

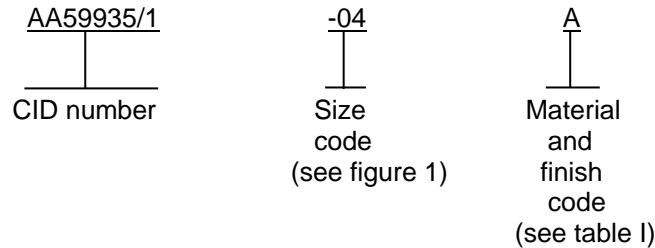
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

CONICAL SEALS, CRUSH, 37 DEGREE FLARED
TUBE FITTING, ALUMINUM ALLOY

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, aluminum alloy 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).

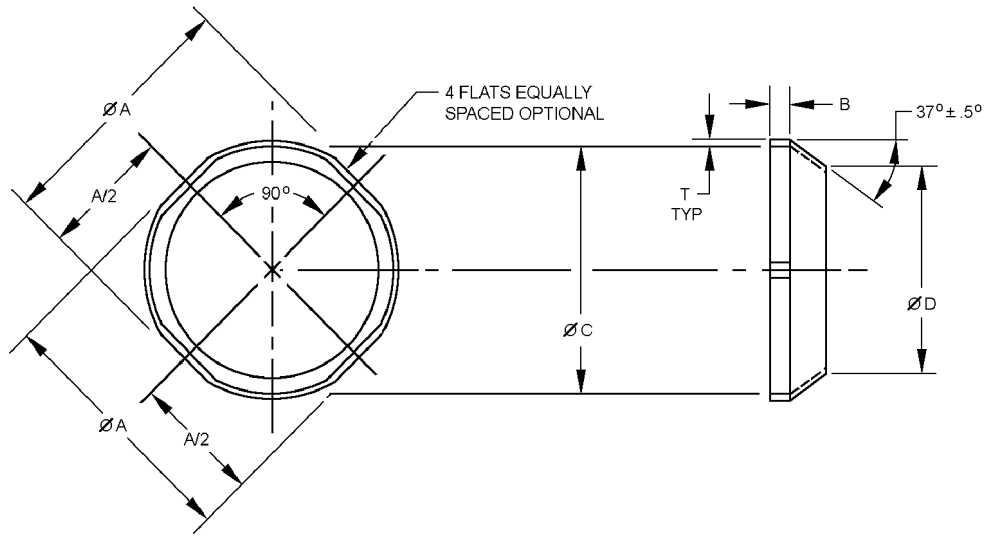


SALIENT CHARACTERISTICS.

Interface and physical dimensions. Conical seals, crush, 37 degree flared tube fitting, aluminum alloy 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/>.

A-A-59935/1



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	.095	.654	.446	
-10	5/8	.762	.105	.767	.562	
-12	3/4	.933		.938	.687	
-16	1	1.183	.125	1.188	.936	
-20	1-1/4	1.496		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	.055	2.375	1.913	
-40	2 1/2	2.877		2.882	2.500	
-44	2 3/4	3.127		3.125	2.742	
-48	3	3.377		3.382	2.990	.015

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
A	Aluminum alloy, annealed, 1100 foil or sheet, condition "O" in accordance with QQ-A-1876, or ASTM B209, alloy 1100
AT	Aluminum alloy, annealed, 1100 foil or sheet, condition "O" in accordance with QQ-A-1876, or ASTM B209, alloy 1100. 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	Fluids or gases
Aluminum	-420°F to +275°F (-251°C to 135°C)	Helium Hydraulic oil Hydrogen Peroxide Hydrazine Liquid hydrogen Liquid Nitrogen Nitric acid Oxygen Pneumatics Udimethyldrazine Water

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.

FEDERAL SPECIFICATIONS

QQ-A-1876 - Aluminum Foil.

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 B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
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/
-02A	33447	SECO7A-02	64162	DY90-A-2
-03A	33447	SECO7A-03	64162	DY90-A-3
-04A	33447	SECO7A-04	64162	DY90-A-4
-05A	33447	SECO7A-05	64162	DY90-A-5
-06A	33447	SECO7A-06	64162	DY90-A-6
-08A	33447	SECO7A-08	64162	DY90-A-8
-10A	33447	SECO7A-10	64162	DY90-A-10
-12A	33447	SECO7A-12	64162	DY90-A-12
-16A	33447	SECO7A-16	64162	DY90-A-16
-20A	33447	SECO7A-20	64162	DY90-A-20
-24A	33447	SECO7A-24	64162	DY90-A-24
-28A	33447	SECO7A-28	64162	DY90-A-28
-32A	33447	SECO7A-32	64162	DY90-A-32
-40A	33447	SECO7A-40	64162	DY90-A-40
-44A	33447	SECO7A-44	64162	DY90-A-44
-48A	33447	SECO7A-48	64162	DY90-A-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02A	66776	VSF1015A2	01673	AP50A2
-03A	66776	VSF1015A3	01673	AP50A3
-04A	66776	VSF1015A4	01673	AP50A4
-05A	66776	VSF1015A5	01673	AP50A5
-06A	66776	VSF1015A6	01673	AP50A6
-08A	66776	VSF1015A8	01673	AP50A8
-10A	66776	VSF1015A10	01673	AP50A10
-12A	66776	VSF1015A12	01673	AP50A12
-16A	66776	VSF1015A16	01673	AP50A16
-20A	66776	VSF1015A20	01673	AP50A20
-24A	66776	VSF1015A24	01673	AP50A24
-28A	66776	VSF1015A28	01673	AP50A28
-32A	66776	VSF1015A32	01673	AP50A32
-40A	66776	VSF1015A40	01673	AP50A40
-44A	66776	VSF1015A44	01673	AP50A44
-48A	66776	VSF1015A48	01673	AP50A48

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>
-02AT	33447	SECO7AT-02	66776	VSF1015AT2
-03AT	33447	SECO7AT-03	66776	VSF1015AT3
-04AT	33447	SECO7AT-04	66776	VSF1015AT4
-05AT	33447	SECO7AT-05	66776	VSF1015AT5
-06AT	33447	SECO7AT-06	66776	VSF1015AT6
-08AT	33447	SECO7AT-08	66776	VSF1015AT8
-10AT	33447	SECO7AT-10	66776	VSF1015AT10
-12AT	33447	SECO7AT-12	66776	VSF1015AT12
-16AT	33447	SECO7AT-16	66776	VSF1015AT16
-20AT	33447	SECO7AT-20	66776	VSF1015A20
-24AT	33447	SECO7AT-24	66776	VSF1015AT24
-28AT	33447	SECO7AT-28	66776	VSF1015AT28
-32AT	33447	SECO7AT-32	66776	VSF1015AT32
-40AT	33447	SECO7AT-40	66776	VSF1015AT40
-44AT	33447	SECO7AT-44	66776	VSF1015AT44
-48AT	33447	SECO7AT-48	66776	VSF1015AT48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N <u>1/</u>
-02A	64162	DY90-AT-2
-03A	64162	DY90-AT-3
-04A	64162	DY90-AT-4
-05A	64162	DY90-AT-5
-06A	64162	DY90-AT-6
-08A	64162	DY90-AT-8
-10A	64162	DY90-AT-10
-12A	64162	DY90-AT-12
-16A	64162	DY90-AT-16
-20A	64162	DY90-AT-20
-24A	64162	DY90-AT-24
-28A	64162	DY90-AT-28
-32A	64162	DY90-AT-32
-40A	64162	DY90-AT-40
-44A	64162	DY90-AT-44
-48A	64162	DY90-AT-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 4730-2013-076

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/>.