART NO.	SIZE	NPT	"T" THREAD-SIZE	A		WRENCH FLATS B		C		PRICE
				INCHES	MM	INCHES	MM	INCHES	MM	
320-086-10	1"	1-11 ¹ / ₂	1.687-6 Acme	4	101.6	1 ³ / ₄	44.5	2 ⁷ / ₁₆	61.9	\$ 54.67
320-087-15	1 ¹ / ₂ "	1 ¹ / ₂ -11 ¹ / ₂	2.250-6 Acme	4	101.6	2 ³ / ₈	60.3	2 ⁷ / ₁₆	61.9	72.42

Fixed End Assembly Carbon Dioxide with 1/2" FNPT Purge Port



ACME PART NO.	SIZE	DUST-CAP MATERIAL	PRICE
320-114-10	1"	BRASS	\$ 75.69
320-115-15	1 ¹ / ₂ "	BRASS	95.34

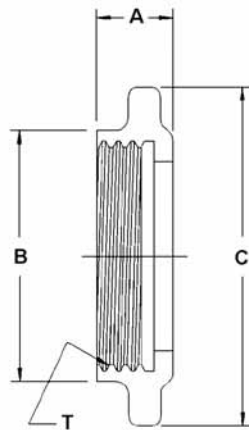
Hose Nut Carbon Dioxide (Brass)



Material - Brass Bar per ASTM B-16

ACME PART NO.	SIZE	"T" THREAD-SIZE	A		HEX B		MATERIAL	PRICE
			INCHES	MM	INCHES	MM		
320-015-10	1"	1 1/16-6 Acme	1.10	28.0	2 1/4	57.2	BRASS	\$ 20.10
320-008-15	1 1/2"	2 1/4-6 Acme	1.10	28.0	2 3/4	69.9	BRASS	20.80
320-027-20	2"	3 3/16-6 Acme	1.25	31.8	3 3/4	95.3	BRASS	41.79
ASK-40-0090	1"	1 1/16-6 Acme	1.10	28.0	2 3/4	69.9	BRASS	30.94

Hose Nut Carbon Dioxide (Cast High Strength Magnesium Bronze)



Material - Cast High Strength Magnesium Bronze
per ASTM B584

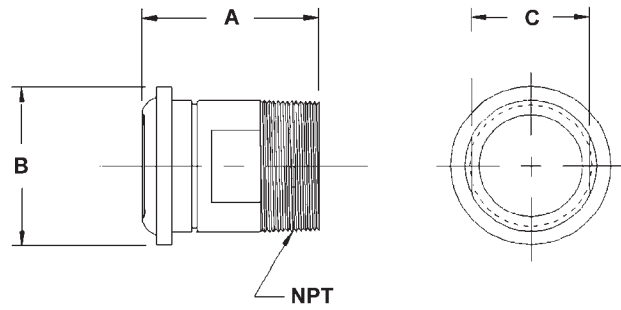
ACME PART NO.	SIZE	"T" THREAD-SIZE	A		B		C		PRICE
			INCHES	MM	INCHES	MM	INCHES	MM	
320-034-30	3"	4 1/2-6 Acme	1.50	38.1	5	127.0	6.75	171.5	\$ 76.30

Head Piece Carbon Dioxide (Brass)

Materials:

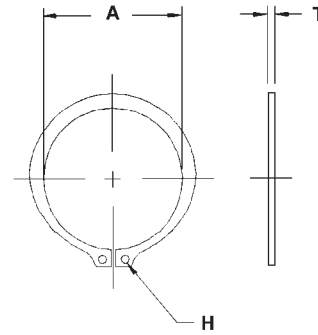
- Forged Brass per ASTM B283 for 1" and 1 1/2" sizes

