CUP PLUGS
(Superseded)

This standard has been superseded by CNH Standard Parts, STPJ280 (87366810), Cup Plugs - Inch - Non-Preferred.

The controlled versions of CNH specifications and standards are published on the CNH Intranet site.

The documents are also available on the CNH electronic viewing system (e.g. eViewer). Suppliers are able to access these documents on CSCN (CNH Supplier Communications Network).

The superseded standard remains available for viewing following this page if needed.

CUP PLUGS
(Superseded)

GENERAL SPECIFICATIONS

GENERAL: Cup plugs are made in three different types.

1. Standard plugs for general production applications.
2. Stainless steel plugs are considered special because of cost and limited availability.
3. Salvage plugs are for use in salvage operations only and should not be designed into products.

MATERIAL: Carbon Steel (CST) per Case Engineering Material Specifications MS 435, 436 or 437.

Stainless Steel (SST) Austenitic stainless steel 200 or 300 series.

FINISH: All plugs shall be furnished plain.

ASSEMBLY CONSIDERATIONS: The recommended hole diameter limits specified will provide suitable assembly under average conditions. However, deviations from these recommendations may be desirable to provide optimum assembly and performance to suit special conditions.

A suitable lubricating oil is recommended wherever possible during installation of plugs to facilitate insertion and prevent galling.

To facilitate assembly and prevent scoring of plugs at insertion, it is recommended that entering edge of hole be relieved with as large a tangential radius as the wall thickness will permit. An alternative, although not preferred, is a countersink of 30 E maximum included angle; to a minimum diameter .012 to .016 inch larger than the plug in its free state. The depth of the relief shall be such as to permit open end of plugs to be inserted .010 inch minimum beyond the point of tangency or intersection of countersink on wall of hole.

INSTALLATION: Plugs should be driven from the inside bottom and not from the outer edge, or rim of the cup. This can best be accomplished by use of a round arbor .020 or .025 inch smaller in diameter than the inside diameter of plug (A min - 2C max.), the driving end is flat and perpendicular to axis of arbor with edge rounded to .06 inch radius.

Where plugs are used in counterbored holes, care should be exercised in insertion to prevent the plug from bottoming on the shoulder of counterbore which could result in distortion of plug and loss of seal.

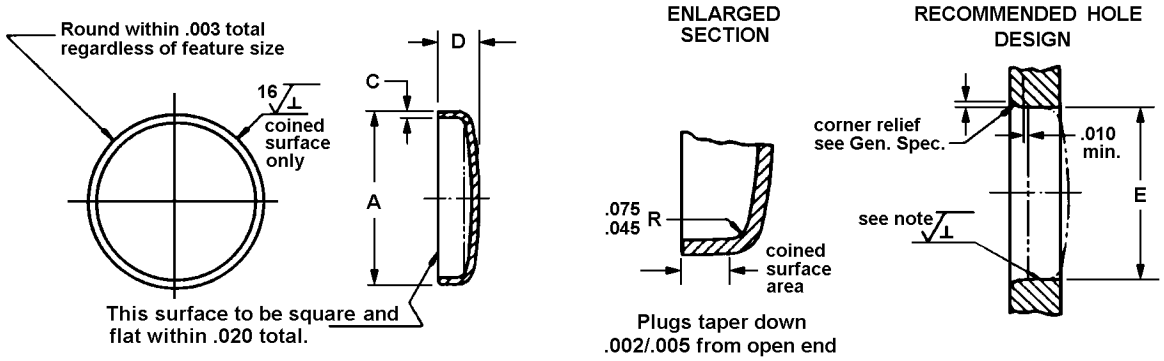
PREFERRED PARTS POLICY: Preferred parts are so designated to reduce variety of parts and assure maximum availability, interchangeability and cost savings in volume buying.

Sizes:	3/8 to 1 inch - 1/16 inch increments
	Over 1 inch - 1/8 inch increments
Material:	Steel
Finishes:	Plain

WORKMANSHIP: Cup plugs must be free from burrs, loose scale and all other defects that affect their serviceability.

CUP PLUGS
(Superseded)

STANDARD TYPE



Dimensions are in inches.

