

[INCH-POUND]
A-A-59935/2
2 October 2013

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

CONICAL SEALS, CRUSH, 37 DEGREE FLARED
TUBE FITTING, COPPER

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring conical seal, crush, 37 degree flared tube fitting, copper described herein shall consist of this document and the issue in effect of A-A-59935.

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This commercial item description (CID) uses a classification system which is included in the PIN as shown in the following example (see NOTES).

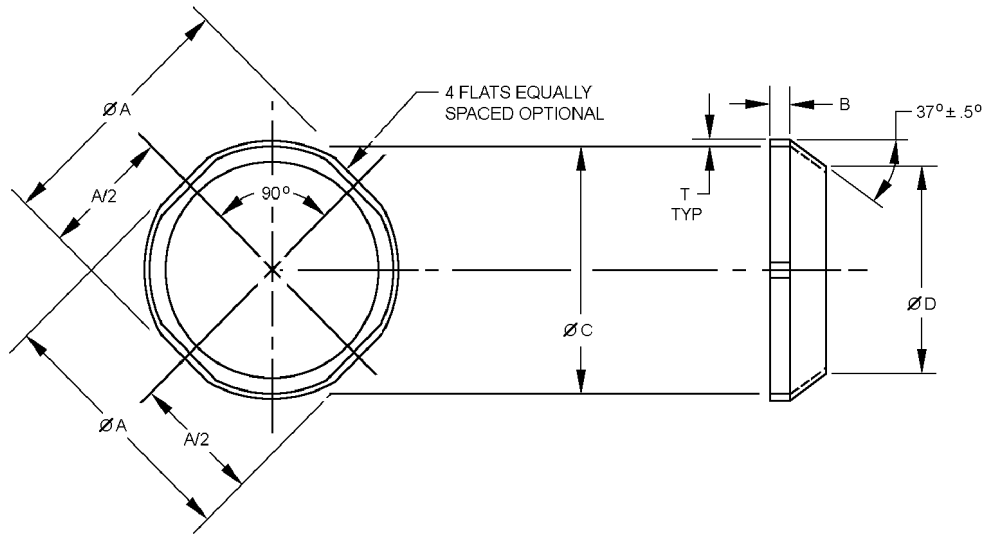
<u>AA59935/2</u>	<u>-04</u>	<u>C</u>
┆	┆	┆
┆	┆	┆
CID number	Size code (see figure 1)	Material and finish code (see table I)

SALIENT CHARACTERISTICS.

Interface and physical dimensions. Conical seals, crush, 37 degree flared tube fitting, copper supplied to this CID specification sheet shall be as specified herein (see figure 1 and table I).

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data that may improve this document should be sent to: DLA Land and Maritime, ATTN: VAI, P.O. Box 3990, Columbus OH 432180-3990, or fluidflow@dla.mil. Since contact information can change you may want to verify the currency of the address information using the ASSIST Online database at <https://assist.dla.mil/>.

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Dash size code	Tubing OD Ref.	A +.005 -.000	B +.000 -.015	C +.005 -.000	D +.015 -.000	T inch
-02	1/8	.240	.060	.245	.103	.005
-03	3/16	.302		.307	.166	
-04	1/4	.354		.359	.213	
-05	5/16	.416	.075	.421	.275	
-06	3/8	.471		.476	.338	
-08	1/2	.649		.654	.446	
-10	5/8	.762	.105	.767	.562	.010
-12	3/4	.933		.938	.687	
-16	1	1.183		1.188	.936	
-20	1-1/4	1.496	.125	1.501	1.375	
-24	1-1/2	1.745		1.750	1.410	
-28	1-3/4	2.120		2.125	1.680	
-32	2	2.370		2.375	1.913	
-40	2 1/2	2.877	.055	2.882	2.500	.015
-44	2 3/4	3.127		3.125	2.742	
-48	3	3.377		3.382	2.990	

NOTES:

1. Dimensions are in inches.
2. Dimensioning and tolerancing in accordance with ASME Y14.5. Unless otherwise specified, tolerances for decimals $\pm .005$ inch (0.13 mm), angles $\pm .5^\circ$.
3. Break sharp edges and remove burrs and slivers.
4. Surface texture shall be .005 inches in accordance with ASME B46.1.
5. These parts are soft and easily deformed dimensions B, C, and D shall be verified by installing the seal on a standard fitting of the appropriate size.
6. An out-of-round-seal that does not interfere with installation shall not be cause for rejection.

