

[INCH-POUND]
A-A-59935/3
2 October 2013

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

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

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, nickel 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).

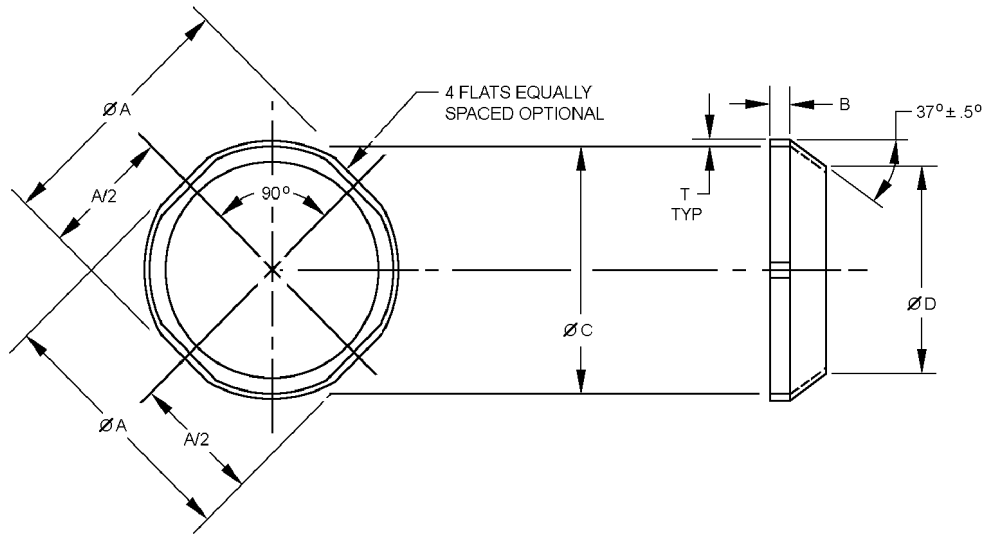
<u>AA59935/3</u>	<u>-04</u>	<u>N</u>
_____	_____	_____
CID number	Size code (see figure 1)	Material and finish code (see table I)

SALIENT CHARACTERISTICS.

Interface and physical dimensions. Conical seals, crush, 37 degree flared tube fitting, nickel 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@dlam.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	.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
N	Nickel strip 201, annealed, in accordance with ASTM B162 or SAE-AMS5553
NT	Nickel strip 201, annealed, in accordance with ASTM B162 or SAE-AMS5553 Tin plated in accordance with ASTM B545 or SAE-AMS2408
NS	Nickel strip 201, annealed, in accordance with ASTM B162 or SAE-AMS5553 Silver plated in accordance with SAE-AMS2410

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
Steel	-420°F to +1500°F (-251°C to 816°C)	Hydraulic oil JP-4 JP-5 Liquid hydrogen Liquid Nitrogen Oxygen Pneumatics 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.

Other Publications

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).

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 B162 - Standard Specification for Nickel Plate, Sheet, and Strip
- 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
- SAE-AMS2410 - Plating, Silver Nickel Strike, High Bake
- SAE-AMS5553 - Nickel, Sheet and Strip Low (0.02 max) Carbon Annealed - UNS N02201

(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/
-02N	33447	SECO7N-02	64162	DY90-N-2
-03N	33447	SECO7N-03	64162	DY90-N-3
-04N	33447	SECO7N-04	64162	DY90-N-4
-05N	33447	SECO7N-05	64162	DY90-N-5
-06N	33447	SECO7N-06	64162	DY90-N-6
-08N	33447	SECO7N-08	64162	DY90-N-8
-10N	33447	SECO7N-10	64162	DY90-N-10
-12N	33447	SECO7N-12	64162	DY90-N-12
-16N	33447	SECO7N-16	64162	DY90-N-16
-20N	33447	SECO7N-20	64162	DY90-N-20
-24N	33447	SECO7N-24	64162	DY90-N-24
-28N	33447	SECO7N-28	64162	DY90-N-28
-32N	33447	SECO7N-32	64162	DY90-N-32
-40N	33447	SECO7N-40	64162	DY90-N-40
-44N	33447	SECO7N-44	64162	DY90-N-44
-48N	33447	SECO7N-48	64162	DY90-N-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02N	66776	VSF1015N2	01673	AP50A2
-03N	66776	VSF1015N3	01673	AP50*3
-04N	66776	VSF1015N4	01673	AP50*4
-05N	66776	VSF1015N5	01673	AP50*5
-06N	66776	VSF1015N6	01673	AP50*6
-08N	66776	VSF1015N8	01673	AP50*8
-10N	66776	VSF1015N10	01673	AP50*10
-12N	66776	VSF1015N12	01673	AP50*12
-16N	66776	VSF1015N16	01673	AP50*16
-20N	66776	VSF1015N20	01673	AP50*20
-24N	66776	VSF1015N24	01673	AP50*24
-28N	66776	VSF1015N28	01673	AP50*28
-32N	66776	VSF1015N32	01673	AP50*32
-40N	66776	VSF1015N40	01673	AP50*40
-44N	66776	VSF1015N44	01673	AP50*44
-48N	66776	VSF1015N48	01673	AP50*48

