INCH-POUND
MIL-C-24714/1(SH)
27 January 1989

MILITARY SPECIFICATION SHEET

CONNECTOR TUBES, PREFERRED SIZES, VALVES AND SUBPLATES

This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available 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 the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation: MIL-C-24714.

Military part number:

Part numbers under this specification shall be formulated as follows:

M24714/1 - XXX R - S

Specification sheet

Size identifier
Corresponds to MIL-R-83248/1 or equivalent size O-ring three-digit dash number (see tables II and III).

Configuration indicator
S - Standard connector tube (see figure 1).
U - Undrilled standard tube (see figure 1).
C - Tube for internal check valve (see figure 2).
R - Tube for internal restrictor valve (see figure 2).
P - Plug (one-half of undrilled tube) (see figure 3).

Composition identifier
Table I lists materials.

Examples:

M24714/1-013R-A - This connector tube is configured to take a 0.1880-inch diameter restrictor and use size 013 dash number O-rings. This material is aluminum alloy.

M24714/1-124S-T - This is a standard connector tube configured to use size 124 dash number O-rings. The material is titanium alloy.

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TABLE I. Composition identifiers.

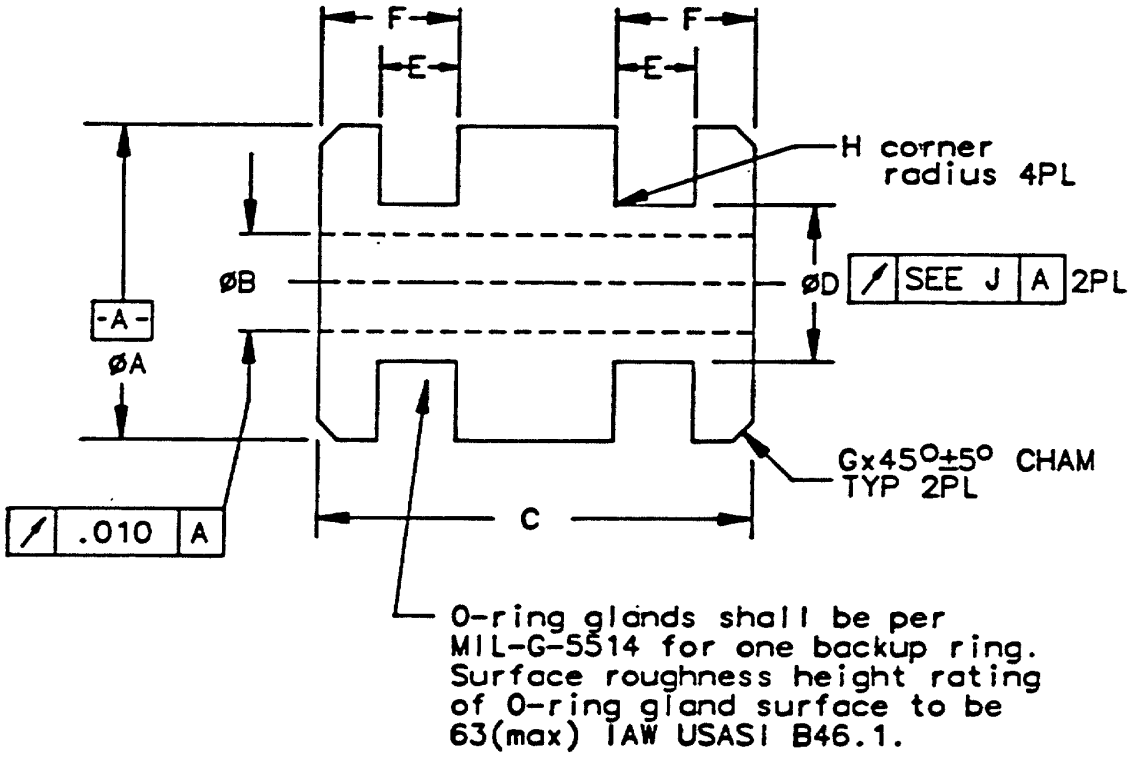
Code letter	Material 1/
S	CRES, class 304 2/
A	Aluminum alloy, 6061
T	Titanium alloy, AB-1

1/ Materials shall be in accordance with MIL-C-24714.
2/ Other corrosion-resisting steel having at least equivalent strength and corrosion resistance may be used when specifically approved by the contracting activity.