Nominal Plug Size	A		D		C	E	
	Outside Diameter *		Overall Height		Stock Thickness	Recommended Hole Diameter **	
	max.	min.	max.	min.	±.003	min.	max.
0.187	.199	.197	.155	.105	.030	.192	.194
0.313	.318	.316	.208	.168	.040	.310	.312
0.375	.387	.385	.208	.168	.040	.379	.381
0.437	.449	.447	.208	.168	.040	.440	.442
0.500	.512	.510	.270	.230	.040	.504	.506
0.562	.574	.572	.270	.230	.040	.566	.568
0.625	.637	.635	.270	.230	.040	.629	.631
0.687	.699	.697	.270	.230	.040	.691	.693
0.750	.762	.760	.270	.230	.050	.754	.756
0.812	.825	.823	.270	.230	.050	.817	.819
0.875	.887	.885	.270	.230	.050	.879	.881
0.937	.941	.937	.500		.048	.931	.934
1.000	1.012	1.010	.330	.290	.050	1.002	1.005
1.125	1.137	1.135	.330	.290	.050	1.127	1.130
1.250	1.262	1.260	.330	.290	.050	1.252	1.255
1.375	1.388	1.386	.330	.290	.060	1.378	1.381

TABLE CONTINUED ON FOLLOWING PAGE

* Average of maximum and minimum measured diameters of coined surface. Diameter below coined surface may be .0025 inch undersize.

** Hole diameters shown are for general applications, see General Specifications.

NOTE: Suggested bore finish should not exceed 100 microinch (AA) for maximum efficiency.

CUP PLUGS
(Superseded)

CONTINUED FROM PREVIOUS PAGE

Dimensions are in inches

Nominal Plug Size	A		D		C	E	
	Outside Diameter *		Overall Height		Stock Thickness	Recommended Hole Diameter **	
	max.	min.	max.	min.	±.003	min.	max.
1.500	1.508	1.506	.330	.290	.060	1.497	1.500
1.625	1.642	1.640	.380	.340	.060	1.631	1.634
1.750	1.762	1.760	.380	.340	.060	1.751	1.754
1.875	1.887	1.885	.380	.340	.060	1.876	1.879
2.000	2.012	2.010	.380	.340	.060	2.001	2.004
2.125	2.138	2.135	.380	.340	.060	2.126	2.129
2.250	2.263	2.260	.380	.340	.060	2.251	2.254
2.375	2.389	2.386	.380	.340	.060	2.377	2.380
2.500	2.513	2.510	.440	.380	.070	2.500	2.504
2.625	2.638	2.635	.440	.380	.070	2.625	2.629
2.750	2.763	2.760	.440	.380	.070	2.750	2.754
2.875	2.888	2.885	.440	.380	.070	2.875	2.879
3.000	3.013	3.010	.540	.480	.070	3.000	3.004
3.125	3.138	3.135	.540	.480	.070	3.125	3.129
3.250	3.263	3.260	.540	.480	.070	3.250	3.254
3.375	3.383	3.380	.540	.480	.070	3.369	3.372
3.625	3.635	3.632	.540	.480	.070	3.621	3.624
3.875	3.890	3.887	.540	.480	.070	3.8745	3.8775

* Average of maximum and minimum measured diameters of coined surface. Diameter below coined surface may be .0025 inch undersize.

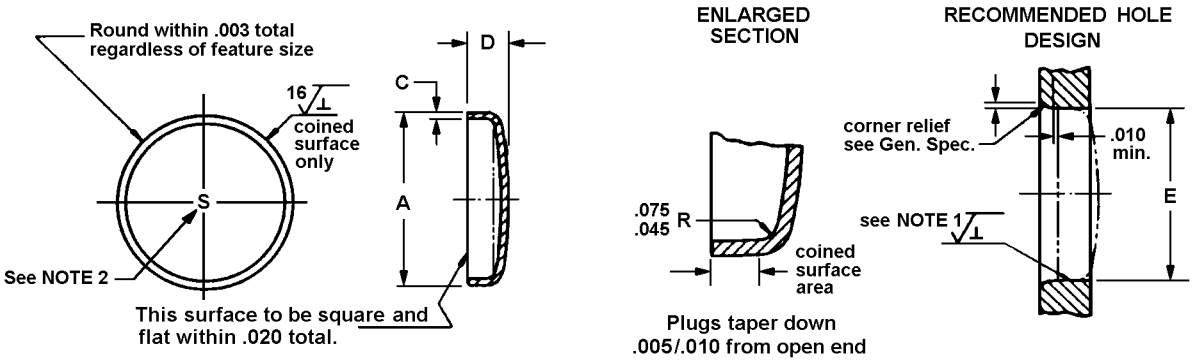
** Hole diameters shown are for general applications, see General Specifications.