- Brass Bar per ASTM B16 for 2", 3" and 4" sizes



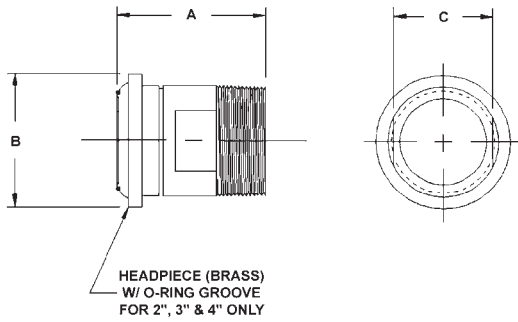
ACME PART NO.	SIZE	NPT	A		B		WRENCH FLATS C		PRICE
			INCHES	MM	INCHES	MM	INCHES	MM	
320-016-10	1"	1-11 1/2	2.625	66.7	1.500	38.1	1.187	30.1	\$ 17.11
320-014-15	1 1/2"	1 1/2-11 1/2	2.750	69.9	2.085	53.0	1.687	42.8	20.78
320-028-20	2"	2-11 1/2	3.156	80.2	2.875	73.0	2.125	54.0	40.10
320-035-30	3"	3- 8	4.187	106.3	4.250	108.0	3.250	82.6	193.37

Retaining Rings for Hose End Assemblies



ACME PART NO.	SIZE	A		T		H		PRICE	MATERIAL
		INCHES	MM	INCHES	MM	INCHES	MM		
ASK-40-0447	1"	1.214	30.84	.050	1.27	.078	1.98	\$ 5.18	Stainless Steel
ASK-40-0448	1 1/2"	1.819	46.20	.062	1.57	.125	3.18	12.17	Stainless Steel
ASK-40-0449	2"	2.197	55.80	.078	1.98	.125	3.18	23.83	Stainless Steel
ASK-40-0451	3"	3.552	90.22	.120	3.048	.187	4.75	34.36	Zinc Plated Steel

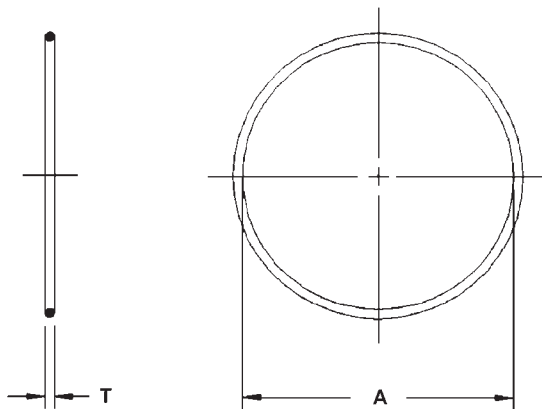
Head Piece Carbon Dioxide with O-Ring Groove



Material - Brass Bar per ASTM B-16

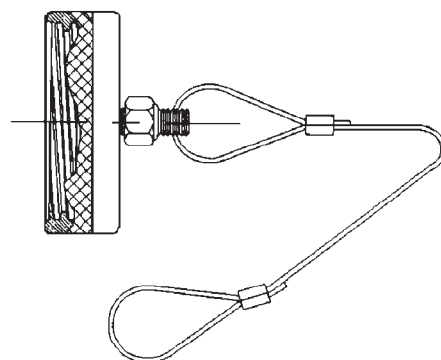
ACME PART NO.	SIZE	NPT	A		B		C		PRICE
			INCHES	MM	INCHES	MM	INCHES	MM	
320-108-20	2"	2-11 1/2	3.156	80.2	2.875	73.0	2.125	54.0	\$48.78
320-109-30	3"	3- 8	4.187	106.3	4.250	108.0	3.250	82.6	241.90

O-Ring for Headpiece with O-Ring Option (Viton)



ACME PART NO.	SIZE	A		T		PRICE
		INCHES	MM	INCHES	MM	
ASK-40-0145	2"	1.989	50.52	.063	1.78	\$ 5.32
ASK-40-0146	3"	2.987	75.87	.094	2.62	12.28

