

TECHNICAL MANUAL



MORTORQ® SUPER SPIRAL Drive Systems

Includes comprehensive engineering Head Standards, Driver Bit Standards, Gage Standards, Quality Standards and Punch Standards.



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MORTORQ® SUPER SPIRAL Drive System Technical Manual



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Phillips Screw Company
155 Farm Street
Bellingham, MA 02019

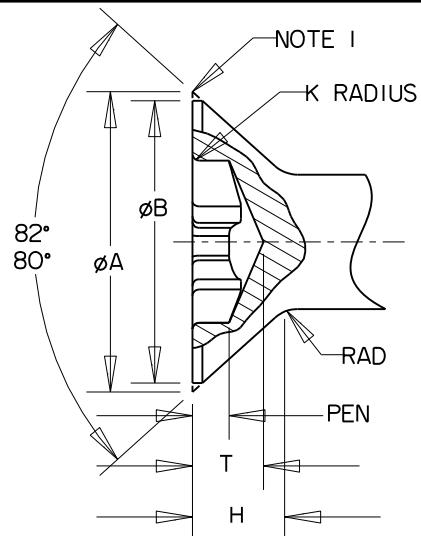
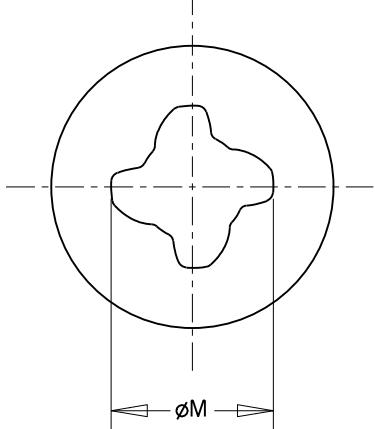
Phone: (774) 396-6190
FAX: (508) 966-2326
WWW: Phillips-Screw.com

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SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS
		φA THEO.	φB MIN.	H REF.	φM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION MAX.	
00	MTS-06-1	.094	.080	.028	.045	.024	.002	.015	.011 MTS-06
0	MTS-04-1	.119	.096	.035	.055	.028	.003	.017	.013 MTS-04
1	MTS-04-2	.145	.120	.043	.055	.034	.003	.023	.019 MTS-04
2	MTS-000-4	.172	.144	.051	.073	.040	.004	.025	.019 MTS-000
4	MTS-00-8	.224	.191	.067	.1210	.053	.005	.028	.021 MTS-00
6	MTS-00-9	.277	.238	.083	.1210	.063	.005	.038	.029 MTS-00
8	MTS-0-6	.332	.285	.100	.1704	.077	.005	.042	.033 MTS-0
10	MTS-0-7	.385	.333	.116	.1704	.087	.005	.052	.043 MTS-0
12	MTS-1-6	.438	.380	.132	.2405	.102	.005	.052	.043 MTS-1
1/4	MTS-1-7	.507	.442	.153	.2405	.115	.005	.065	.056 MTS-1
5/16	MTS-2-3	.633	.556	.191	.3080	.144	.008	.080	.071 MTS-2
3/8	MTS-3-3	.761	.670	.230	.3537	.167	.008	.094	.085 MTS-3
7/16	MTS-4-4	.812	.715	.223	.4285	.183	.012	.094	.079 MTS-4
1/2	MTS-5-4	.874	.765	.223	.5063	.199	.018	.094	.079 MTS-5
9/16	MTS-6-3	.999	.878	.260	.5938	.228	.020	.105	.090 MTS-6
5/8	MTS-6-4	1.125	.990	.298	.5938	.248	.020	.125	.105 MTS-6
3/4	MTS-7-2	1.374	1.215	.372	.7260	.305	.025	.155	.130 MTS-7

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

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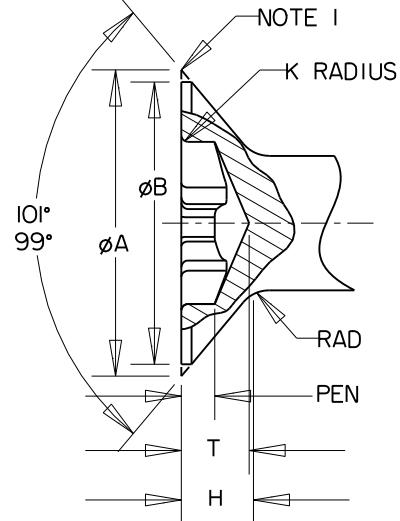
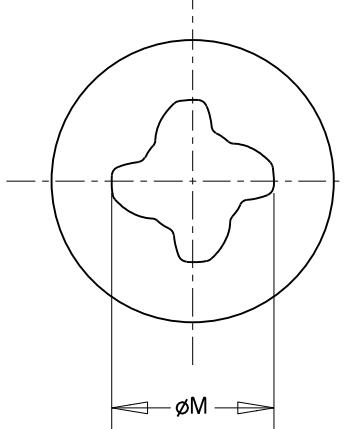
TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
82° FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 3/7/07	DRAWING NUMBER PSC-MTS-105
CHECKED: G.DILLING	DATE 3/7/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
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REVISION REV I: 12/31/09



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS					DRIVER SIZE MTS
		φA THEO.	φB MIN.	H REF.	φM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION	MAX.	
00	MTS-06-2	.094	.080	.020	.045	.020	.002	.011	.007	MTS-06
0	MTS-04-1	.121	.095	.026	.055	.028	.003	.017	.013	MTS-04
1	MTS-04-2	.146	.118	.031	.055	.034	.003	.023	.019	MTS-04
2	MTS-000-1	.173	.142	.037	.073	.038	.004	.023	.017	MTS-000
4	MTS-00-1	.227	.188	.049	.1210	.048	.005	.023	.016	MTS-00
6	MTS-00-2	.279	.235	.060	.1210	.060	.005	.035	.026	MTS-00
8	MTS-0-1	.333	.282	.072	.1704	.070	.005	.035	.026	MTS-0
10	MTS-0-2	.384	.329	.083	.1704	.080	.005	.045	.036	MTS-0
1/4	MTS-1-1	.508	.437	.110	.2405	.100	.005	.050	.041	MTS-1
5/16	MTS-2-1	.636	.550	.138	.3080	.129	.008	.065	.056	MTS-2
3/8	MTS-3-1	.761	.662	.165	.3537	.152	.008	.079	.070	MTS-3
7/16	MTS-4-1	.889	.783	.193	.4285	.179	.012	.090	.075	MTS-4
1/2	MTS-5-1	1.018	.897	.221	.5063	.210	.018	.105	.090	MTS-5
9/16	MTS-6-1	1.146	1.011	.249	.5938	.233	.020	.110	.095	MTS-6
5/8	MTS-6-2	1.271	1.124	.276	.5938	.258	.020	.135	.115	MTS-6
3/4	MTS-7-1	1.509	1.352	.324	.7260	.310	.025	.160	.135	MTS-7
7/8	MTS-8-1	1.763	1.579	.379	.8210	.350	.025	.180	.155	MTS-8
1"	MTS-8-2	2.014	1.807	.433	.8210	.365	.025	.195	.160	MTS-8

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

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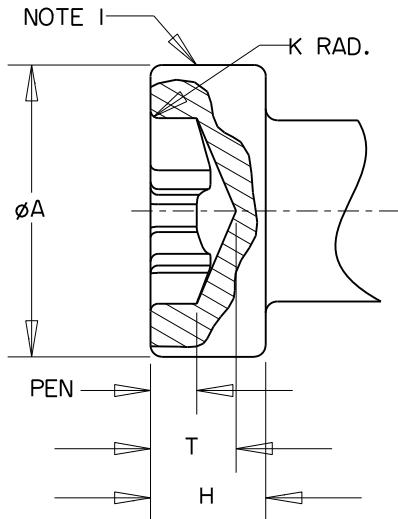
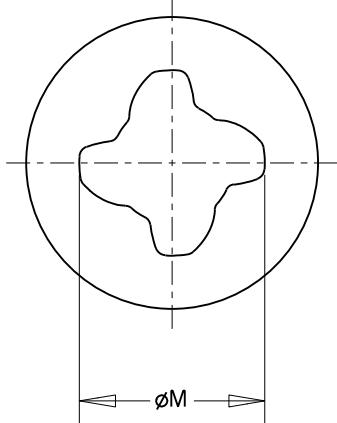
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
100° FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 2/12/07	DRAWING NUMBER PSC-MTS-106
CHECKED: G.DILLING	DATE 2/12/07	SHEET 1 OF 1

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SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS				DRIVER SIZE MTS
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION	
		MAX.	MIN.					
00	MTS-06-1	.082 .072	.030 .025	.045	.024	.002	.015	.011 MTS-06
0	MTS-04-1	.096 .083	.036 .030	.055	.028	.003	.017	.013 MTS-04
1	MTS-04-2	.118 .104	.044 .036	.055	.034	.003	.023	.019 MTS-04
2	MTS-000-7	.140 .124	.073 .056	.073	.043	.004	.028	.022 MTS-000
3	MTS-000-8	.161 .145	.083 .065	.073	.047	.004	.032	.025 MTS-000
4	MTS-00-2	.183 .166	.094 .075	.1210	.060	.005	.035	.026 MTS-00
6	MTS-00-14	.226 .208	.115 .094	.1210	.067	.005	.042	.033 MTS-00
8	MTS-0-2	.270 .250	.133 .110	.1704	.080	.005	.045	.036 MTS-0
10	MTS-0-7	.313 .292	.149 .125	.1704	.087	.005	.052	.043 MTS-0
12	MTS-1-7	.357 .334	.178 .151	.2405	.115	.005	.065	.056 MTS-1
1/4	MTS-1-14	.414 .389	.206 .176	.2405	.125	.005	.075	.066 MTS-1
5/16	MTS-2-8	.518 .490	.256 .223	.3080	.152	.008	.088	.079 MTS-2
3/8	MTS-3-3	.622 .590	.292 .252	.3537	.167	.008	.094	.085 MTS-3
7/16	MTS-4-9	.625 .589	.304 .257	.4285	.194	.012	.105	.090 MTS-4
1/2	MTS-5-7	.750 .710	.340 .290	.5063	.225	.018	.120	.105 MTS-5

NOTES:

1. TO INSURE GOOD FILL OF THE RECESS CAVITY, THE SIDES OF THE HEAD MUST BE CONTAINED IN THE HEADING DIE.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

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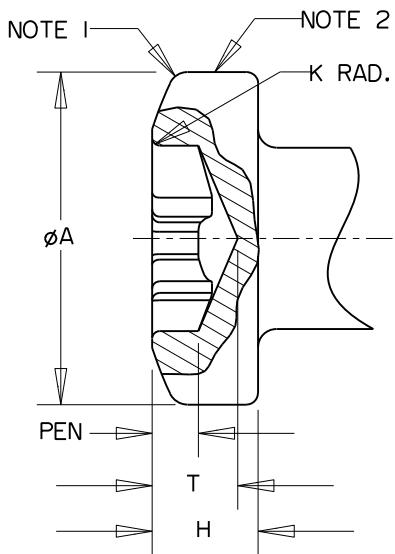
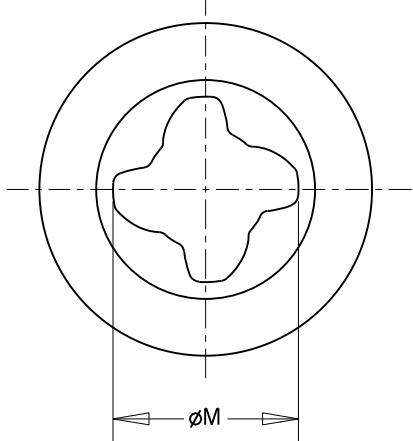
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT FILISTER HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 4/11/07	DRAWING NUMBER PSC-MTS-107
CHECKED: G.DILLING	DATE 4/11/07	SHEET 1 OF 1

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SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS				DRIVER SIZE MTS
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION	
00	MTS-06-3	.090 .082	.031 .026	.045	.024	.002	.015 .011	MTS-06
0	MTS-04-3	.116 .104	.039 .031	.055	.028	.003	.017 .013	MTS-04
I	MTS-04-4	.142 .130	.046 .037	.055	.034	.003	.023 .019	MTS-04
2	MTS-000-3	.167 .155	.054 .045	.073	.043	.004	.028 .022	MTS-000
3	MTS-00-6	.193 .180	.062 .053	.1210	.053	.005	.028 .021	MTS-00
4	MTS-00-7	.219 .205	.069 .059	.1210	.060	.005	.035 .026	MTS-00
6	MTS-00-5	.270 .256	.084 .074	.1210	.065	.005	.040 .031	MTS-00
8	MTS-0-4	.322 .306	.099 .089	.1704	.085	.005	.050 .041	MTS-0
10	MTS-0-5	.373 .357	.114 .103	.1704	.090	.005	.055 .046	MTS-0
I2	MTS-I-4	.425 .407	.130 .118	.2405	.110	.005	.060 .051	MTS-I
I/4	MTS-I-5	.492 .473	.150 .137	.2405	.122	.005	.072 .063	MTS-I
5/16	MTS-2-2	.615 .594	.187 .172	.3080	.144	.008	.080 .071	MTS-2
3/8	MTS-3-2	.740 .716	.224 .207	.3537	.171	.008	.098 .089	MTS-3
7/16	MTS-4-3	.863 .837	.262 .241	.4285	.194	.012	.105 .090	MTS-4
1/2	MTS-5-3	.987 .958	.299 .276	.5063	.245	.018	.140 .125	MTS-5

NOTES:

1. THE HEAD CROWN CORNER IS NOT CONTAINED IN THE PUNCH CAVITY AND IS TO BE FREE FLOWED.
2. TO INSURE GOOD FILL OF THE RECESS CAVITY, THE SIDES OF THE HEAD MUST BE CONTAINED IN THE HEADING DIE.
3. DIMENSIONS ARE IN INCHES.
4. DRAWING NOT TO SCALE.

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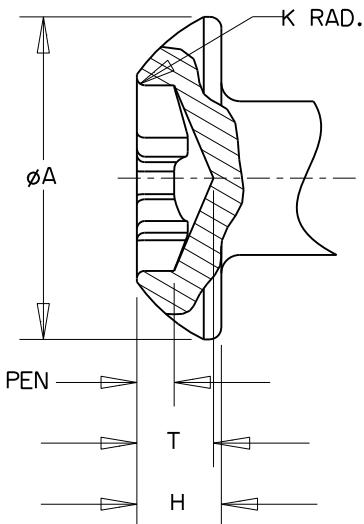
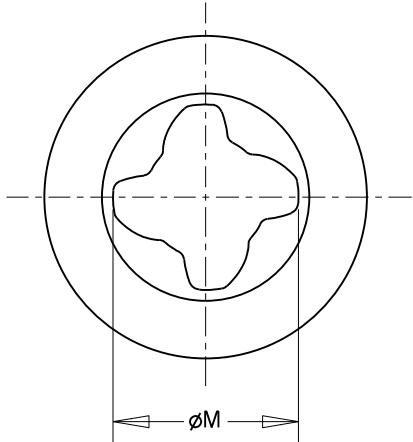
TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PAN HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 2/26/07	DRAWING NUMBER PSC-MTS-108
CHECKED: G.DILLING	DATE 2/26/07	SHEET 1 OF 1

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REVISION REV 12/31/09



SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS				DRIVER SIZE MTS
		ØA	H	ØM REF	T MAX. REF.	K REF RAD.	PENETRATION	
0	MTS-04-5	.114 .104	.032 .026	.055	.028	.003	.017 .013	MTS-04
1	MTS-04-6	.139 .129	.036 .030	.055	.034	.003	.023 .019	MTS-04
2	MTS-000-5	.164 .154	.043 .033	.073	.037	.004	.022 .016	MTS-000
3	MTS-000-6	.188 .176	.049 .037	.073	.041	.004	.026 .020	MTS-000
4	MTS-00-10	.213 .201	.056 .044	.1210	.051	.005	.026 .018	MTS-00
6	MTS-00-II	.262 .250	.066 .054	.1210	.057	.005	.032 .025	MTS-00
8	MTS-0-8	.312 .298	.079 .065	.1704	.069	.005	.034 .025	MTS-0
10	MTS-0-9	.361 .347	.091 .077	.1704	.080	.005	.045 .036	MTS-0
1/4	MTS-1-8	.437 .419	.122 .104	.2405	.105	.005	.055 .046	MTS-1
5/16	MTS-2-4	.547 .527	.149 .129	.3080	.139	.008	.075 .066	MTS-2
3/8	MTS-3-4	.656 .636	.177 .157	.3537	.158	.008	.085 .076	MTS-3
1/2	MTS-4-5	.875 .851	.232 .208	.4285	.194	.012	.105 .090	MTS-4
5/8	MTS-5-5	1.000 .970	.294 .264	.5063	.235	.018	.130 .115	MTS-5

REVISION REV 12/31/09

NOTES:

1. DIMENSIONS ARE IN INCHES.
2. DRAWING NOT TO SCALE.

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TITLE:

MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SOCKET BUTTON HEAD SCREWS (INCH)

DRAWN

G.DILLING

DATE

3/27/07

DRAWING NUMBER

PSC-MTS-109

CHECKED:

G.DILLING

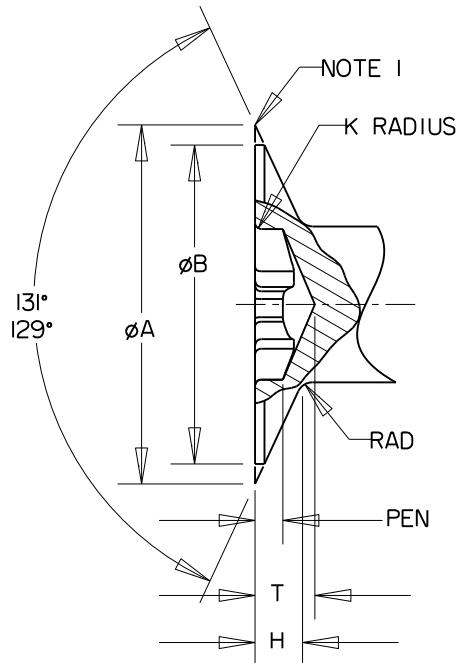
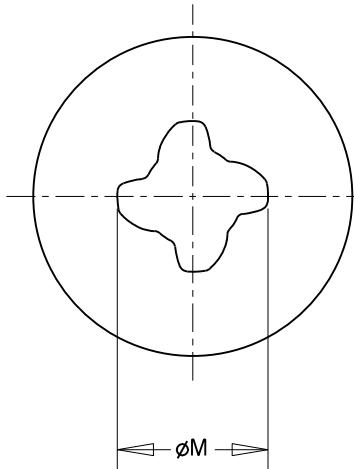
DATE

