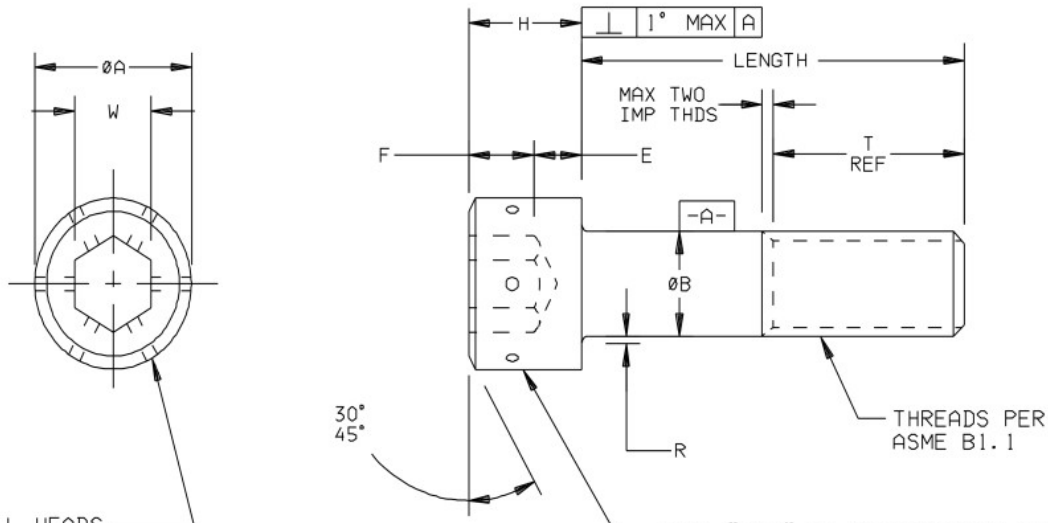




PROPRIETARY INFORMATION  
 INFORMATION ON THIS DOCUMENT IS A  
 TRADE SECRET, PROPRIETARY, AND  
 SHALL NOT BE USED OR REPRODUCED IN  
 WHOLE OR IN PART WITHOUT WRITTEN  
 AUTHORIZATION OF SPS TECHNOLOGIES

DRAWING NUMBER  
 SD. 300. 96319  
 ISSUE DATE  
 11/21/02  
 REVISION  
 ① 3/31/03



CROSSDRILL HEADS  
 PER FF-S-86  
 WHEN SPECIFIED  
 SEE NOTE 7

MARK "SPS" ON TOP OR SIDE OF HEAD  
 OTHER IDENTIFICATION MARKINGS  
 MAY EXIST AT MANUFACTURER'S OPTION

DASH NUMBER	THREADS CLASS 2A	ØA	ØB	E MIN	F MIN	H	R FILLET EXT	T REF	W NOM	TENSILE LBS. MIN
256	.086-56 UNC	.140	.086	.029	.038	.086	.008	.625	.0781	590
264	.086-64 UNF	.134	.0822			.083	.004			630
348	.099-48 UNC	.161	.099	.034	.044	.099	.008	.625	.0781	780
356	.099-56 UNF	.154	.0949			.095	.004			840
440	.112-40 UNC	.183	.112	.038	.051	.112	.009	.750	.0937	970
448	.112-48 UNF	.176	.1075			.108	.005			1,060
540	.125-40 UNC	.205	.125	.043	.057	.125	.010	.750	.0937	1,270
544	.125-44 UNF	.198	.1202			.121	.006			1,330
632	.138-32 UNC	.226	.138	.047	.064	.138	.010	.750	.1093	1,450
640	.138-40 UNF	.218	.1329			.134	.006			1,620
832	.164-32 UNC	.270	.164	.056	.077	.164	.012	.875	.1406	2,240
836	.164-36 UNF	.262	.1585			.159	.007			2,360
1024	.190-24 UNC	.312	.190	.065	.090	.190	.014	.875	.1562	2,800
1032	.190-32 UNF	.303	.184			.185	.009			3,200
420	.250-20 UNC	.375	.250	.095	.120	.250	.014	1.000	.1875	5,090
428	.250-28 UNF	.365	.2435			.244	.009			5,820
518	.312-18 UNC	.469	.3125	.119	.151	.312	.017	1.125	.2500	8,380
524	.312-24 UNF	.457	.3053			.306	.012			9,280
616	.375-16 UNC	.562	.375	.143	.182	.375	.020	1.250	.3125	12,400
624	.375-24 UNF	.550	.3678			.368	.015			14,000
714	.437-14 UNC	.656	.4375	.166	.213	.438	.023	1.375	.3750	17,000
720	.437-20 UNF	.642	.4294			.430	.018			19,000
813	.500-13 UNC	.750	.500	.190	.245	.500	.026	1.500	.3750	22,700
820	.500-20 UNF	.735	.4919			.492	.020			25,600
1011	.625-11 UNC	.938	.625	.238	.307	.625	.032	1.750	.5000	36,200
1018	.625-18 UNF	.921	.6163			.616	.024			41,000
1210	.750-10 UNC	1.125	.750	.285	.370	.750	.039	2.000	.6250	53,500
1216	.750-16 UNF	1.107	.7406			.740	.030			59,700
1409	.875-9 UNC	1.312	.875	.333	.432	.875	.044	2.250	.7500	73,900
1414	.875-14 UNF	1.293	.8647			.864	.034			81,500
1608	1.000-8 UNC	1.500	1.000			1.000	.050			96,900
1612	1.000-12 UNF			.380	.495			2.500	.7500	106,000
1614	1.000-14 UNS	1.479	.9886			.988	.040			109,000
1807	1.125-7 UNC	1.688	1.125	.428	.557	1.125	.055	2.812	.8750	122,000
1812	1.125-12 UNF	1.665	1.1086			1.111	.045			137,000
2007	1.250-7 UNC	1.875	1.250	.475	.620	1.250	.060	3.125	.8750	155,000
2012	1.250-12 UNF	1.852	1.2336			1.236	.050			171,000
2206	1.375-6 UNC	2.062	1.375	.523	.682	1.375	.065			185,000
2212	1.375-12 UNF	2.038	1.3568			1.360	.055	3.437	1.0000	210,000
2406	1.500-6 UNC	2.250	1.500	.570	.745	1.500	.070	3.750	1.0000	225,000
2412	1.500-12 UNF	2.224	1.4818			1.485	.060			253,000

THE TENSILE STRENGTH IS BASED ON 160 KSI STRESS LEVEL AT ROOM TEMPERATURE AND THE AREA PER ASME B1.1.

TOLERANCES ±.010 AND ±2°  
 SURFACE ROUGHNESS 125√  
 UNLESS OTHERWISE NOTED  
 DRAFTED IN ACCORDANCE WITH ASME Y14.5M  
 DRAWN BY: KATHY SCHWARTZ  
 APPROVED: L. KLINE  
 APPROVED: S. FOSTER

FSCM NO. 56878  
 CUSTODIAN:  
 JENKINTOWN, PA.  
 TITLE  
 SCREW, SOCKET HEAD CAP, HEXAGON RECESS  
 A286, 160 KSI UTS  
 APPLICATIONS TO 1,000°F

STANDARDS AND SPECIFICATIONS  
 FF-S-86  
 EXCEPT AS NOTED  
 PART NUMBER:  
 96319( )-( )-( )-( )  
 SHEET 1 OF 2