Dust Cap Assembly Carbon Dioxide

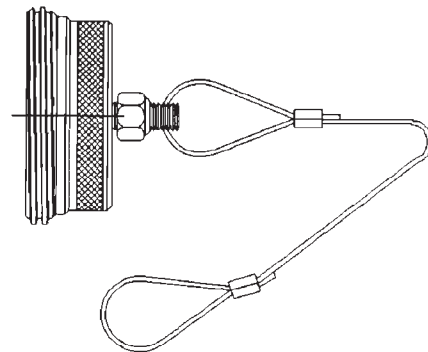


Materials:

- Brass Bar per ASTM-B16, with Stainless Steel Safety Cable for 1", 1 1/2" and 2" sizes
- Aluminum Bar per ASTM B-221, with Stainless Steel Safety Cable for 3" and 4" sizes

ACME PART NO.	SIZE	PRICE	MATERIAL
320-088-10	1"	\$ 22.07	BRASS
320-089-15	1 1/2"	26.35	BRASS
320-090-20	2"	36.91	BRASS
320-104-30	3"	88.22	ALUMINUM

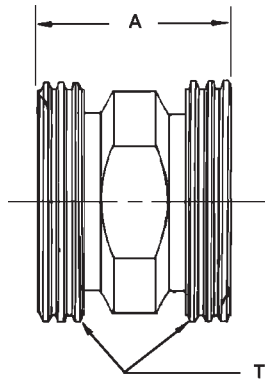
Dust Plug Assembly Carbon Dioxide (Brass)



Material - Brass Bar per ASTM-B16, with Stainless Steel Safety Cable

ACME PART NO.	SIZE	PRICE
320-099-10	1"	\$ 24.32
320-100-15	1 1/2"	34.86
320-101-20	2"	48.69
320-102-30	3"	131.43

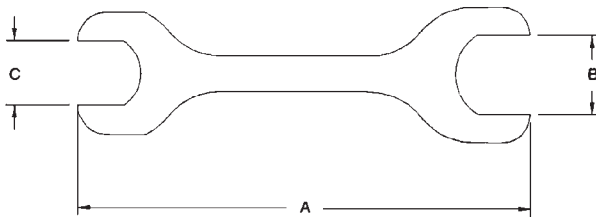
Male to Male Adapter to Connect Two or More Lengths of Hoses (Brass)



Material - Brass per ASTM B16

ACME PART NO.	SIZE	A		"T" THREAD-SIZE	WRENCH-FLATS		PRICE
		INCHES	MM		INCHES	MM	
320-048-10	1"	3.375	85.7	1.687-6 Acme	1.375	34.9	\$ 108.02
320-049-15	1½"	3.375	85.7	2.250-6 Acme	2.000	50.8	113.75
320-050-20	2"	3.375	85.7	3.187-6 Acme	2.500	63.5	142.39
320-051-30	3"	3.375	85.7	4.500-6 Acme	3.625	92.1	265.63
320-079-20	2"-1½"	3.375	85.7	3.187-6 Acme 2.250-6 Acme	2.500	63.5	154.35
320-080-15	1½"-1"	3.375	85.7	2.250-6 Acme 1.687-6 Acme	2.000	50.8	122.75

Open End Wrenches (Aluminum Anodized)