NOTE: Suggested bore finish should not exceed 100 microinch (AA) for maximum efficiency.

Standard Parts

CUP PLUGS
(Superseded)

STAINLESS STEEL TYPE



Dimensions are in inches

Nominal Plug Size	A		D		C	E	
	Outside Diameter *		Overall Height		Stock Thickness	Recommended Hole Diameter **	
	max.	min.	max.	min.	±.003	min.	max.
0.312	.318	.316	.208	.168	.042	.310	.312
0.625	.639	.636	.280	.240	.042	.629	.631
0.750	.765	.762	.280	.240	.050	.754	.756
0.875	.891	.887	.280	.240	.050	.879	.881
1.000	1.016	1.012	.340	.300	.050	1.002	1.005
1.125	1.140	1.136	.340	.300	.050	1.127	1.130
1.250	1.266	1.262	.340	.300	.050	1.252	1.255
1.375	1.394	1.390	.340	.300	.060	1.378	1.381
1.500	1.514	1.510	.340	.300	.060	1.497	1.500
1.625	1.649	1.645	.390	.350	.060	1.631	1.634
1.750	1.768	1.763	.390	.350	.060	1.751	1.754
2.000	2.019	2.015	.390	.350	.060	2.001	2.004
2.250	2.268	2.263	.390	.350	.060	2.251	2.254
3.250	3.269	3.264	.540	.480	.060	3.250	3.254

* Average of maximum and minimum measured diameters of coined surface. Diameter below coined surface may be .0025 inch undersize.

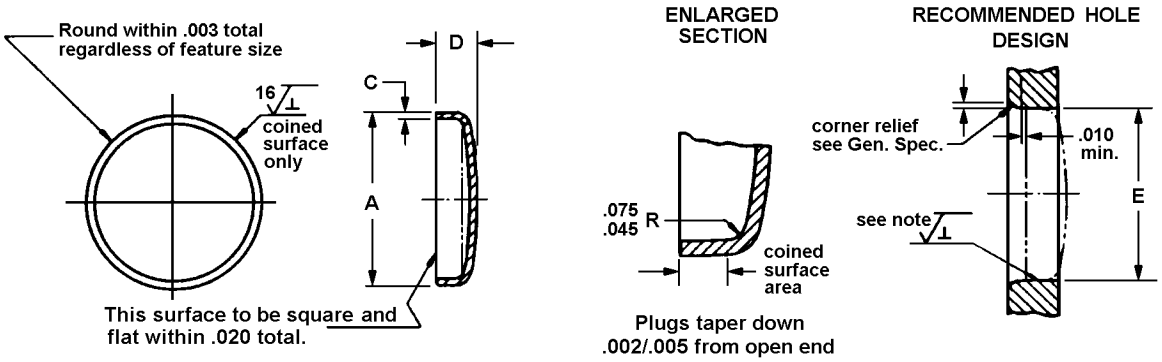
** Hole diameters shown are for general applications, see General Specifications.

NOTE: 1. Suggested bore finish should not exceed 100 microinch (AA) for maximum efficiency.
2. All Stainless Steel Plugs must be stamped with the letter S in the center of the concave portion of each plug.

Standard Parts

CUP PLUGS
(Superseded)

SALVAGE TYPE



Dimensions are in inches

Nominal Plug Size	A		D		C	E	
	Outside Diameter*		Overall Height		Stock Thickness	Recommended Hole Diameter**	
	max.	min.	max.	min.	±.003	min.	max.
1.187	1.198	1.196	.330	.290	.050	1.188	1.191
1.312	1.326	1.324	.330	.290	.050	1.316	1.319
1.437	1.449	1.447	.330	.290	.060	1.439	1.442
1.812	1.825	1.823	.380	.340	.060	1.814	1.817
2.187	2.200	2.197	.380	.340	.060	2.188	2.191

* Average of maximum and minimum measured diameters of coined surface. Diameter below coined surface may be .0025 inch undersize.

** Hole diameters shown are for general applications, see General Specifications.

NOTE: Suggested bore finish should not exceed 100 microinch (AA) for maximum efficiency.