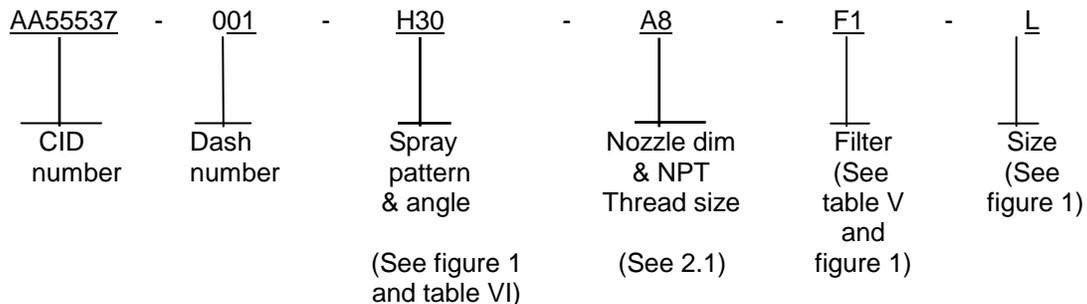


[INCH-POUND]
A-A-55537A
19 August 2013
SUPERSEDING
A-A-55537
30 March 1992

NOZZLE, OIL BURNER, PRESSURE ATOMIZING

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

1. SCOPE. This commercial item description (CID) covers the general requirements for nozzle, oil burner, pressure atomizing. Nozzle, oil burner, pressure atomizing covered by this CID are intended for commercial/industrial applications.
2. CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This CID uses a classification system which is included in the PIN as shown in the following example (see 7.1).



2.1 PIN codes definitions and examples. The nozzle will be furnished with an adapter when "A" is added in the dash number following the pattern and angle of spray. The thread type, 1/8 or 1/4 NPT required on the nozzle adapter, will be specified by including an "8" for 1/8 NPT or a "4" for 1/4 NPT, with "A" for Adapter. The length of the adapter will be specified by "S", "L", or "X" per the key shown in figure 1. The nozzle will be furnished with a filter or strainer as specified in table III. The PIN codes are constructed as specified in 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 43218-3990, or email 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>.

TABLE I. PIN codes definitions. 1/

Dash number (Flow rate)	Spray pattern and angle	Nozzle dim. and NPT thread size	Filter	Size
Rated capacity in GPH	See figure 1	Adapter furnished with nozzle	Filter Furnished as specified flow rate in table V	Length of adapter
See table II	See table VI	Example for: "A8" A=Nozzle dimension, figure 1, 8=1/8NPT Example for: "B4" B= Nozzle dimension, figure 1, 4=1/4NPT		See figure 1
		CID code see figure 1.		

1/ Type - 02 = 0.50 rated capacity in GPH at 100 psi; as specified in table III.
 Class - H30 = Hollow spray pattern; 30° angle of spray; as specified in figure 1 and table VI.
 Style - A8 = Adapter with 1/8 NPT will be furnished with nozzle, as specified in figure 1.
 Size - L = Long adapter (1.375 inch), as specified in figure 1.
 filter/strainer - filter or strainer as specified in table V.

3. SALIENT CHARACTERISTICS.

3.1 Interface and physical dimensions. Nozzle, oil burner, pressure atomizing supplied to this CID shall be as specified herein (see figure 1).

3.1.1 Design and construction. Oil burner nozzles supplied to the CID will be as specified in the order or contract by the PIN. The thread type required on the nozzle adapter and the length of the adapter will be as specified in the order or contract by the PIN. See figure 1 and tables I, III, IV and V.

3.1.2 Filter or strainer. The nozzle will be furnished with a filter or strainer as indicated in table V.

3.1.3 Materials. All parts will be of materials as listed:

- Adapter – brass
- Nozzle – corrosion resistant steel
- Filter – bronze
- Screen – nickel copper alloy

3.1.4 Measurement and tolerances. All dimensions are in inches. Tolerances are as follows:

- Fractional ± 0.03125
- Angular ± 5°

3.1.5 Threads. Thread sizes as specified in FED-STD-H28.

3.1.6 Surfaces. The sealing surfaces between the adapter and the nozzle will have a 16 microinch finish or better.

3.2 Marking. Nozzle, oil burner, pressure atomizing supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN. (NOTE: The part number marked on the unit pack shall be the CID PIN.)