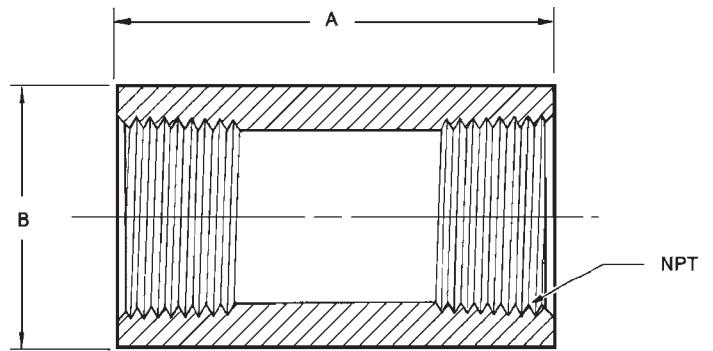


Material - Cast Aluminum per ASTM B26

ACME PART NO.	FITS	A		B		C		PRICE
		INCHES	MM	INCHES	MM	INCHES	MM	
ASK-40-0038	1" & 1½" Nut	16	406.4	2¾	69.9	2¼	57.2	\$ 97.39
ASK-40-0039	1" & 1½" FE*	16	406.4	1⅜	34.9	2	50.8	97.39
ASK-40-0067	1" & 2" FE*	16	406.4	1⅜	34.9	2½	63.5	97.39
ASK-40-0068	1" & 2" Nut	20	508.0	2¼	57.2	3¾	95.3	107.20
ASK-40-0069	2" Nut / 2" FE*	20	508.0	3¾	95.3	2½	63.5	107.20
ASK-40-0085	1½" & 2" Nut	20	508.0	3¾	95.3	2¾	69.9	107.20

* FE = Fixed End

Full Coupling to Adapt Male NPT Hoses (304 Stainless Steel)

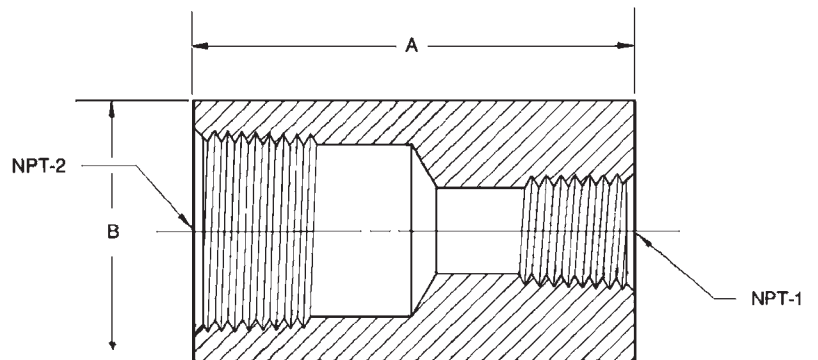


Material - Type 304 Stainless Steel per ASTM A276

Material—Type 304 Stainless Steel

ACME PART NO.	HOSE SIZE	NPT	A		B		PRICE
			INCHES	MM	INCHES	MM	
ASK-40-0425	1"	1-11 ¹ / ₂	1.937	49.2	1.562	39.7	\$ 18.16
ASK-40-0427	1 ¹ / ₂ "	1 ¹ / ₂ -11 ¹ / ₂	2.125	54.0	2.188	55.6	45.17
ASK-40-0428	2"	2-11 ¹ / ₂	2.50	63.5	2.75	69.9	57.70

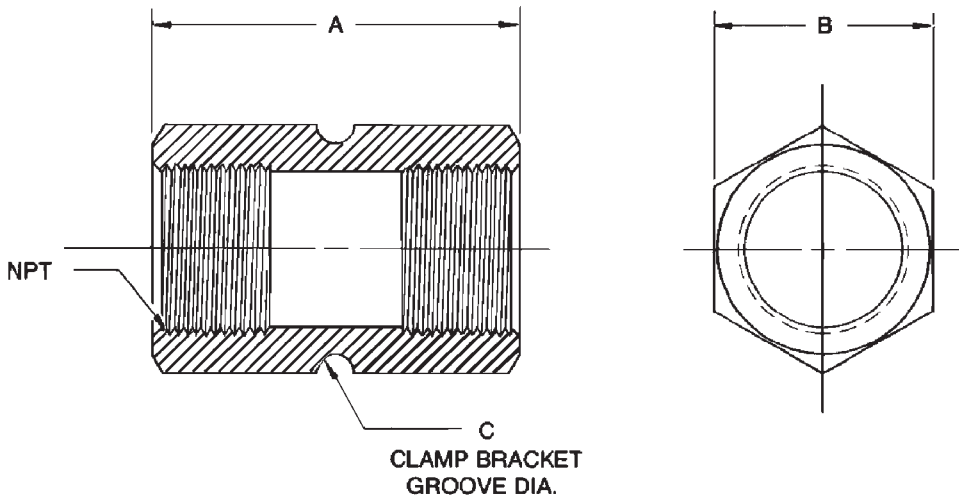
Reducing Couplings to Adapt Male NPT Hoses (304 Stainless Steel)