3/27/07

SHEET 1 OF 1

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SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS
		φA THEO.	φB MIN.	H REF.	φM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION MAX.	
0	MTS-06-2	.119	.096	.014	.045	.020	.002	.011	.007 MTS-06
1	MTS-04-7	.145	.120	.017	.055	.025	.003	.014	.010 MTS-04
2	MTS-000-14	.172	.144	.021	.073	.033	.004	.015	.011 MTS-000
4	MTS-005-1	.224	.191	.027	.086	.038	.005	.020	.015 MTS-005
6	MTS-00-30	.277	.238	.033	.1210	.045	.005	.020	.015 MTS-00
8	MTS-00-12	.332	.285	.040	.1210	.051	.005	.026	.020 MTS-00
10	MTS-0-10	.385	.333	.047	.1704	.062	.005	.027	.020 MTS-0
1/4	MTS-1-9	.507	.442	.061	.2405	.082	.005	.032	.025 MTS-1
5/16	MTS-1-1	.633	.556	.076	.2405	.100	.005	.050	.041 MTS-1
3/8	MTS-2-5	.761	.670	.092	.3080	.114	.008	.050	.041 MTS-2
7/16	MTS-3-5	.812	.715	.089	.3537	.133	.008	.060	.051 MTS-3

REVISION REV 12/31/09

NOTES:

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2. DIMENSIONS ARE IN INCHES.
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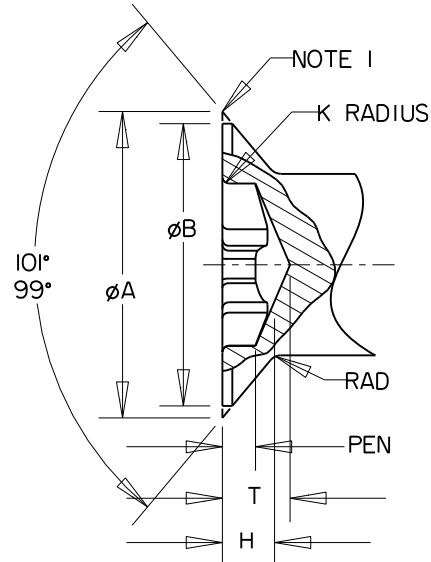
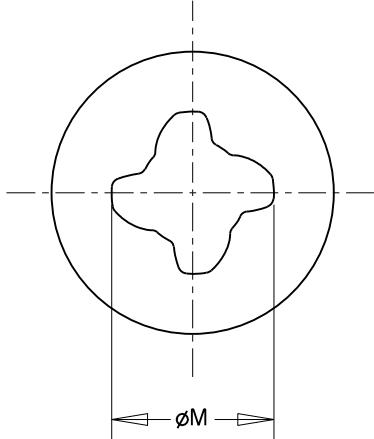
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
130° FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 3/29/07	DRAWING NUMBER PSC-MTS-110
CHECKED: G.DILLING	DATE 3/29/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS	
		ØA THEO.	ØB MIN.	H REF.	ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
								MAX.	MIN.	
0	MTS-06-2	.094	.080	.015	.045	.020	.002	.011	.007	MTS-06
1	MTS-04-1	.121	.095	.020	.055	.028	.003	.017	.013	MTS-04
2	MTS-04-2	.146	.118	.026	.055	.034	.003	.023	.019	MTS-04
4	MTS-005-2	.199	.167	.037	.086	.043	.005	.025	.020	MTS-005
6	MTS-00-13	.252	.215	.049	.1210	.055	.005	.030	.023	MTS-00
8	MTS-00-13	.263	.231	.042	.1210	.055	.005	.030	.023	MTS-00
10	MTS-0-11	.303	.266	.049	.1704	.065	.005	.030	.023	MTS-0
1/4	MTS-1-11	.397	.355	.063	.2405	.080	.005	.030	.023	MTS-1
5/16	MTS-1-10	.477	.429	.071	.2405	.098	.005	.048	.039	MTS-1
3/8	MTS-2-5	.564	.510	.081	.3080	.114	.008	.050	.041	MTS-2
7/16	MTS-3-6	.672	.612	.101	.3537	.140	.008	.067	.058	MTS-3
1/2	MTS-4-6	.755	.688	.109	.4285	.161	.012	.072	.057	MTS-4
9/16	MTS-4-7	.838	.766	.119	.4285	.181	.012	.092	.077	MTS-4
5/8	MTS-5-6	.925	.848	.129	.5063	.197	.018	.092	.067	MTS-5
3/4	MTS-6-5	1.099	1.010	.150	.5938	.235	.020	.112	.082	MTS-6
7/8	MTS-7-3	1.323	1.219	.192	.7260	.280	.025	.130	.105	MTS-7
1"	MTS-8-3	1.522	1.406	.224	.8210	.332	.025	.162	.122	MTS-8

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

REVISION REV 12/31/09

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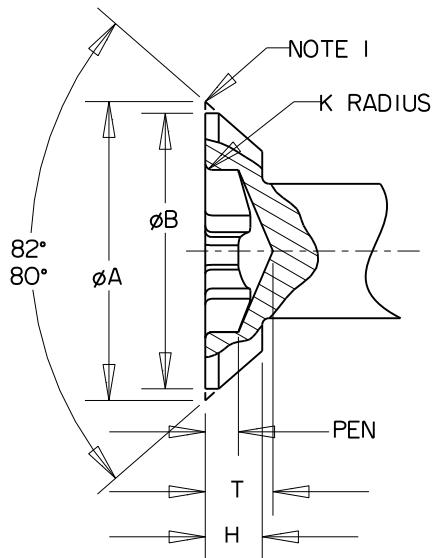
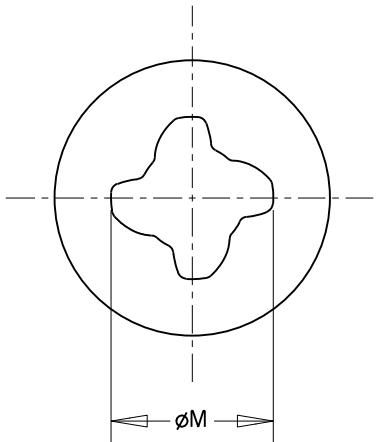
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
100° REDUCED FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 3/30/07	DRAWING NUMBER PSC-MTS-III
CHECKED: G.DILLING	DATE 3/30/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS	
		φA THEO.	φB MIN.	H	φM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
0	MTS-06-1	.119	.096	.025 .018	.045	.024	.002	.015	.011	MTS-06
1	MTS-04-1	.145	.120	.031 .023	.055	.028	.003	.017	.013	MTS-04
2	MTS-000-1	.172	.144	.036 .028	.073	.038	.004	.023	.017	MTS-000
4	MTS-005-2	.224	.191	.047 .038	.086	.043	.005	.025	.020	MTS-005
6	MTS-00-13	.277	.238	.059 .048	.1210	.055	.005	.030	.023	MTS-00
8	MTS-0-12	.332	.285	.070 .058	.1704	.067	.005	.032	.025	MTS-0
10	MTS-0-1	.385	.333	.081 .068	.1704	.070	.005	.035	.026	MTS-0
12	MTS-1-13	.438	.380	.092 .078	.2405	.089	.005	.039	.030	MTS-1
1/4	MTS-1-1	.507	.442	.107 .092	.2405	.100	.005	.050	.041	MTS-1
5/16	MTS-2-7	.633	.556	.134 .116	.3080	.124	.008	.060	.051	MTS-2
3/8	MTS-3-8	.761	.670	.161 .140	.3537	.148	.008	.075	.060	MTS-3
7/16	MTS-4-8	.812	.715	.156 .133	.4285	.169	.012	.080	.065	MTS-4
1/2	MTS-4-7	.874	.765	.156 .130	.4285	.181	.012	.092	.077	MTS-4
9/16	MTS-5-6	.999	.878	.182 .153	.5063	.197	.018	.092	.067	MTS-5
5/8	MTS-6-6	1.125	.990	.208 .176	.5938	.218	.020	.095	.075	MTS-6
3/4	MTS-7-4	1.374	1.215	.261 .222	.7260	.270	.025	.120	.095	MTS-7

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

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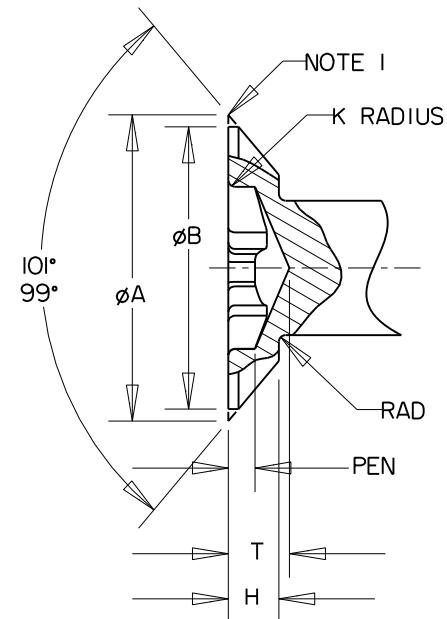
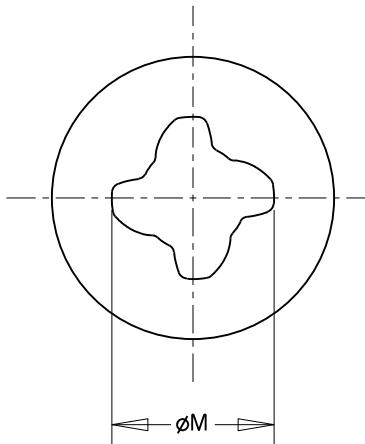
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
82° UNDERCUT FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 4/5/07	DRAWING NUMBER PSC-MTS-II2
CHECKED G.DILLING	DATE 4/5/07	

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS
		φA THEO.	φB MIN.	H	φM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION MAX.	
10	MTS-0-12	.3813	.350	.0459 .0439	.1704	.067	.005	.032	.025 MTS-0
1/4	MTS-1-12	.5066	.475	.0733 .0713	.2405	.095	.005	.045	.036 MTS-1
5/16	MTS-2-5	.6335	.602	.0899 .0878	.3080	.114	.008	.050	.041 MTS-2
3/8	MTS-2-6	.7604	.729	.1167 .1147	.3080	.139	.008	.075	.066 MTS-2
7/16	MTS-3-7	.8884	.840	.1333 .1303	.3537	.158	.008	.085	.076 MTS-3
1/2	MTS-4-4	1.0139	.966	.1598 .1568	.4285	.183	.012	.094	.079 MTS-4

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN INCHES.
3. DRAWING NOT TO SCALE.

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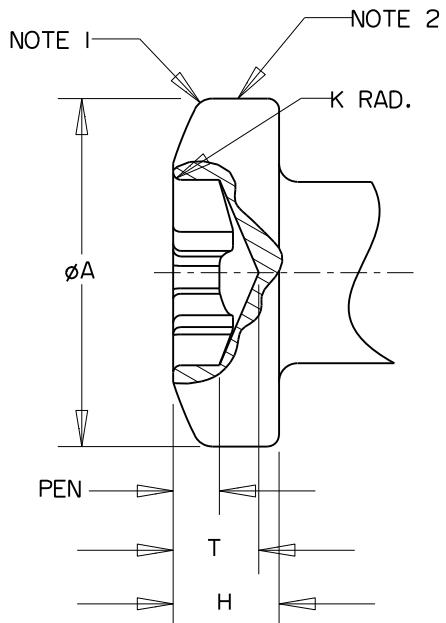
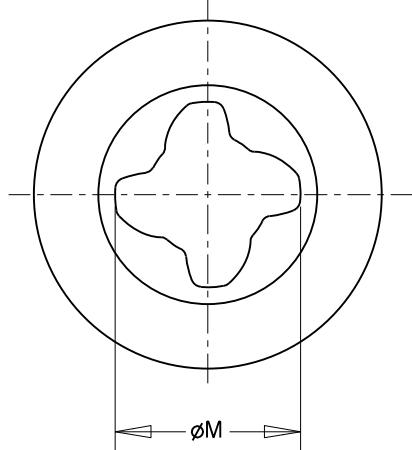
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
100° UNDERCUT FLAT HEAD SCREWS (INCH)**

DRAWN G.DILLING	DATE 4/3/07	DRAWING NUMBER PSC-MTS-II3
CHECKED: G.DILLING	DATE 4/3/07	SHEET 1 OF 1
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS				DRIVER SIZE MTS	
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION		
MAX.	MIN.								
M2	MTS-000-2	4.0 3.7	1.45 1.19	1.85	0.94	0.102	0.56	0.38	MTS-000
M2.5	MTS-00-3	5.0 4.7	1.86 1.60	3.07	1.27	0.127	0.64	0.46	MTS-00
M3	MTS-00-4	5.6 5.3	1.94 1.68	3.07	1.35	0.127	0.71	0.51	MTS-00
M3.5	MTS-00-5	7.0 6.6	2.24 1.98	3.07	1.65	0.127	1.02	0.81	MTS-00
M4	MTS-0-3	8.0 7.6	2.51 2.26	4.33	2.04	0.127	1.14	0.94	MTS-0
M5	MTS-I-2	9.5 9.1	3.18 2.90	6.11	2.54	0.127	1.27	1.04	MTS-I
M6	MTS-I-3	12.0 11.5	3.84 3.51	6.11	2.92	0.127	1.65	1.42	MTS-I
M8	MTS-2-2	16.0 15.5	5.14 4.75	7.82	3.65	0.203	2.03	1.80	MTS-2
M10	MTS-4-2	20.0 19.4	6.48 6.05	10.88	4.90	0.305	2.64	2.41	MTS-4
M12	MTS-5-2	24.0 23.4	6.96 6.48	12.86	5.84	0.457	3.18	2.87	MTS-5

NOTES:

1. THE HEAD CROWN CORNER IS NOT CONTAINED IN THE PUNCH CAVITY AND IS TO BE FREE FLOWED.
2. TO INSURE GOOD FILL OF THE RECESS CAVITY, THE SIDES OF THE HEAD MUST BE CONTAINED IN THE HEADING DIE.
3. DIMENSIONS ARE IN METRIC.
4. DRAWING NOT TO SCALE.

REVISION

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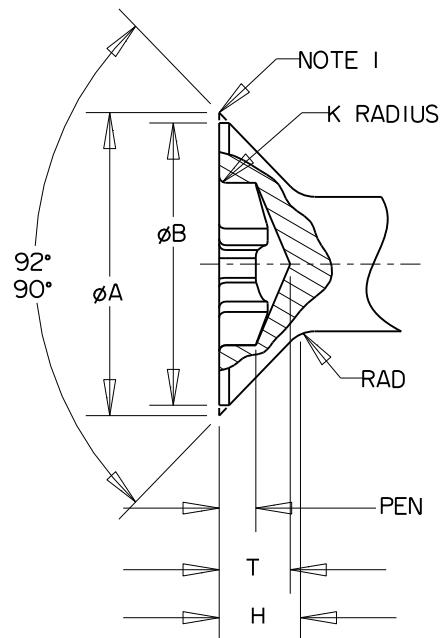
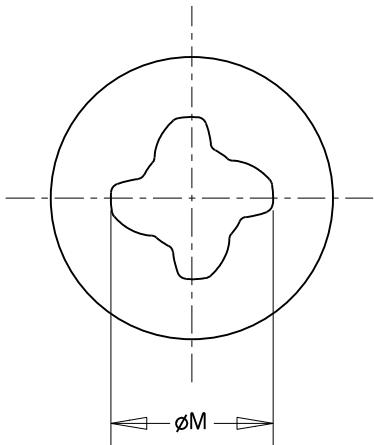
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PAN HEAD SCREWS (METRIC)

DRAWN G.DILLING	DATE 2/19/07	DRAWING NUMBER PSC-MTS-II4
CHECKED: G.DILLING	DATE 2/19/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS			RECESS DIMENSIONS				DRIVER SIZE MTS	
		ØA THEO.	ØB MIN.	H REF.	ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
								MAX.	MIN.	
M3	MTS-00-15	6.72	5.35	1.86	3.07	1.45	0.127	0.81	0.63	MTS-00
M4	MTS-0-2	8.96	7.80	2.48	4.36	2.01	0.127	1.14	0.89	MTS-0
M5	MTS-1-12	11.20	9.75	3.10	6.09	2.43	0.127	1.14	0.94	MTS-1
M6	MTS-1-15	13.44	11.70	3.72	6.11	3.04	0.127	1.78	1.55	MTS-1
M8	MTS-2-9	17.92	15.60	4.96	7.82	3.91	0.203	2.29	2.06	MTS-2
M10	MTS-4-9	22.40	19.50	6.20	10.88	4.92	0.305	2.67	2.29	MTS-4
M12	MTS-5-8	26.88	23.40	7.44	12.86	5.84	0.457	3.18	2.67	MTS-5
M14	MTS-6-4	30.24	26.18	8.12	15.08	6.30	0.508	3.18	2.67	MTS-6
M16	MTS-6-7	33.60	28.96	8.80	15.08	7.16	0.508	4.04	3.40	MTS-6
M20	MTS-7-5	40.32	34.60	10.16	18.44	8.14	0.64	4.32	3.56	MTS-7

REVISION REV I: 12/31/09

NOTES:

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2. DIMENSIONS ARE IN METRIC.
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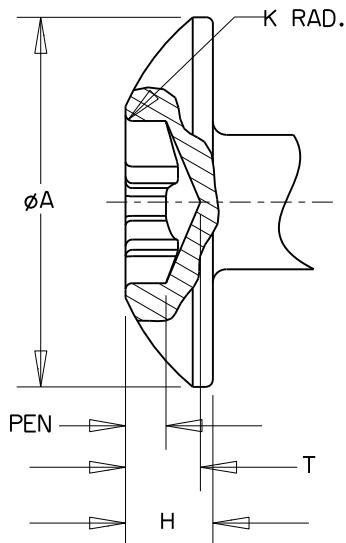
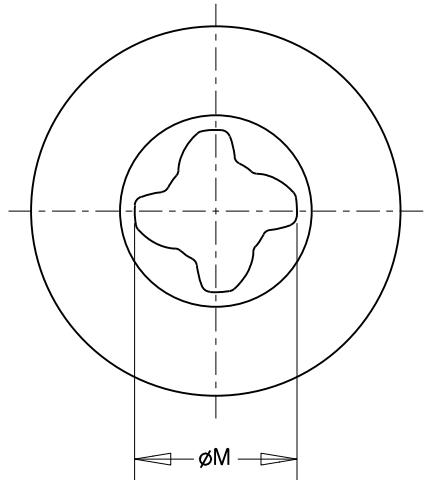
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
92° SOCKET FLAT HEAD SCREWS (METRIC)**

DRAWN G.DILLING	DATE 3/9/07	DRAWING NUMBER PSC-MTS-II5
CHECKED: G.DILLING	DATE 3/9/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS					DRIVER SIZE MTS	
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION			
							MAX.	MIN.		
2	MTS-000-9	.194 .180	.046 .037	.073	.035	.004	.020	.015	MTS-000	
4	MTS-00-16	.257 .241	.062 .052	.1210	.051	.005	.026	.019	MTS-00	
6	MTS-00-17	.321 .303	.075 .063	.1210	.057	.005	.032	.025	MTS-00	
8	MTS-0-13	.384 .364	.091 .077	.1704	.073	.005	.038	.029	MTS-0	
10	MTS-0-14	.448 .425	.103 .088	.1704	.081	.005	.046	.037	MTS-0	
12	MTS-1-16	.511 .487	.133 .117	.2405	.110	.005	.060	.051	MTS-1	
1/4	MTS-1-17	.573 .546	.137 .120	.2405	.115	.005	.065	.056	MTS-1	
5/16	MTS-2-10	.698 .666	.162 .141	.3080	.144	.008	.080	.071	MTS-2	
3/8	MTS-3-9	.823 .787	.192 .168	.3537	.163	.008	.090	.081	MTS-3	
7/16	MTS-3-10	.948 .907	.223 .196	.3537	.168	.008	.095	.075	MTS-3	
1/2	MTS-4-10	1.073 1.028	.255 .225	.4285	.194	.012	.105	.090	MTS-4	
9/16	MTS-5-9	1.198 1.149	.273 .240	.5063	.235	.018	.130	.115	MTS-5	
5/8	MTS-5-10	1.323 1.269	.314 .278	.5063	.245	.018	.140	.125	MTS-5	
3/4	MTS-6-8	1.573 .511	.373 .331	.5938	.283	.020	.160	.140	MTS-6	