3.3 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.4 Workmanship. Nozzle, oil burner, pressure atomizing shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Market acceptance. The following market acceptance criteria are necessary to document the quality of the product to be provided under this CID:

- a. The company producing the item must have been producing a product meeting the requirements of this CID for at least 5 years.
- b. The company producing the item must have sold 5000 units meeting this CID in the commercial marketplace over the past 5 years.

5.3 Certification. Certification must be done with the procuring activity approval. The contractor shall certify that the product offered meets the salient characteristics of the description and conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same as the product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See section 2 for PIN format example.

7.2 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. As of the dating of this document, the U.S. Environmental Protection Agency (EPA) is focusing efforts on reducing 31 priority chemicals. The list of chemicals and additional information is available on their website <http://www.epa.gov/osw/hazard/wastemin/priority.htm>. Included in the EPA list of 31 priority chemicals are cadmium, lead, and mercury. Use of these materials should be minimized or eliminated unless needed to meet the requirements specified herein (see Section 3).

7.3 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these nozzle, oil burner, pressure atomizing to DLA Land and Maritime under the Military Parts Control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

7.4 Source of documents.

FEDERAL STANDARD

FED-STD-H28 - Screw-Thread Standards for Federal Services

(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).

FEDERAL REGULATIONS

FAR - Federal Acquisition Regulations (FAR)

(Copies of these documents are available online at www.acquisition.gov/comp/far/index.html or from the U.S. Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.)

7.5 Ordering data. The contract or order should specify the following:

- a. CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Packaging requirements.

7.6 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (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</u>	<u>MFR's name and address</u>
1N0P1	EQUIPMENT PARTS SALES 140 RUTTER RD HALIFAX, PA 17032-9441 Tel: (717) 896-9110 Kory Rothermel kory@equipmentpartssales.com Rod Fulkroad rod@equipmentpartssales.com
08GG3	WATERBURY PLUMBING & HEATING SUPPLYING 1344 MERIDEN RD WATERBURY, CT 06705-3671 (203) 756-4411 MICHAEL L D'ANGELO waterburyplumbing@sbcglobal.net DANIEL D'ANGELO waterburyplumbing@sbcglobal.net

2P336	APPLIANCE PARTS DISTRIBUTORS, INC. 400 BRISTOL PIKE CROYDON, PA 19021-5453 (215) 785-6282 KATHLEEN M. DOREY k.dorey@apd1.com KENNETH M. BIEBER k.bieber@apd1.com
08QQ4	CCF ENTERPRISES INC. 2449 NW DALLAS ST GRAND PRAIRIE, TX 75050-4971 (972) 660-2114 KELLY COKER kelly@ccfenterprises.com

7.7 Government users. To acquire information on obtaining these Nozzle, oil burner, pressure atomizing from the Government inventory system, contact DLA Land and Maritime, ATTN DLA Land and Maritime Call Center (-NAB), P.O. Box 3990, Columbus, OH 43218-3990 or telephone (614) 692-2271 or (614) 692-3191.

7.8 Legacy. This commercial item description is a replacement for MS49007. MS49007 is canceled as of 18 December 1998 and copies of this document is available online at <http://quicksearch.dla.mil> or from the DLA Document Services Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

7.9 Cross referenced table.

TABLE II. Cross referenced table.

<u>Old PIN</u>	<u>New CID PIN</u>
MS49007-05-S60	A-A-55537-05-S60
MS49007-10-H60	A-A-55537-10-H60
MS49007-10-S45	A-A-55537-10-S45
MS49007-11-H30-A4-L	A-A-55537-11-H30-A4-L
MS49007-11-S60	A-A-55537-11-S60
MS49007-12-SH45	A-A-55537-12-SH45
MS49007-15-H80	A-A-55537-15-H80
MS49007-15-SH60	A-A-55537-15-SH60
MS49007-16-SH80	A-A-55537-16-SH80
MS49007-17-H60	A-A-55537-17-H60
MS49007-19-SH60	A-A-55537-19-SH60
MS49007-21-H80	A-A-55537-21-H80
MS49007-22-H80	A-A-55537-22-H80
MS49007-22-S30-A8-L	A-A-55537-22-S30-A8-L
MS49007-23-S90	A-A-55537-23-S90
MS49007-24-SH80	A-A-55537-24-SH80
MS49007-25-SH45	A-A-55537-25-SH45
MS49007-31-H70	A-A-55537-31-H70
MS49007-18-SH80	A-A-55537-18-SH80
MS49007-19-H30	A-A-55537-19-H30
MS49007-18-H45	A-A-55537-18-H45
MS49007-18-S90	A-A-55537-18-S90