Material - type 304 Stainless Steel per ASTM A276

ACME PART NO.	HOSE SIZE	NPT 1	NPT 2	A		B		PRICE
				INCHES	MM	INCHES	MM	
ASK-40-0431	1 ¹ / ₂ "	1-11 ¹ / ₂	1 ¹ / ₂ -11 ¹ / ₂	2.125	54.0	2.188	55.6	\$ 50.32
ASK-40-0432	2"	1 ¹ / ₂ -11 ¹ / ₂	2-11 ¹ / ₂	2.50	63.5	2.75	69.9	79.78

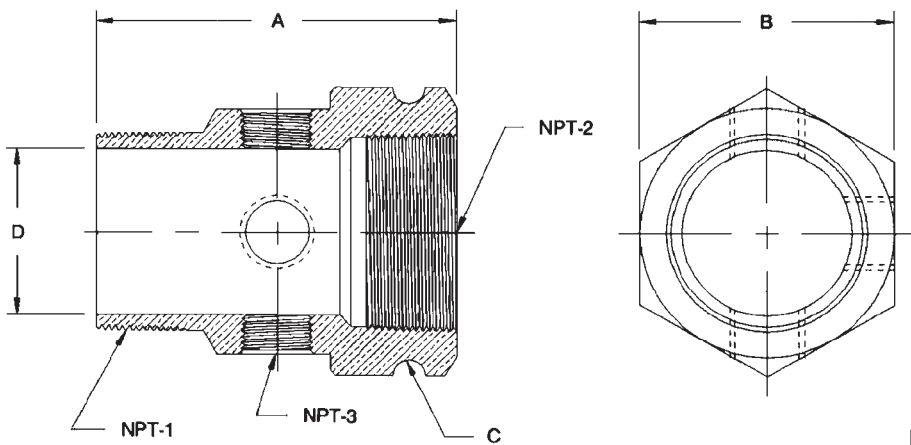
Hex Brass Coupling to Adapt Tanks for Fixed End



Material - Brass per ASTM B16

ACME PART NO.	HOSE SIZE	NPT	A		B		C		PRICE
			INCHES	MM	INCHES	MM	INCHES	MM	
ASK-40-0072	1"	1-11/2	2.50	63.5	1.75 Hex	44.5	1.72	43.7	\$ 24.77
ASK-40-0073	1 1/2"	1 1/2-11 1/2	2.50	63.5	2.50 Hex	63.5	2.47	62.7	33.55
ASK-40-0074	2"	2-11 1/2	2.50	63.5	3.00 Hex	76.2	2.97	73.7	81.43

Hex Brass Bushing with 3 Purge Ports to Adapt Trailers for Fixed End



Material - Brass per ASTM B-16 shipped complete with two 1/2" Brass Pipe Plugs

ACME-PART-NO.	SIZE	NPT			A		B		C		D		PRICE
		1	2	3	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	
ASK-40-0076	1 1/2"	1 1/2-11 1/2	1 1/2-11 1/2	1/2-14	4.250	107.9	2.500*	63.5	2.47	62.7	1.50	38.1	125.45
ASK-40-0077	2"	2-11 1/2	1 1/2-11 1/2	1/2-14	4.250	107.9	2.500*	63.5	2.47	62.7	1.50	38.1	125.45
ASK-40-0078	2"	2-11 1/2	2-11 1/2	1/2-14	4.250	107.9	3.000*	76.2 *HEX	2.97	73.7	2.00	50.8	149.51

TERMS AND CONDITIONS

PRICES: All prices quoted in this catalog supersede all prior quotations and are subject to change. All orders are accepted on the understanding that they may be billed at prices in effect at time of shipment.

All shipments are F.O.B. Acme's plant, 2801 Mitchell Ave., Allentown, Pennsylvania 18103 U.S.A., unless otherwise stated. All shipments shall be insured at Buyer's expense and shall be made at Buyer's expense.

Minimum order amount \$25.00 net, unless otherwise indicated on individual price sheet.