REQUIREMENTS:

The connector tubes shall be in accordance with figures 1 through 4 and tables II through IV.

Preparing activity:
Navy - SH
(Project 4810-N068-01)



NOTES: See table II for dimensions.
All dimensions in inches.

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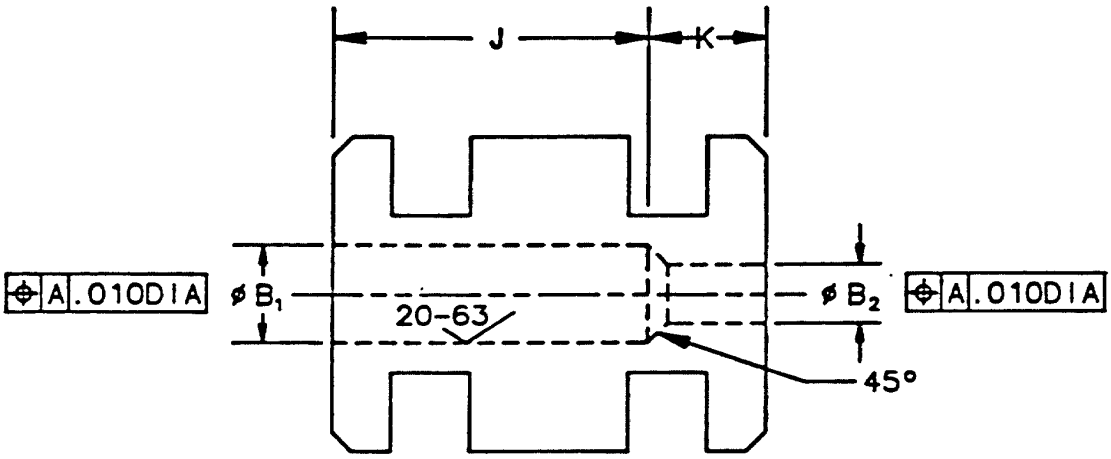
FIGURE 1. Standard connector tube (S).

TABLE II. Standard connector tube dimensions.

Quill dash no.	A	B	C	D	E	F	G	H	J
010S	0.356 .355	0.125 +.004 -.001	0.674 .668	0.248 .247	0.159 .149	0.240 .230	0.045 .032	0.015 .005	0.002
012S	.481 .480	.250 +.006 -.001	.876 .870	.373 .372	.159 .149	.300 .290	.062 .032	.015 .005	.002
013S	.546 .545	.344 +.006 -.001	.876 .870	.438 .436	.159 .149	.300 .290	.062 .032	.015 .005	.002
114S	.796 .795	.500 +.006 -.001	.876 .870	.622 .620	.193 .183	.317 .307	.062 .032	.015 .005	.002
117S	.987 .986	.672 +.006 -.001	.876 .870	.813 .811	.193 .183	.317 .307	.062 .032	.015 .005	.002
124S	1.424 1.423	1.031 +.012 -.001	.876 .870	1.250 1.248	.193 .183	.317 .307	.062 .032	.015 .005	.002
128S	1.674 1.673	1.250 +.012 -.001	.876 .870	1.500 1.498	.193 .183	.317 .307	.062 .032	.015 .005	.002
215S	1.299 1.298	.875 +.010 -.001	1.005 1.000	1.060 1.058	.245 .235	.380 .370	.062 .032	.025 .010	.003
220S	1.612 1.611	1.156 +.012 -.001	1.005 1.000	1.373 1.371	.245 .235	.380 .370	.062 .032	.025 .010	.003
224S	1.987 1.986	1.469 +.012 -.001	1.005 1.000	1.749 1.747	.245 .235	.380 .370	.062 .032	.025 .010	.003
329S	2.363 2.362	1.688 +.012 -.001	1.249 1.244	1.996 1.994	.344 .334	.470 .460	.062 .032	.035 .020	.004
332S	2.738 2.736	2.000 +.015 -.005	1.249 1.244	2.371 2.369	.344 .334	.470 .460	.062 .032	.035 .020	.004

NOTES: For undrilled connector tube replace "S" with "U" and dimension "B" does not apply.
All dimensions in inches.