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 1/	MFR's CAGE	MFR's P/N 1/
-02NT	33447	SECO7NT-02	64162	DY90-NT-2
-03NT	33447	SECO7NT-03	64162	DY90-NT-3
-04NT	33447	SECO7NT-04	64162	DY90-NT-4
-05NT	33447	SECO7NT-05	64162	DY90-NT-5
-06NT	33447	SECO7NT-06	64162	DY90-NT-6
-08NT	33447	SECO7NT-08	64162	DY90-NT-8
-10NT	33447	SECO7NT-10	64162	DY90-NT-10
-12NT	33447	SECO7NT-12	64162	DY90-NT-12
-16NT	33447	SECO7NT-16	64162	DY90-NT-16
-20NT	33447	SECO7NT-20	64162	DY90-NT-20
-24NT	33447	SECO7NT-24	64162	DY90-NT-24
-28NT	33447	SECO7NT-28	64162	DY90-NT-28
-32NT	33447	SECO7NT-32	64162	DY90-NT-32
-40NT	33447	SECO7NT-40	64162	DY90-NT-40
-44NT	33447	SECO7NT-44	64162	DY90-NT-44
-48NT	33447	SECO7NT-48	64162	DY90-NT-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02NT	66776	VSF1015NT2	01673	AP50A2
-03NT	66776	VSF1015NT3	01673	AP50*3
-04NT	66776	VSF1015NT4	01673	AP50*4
-05NT	66776	VSF1015NT5	01673	AP50*5
-06NT	66776	VSF1015NT6	01673	AP50*6
-08NT	66776	VSF1015NT8	01673	AP50*8
-10NT	66776	VSF1015NT10	01673	AP50*10
-12NT	66776	VSF1015NT12	01673	AP50*12
-16NT	66776	VSF1015NT16	01673	AP50*16
-20NT	66776	VSF1015NT20	01673	AP50*20
-24NT	66776	VSF1015NT24	01673	AP50*24
-28NT	66776	VSF1015NT28	01673	AP50*28
-32NT	66776	VSF1015NT32	01673	AP50*32
-40NT	66776	VSF1015NT40	01673	AP50*40
-44NT	66776	VSF1015NT44	01673	AP50*44
-48NT	66776	VSF1015NT48	01673	AP50*48

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 1/	MFR's CAGE	MFR's P/N 1/
-02NS	33447	SECO7NS-02	64162	DY90-NS-2
-03NS	33447	SECO7NS-03	64162	DY90-NS-3
-04NS	33447	SECO7NS-04	64162	DY90-NS-4
-05NS	33447	SECO7NS-05	64162	DY90-NS-5
-06NS	33447	SECO7NS-06	64162	DY90-NS-6
-08NS	33447	SECO7NS-08	64162	DY90-NS-8
-10NS	33447	SECO7NS-10	64162	DY90-NS-10
-12NS	33447	SECO7NS-12	64162	DY90-NS-12
-16NS	33447	SECO7NS-16	64162	DY90-NS-16
-20NS	33447	SECO7NS-20	64162	DY90-NS-20
-24NS	33447	SECO7NS-24	64162	DY90-NS-24
-28NS	33447	SECO7NS-28	64162	DY90-NS-28
-32NS	33447	SECO7NS-32	64162	DY90-NS-32
-40NS	33447	SECO7NS-40	64162	DY90-NS-40
-44NS	33447	SECO7NS-44	64162	DY90-NS-44
-48NS	33447	SECO7NS-48	64162	DY90-NS-48

Dash number (see table I) AA59935	MFR's CAGE	MFR's P/N 1/	MFR's CAGE	MFR's P/N 1/
-02NS	66776	VSF1015NS2	01673	AP50A2
-03NS	66776	VSF1015NS3	01673	AP50*3
-04NS	66776	VSF1015NS4	01673	AP50*4
-05NS	66776	VSF1015NS5	01673	AP50*5
-06NS	66776	VSF1015NS6	01673	AP50*6
-08NS	66776	VSF1015NS8	01673	AP50*8
-10NS	66776	VSF1015NS10	01673	AP50*10
-12NS	66776	VSF1015NS12	01673	AP50*12
-16NS	66776	VSF1015NS16	01673	AP50*16
-20NS	66776	VSF1015NS20	01673	AP50*20
-24NS	66776	VSF1015NS24	01673	AP50*24
-28NS	66776	VSF1015NS28	01673	AP50*28
-32NS	66776	VSF1015NS32	01673	AP50*32
-40NS	66776	VSF1015NS40	01673	AP50*40
-44NS	66776	VSF1015NS44	01673	AP50*44
-48NS	66776	VSF1015NS48	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 4730-2013-078

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/>.