NOTES:

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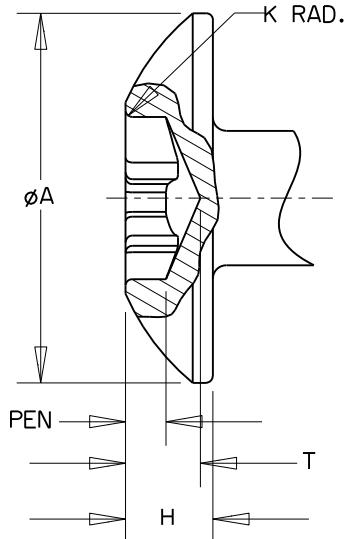
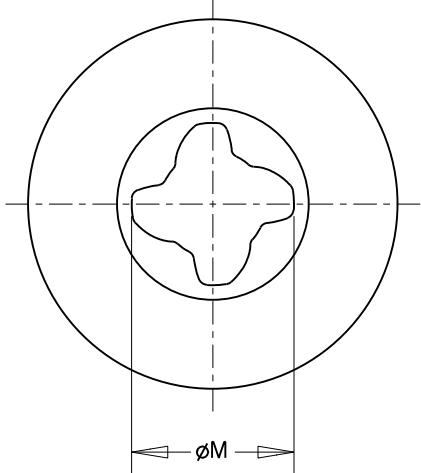
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRUSS HEAD SCREWS (1INCH)**

DRAWN G.DILLING	DATE 6/25/07	DRAWING NUMBER PSC-MTS-116
CHECKED: G.DILLING	DATE 6/25/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS					DRIVER SIZE MTS	
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION			
							MAX.	MIN.		
M3.5	MTS-00-I8	8.16 7.69	2.38 1.93	3.07	1.52	0.127	0.89	0.69	MTS-00	
M4	MTS-0-I5	9.76 9.24	2.89 2.39	4.33	2.03	0.127	1.14	0.91	MTS-0	
M5	MTS-0-I6	11.38 10.78	3.39 2.79	4.33	2.29	0.127	1.40	1.12	MTS-0	
M6	MTS-I-I8	14.56 13.86	4.16 3.51	6.11	3.00	0.127	1.73	1.34	MTS-I	
M8	MTS-2-II	17.73 16.92	5.00 4.45	7.82	3.66	0.203	2.03	1.56	MTS-2	
M10	MTS-4-II	20.91 19.98	6.56 5.66	10.88	4.88	0.305	2.62	1.99	MTS-4	
M12	MTS-5-II	26.50 25.00	8.11 7.21	12.86	6.17	0.457	3.51	2.88	MTS-5	

NOTES:

1. DIMENSIONS ARE IN METRIC.
2. DRAWING NOT TO SCALE.

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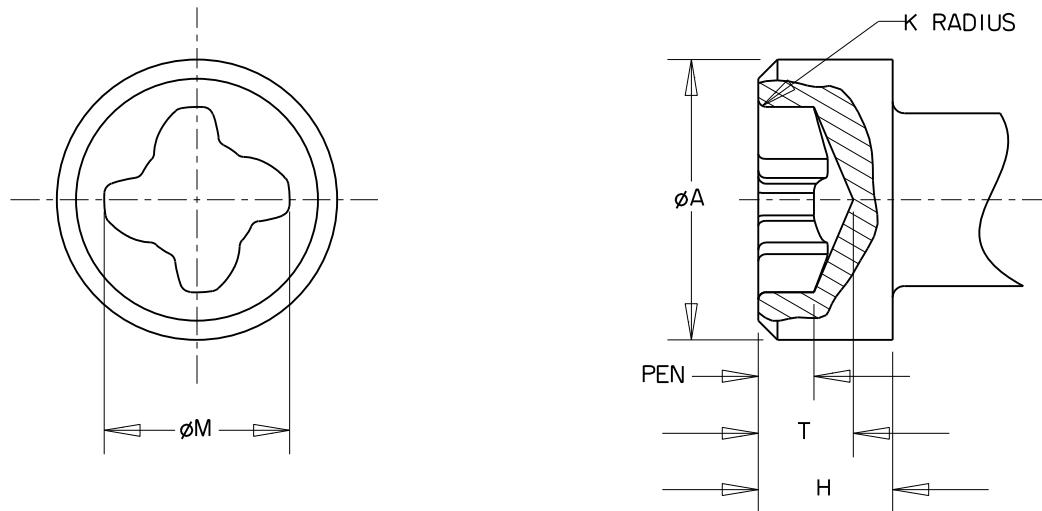
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRUSS HEAD SCREWS (METRIC)**

DRAWN G.DILLING	DATE 6/27/07	DRAWING NUMBER PSC-MTS-II7
CHECKED: G.DILLING	DATE 6/27/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS		RECESS DIMENSIONS				DRIVER SIZE MTS	
		ØA	H	ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
0	MTS-04-1	.096 .091 .039	.042 .050 .047	.055	.028	.003	.017 .023 .028	.013 .019 .022	MTS-04
1	MTS-04-2	.118 .112 .047	.050	.055	.034	.003	.023	.019	MTS-04
2	MTS-000-7	.140 .134 .066	.069	.073	.043	.004	.028	.022	MTS-000
4	MTS-00-19	.183 .176 .088	.092	.1210	.059	.005	.034	.027	MTS-00
5	MTS-00-19	.205 .198 .100	.104	.1210	.059	.005	.034	.027	MTS-00
6	MTS-00-14	.226 .218 .107	.131	.1210	.067	.005	.042	.033	MTS-00
8	MTS-0-17	.270 .262 .127	.132	.1704	.094	.005	.059	.050	MTS-0
10	MTS-0-18	.312 .303 .145	.150	.1704	.101	.005	.066	.057	MTS-0
1/4	MTS-1-19	.375 .365 .209	.215	.2405	.123	.005	.073	.064	MTS-1
5/16	MTS-2-12	.469 .457 .245	.251	.3080	.159	.008	.095	.086	MTS-2
3/8	MTS-3-II	.562 .550 .300	.307	.3537	.183	.008	.110	.101	MTS-3
7/16	MTS-4-I3	.656 .642 .344	.352	.4285	.220	.012	.131	.116	MTS-4
1/2	MTS-5-I2	.750 .735 .418	.426	.5063	.241	.018	.136	.111	MTS-5
5/8	MTS-6-9	.938 .921 .505	.514	.5938	.303	.020	.180	.150	MTS-6
3/4	MTS-7-6	1.125 1.107 .596	.606	.7260	.350	.025	.200	.160	MTS-7
7/8	MTS-8-4	1.312 1.293 .704	.715	.8210	.418	.025	.248	.208	MTS-8

NOTES:

1. DIMENSIONS ARE IN INCHES.
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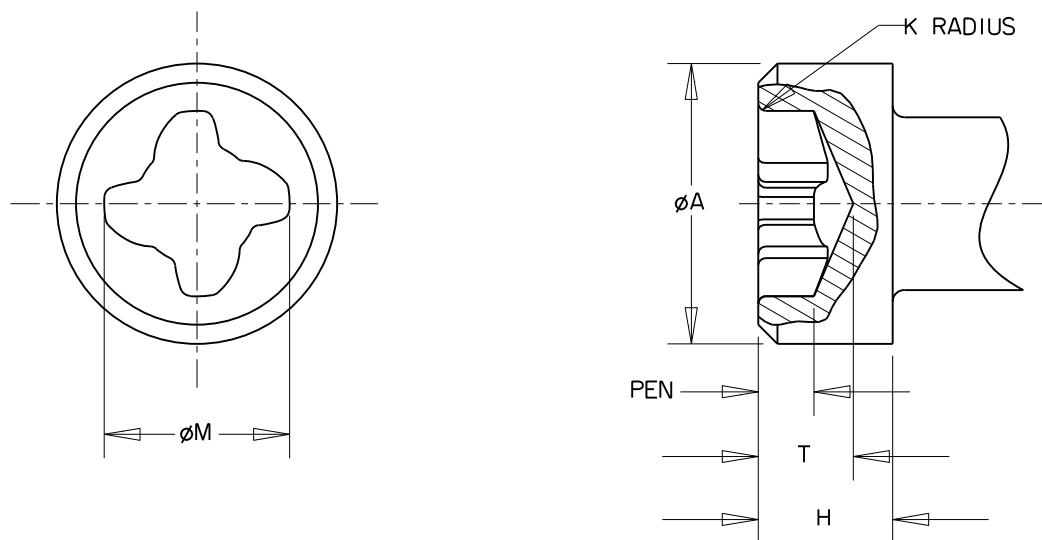
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SOCKET HEAD CAP SCREW (INCH)**

DRAWN G.DILLING	DATE 12/27/07	DRAWING NUMBER PSC-MTS-II8
CHECKED: G.DILLING	DATE 12/27/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS		RECESS DIMENSIONS				DRIVER SIZE MTS	
		ØA	H	ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
MAX.	MIN.								
M2	MTS-000-I	3.80 3.65	1.57 1.48	1.85	0.97	0.10	0.58	0.43	MTS-000
M2.5	MTS-00-8	4.50 4.33	2.01 1.91	3.07	1.35	0.127	0.71	0.53	MTS-00
M3	MTS-00-I9	5.50 5.32	2.39 2.28	3.07	1.50	0.127	0.86	0.69	MTS-00
M4	MTS-0-I9	7.00 6.80	3.18 3.06	4.33	2.08	0.127	1.19	0.97	MTS-0
M5	MTS-0-I7	8.50 8.27	4.11 3.97	4.33	2.39	0.127	1.50	1.27	MTS-0
M6	MTS-I-20	10.00 9.74	4.67 4.52	6.11	3.00	0.127	1.73	1.50	MTS-I
M8	MTS-2-I2	13.00 12.70	6.12 5.95	7.82	4.04	0.203	2.41	2.18	MTS-2
M10	MTS-3-II	16.00 15.67	7.92 7.73	8.98	4.65	0.203	2.79	2.57	MTS-3
M12	MTS-4-I3	18.00 17.63	9.27 9.06	10.88	5.59	0.305	3.33	2.95	MTS-4
M14	MTS-5-I3	21.00 20.60	10.85 10.62	12.86	6.78	0.457	4.11	3.48	MTS-5
M16	MTS-6-I0	24.00 23.58	12.45 12.21	15.08	7.95	0.508	4.83	4.06	MTS-6
M18	MTS-7-6	27.00 26.67	14.07 13.64	18.44	8.89	0.635	5.08	4.06	MTS-7
M20	MTS-8-4	30.00 29.53	15.60 15.33	20.85	10.62	0.635	6.30	5.28	MTS-8

NOTES:

1. DIMENSIONS ARE IN METRIC.
2. DRAWING NOT TO SCALE.

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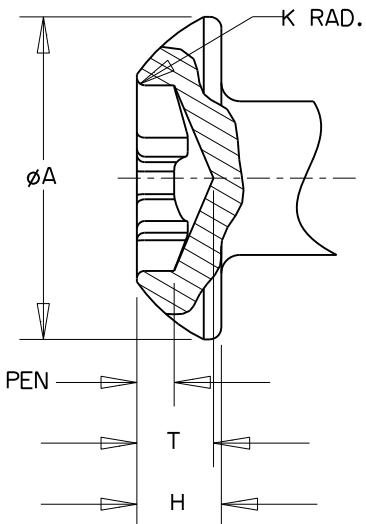
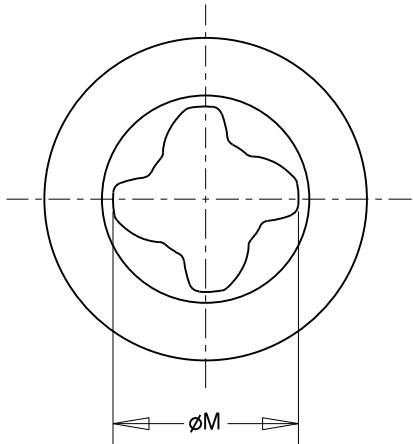
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TITLE:
**MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SOCKET HEAD CAP SCREW (METRIC)**

DRAWN G.DILLING	DATE 1/10/08	DRAWING NUMBER PSC-MTS-119
CHECKED: G.DILLING	DATE 1/10/08	SHEET 1 OF 1
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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SCREW SIZE	PUNCH NUMBER	HEAD DIM.		RECESS DIMENSIONS				DRIVER SIZE MTS	
		φA	H	φM REF	T MAX. REF.	K REF RAD.	PENETRATION		
							MAX.	MIN.	
M3	MTS-00-20	5.70 5.40	1.57 1.35	3.07	1.40	0.127	0.76	0.58	MTS-00
M3.5	MTS-00-21	6.65 6.29	1.73 1.50	3.07	1.55	0.127	0.91	0.69	MTS-00
M4	MTS-0-20	7.60 7.24	2.05 1.80	4.33	1.91	0.127	1.02	0.79	MTS-0
M5	MTS-0-21	9.50 9.14	2.46 2.21	4.33	2.29	0.127	1.40	1.17	MTS-0
M6	MTS-1-21	10.50 10.07	3.02 2.72	6.11	2.82	0.127	1.55	1.32	MTS-1
M8	MTS-2-13	14.00 13.57	4.01 3.66	7.82	3.78	0.203	2.16	1.93	MTS-2
M10	MTS-3-12	17.50 17.07	4.97 4.67	8.98	4.37	0.203	2.51	2.29	MTS-3
M12	MTS-4-14	21.00 20.48	5.85 5.49	10.88	5.69	0.305	3.43	3.05	MTS-4
M14	MTS-5-14	24.50 23.98	6.96 6.60	12.86	6.25	0.457	3.58	3.20	MTS-5
M16	MTS-6-11	28.00 27.48	7.95 7.59	15.08	7.37	0.508	4.24	3.48	MTS-6

REVISION

NOTES:

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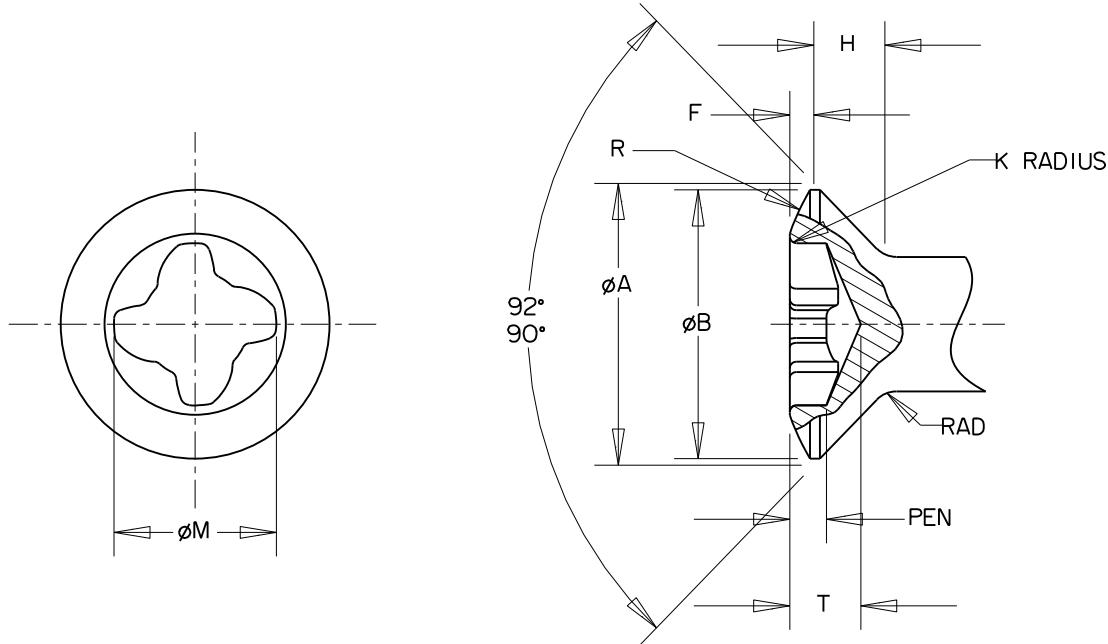
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TITLE:

MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SOCKET BUTTON HEAD SCREWS (METRIC)

DRAWN G.DILLING	DATE 3/4/08	DRAWING NUMBER PSC-MTS-120
CHECKED: G.DILLING	DATE 3/4/08	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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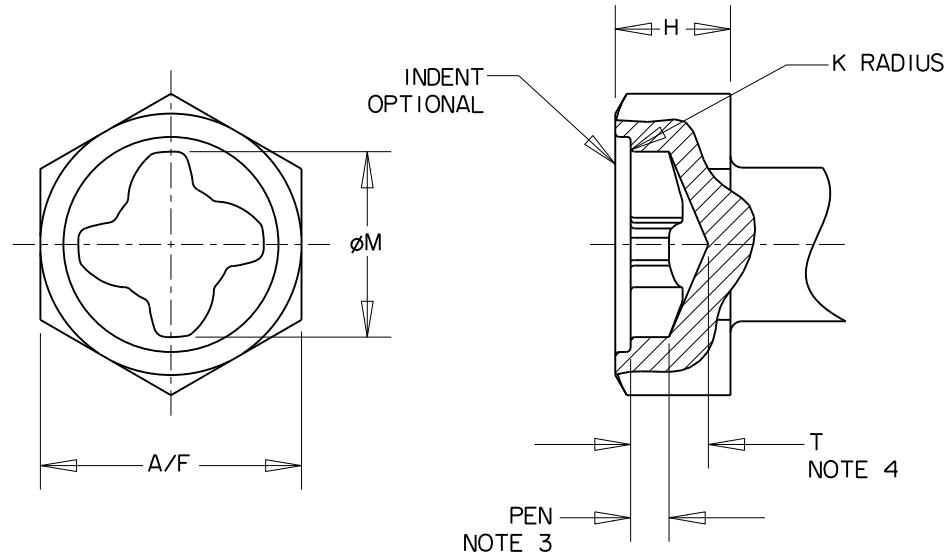
SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS					RECESS DIMENSIONS					DRIVER SIZE MTS
		øA MAX. THEO.	øB MIN.	F REF.	H MAX.	R REF.	øM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION MAX.	PENETRATION MIN.	
M2	MTS-000-10	4.40	3.50	0.33	1.20	5.47	1.85	1.03	0.102	0.64	0.48	MTS-000
M2.5	MTS-00-22	5.50	4.40	0.33	1.50	6.67	3.07	1.36	0.127	0.71	0.53	MTS-00
M3	MTS-00-23	6.30	5.20	0.51	1.70	7.07	3.07	1.67	0.127	1.02	0.79	MTS-00
M3.5	MTS-00-24	8.20	6.90	0.64	2.30	11.00	3.07	2.00	0.127	1.35	1.12	MTS-00
M4	MTS-0-22	9.40	8.00	0.71	2.70	11.49	4.33	2.34	0.127	1.42	1.19	MTS-0
M5	MTS-I-22	10.40	8.90	0.66	2.70	11.52	6.11	2.72	0.127	1.42	1.19	MTS-I
M6	MTS-I-23	12.60	10.90	1.02	3.30	14.16	6.11	3.33	0.127	2.03	1.80	MTS-I
M8	MTS-2-14	17.30	15.40	1.37	4.60	20.32	7.82	4.00	0.203	2.34	2.11	MTS-2
M10	MTS-4-15	20.00	17.80	1.42	5.00	21.63	10.88	5.23	0.305	2.92	2.54	MTS-4