TERMS: Net 30 days. Past due payments shall bear interest at one and one-half (1-1/2%) percent per month.

TAXES: To the prices and terms quoted add any manufacturer's or sales tax payable on the transaction under any applicable statute.

CLAIMS: Acme's responsibility shall cease upon delivery of goods in good order to transportation companies. All orders are accepted subject to delays, resulting from governmental requirements, strikes, accidents, or other causes beyond Acme's control.

TITLE AND RISK OF LOSS: Title and risk of loss shall pass to and be borne by the Buyer upon delivery of the products to the first carrier of shipper. Acme shall not be responsible for any damage to products which shall occur during the shipment, and no such damage shall relieve Buyer of any obligations to Acme.

GUARANTEE: Acme warrants to Buyer that the products of Acme's own manufacture supplied hereunder will, for a period of 12 months from the date of shipment to Buyer, be free from defects in material and workmanship under normal and proper operating conditions and service. The obligation of Acme and Buyer's sole and exclusive remedy pursuant to this warranty shall be, at Acme's option, to repair or replace any product or part thereof which is returned to Acme Cryogenics, Inc., 2801 Mitchell Ave., Allentown, PA 18103 U.S.A., transportation charges prepaid and there determined by Acme not to be as warranted. Notwithstanding the foregoing, Acme shall have no obligation hereunder if all payments due from Buyer have not been made, or the product or part becomes defective in whole or in part as the result of repairs not made by Acme or as the result of removal, improper use, operation above rated capacities, or misapplication thereof after it has been delivered to the Buyer.

Acme shall be responsible for the replacement of defective goods rejected by Buyer, provided Buyer reports said defects to Acme in writing within ten (10) days of receipt of such goods. Claims for error in quantity or weight must be made to Acme in writing within ten (10) days of receipt of such goods. In no case shall Acme be responsible beyond replacement or repair of any defective goods, including any personal injury, property damage, or consequential damages resulting therefrom.

Products and parts made by other manufacturers are not warranted by Acme and are deemed warranted only to the extent of the original manufacturer's warranty to Acme. (If the product sold is described as "used", it is sold "as is, where is" without any guarantee or warranty whatsoever.)

EXCEPT AS SET FORTH HEREIN, ACME MAKES NO OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. BUYER ACKNOWLEDGES THAT IT IS NOT RELYING UPON ACME'S SKILL OR JUDGEMENT TO SELECT OR FURNISH GOODS SUITABLE FOR ANY PARTICULAR PURPOSE OR UPON ANY AFFIRMATIONS OF FACT OR PROMISES OF ACME WHICH EXTEND BEYOND SPECIFICATIONS MUTUALLY AGREED UPON IN WRITING BY ACME AND BUYER.

RETURNED GOODS: Goods must not be returned except by written permission. When not covered by the warranty, such returns will be subject to a deduction for a rehandling charge of twenty (20%) percent and all transportation charges, including freight and cartage, will be paid by shipper. Material made on special order is not subject to return. No waiver, alteration or modification of these terms and conditions shall be binding on Acme unless made in writing and agreed to a duly authorized official of Acme. If Buyer has submitted a purchase order to Acme containing provisions contrary to these terms and conditions, unless Buyer notified Acme in writing to the contrary prior to shipment, Buyer agrees to be bound to these terms and conditions conclusively, which shall be deemed to supersede any such contrary provisions contained in Buyer's purchase order.

Acme Cryogenics Group

P.O. Box 445 • Allentown, PA 18103

Toll Free: 800-422-2790

610-966-4488 • 610-791-2402 (Fax)

www.acmecryo.com

Medical and Industrial Control Systems and Equipment • Specialty Gas Equipment • CVI Valves • CryoMaxx Semi-trailers, Liquid Delivery Vehicles and Filling Equipment • Electrical Control Systems • Vacuum Jacketed Piping • Cylinder Repair Services • Used/Resale Equipment • Cryogenic Tank & Trailer Services • National Service Team • Ultra High Purity Equipment