FIGURE 1. 37° flared crush seal.

TABLE I. Material and finish code.

Material and finish code	Material and finish
C	Copper foil or strip, annealed, type C10100, C10200 or C11000 in accordance with ASTM B152/B152M
CT	Copper foil or strip, annealed, type C10100, C10200 or C11000 in accordance with ASTM B152/B152M Tin plated in accordance with ASTM B545 or SAE-AMS2408

Tubing material and fluids or gases to be sealed, see table II.

TABLE II. Tubing material and fluids or gases.

Tubing and fitting material	Assembly temperature range	Fluid or gases
Steel	-420°F to +800°F (-251°C to 427°C)	Helium Hydraulic oil (non-sulphur) Hydrogen Hydrazine JP-4 JP-5 Nitrogen Oxygen Pneumatics

Torque technique. These seals require a second torque technique; see A-A-59935 for torquing procedure.

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

COMMERCIAL ITEM DESCRIPTIONS

A-A-59935 - Conical Seal, Crush, 37 Degree Flared Tube Fitting, General Requirements For

(Copies of these documents are available online at <http://quicksearch.dla.mil/> or from the DLA Document Services Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094).

Other Publications

ASME INTERNATIONAL

- ASME Y14.5 - Dimensioning and Tolerancing
- ASME B46.1 - Surface Texture (Surface Roughness, Waviness, and Lay)

(Copies of these documents are available online at <http://www.asme.org> or from the ASME International, Three Park Avenue, New York, NY 10016-5990.)

ASTM INTERNATIONAL

- ASTM B152/B152M - Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar
- ASTM B545 - Standard Specification for Electrodeposited Coatings of Tin

(Copies of these documents are available online at <http://www.astm.org> or from the ASTM International, P.O. Box C700, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

SAE INTERNATIONAL

- SAE-AMS2408 - Plating, Tin

(Copies of these documents are available on line at www.sae.org from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, and Tel: 877-606-7323 [inside USA and Canada] or 724-776-4970 [outside USA], email at CustomerService@sae.org.)

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict acquisition to only the manufacturers shown.)

<u>MFR's CAGE number</u>	<u>MFR's name and address</u>
33447	SECO Seals Inc. 1370 Logan Ave. Unit K Costa Mesa, CA 92626 714-546-3778 E-mail: secoseals@aol.com
64162	Del Aerospace, Inc. 921 Mountain View Ave A Oxnard, CA 93030-7227 E-mail: delaero@earthlink.net
66776	Alcoa Global Fasteners Inc. Div Rosan / Eagle Products DBA Alcoa Fastening Systems 800 S State College Blvd Fullerton, CA 92831-5334
01673	SPS Technologies LLC DBA Airdrome Precision Components Div SPS Technologies LLC 3251 E Airport WY Long Beach, CA 90806-2407

Part number (P/N) supersession data. These CID specification sheet PIN's supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system (see table III).

TABLE III. P/N supersession data.