NOTES:

1. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
2. DIMENSIONS ARE IN METRIC.
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	CHECKED G.DILLING	DATE 3/5/08	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326			
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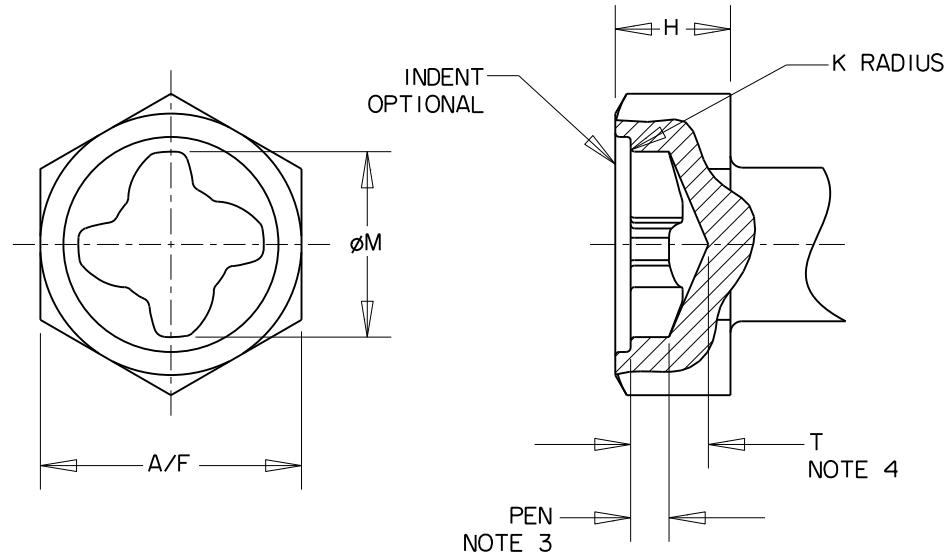
SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS				RECESS DIMENSIONS				DRIVER SIZE MTS	
		ACROSS FLATS		H		ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
		MAX	MIN	MAX	MIN				MAX.		
M2	MTS-000-II	3.20	3.02	1.47	1.17	1.85	0.94	0.102	0.56	0.41 MTS-000	
M2.5	MTS-000-I2	4.00	3.82	1.82	1.52	1.85	1.14	0.102	0.76	0.58 MTS-000	
M3	MTS-00-25	5.00	4.82	2.20	1.91	3.07	1.55	0.127	0.91	0.74 MTS-00	
M3.5	MTS-00-26	5.50	5.32	2.38	2.08	3.07	1.73	0.127	1.09	0.86 MTS-00	
M4	MTS-0-23	7.00	6.78	3.02	2.62	4.33	2.16	0.127	1.27	1.04 MTS-0	
M5	MTS-0-24	8.00	7.78	3.40	2.90	4.33	2.36	0.127	1.47	1.24 MTS-0	
M6	MTS-I-24	10.00	9.78	4.31	3.71	6.11	3.10	0.127	1.83	1.60 MTS-I	
M8	MTS-2-15	13.00	12.73	5.50	4.70	7.82	3.78	0.203	2.16	1.93 MTS-2	
M10	MTS-3-13	15.00	14.73	6.54	5.54	8.98	4.47	0.305	2.62	2.24 MTS-3	

NOTES:

1. DIMENSIONS ARE IN METRIC.
2. DRAWING NOT TO SCALE.
3. PENETRATION NOT INCLUDING INDENT.
4. MORTORQ SUPER SPIRAL DRIVE RECESS DEPTH "T" NOT INCLUDING INDENT.

REVISION

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DRAWN G.DILLING		DATE 3/10/08	DRAWING NUMBER PSC-MTS-122
CHECKED: G.DILLING		DATE 3/10/08	
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326			
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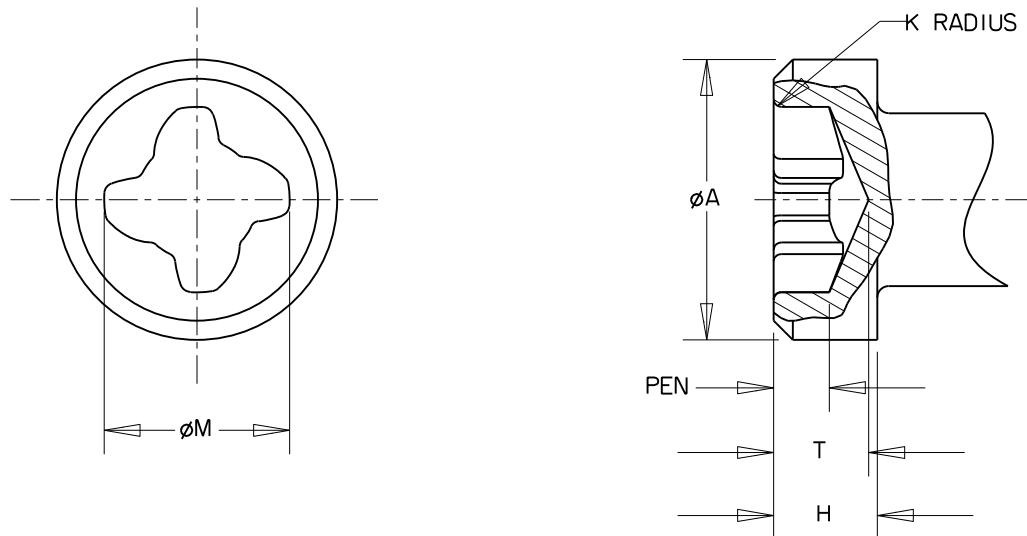
SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS				RECESS DIMENSIONS				DRIVER SIZE MTS	
		ACROSS FLATS		H		ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION		
		MAX	MIN	MAX	MIN				MAX.		
2	MTS-000-I3	.125	.120	.067	.057	.073	.041	.004	.026	.020 MTS-000	
3	MTS-00-27	.188	.181	.080	.070	.1210	.054	.005	.028	.021 MTS-00	
4	MTS-00-28	.188	.181	.082	.072	.1210	.061	.005	.035	.026 MTS-00	
5	MTS-00-28	.188	.181	.088	.078	.1210	.061	.005	.035	.026 MTS-00	
6	MTS-00-29	.250	.244	.088	.078	.1210	.066	.005	.040	.031 MTS-00	
8	MTS-0-25	.250	.244	.107	.097	.1704	.081	.005	.045	.036 MTS-0	
10	MTS-0-26	.312	.305	.115	.105	.1704	.091	.005	.055	.046 MTS-0	
1/4	MTS-I-25	.375	.367	.173	.155	.2405	.129	.005	.078	.069 MTS-I	
5/16	MTS-2-16	.500	.489	.213	.191	.3080	.148	.008	.083	.074 MTS-2	
3/8	MTS-3-14	.562	.551	.273	.248	.3537	.172	.008	.097	.088 MTS-3	

NOTES:

1. DIMENSIONS ARE IN INCH.
2. DRAWING NOT TO SCALE.
3. PENETRATION NOT INCLUDING INDENT.
4. MORTORQ SUPER SPIRAL DRIVE RECESS DEPTH "T" NOT INCLUDING INDENT.

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CHECKED: G.DILLING		DATE 4/18/08	SHEET 1 OF 1	
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326				
PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX® AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY				



SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS		RECESS DIMENSIONS				DRIVER SIZE MTS
		ØA	H	ØM REF.	T MAX. REF.	K MAX. RAD.	PENETRATION	
MAX.	MIN.							
0	MTS-04-1	.096 .091	.029 .026	.055	.028	.003	.017	.013 MTS-04
1	MTS-04-8	.118 .112	.031 .028	.055	.031	.003	.020	.015 MTS-04
2	MTS-000-15	.140 .134	.042 .039	.073	.042	.004	.027	.021 MTS-000
3	MTS-000-16	.161 .154	.045 .041	.073	.044	.004	.029	.023 MTS-000
4	MTS-00-13	.183 .176	.055 .051	.1210	.055	.005	.030	.023 MTS-00
5	MTS-00-19	.205 .198	.059 .055	.1210	.059	.005	.034	.027 MTS-00
6	MTS-00-30	.226 .218	.060 .056	.1210	.062	.005	.037	.030 MTS-00
8	MTS-0-2	.270 .262	.079 .074	.1704	.080	.005	.045	.036 MTS-0
10	MTS-0-27	.312 .303	.082 .077	.1704	.083	.005	.048	.039 MTS-0
1/4	MTS-I-15	.375 .365	.123 .117	.2405	.120	.005	.070	.061 MTS-I
5/16	MTS-2-17	.469 .457	.151 .145	.3080	.149	.008	.085	.076 MTS-2
3/8	MTS-3-II	.562 .550	.191 .184	.3537	.183	.008	.110	.101 MTS-3
7/16	MTS-4-16	.656 .642	.222 .215	.4285	.214	.012	.125	.110 MTS-4
1/2	MTS-5-15	.750 .735	.258 .250	.5063	.245	.018	.140	.125 MTS-5
5/8	MTS-6-12	.938 .921	.309 .300	.5938	.288	.020	.165	.135 MTS-6

REVISION

NOTES:

1. DIMENSIONS ARE IN INCHES.
2. DRAWING NOT TO SCALE.

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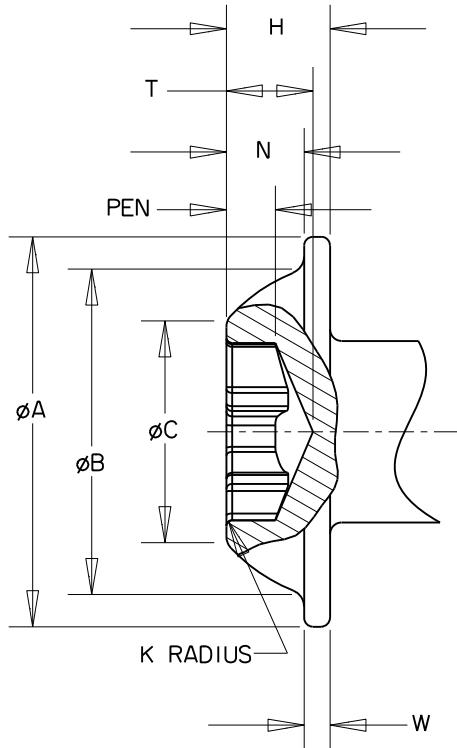
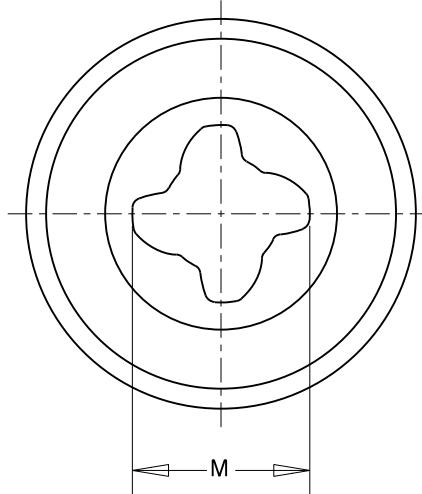
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TITLE:
MORTORQ® SUPER SPIRAL DRIVE, STAINLESS STEEL LOW PROFILE SOCKET HEAD CAP SCREW (INCH)

DRAWN G.DILLING	DATE 12/31/09	DRAWING NUMBER PSC-MTS-124
CHECKED: G.DILLING	DATE 12/31/09	SHEET 1 OF 1

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SCREW SIZE	PUNCH NUMBER	HEAD DIMENSIONS				N REF	W	RECESS DIMENSIONS			DRIVER SIZE MTS		
		ØA REF	ØB REF	ØC REF	H REF			ØM REF	T MAX. REF	K MAX RAD			
		MAX	MIN										
M2	MTS-000-17	4.2 3.9	3.30	2.41	1.24 0.99	0.79	0.4 0.2	1.80	0.89	0.10	0.51	0.36	MTS-000
M2.5	MTS-005-3	5.3 5.0	4.57	3.18	1.47 1.22	0.91	0.5 0.3	2.16	1.09	0.10	0.64	0.48	MTS-005
M3	MTS-00-3I	6.2 5.8	5.08	3.94	1.77 1.52	1.22	0.5 0.3	3.07	1.30	0.127	0.66	0.51	MTS-00
M3.5	MTS-00-32	7.5 6.8	5.72	3.94	2.03 1.78	1.37	0.6 0.4	3.07	1.47	0.127	0.84	0.66	MTS-00
M4	MTS-0-28	9.2 8.5	7.62	5.59	2.41 2.16	1.65	0.7 0.5	4.33	1.91	0.127	1.02	0.79	MTS-0
M5	MTS-0-29	10.5 9.8	8.38	5.59	3.02 2.67	2.16	0.8 0.5	4.33	2.21	0.127	1.32	1.09	MTS-0
M6	MTS-I-26	13.2 12.2	10.87	7.62	4.36 3.81	3.02	1.3 0.8	6.11	3.30	0.127	2.03	1.80	MTS-I
M8	MTS-2-I8	17.2 15.9	14.35	9.78	4.87 4.32	3.43	1.4 0.9	7.82	3.78	0.203	2.16	1.93	MTS-2
M10	MTS-4-17	23.0 21.5	17.78	13.21	5.94 5.38	3.17	2.7 2.2	10.88	4.80	0.305	2.54	2.16	MTS-4

NOTES:

1. DIMENSIONS ARE IN METRIC.
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TITLE: MORTORQ SUPER® SPIRAL DRIVE SYSTEM
ROUND WASHER HEAD SCREWS (METRIC)

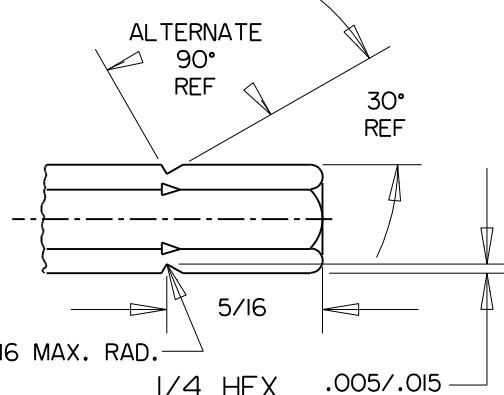
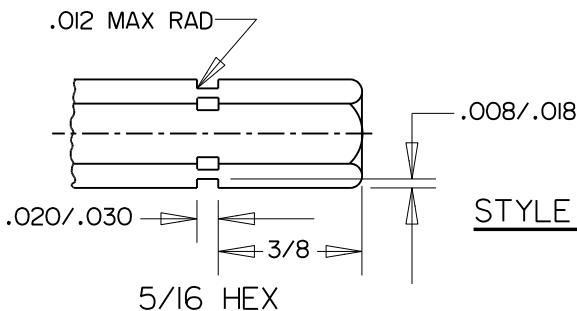
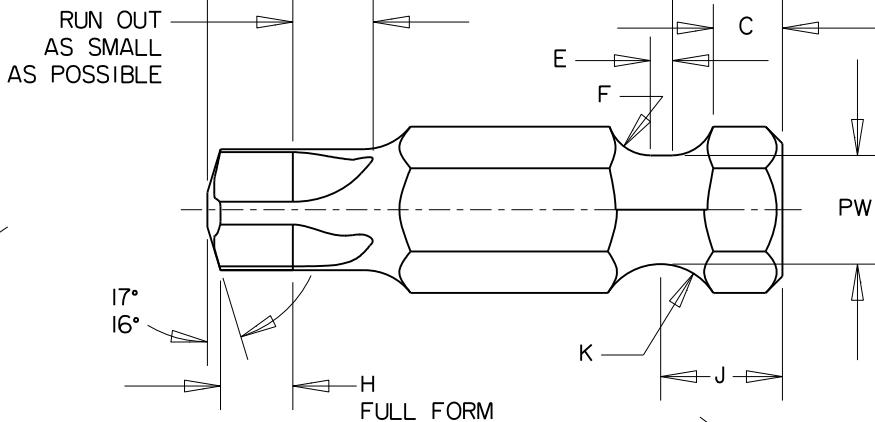
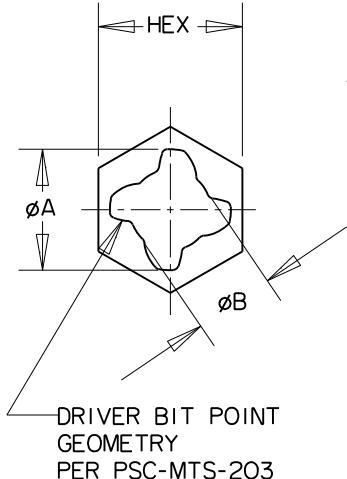
DRAWN G.DILLING	DATE 3/16/09	DRAWING NUMBER PSC-MTS-125
CHECKED: G.DILLING	DATE 9/23/10	SHEET 1 OF 1

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MORTORQ® SUPER ENGINEERING MANUAL
INDEX
DRIVER STANDARDS

PSC-MTS-200	INSERT/POWER DRIVER BITS	1/12/07
PSC-MTS-201	TAMPER RESISTANT INSERT/POWER DRIVER BIT	1/12/07
PSC-MTS-203	DRIVER POINT DIMENSIONS	1/18/07
PSC-MTS-204	DRIVER BIT GEOMETRY	1/18/07
PSC-MTS-205	TRI-TAMPER RESISTANT INSERT/POWER DRIVER BIT	4/27/07
PSC-MTS-206	TRI-TAMPER RESISTANT DRIVER BIT GEOMETRY	5/2/07



POINT SIZE	+ .000 - .005	+ .000 - .005	+ .000 - .004	+ .000 - .002	± .015	± .015	± .015	± .015	± .015	+ .015 - .000	± .015	± .015	± .015
	HEX	PW	ØA	ØB	C	D	E	F	G	H	J	K	
MTS-000	.250	.187	.0696	.0448	.250	.375	.062	.094	1.000	.025	-----	-----	
MTS-00			.1160	.0747						.030	-----	-----	
MTS-0	.250	.187	.1650	.1062	.250	.375			1.000	.045	-----	-----	
MTS-1			.2340	.1506			.062	.094		.075	-----	-----	
MTS-2	.312	.250				.281	.406			.095	-----	-----	
MTS-3		.344	.3000	.1931					1.250	.125	-----	-----	
MTS-4			.3440	.2215						.150	-----	-----	
MTS-5	.437		.4170	.2685					2.250	.180			
MTS-6		.531	.4930	.3174						.200		.344	.172
MTS-7			.5780	.3721						3.000	.225		
MTS-8	.750	.656	.7055	.4474							.300	-----	-----

REFER TO PSC-MTS-301 FOR MATERIAL, HEAT TREAT AND MARKING.