7.10 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

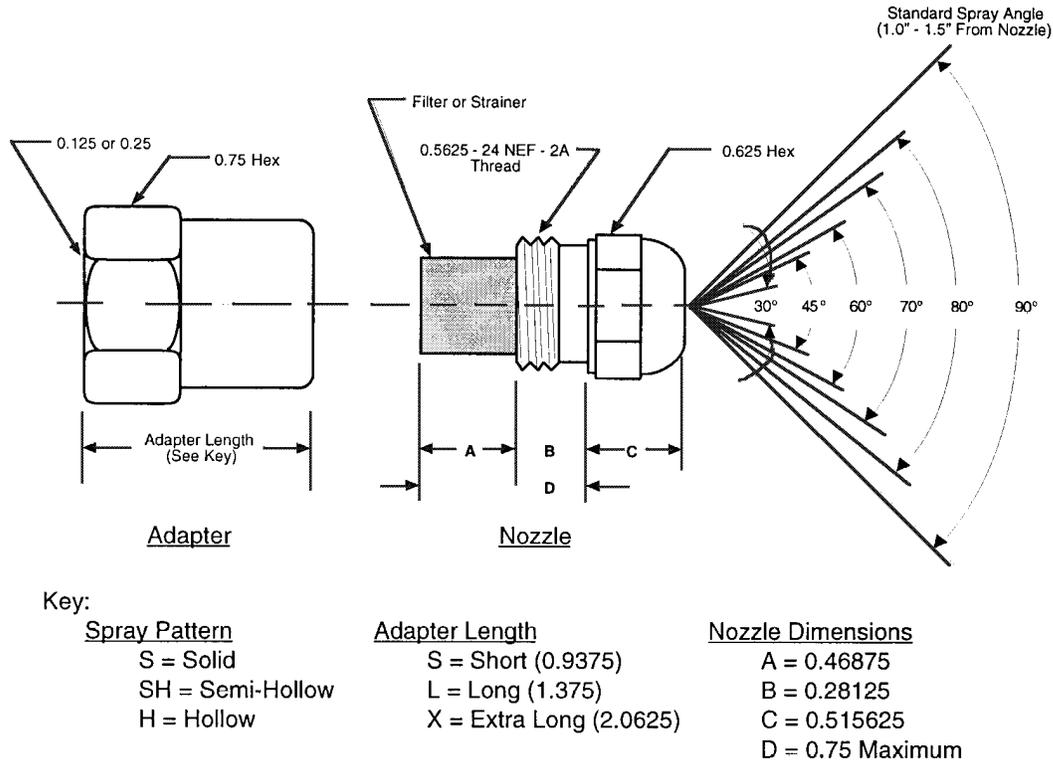


FIGURE 1. Nozzle, oil burner, pressure atomizing.