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02C	33447	SECO7C-02	64162	DY90-C-2
-03C	33447	SECO7C-03	64162	DY90-C-3
-04C	33447	SECO7C-04	64162	DY90-C-4
-05C	33447	SECO7C-05	64162	DY90-C-5
-06C	33447	SECO7C-06	64162	DY90-C-6
-08C	33447	SECO7C-08	64162	DY90-C-8
-10C	33447	SECO7C-10	64162	DY90-C-10
-12C	33447	SECO7C-12	64162	DY90-C-12
-16C	33447	SECO7C-16	64162	DY90-C-16
-20C	33447	SECO7C-20	64162	DY90-C-20
-24C	33447	SECO7C-24	64162	DY90-C-24
-28C	33447	SECO7C-28	64162	DY90-C-28
-32C	33447	SECO7C-32	64162	DY90-C-32
-40C	33447	SECO7C-40	64162	DY90-C-40
-44C	33447	SECO7C-44	64162	DY90-C-44
-48C	33447	SECO7C-48	64162	DY90-C-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02C	66776	VSF1015C2	01673	AP50C2
-03C	66776	VSF1015C3	01673	AP50C3
-04C	66776	VSF1015C4	01673	AP50C4
-05C	66776	VSF1015C5	01673	AP50C5
-06C	66776	VSF1015C6	01673	AP50C6
-08C	66776	VSF1015C8	01673	AP50C8
-10C	66776	VSF1015C10	01673	AP50C10
-12C	66776	VSF1015C12	01673	AP50C12
-16C	66776	VSF1015C16	01673	AP50C16
-20C	66776	VSF1015C20	01673	AP50C20
-24C	66776	VSF1015C24	01673	AP50C24
-28C	66776	VSF1015C28	01673	AP50C28
-32C	66776	VSF1015C32	01673	AP50C32
-40C	66776	VSF1015C40	01673	AP50C40
-44C	66776	VSF1015C44	01673	AP50C44
-48C	66776	VSF1015C48	01673	AP50C48

See note at end of table.

TABLE III. P/N supersession data - Continued.

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N <u>1/</u>	MFR's CAGE	MFR's P/N <u>1/</u>
-02CT	33447	SECO7CT-02	64162	DY90-CT-2
-03CT	33447	SECO7CT-03	64162	DY90-CT-3
-04CT	33447	SECO7CT-04	64162	DY90-CT-4
-05CT	33447	SECO7CT-05	64162	DY90-CT-5
-06CT	33447	SECO7CT-06	64162	DY90-CT-6
-08CT	33447	SECO7CT-08	64162	DY90-CT-8
-10CT	33447	SECO7CT-10	64162	DY90-CT-10
-12CT	33447	SECO7CT-12	64162	DY90-CT-12
-16CT	33447	SECO7CT-16	64162	DY90-CT-16
-20CT	33447	SECO7CT-20	64162	DY90-CT-20
-24CT	33447	SECO7CT-24	64162	DY90-CT-24
-28CT	33447	SECO7CT-28	64162	DY90-CT-28
-32CT	33447	SECO7CT-32	64162	DY90-CT-32
-40CT	33447	SECO7CT-40	64162	DY90-CT-40
-44CT	33447	SECO7CT-44	64162	DY90-CT-44
-48CT	33447	SECO7CT-48	64162	DY90-CT-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N <u>1/</u>	MFR's CAGE	MFR's P/N <u>1/</u>
-02CT	66776	VSF1015CT2	01673	AP50A2
-03CT	66776	VSF1015CT3	01673	AP50*3
-04CT	66776	VSF1015CT4	01673	AP50*4
-05CT	66776	VSF1015CT5	01673	AP50*5
-06CT	66776	VSF1015CT6	01673	AP50*6
-08CT	66776	VSF1015CT8	01673	AP50*8
-10CT	66776	VSF1015CT10	01673	AP50*10
-12CT	66776	VSF1015CT12	01673	AP50*12
-16CT	66776	VSF1015CT16	01673	AP50*16
-20CT	66776	VSF1015CT20	01673	AP50*20
-24CT	66776	VSF1015CT24	01673	AP50*24
-28CT	66776	VSF1015CT28	01673	AP50*28
-32CT	66776	VSF1015CT32	01673	AP50*32
-40CT	66776	VSF1015CT40	01673	AP50*40
-44CT	66776	VSF1015CT44	01673	AP50*44
-48CT	66776	VSF1015CT48	01673	AP50*48

1/ The manufacturer's P/N shall not be used for procurement to the requirements of this specification sheet. At the time of preparation of this specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of A-A-59935.

MILITARY INTERESTS:

Custodians:

Army - AV
Navy - AS
Air Force - 99
DLA - CC

Review activities:

Army - AT, MI
Navy - MC, SH
Air Force - 71

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FAS

Preparing activity:

DLA - CC

Project 4730-2013-077

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil/>.