REVISION

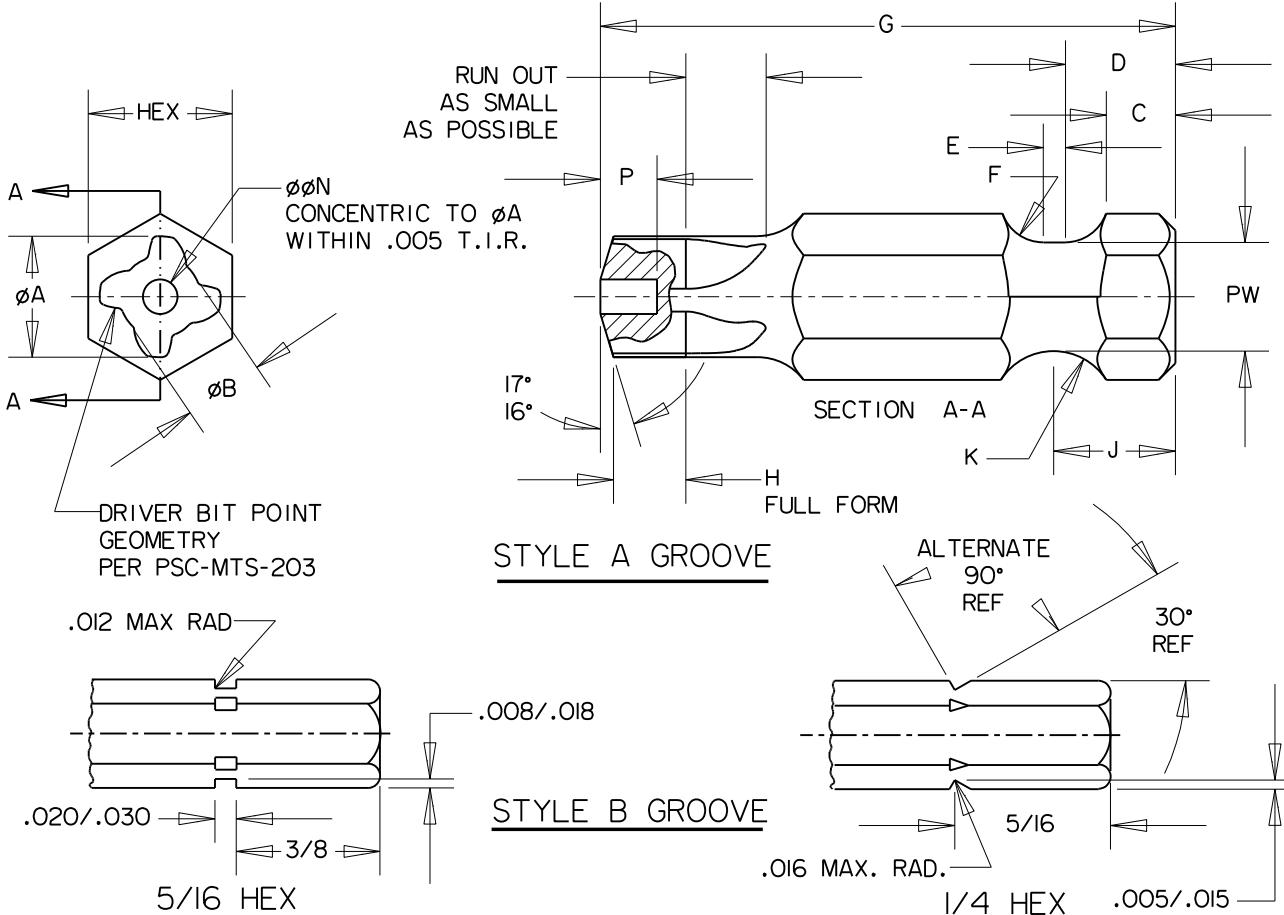
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
DRIVER BIT

DRAWN G.DILLING	DATE 1/12/07	DRAWING NUMBER PSC-MTS-200
CHECKED: G.DILLING	DATE 1/12/07	SHEET 1 OF 1

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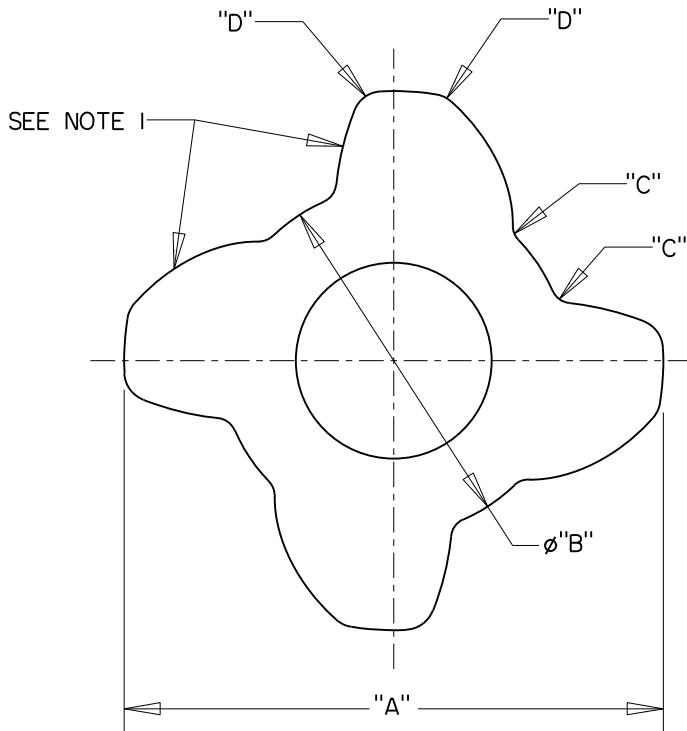
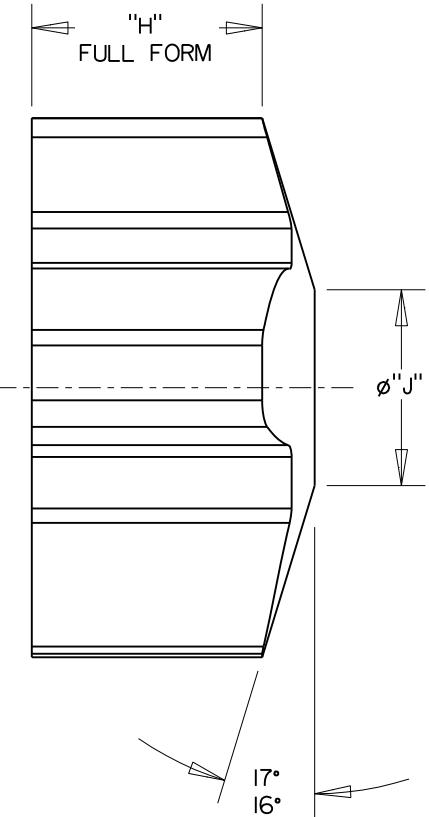


POINT SIZE	+ .000 -.005 HEX	+ .000 -.005 PW	+ .000 -.004 ØA	+ .000 -.002 ØB	± .015	± .015	± .015	± .015	± .015	± .015	+ .015 -.000 H	± .015	± .015	ØN	P MIN
MTS-000TR	.250	.187	.0696	.0448	.250	.375	.062	.094	1.000	.025	-----	-----	-----	-----	-----
MTS-0OTR					.1160	.0747				.030	-----	-----	-----	-----	-----
MTS-OTR	.250	.187			.1650	.1062	.250	.375		.045	-----	-----	.062-.059	.080	
MTS-ITR					.2340	.1506			.062	.094		.075	-----	-----	.081-.078 .145
MTS-2TR	.312	.250			.3000	.1931			.281	.406		.095	-----	-----	.125-122 .150
MTS-3TR					.3440	.2215						.125	-----	-----	.138-.134 .175
MTS-4TR					.4170	.2685						.150	-----	-----	.173-.169 .210
MTS-5TR					.625	.531						2.250	.180		.192-.188 .250
MTS-6TR													.200		.219-.215 .275
MTS-7TR													3.000	.225	.275-.270 .375
MTS-8TR															.305-.301 .450

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REFER TO PSC-MTS-301 FOR MATERIAL, HEAT TREAT AND MARKING.

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TAMPER RESISTANT DRIVER BITDRAWN G.DILLING DATE 1/12/07 DRAWING NUMBER
PSC-MTS-201
CHECKED: G.DILLING DATE 1/12/07 SHEET 1 OF 1PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
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DRIVE SIZE	+.000 -.004 "A" BIT O.D.	+.000 -.002 "B" BIT ROOT	"C" RAD	"D" RAD	.+.015 -.000 H	.+.015 -.000 J
MTS-000	.0696	.0448	.0026	----	.025	.015
MTS-00	.1160	.0747	.0043	.0065	.030	.040
MTS-0	.1650	.1062	.0061	.0092	.045	.075
MTS-1	.2340	.1506	.0087	.0130	.075	.100
MTS-2	.3000	.1931	.0111	.0167	.095	.150
MTS-3	.3440	.2215	.0128	.0191	.125	.175
MTS-4	.4170	.2685	.0155	.0232	.150	.200
MTS-5	.4930	.3174	.0183	.0274	.180	.250
MTS-6	.5780	.3721	.0214	.0322	.200	.275
MTS-7	.7055	.4474	.0330	.0439	.225	.325
MTS-8	.7980	.5060	.0373	.0497	.300	.400

NOTES:

- I. REFER TO PSC-MTS-204 FOR ARC GEOMETRY FOR ALL SIZES. IT CAN BE EXPORTED FOR USE IN OTHER CAD/CAM APPLICATIONS FOR THE PURPOSE OF MANUFACTURING THIS PART.

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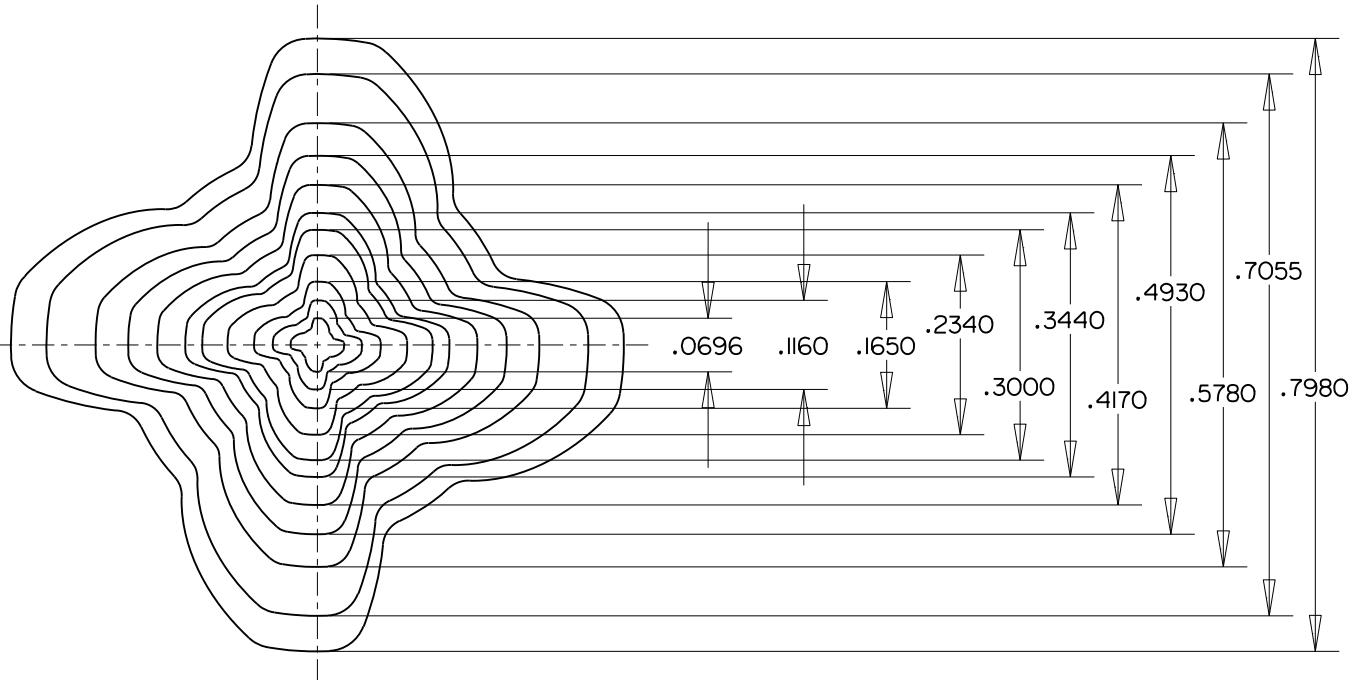
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
DRIVER POINT DIMENSIONS

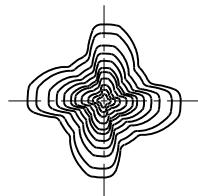
DRAWN G.DILLING	DATE 1/18/07	DRAWING NUMBER PSC-MTS-203
CHECKED: G.DILLING	DATE 1/18/07	SHEET 1 OF 1

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DRIVER BIT
POINT GEOMETRY
SCALE 4.000



SCALE 1.000

NOTE:

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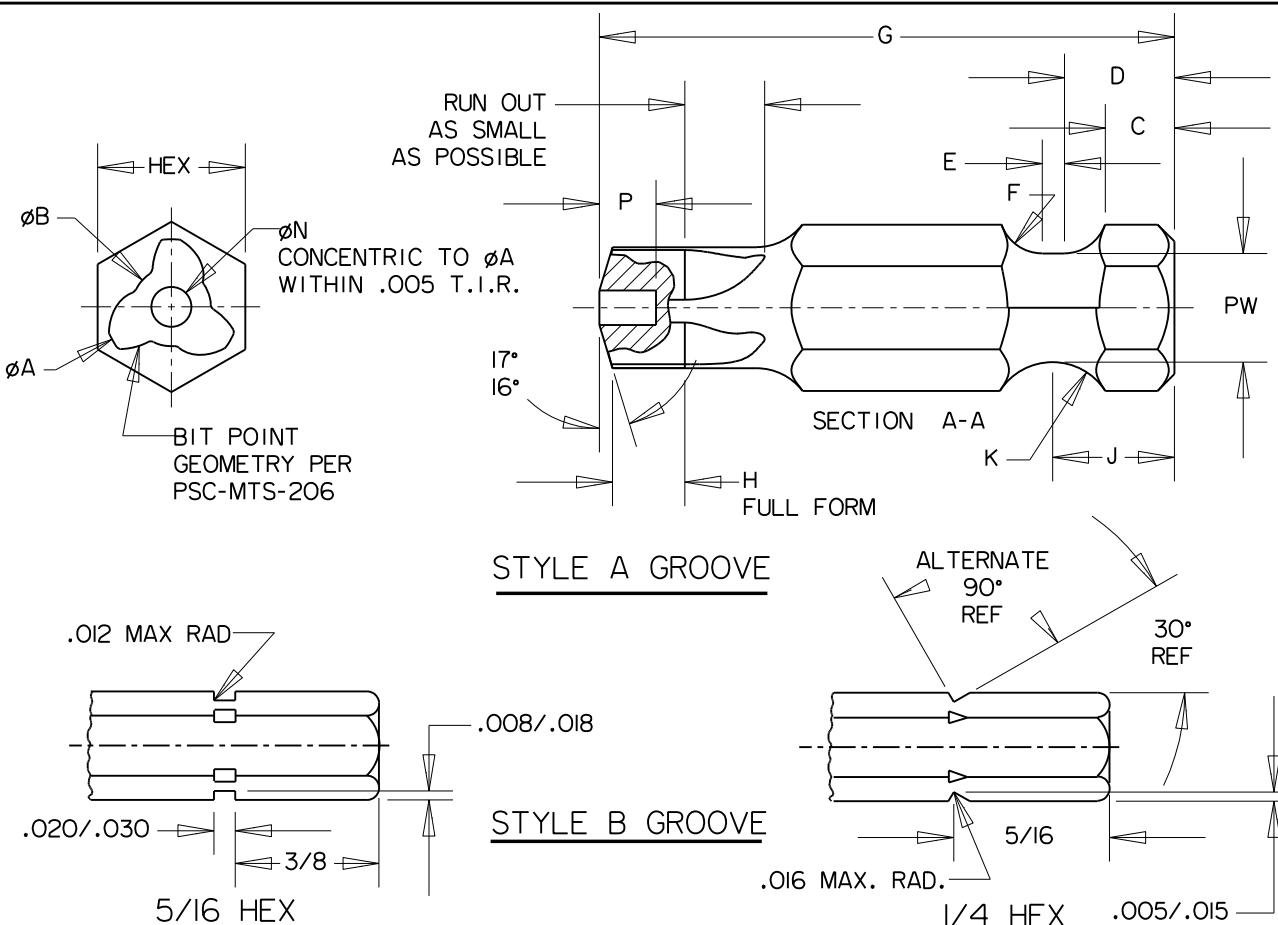
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
DRIVER BIT GEOMETRY

DRAWN	DATE	DRAWING NUMBER	
G.DILLING	1/18/07	PSC-MTS-204	
CHECKED:	DATE		
G.DILLING	1/18/07	SHEET 1 OF 1	
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.			
PHONE: 774-396-6190 FAX: 508-966-2326			

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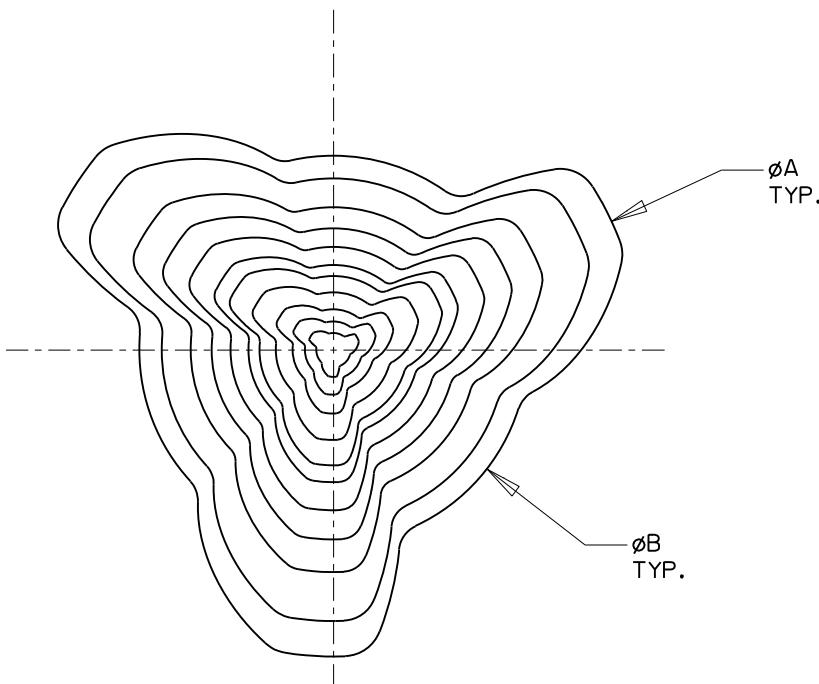


