DETAIL SPECIFICATION SHEET

FLANGE, SWIVEL, RETAINING

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-27272.

FIGURE 1. Flange illustration.
### Size and material code

<table>
<thead>
<tr>
<th>Size and material code</th>
<th>A (see note 1)</th>
<th>B ±.005</th>
<th>C dia. ±.015</th>
<th>D ±.016</th>
<th>E dia. +.010 - .000</th>
</tr>
</thead>
<tbody>
<tr>
<td>-8C</td>
<td>1.390 ±.016</td>
<td>.950</td>
<td>1.782</td>
<td>.219</td>
<td>.205</td>
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<tr>
<td>-10C</td>
<td>1.468</td>
<td>1.038</td>
<td>1.906</td>
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<tr>
<td>-12C</td>
<td>1.594</td>
<td>1.156</td>
<td>2.094</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-16C</td>
<td>1.750</td>
<td>1.312</td>
<td>2.312</td>
<td></td>
<td></td>
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<tr>
<td>-20C</td>
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<td>1.656</td>
<td>2.875</td>
<td>.266</td>
<td>.266</td>
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<td>-24C</td>
<td>2.375</td>
<td>1.812</td>
<td>3.094</td>
<td>.281</td>
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</table>

<table>
<thead>
<tr>
<th>Size and material code</th>
<th>F dia. (see note 2) +.005 - .000</th>
<th>G dia. (see note 2) +.010 - .000</th>
<th>H ±5º (see note 6)</th>
<th>J ±.016</th>
<th>K +.005 - .000</th>
<th>M (see note 7) +.015 - .005</th>
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<tbody>
<tr>
<td>-8C</td>
<td>.885 .750</td>
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<td>.136</td>
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</tbody>
</table>

**NOTES:**

1. Reduction of dimensions by 7º max draft angle permissible if forged.
2. Diameters F and G shall be concentric within .010 inch full indicator movement (FIM).
3. Unless otherwise specified, break or radius all corners .005, +.005, -.000 inch.
4. Surface roughness. Unless otherwise specified, maximum surface roughness shall not exceed 125 µin Ra in accordance with ASME B46.1.
5. Remove all burrs and slivers.
6. H dimension equally applies to all 4 holes.
7. Part may be forged or machined from bar. If machined, thickness shall be to dimension M.

**REQUIREMENTS**

Flange illustration. See figure 1.

Intended use. This part is a component of MS27062, MS27064, and MS27066. This is a design standard for manufacturing purposes. The item is only procured as an integral part of adapter assemblies.

In house manufacturing qualification: Qualified sources for MS27062, MS27064, and MS27066 that meet the qualification testing requirements in MIL-DTL-27272 require no further testing for the flange.
Subcontracted manufacturers qualification of flange only: The flange shall be installed on a qualified connector and shall be subjected to the tests below in accordance with MIL-DTL-27272, reference periodic P1 and P2 testing in MIL-DTL-27272. Sample size, if qualifying all flange configurations, shall be performed on six fittings (three assemblies) for each size.

**Examination of product**
- **Proof pressure**
- **Leakage pressure**
- **Room-temperature burst pressure**

**Material.** Corrosion-resistant steel (CRES), class 304, condition A, in accordance with SAE-AMS-QQ-S-763 or 304 CRES in accordance with SAE-AMS5639.

**Finish.** Passivate in accordance with SAE-AMS2700 method 1, type 6 or 7.

**PIN:** The PIN consists of prefix “MS”, the specification sheet number, dash number for swivel flange size, and the letter “C” for material. Unassigned PIN’s shall not be used.

PIN example: MS27077-10C indicates a swivel flange size 10, CRES.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Referenced documents shall be of the issue in effect on date of invitations for bid.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-DTL-27272, this document references the following:

- MS27062  SAE-AMS-QQ-S-763
- MS27064  SAE-AMS2700
- MS27066  SAE-AMS5639
- ASME B46.1
CONCLUDING MATERIAL

Custodians:                      Preparing activity:
Army – AV                       DLA - CC
Navy - AS                        (Project 4730-2017-068)
Air Force - 99                   
DLA - CC

Review activities:
Army - AR, AT, MI
Navy - MC, SA, SH
Air Force - 71

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.