NOTES: All dimensions and surface finish not shown are the same as figure 1 and table III.
All dimensions are in inches.

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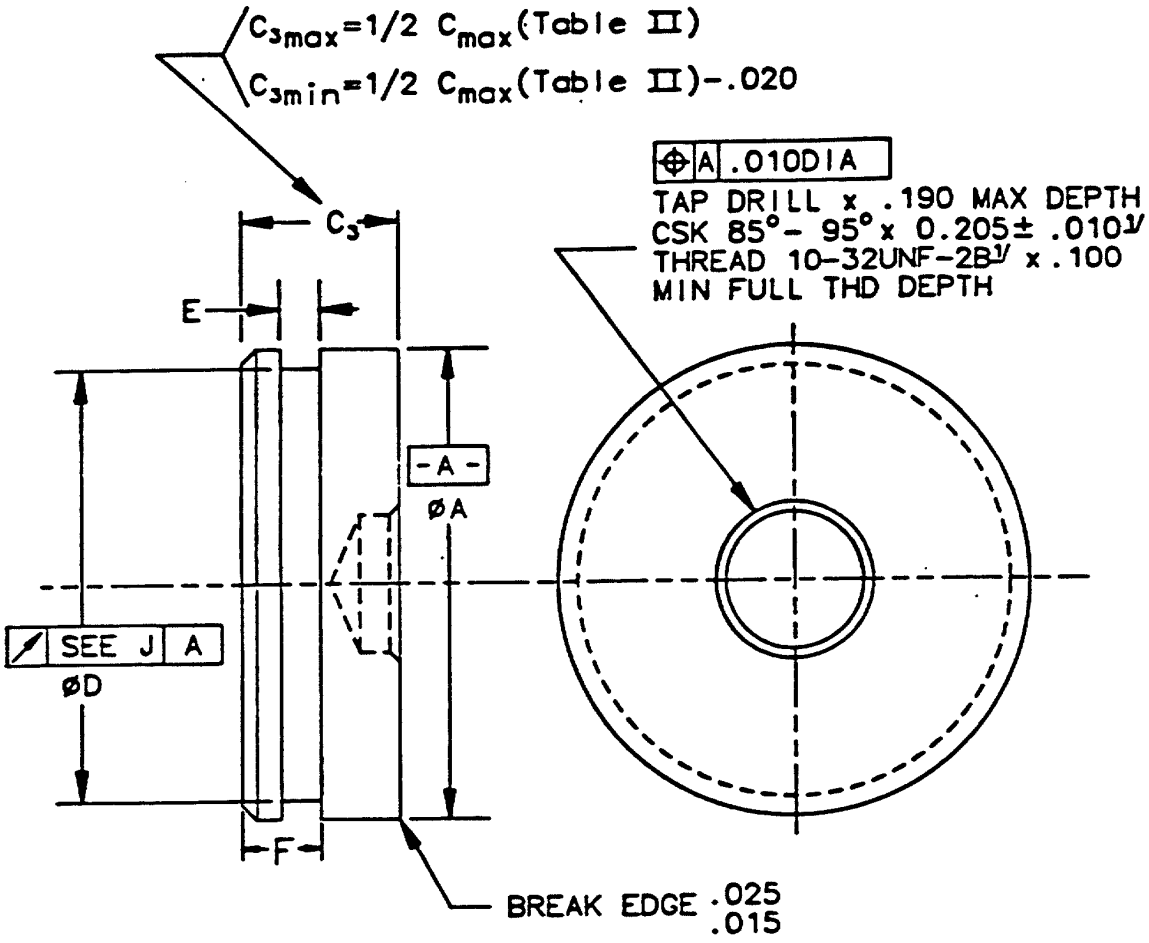
FIGURE 2. Connector tube for installation of internal restrictor (R) or check valve (C).