POINT SIZE	+ .000 -.005 HEX	+ .000 -.005 PW	+ .000 -.004 ØA	+ .000 -.002 ØB	± .015	± .015	± .015	± .015	± .015	+ .015 -.000 H	± .015	± .015	ØN	P MIN
MTS-000TRI	.250	.187	.0696	.0448	.250	.375	.062	.094	1.000	.025	----	----	----	----
MTS-00TRI			.1160	.0747						.030	----	----	----	----
MTS-0TRI	.250	.187	.1650	.1062	.250	.375				.045	----	----	.062-.059	.080
MTS-ITRI			.2340	.1506			.062	.094		.075	----	----	.081-.078	.145
MTS-2TRI	.312	.250	.3000	.1931			.281	.406		.095	----	----	.125-.122	.150
MTS-3TRI	.437	.344	.3440	.2215						.125	----	----	.138-.134	.175
MTS-4TRI			.4170	.2685						.150	----	----	.173-.169	.210
MTS-5TRI	.625	.531	.4930	.3174						2.250	.180		.192-.188	.250
MTS-6TRI			.5780	.3721							.200		.219-.215	.275
MTS-7TRI	.750	.656	.7055	.4474						3.000	.225		.275-.270	.375
MTS-8TRI	.875	----	.7980	.5060	----	----	----	----	3.000	.300	----	----	.305-.301	.450

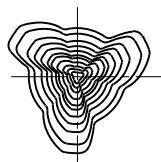
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TRI-TAMPER RESISTANT DRIVER BITDRAWN G.DILLING DATE 4/27/07 DRAWING NUMBER
PSC-MTS-205
CHECKED: G.DILLING DATE 4/27/07 SHEET 1 OF 1PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
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DRIVER BIT
POINT GEOMETRY
SCALE 4.000



SCALE 1.000

DRIVE SIZE	øA	øB
MTS-000TRI	.0696	.0448
MTS-00TRI	.1160	.0747
MTS-OTRI	.1650	.1062
MTS-ITRI	.2340	.1506
MTS-2TRI	.3000	.1931
MTS-3TRI	.3440	.2215
MTS-4TRI	.4170	.2685
MTS-5TRI	.4930	.3174
MTS-6TRI	.5780	.3721
MTS-7TRI	.7055	.4474
MTS-8TRI	.7980	.5060

NOTE:

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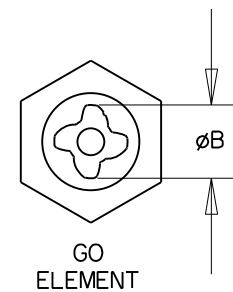
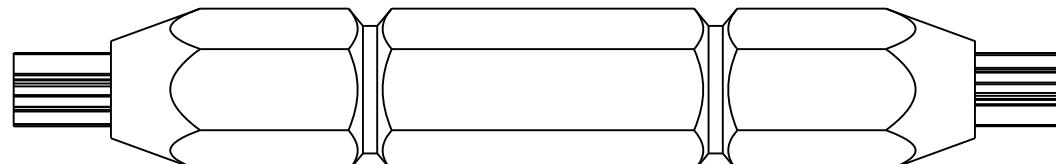
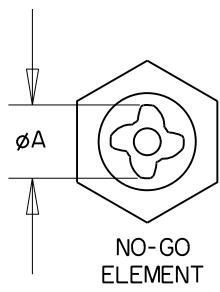
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-DRIVER BIT GEOMETRY

DRAWN G.DILLING	DATE 5/2/07	DRAWING NUMBER PSC-MTS-206
CHECKED: G.DILLING	DATE 5/2/07	SHEET 1 OF 1
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

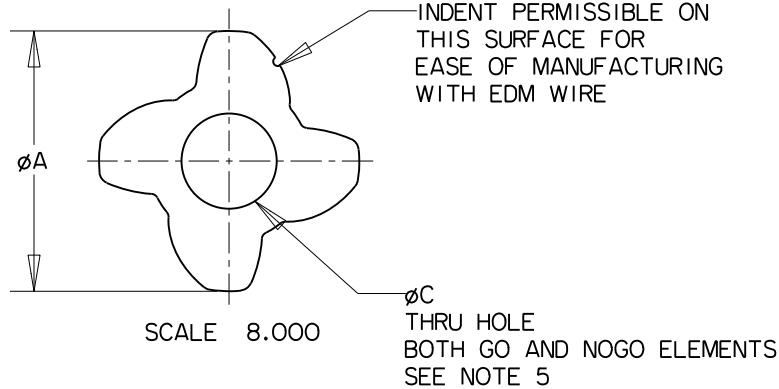
PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

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DRIVE SIZE	A NO-GO	B GO	ØC
MTS-000	.0750 .0752	.0706 .0708	---
MTS-00	.1230 .1232	.1186 .1188	---
MTS-0	.1724 .1726	.1680 .1682	.062 .059
MTS-1	.2425 .2427	.2381 .2383	.081 .078
MTS-2	.3100 .3102	.3056 .3058	.125 .122
MTS-3	.3557 .3559	.3513 .3515	.138 .134
MTS-4	.4305 .4307	.4261 .4263	.173 .169
MTS-5	.5083 .5085	.5039 .5041	.192 .188
MTS-6	.5958 .5960	.5914 .5916	.219 .215
MTS-7	.7280 .7282	.7236 .7238	.275 .270
MTS-8	.8230 .8232	.8186 .8188	.305 .301



NOTE:

1. ELECTRONIC FILE PER PSC-MTS-401 WILL BE SUPPLIED TO VENDOR WITH COMPLETE ARC GEOMETRY FOR THE PURPOSE OF MANUFACTURING THIS PART.
2. MARK PART NUMBER AND DRIVE SIZE ON EACH GAGE.
3. GO, NO-GO ELEMENT MATERIAL: CARBIDE.
4. MTS-000 THRU MTS-5 LENGTH OF GO, NO-GO ELEMENTS: 5/8 MINIMUM.
5. MTS-6 THRU MTS-8 LENGTH OF GO, NO-GO ELEMENTS: 7/8 MINIMUM.
5. HOLE DIA. TO BE CONCENTRIC TO OUTSIDE "A" DIA. WITHIN .002 T.I.R.

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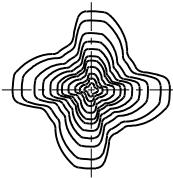
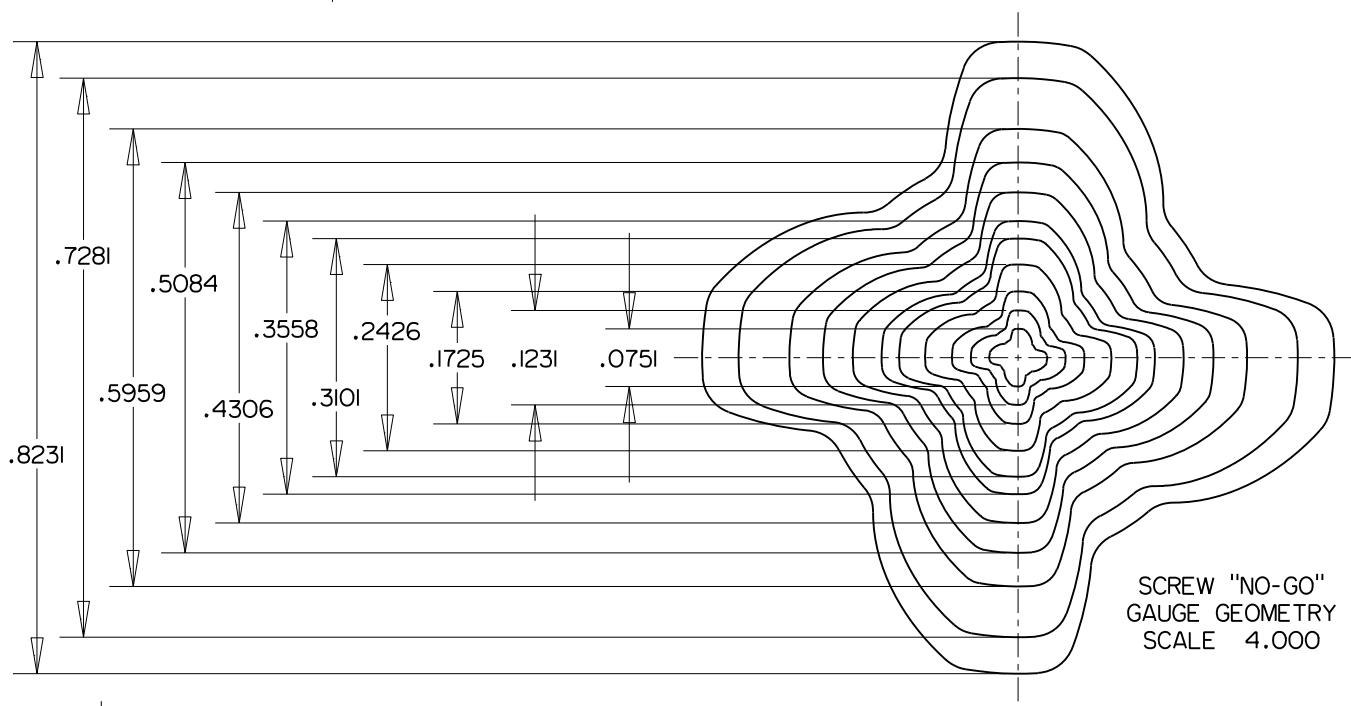
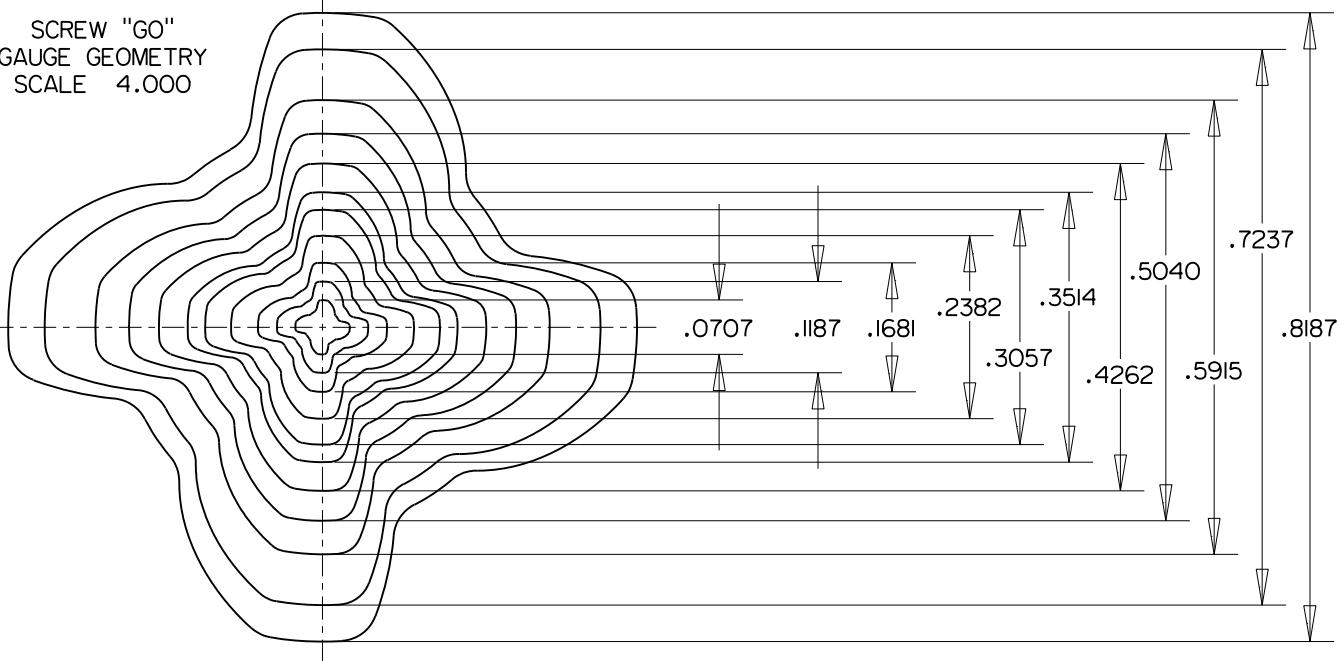
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SCREW RECESS GO, NO-GO GAGE

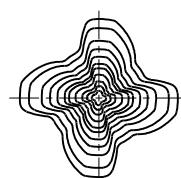
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CHECKED: G.DILLING	DATE 1/24/07	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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SCREW "GO"
GAUGE GEOMETRY
SCALE 4.000



"GO" GEOMETRY
SCALE 1.000



"NO-GO" GEOMETRY
SCALE 1.000

NOTES:

- ELECTRONIC FILE OF THIS DRAWING WILL BE SUPPLIED TO VENDOR FOR THE PURPOSE OF MANUFACTURING THE SCREW RECESS GO, NO-GO GAUGE.

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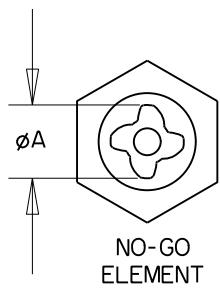
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SCREW RECESS GO, NO-GO GAUGE GEOMETRY

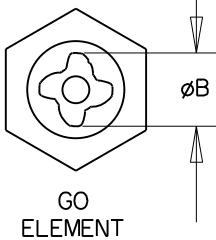
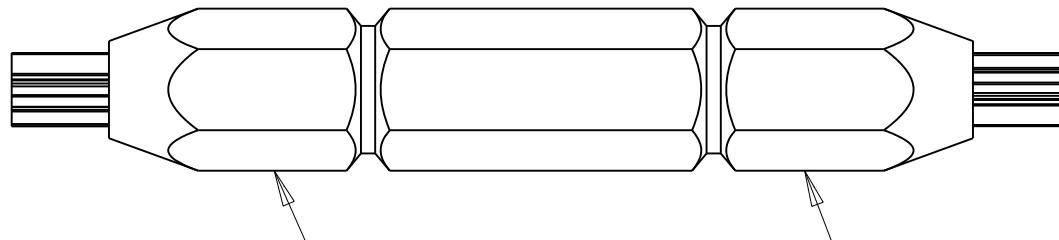
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PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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NO-GO ELEMENT

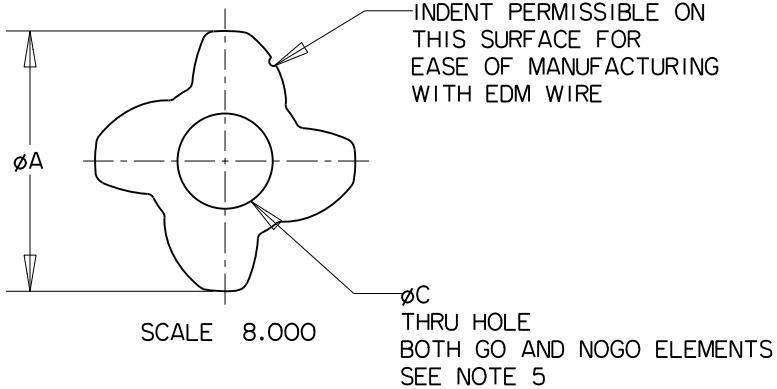


GO ELEMENT

DRIVE SIZE	A NO-GO	B GO	ØC
MTS-000	.0740 .0742	.0716 .0718	---
MTS-00	.1220 .1222	.1196 .1198	---
MTS-0	.1714 .1716	.1690 .1692	.062 .059
MTS-1	.2415 .2417	.2391 .2393	.081 .078
MTS-2	.3090 .3092	.3066 .3068	.125 .122
MTS-3	.3547 .3549	.3523 .3525	.138 .134
MTS-4	.4295 .4297	.4271 .4273	.173 .169
MTS-5	.5073 .5075	.5049 .5051	.192 .188
MTS-6	.5948 .5950	.5924 .5926	.219 .215
MTS-7	.7270 .7272	.7246 .7248	.275 .270
MTS-8	.8220 .8222	.8196 .8198	.305 .301

COLOR COATED
RED FOR "NO-GO"
ELEMENT

COLOR COATED
GREEN FOR "GO"
ELEMENT



NOTE:

1. ELECTRONIC FILE PER PSC-MTS-403 WILL BE SUPPLIED TO VENDOR WITH COMPLETE ARC GEOMETRY FOR THE PURPOSE OF MANUFACTURING THIS PART.
2. MARK PART NUMBER AND DRIVE SIZE ON EACH GAGE.
3. GO, NO-GO ELEMENT MATERIAL: CARBIDE.
4. MTS-000 THRU MTS-5 LENGTH OF GO, NO-GO ELEMENTS: 5/8 MINIMUM.
5. MTS-6 THRU MTS-8 LENGTH OF GO, NO-GO ELEMENTS: 7/8 MINIMUM.
5. HOLE DIA. TO BE CONCENTRIC TO OUTSIDE "A" DIA. WITHIN .002 T.I.R.

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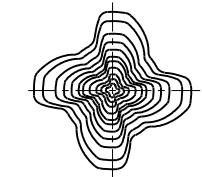
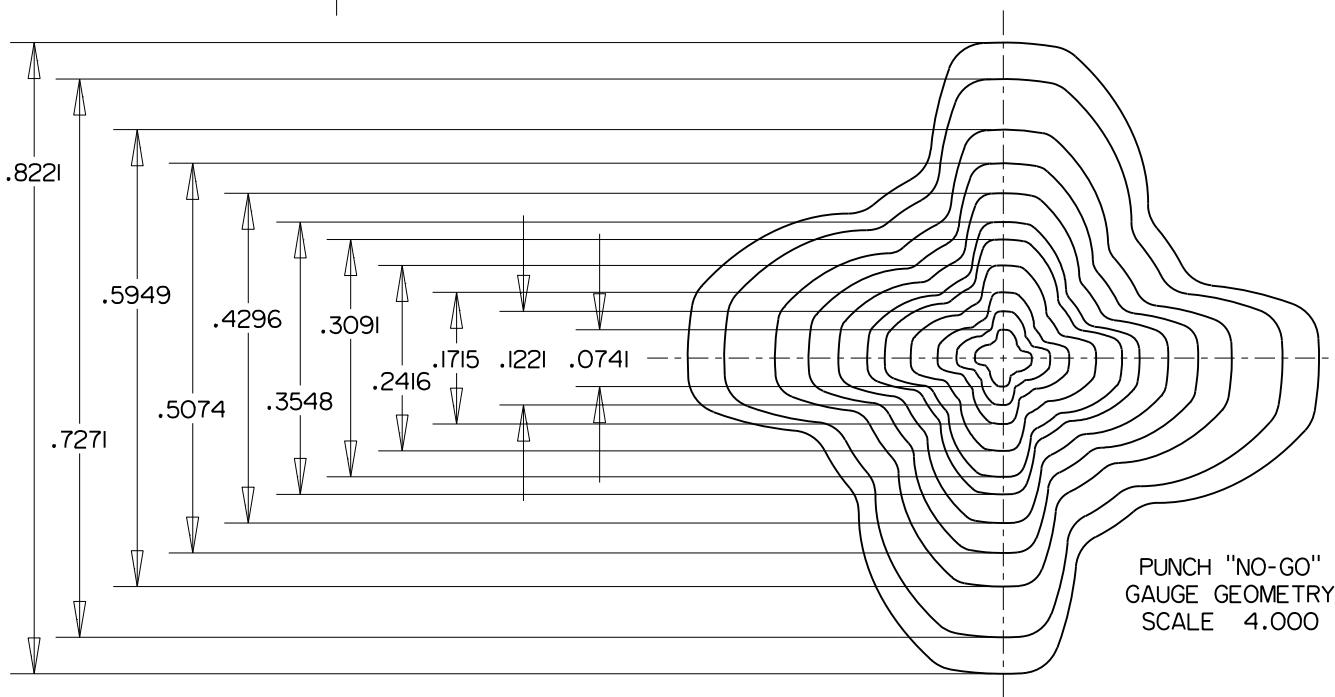
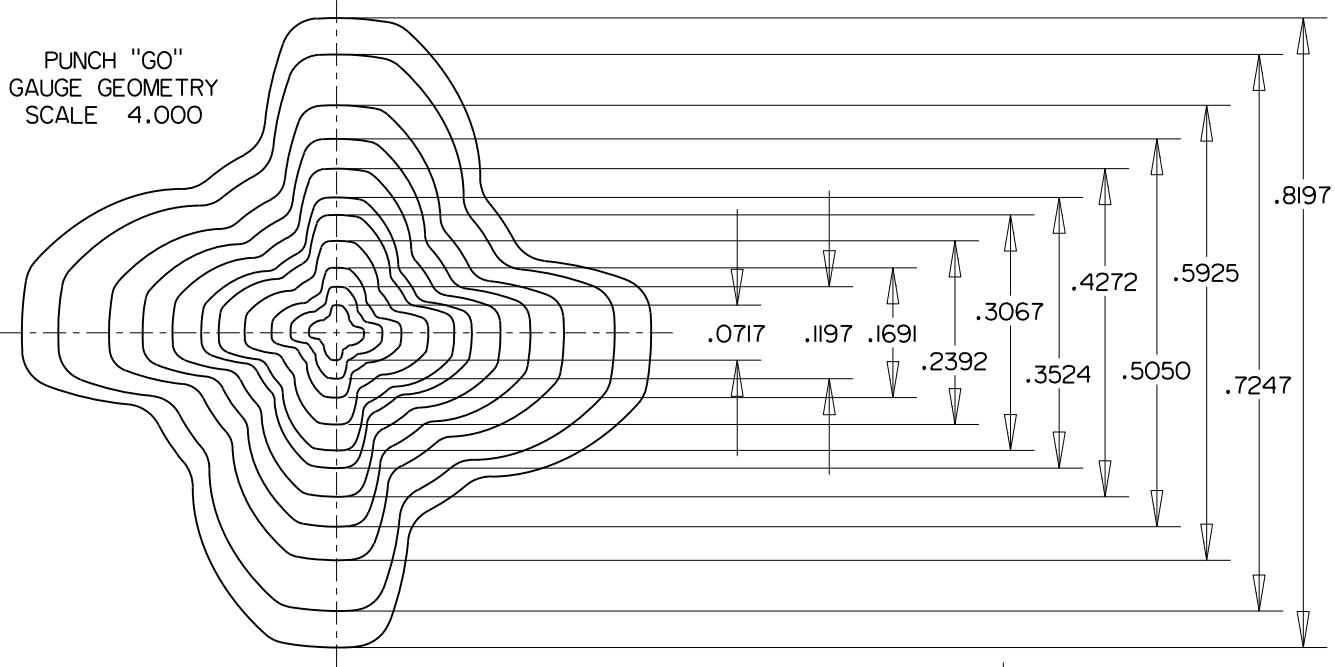
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH RECESS GO, NO-GO GAGE