TABLE III. Nozzle type. 1/

US gallons per hour, number 2 fuel oil											
Type	Rated GPH at 100 PSI	Operating pressure PSI				Type	Rated GPH at 100 PSI	Operating pressure PSI			
		125	150	175	200			125	150	175	200
01	0.40	0.45	0.49	0.53	0.56	30	9.00	10.06	11.02	11.91	12.73
02	0.50	0.56	0.61	0.66	0.71	31	9.50	10.60	11.70	12.60	13.50
03	0.60	0.67	0.74	0.79	0.85	32	10.00	11.18	12.25	13.23	14.14
04	0.65	0.73	0.80	0.86	0.92	33	10.50	11.70	12.90	13.90	14.90
05	0.75	0.84	0.92	0.99	1.06	34	11.00	12.29	13.47	14.55	15.55
06	0.85	0.95	1.04	1.13	1.20	35	12.00	13.40	14.70	15.90	17.00
07	1.00	1.12	1.23	1.32	1.41	36	13.80	15.40	16.90	18.30	19.60
08	1.10	1.23	1.34	1.45	1.55	37	14.00	15.65	17.15	18.52	19.79
09	1.20	1.34	1.47	1.59	1.70	38	15.30	17.10	18.70	20.30	21.60
10	1.25	1.39	1.53	1.65	1.77	39	16.00	17.89	19.60	21.17	22.63
11	1.35	1.51	1.65	1.79	1.91	40	17.50	19.60	21.40	23.20	24.80
12	1.50	1.68	1.84	1.98	2.12	41	18.00	20.12	22.04	23.81	25.46
13	1.65	1.84	2.02	2.18	2.34	42	19.50	21.80	23.90	25.80	27.60
14	1.75	1.96	2.14	2.32	2.48	43	20.00	22.26	24.49	26.46	28.28
15	2.00	2.24	2.45	2.65	2.83	44	21.50	24.00	26.40	28.40	30.40
16	2.25	2.52	2.74	2.98	3.18	45	22.00	24.60	26.94	29.10	31.11
17	2.50	2.80	3.06	3.30	3.54	46	24.00	26.80	29.40	31.80	34.00
18	3.00	3.35	3.68	3.97	4.25	47	26.00	29.07	31.84	34.39	36.77
19	3.50	3.91	4.29	4.63	4.95	48	28.00	31.30	34.30	37.00	39.60
20	4.00	4.47	4.90	5.30	5.66	49	30.00	33.60	36.80	39.70	42.50
21	4.50	5.04	5.51	5.93	6.36	50	35.00	39.10	42.90	46.30	49.50
22	5.00	5.59	6.13	6.61	7.07	51	40.00	44.70	49.00	53.00	56.50
23	5.50	6.15	6.74	7.27	7.78	52	45.00	50.40	55.20	59.30	63.70
24	6.00	6.71	7.33	7.94	8.48	53	50.00	55.90	61.30	66.10	70.70
25	6.50	7.26	7.98	8.60	9.20	54	55.00	61.50	67.40	72.70	77.70
26	7.00	7.82	8.58	9.25	9.90	55	60.00	67.00	73.50	79.40	84.00
27	7.50	8.38	9.19	9.91	10.60	56	70.00	78.20	85.70	92.50	99.00
28	8.00	8.94	9.79	10.58	11.31	57	80.00	89.40	98.00	106.00	113.50
29	8.30	9.28	10.20	11.00	11.80	58	90.00	100.90	110.50	119.20	127.50
						59	100.00	111.90	122.50	132.30	141.40

1/ Based on oil weighing 7.16 pounds per gallon at 74°F and 34 Seconds Saybolt Universal (SSU) viscosity at 100°F.

Table IV. Nozzle class.

Angle of spray	Spray pattern	Rated capacity GPH at 100 PSI
30°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.50 TO 24.00 4.50 TO 20.00 .50 TO 8.00
45°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.40 TO 30.00 2.25 TO 50.00 .50 TO 50.00
60°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.40 TO 4.00 2,25 TO 50.00 .40 TO 50.00
70°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.50 TO 60.00 2.25 TO 60.00 .50 TO 35.00
80°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.40 TO 100.00 2.25 TO 100.00 .40 TO 50.00
90°	SOLID (S) SEMI-SOLID (SH) HOLLOW (H)	.60 TO 50.00 2.25 TO 50.00 .60 TO 9.50

TABLE V. Filter and strainer types.

CID PIN code	Rated capacity	To be furnished with nozzle
F1	.40 TO 1.00	POROUS BRONZE FILTER (25 TO 50 MICRONS)
F2	.60 TO .85	SCREEN STRAINER 200 MESH
F3	1.10 TO 2.00	POROUS BRONZE FILTER (75 TO 100 MICRONS)
F4	1.10 TO 10.58	SCREEN STRAINER 100 TO 120 MESH
NO	11.00 TO 100.00	NO FILTER
Note: The screen strainer can be substituted for the porous bronze filter on the following flow rates: .40 to 1.00 and 1.10 to 2.00		

MILITARY INTERESTS

Custodians:

Army - AT
Navy - SH
Air Force - 99
DLA - CC

Review activities:

Army-AR
Navy – SA,YD
Air Force – 71, 84

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FAS

Preparing activity:

DLA - CC

Project 4530-2012-001

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>.