TABLE III. Restrictor valve tube dimensions.

Tube dash no.	$\varnothing B_1$	$\varnothing B_2$	J (min)	K (min)
013R	0.1880 0.1875	0.162 0.156	0.70	0.15
114R	0.1880 0.1875	0.162 0.156	0.70	0.15
117R	0.1880 0.1875	0.162 0.156	0.70	0.15
117C	0.2505 0.2500	0.200 0.190	0.74	0.10
124R	0.1880 0.1875	0.162 0.156	0.70	0.15
124C	0.2505 0.2500	0.200 0.190	0.74	0.10
128R	0.1880 0.1875	0.162 0.156	0.70	0.15
128C	0.2505 0.2500	0.200 0.190	0.74	0.10
215R	0.1880 0.1875	0.162 0.156	0.80	0.21
215C	0.2505 0.2500	0.200 0.190	0.80	0.21
220R	0.1880 0.1875	0.162 0.156	0.80	0.21
220C	0.2505 0.2500	0.200 0.190	0.80	0.21
224R	0.1880 0.1875	0.162 0.156	0.80	0.21
224C	0.2505 0.2500	0.200 0.190	0.80	0.21

NOTE: All dimensions in inches.



NOTES: All dimensions and surface finish not shown are the same as figure 1 and table II. For dash number, substitute "P" and "S" in table II.
All dimensions are in inches.

1/ Except -010P: CSK 85° - 95° x 0.158 ± 0.010, thread 6-32UNF-2B.

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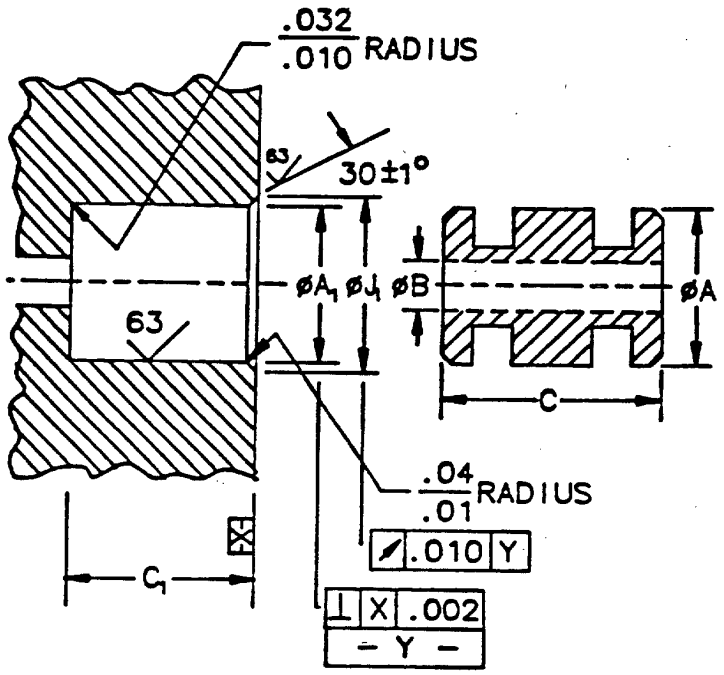
FIGURE 3. Tube plug (P).



See table IV below for dimensions.

TABLE IV. Counterbore dimensions for standardized tube interfaces.

Dimension	Minimum	Maximum	Remarks
$ØA_1$	ØA(min) + 0.005	ØA(max) + 0.006	0.005 for dash no. less than 100
C_1	$\frac{C(max)}{2}$ + 0.002	$\frac{C(max)}{2}$ + 0.008	
$ØJ_1$	D(max) + 2(max O-ring C.S.)	D(max) + 2(max O-ring C.S+.030)	O-ring dash no. / Max C.S. Oxx .073 1xx .106 2xx .143 3xx .215
ØA, C, ØD,	See table II and figure 1 for dimensions		

NOTE: All dimensions in inches.

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FIGURE 4. Counterbore dimensions for standardized tube interfaces.