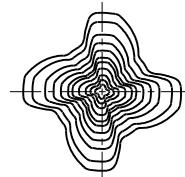
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CHECKED: G.DILLING	DATE 1/23/07	SHEET 1 OF 1

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"GO" GEOMETRY
SCALE 1.000



"NO-GO" GEOMETRY
SCALE 1.000

NOTES:

- ELECTRONIC FILE OF THIS DRAWING WILL BE SUPPLIED TO VENDOR FOR THE PURPOSE OF MANUFACTURING THE PUNCH RECESS GO, NO-GO GAUGE.

REVISION

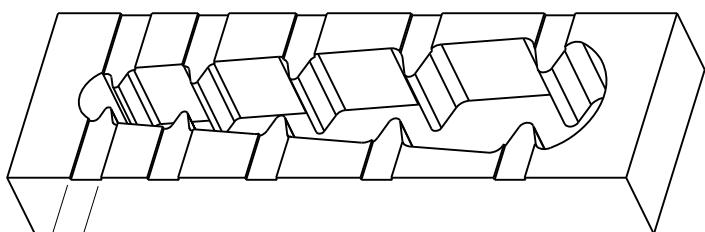
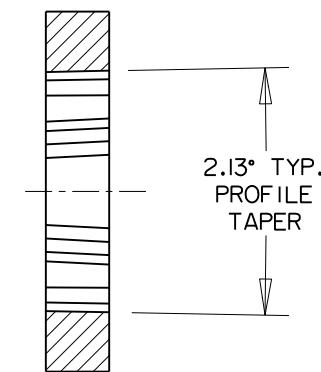
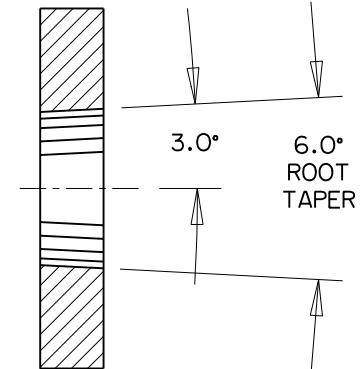
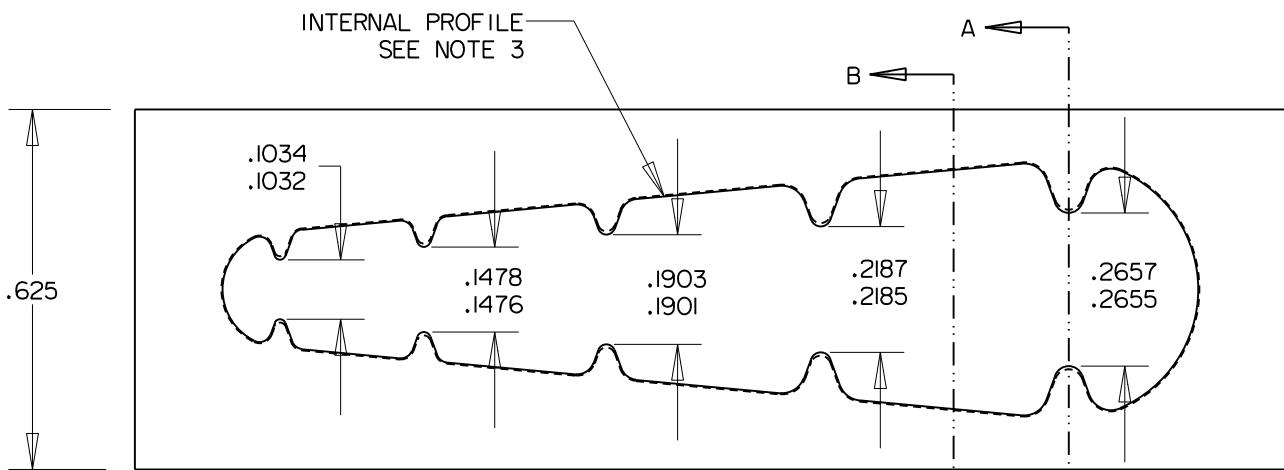
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH RECESS GO, NO-GO GAUGE GEOMETRY

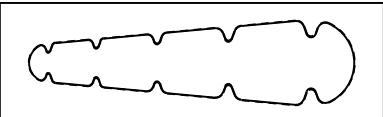
DRAWN	DATE	DRAWING NUMBER
G.DILLING	1/29/07	PSC-MTS-403
CHECKED:	DATE	SHEET 1 OF 1
G.DILLING	1/29/07	PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326

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SCALE 1.750

SEE
NOTE 1



SCALE 1.000

NOTES:

1. YOU CAN GRIND AREA TO BRING IN REQUIRED ROOT TOLERANCE.
2. MATERIAL: CARBIDE.
3. SEE ELECTRONIC CAD FILE FOR COMPLETE GEOMETRY DETAIL.

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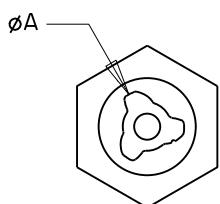
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
MTS-0 THRU MTS-4 ROOT RING GAUGE

DRAWN	DATE	DRAWING NUMBER
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CHECKED	2-7-07	SHEET 1 OF 1

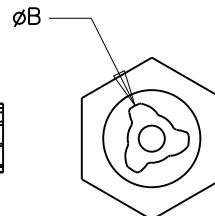
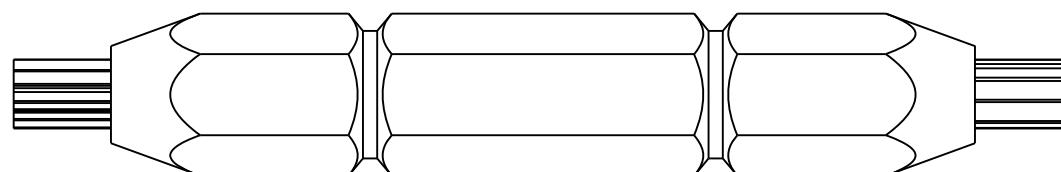
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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NO-GO ELEMENT

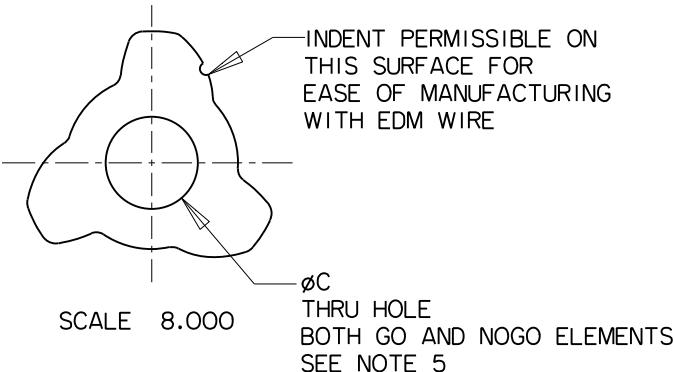


GO ELEMENT

COLOR COATED
RED FOR "NO-GO"
ELEMENT

COLOR COATED
GREEN FOR "GO"
ELEMENT

DRIVE SIZE	A NO-GO	B GO	φC
MTS-000TRI	.0750 .0752	.0706 .0708	---
MTS-00TRI	.1230 .1232	.1186 .1188	---
MTS-OTRI	.1724 .1726	.1680 .1682	.062 .059
MTS-ITRI	.2425 .2427	.2381 .2383	.081 .078
MTS-2TRI	.3100 .3102	.3056 .3058	.125 .122
MTS-3TRI	.3557 .3559	.3513 .3515	.138 .134
MTS-4TRI	.4305 .4307	.4261 .4263	.173 .169
MTS-5TRI	.5083 .5085	.5039 .5041	.192 .188
MTS-6TRI	.5958 .5960	.5914 .5916	.219 .215
MTS-7TRI	.7280 .7282	.7236 .7238	.275 .270
MTS-8TRI	.8230 .8232	.8186 .8188	.305 .301



NOTE:

1. ELECTRONIC FILE PER PSC-MTS-406 WILL BE SUPPLIED TO VENDOR WITH COMPLETE ARC GEOMETRY FOR THE PURPOSE OF MANUFACTURING THIS PART.
2. MARK PART NUMBER AND DRIVE SIZE ON EACH GAGE.
3. GO, NO-GO ELEMENT MATERIAL: CARBIDE.
4. MTS-000TRI THRU MTS-5TRI LENGTH OF GO, NO-GO ELEMENTS: 5/8 MINIMUM.
MTS-6TRI THRU MTS-8TRI LENGTH OF GO, NO-GO ELEMENTS: 7/8 MINIMUM.
5. HOLE DIA. TO BE CONCENTRIC TO OUTSIDE "A" DIA. WITHIN .002 T.I.R.

REVISION

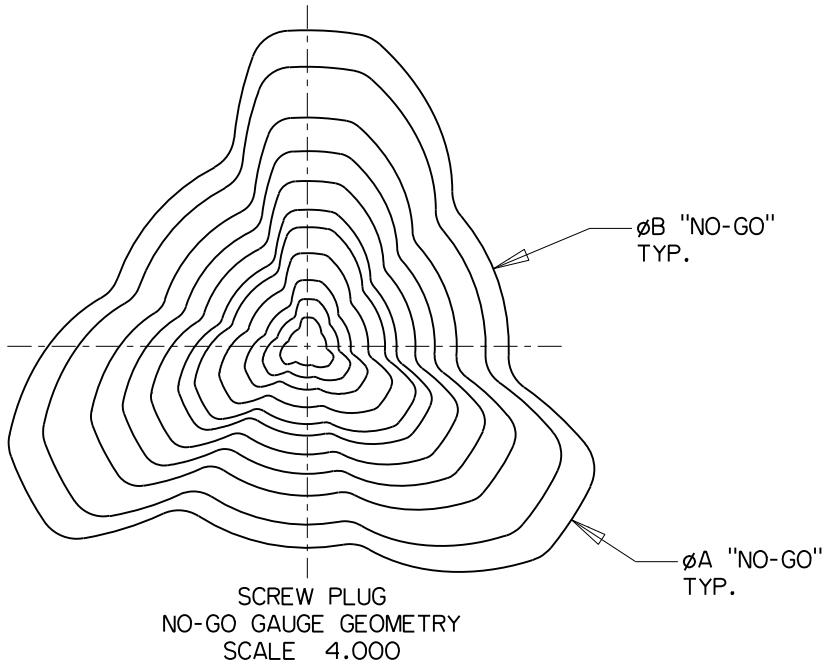
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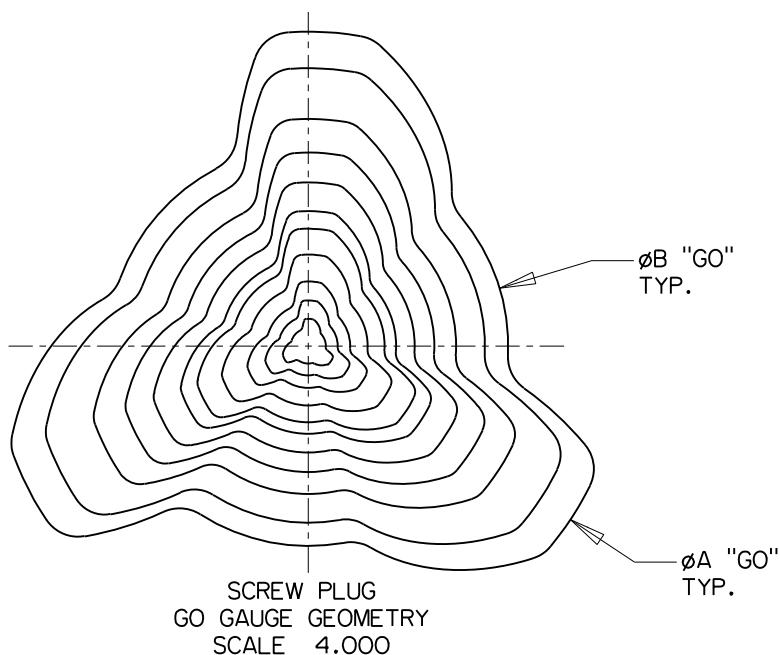
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI - SCREW RECESS GO, NO-GO GAGE

DRAWN G.DILLING	DATE 5/8/07	DRAWING NUMBER PSC-MTS-405
CHECKED: G.DILLING	DATE 5/8/07	
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

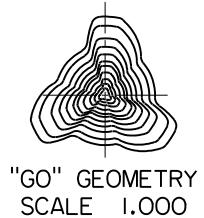
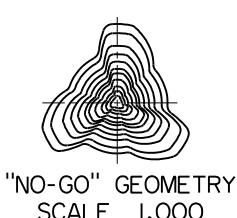
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SCREW PLUG "NO-GO" GEOM.		
DRIVE SIZE	ϕ A	ϕ B
MTS-000TRI	.0751	.0501
MTS-00TRI	.1231	.0814
MTS-OTRI	.1725	.1136
MTS-ITRI	.2426	.1593
MTS-2TRI	.3101	.2033
MTS-3TRI	.3558	.2331
MTS-4TRI	.4306	.2819
MTS-5TRI	.5084	.3326
MTS-6TRI	.5959	.3897
MTS-7TRI	.7281	.4644
MTS-8TRI	.8231	.5249



SCREW PLUG "GO" GEOM.		
DRIVE SIZE	ϕ A	ϕ B
MTS-000TRI	.0707	.0457
MTS-00TRI	.1187	.0770
MTS-OTRI	.1681	.1092
MTS-ITRI	.2382	.1549
MTS-2TRI	.3057	.1989
MTS-3TRI	.3514	.2287
MTS-4TRI	.4262	.2775
MTS-5TRI	.5040	.3282
MTS-6TRI	.5915	.3853
MTS-7TRI	.7237	.4600
MTS-8TRI	.8187	.5205



NOTE:

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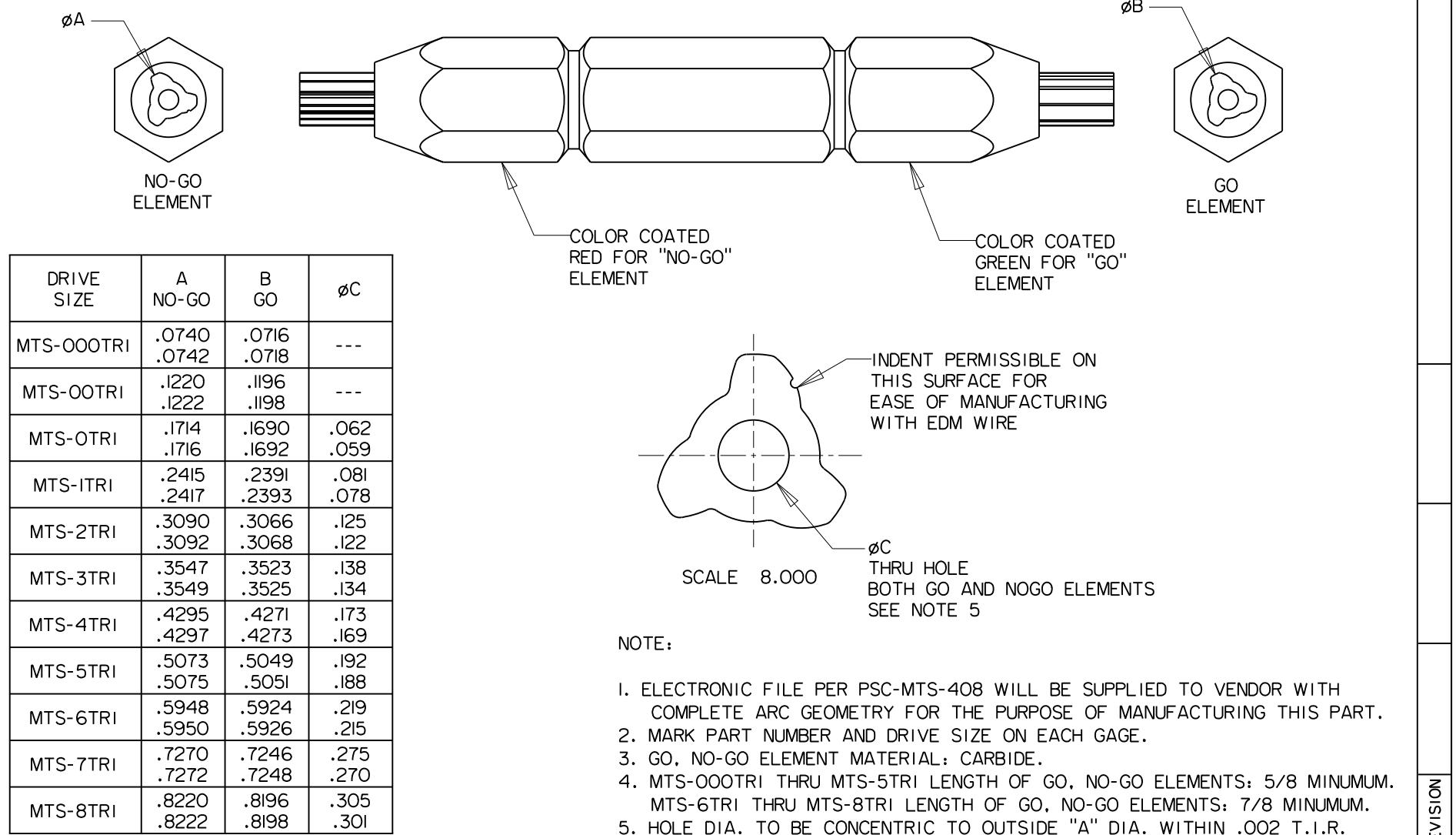
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SCREW RECESS TRI-TAMPER RESISTANT
GO, NO-GO GAUGE GEOMETRY

DRAWN G.DILLING	DATE 5/18/07	DRAWING NUMBER PSC-MTS-406
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CHECKED: G.DILLING	DATE 5/18/07	SHEET 1 OF 1
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PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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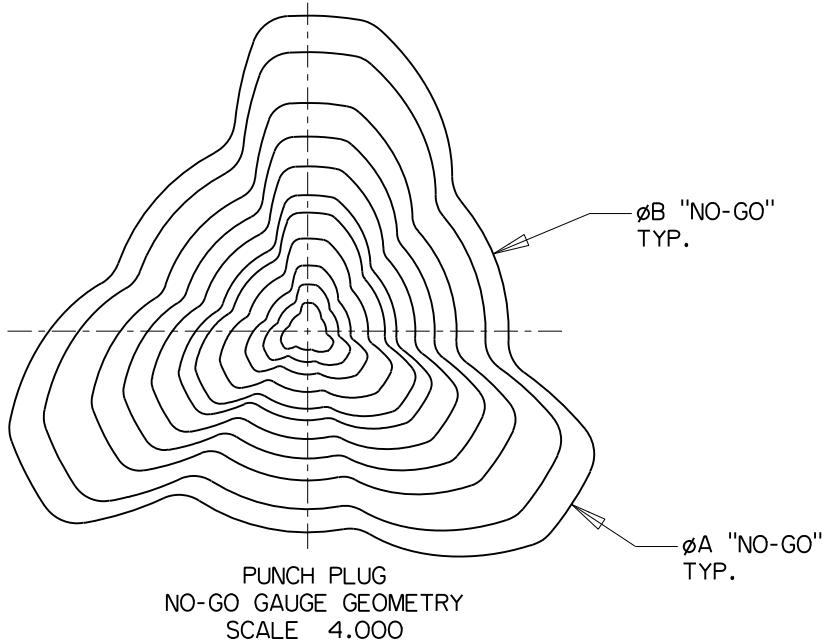


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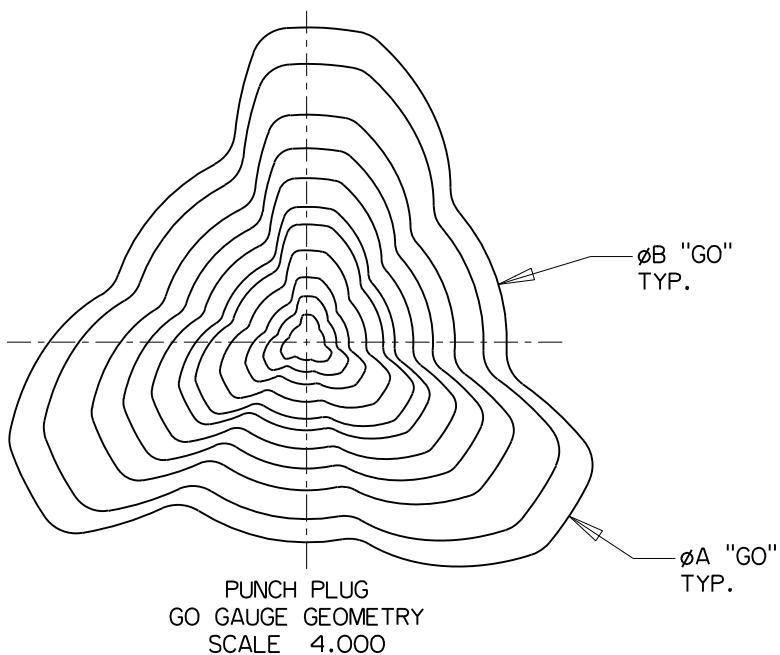
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM TRI - PUNCH RECESS GO, NO-GO GAGE

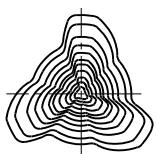
DRAWN G.DILLING	DATE 5/8/07	DRAWING NUMBER PSC-MTS-407
CHECKED: G.DILLING	DATE 5/8/07	
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		



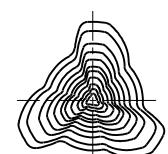
PUNCH PLUG "NO-GO" GEOM.		
DRIVE SIZE	ØA	ØB
MTS-000TRI	.0741	.0491
MTS-00TRI	.1221	.0804
MTS-OTRI	.1715	.1126
MTS-ITRI	.2416	.1583
MTS-2TRI	.3091	.2023
MTS-3TRI	.3548	.2321
MTS-4TRI	.4296	.2809
MTS-5TRI	.5074	.3316
MTS-6TRI	.5949	.3887
MTS-7TRI	.7271	.4634
MTS-8TRI	.8221	.5239



PUNCH PLUG "GO" GEOM.		
DRIVE SIZE	ØA	ØB
MTS-000TRI	.0717	.0467
MTS-00TRI	.1197	.0780
MTS-OTRI	.1691	.1102
MTS-ITRI	.2392	.1559
MTS-2TRI	.3067	.1999
MTS-3TRI	.3524	.2297
MTS-4TRI	.4272	.2785
MTS-5TRI	.5050	.3292
MTS-6TRI	.5925	.3863
MTS-7TRI	.7247	.4610
MTS-8TRI	.8197	.5215



"NO-GO" GEOMETRY
SCALE 1.000



"GO" GEOMETRY
SCALE 1.000

NOTE:

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH RECESS TRI-TAMPER RESISTANT
GO, NO-GO GAUGE GEOMETRY

DRAWN G.DILLING	DATE 5/16/07	DRAWING NUMBER PSC-MTS-408
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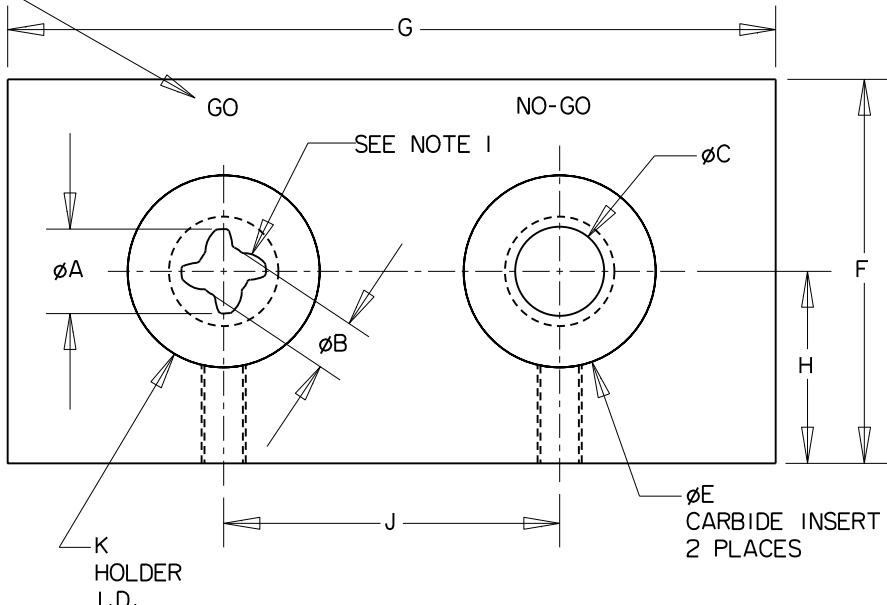
CHECKED: G.DILLING	DATE 5/16/07	SHEET 1 OF 1
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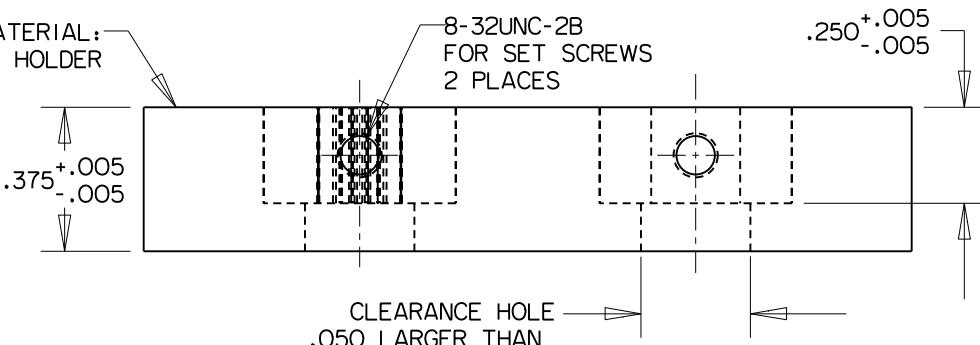
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AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

DRIVE SIZE	$+.0001$ -.0001	$+.0001$ -.0001	$+.0001$ -.0001	$+.0001$ -.0001	$\pm .005$	$\pm .015$	REF	REF	$+.005$ -.000
	A	B	C	E	F	G	H	J	I.D. K
MTS-000	.0699	.0451	.0655	.500	1.000	2.00	.500	.875	.505
MTS-00	.1163	.0750	.1119	.500	1.000	2.00	.500	.875	.505
MTS-0	.1653	.1065	.1609	.500	1.000	2.00	.500	.875	.505
MTS-1	.2343	.1509	.2299	.500	1.000	2.00	.500	.875	.505
MTS-2	.3003	.1934	.2959	.500	1.000	2.00	.500	.875	.505
MTS-3	.3443	.2218	.3399	.750	1.125	2.00	.563	.875	.755
MTS-4	.4173	.2688	.4129	.750	1.125	2.00	.563	.875	.755
MTS-5	.4933	.3177	.4889	.750	1.125	2.00	.563	.875	.755
MTS-6	.5783	.3724	.5739	.875	1.250	2.50	.625	1.150	.880
MTS-7	.7058	.4477	.7014	1.250	1.750	3.50	.875	1.500	1.255
MTS-8	.7983	.5063	.7939	1.250	1.750	3.50	.875	1.500	1.255

MARK ON GAGE
PART NO. AND
GO, NO-GO MARKING



MATERIAL:
ALUMINUM HOLDER



NOTE:

- I. ELECTRONIC FILE PER "PSC-MTS-4II" WILL BE SUPPLIED TO VENDOR WITH COMPLETE ARC GEOMETRY FOR THE PURPOSE OF MANUFACTURING GO GAGE INSERT GEOMETRY.

2. DRAWING NOT TO SCALE.

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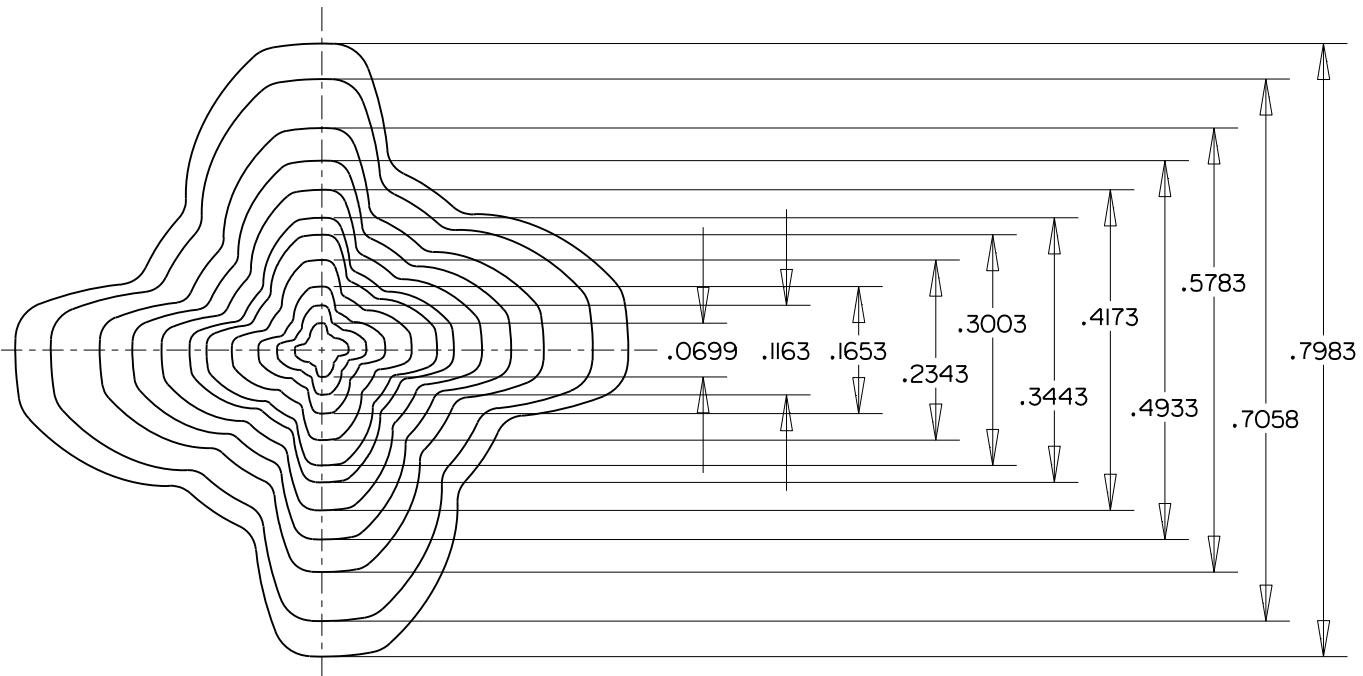
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
DRIVER BIT, AND SCREWDRIVER
MANUFACTURING GAGE

DRAWN G.DILLING	DATE 1/22/07	DRAWING NUMBER PSC-MTS-4I0
CHECKED: G.DILLING	DATE 1/22/07	

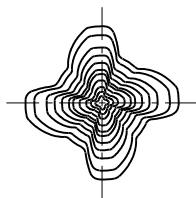
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PHONE: 774-396-6190 FAX: 508-966-2326

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REVISION



DRIVER BIT "GO"
GAGE GEOMETRY
SCALE 4.000



SCALE 1.000

NOTE:

I. ELECTRONIC FILE OF THIS DRAWING WILL BE SUPPLIED TO VENDOR FOR THE PURPOSE OF MANUFACTURING THE DRIVER BIT GO INSERT GAGE GEOMETRY.

REVISION _____

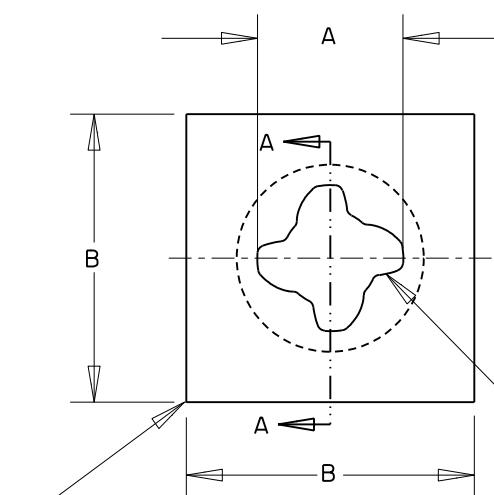
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
DRIVER BIT "GO" GAGE GEOMETRY

DRAWN	DATE	DRAWING NUMBER
G.DILLING	1/23/07	PSC-MTS-4II
CHECKED:	DATE	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

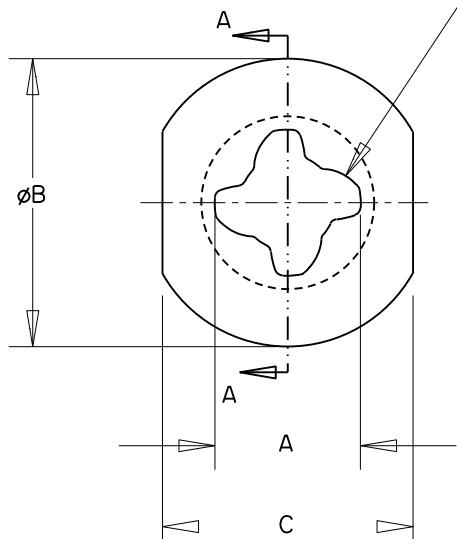
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TEST BLOCK
STYLE I

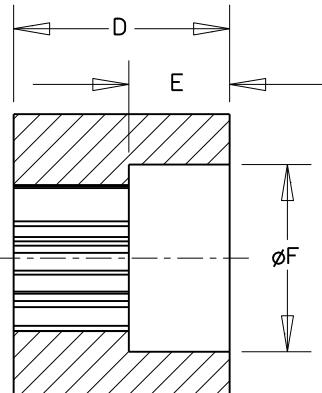
RECESS DETAIL PER
PUNCH POINT DWG.
PSC-MTS-500

.06 R. ON ALL
EXTERNAL EDGES

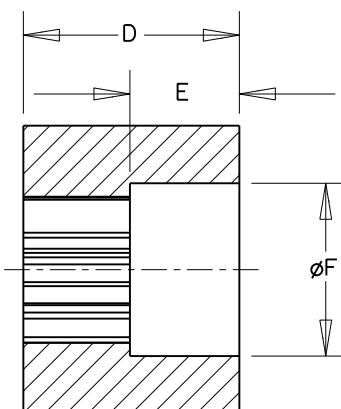


TEST BLOCK
STYLE II

FLATS TO BE
DIAMETRICALLY OPPOSED



SECTION A-A



SECTION A-A

RECESS SIZE	A +.0000 -.0005	B +.000 -.031	C REF	D REF	E REF	φF +.005 -.005
MTS-000	.074	1.000	.870	.500	-	-
MTS-00	.1220	1.000	.870	.500	-	-
MTS-0	.1714	1.000	.870	.500	-	-
MTS-1	.2415	1.000	.870	.500	-	-
MTS-2	.3090	1.000	.870	.500	-	-
MTS-3	.3547	1.500	1.370	1.500	.500	.500
MTS-4	.4295	1.500	1.370	2.000	.875	.500
MTS-5	.5073	2.250	2.120	2.000	1.500	.750
MTS-6	.5948	3.000	2.750	2.000	1.500	.750
MTS-7	.7270	3.000	2.750	2.000	1.500	1.000
MTS-8	.8220	3.000	2.750	2.000	1.500	1.000

NOTES:

1. MATERIAL: MI OR EQUIV., HEAT TREAT: Rc 61-63.
2. MARKING: IDENTIFY WITH THIS DWG NO. AND APPLICABLE RECESS SIZE NO., LOCATED ON TOP OR SIDE SURFACE.

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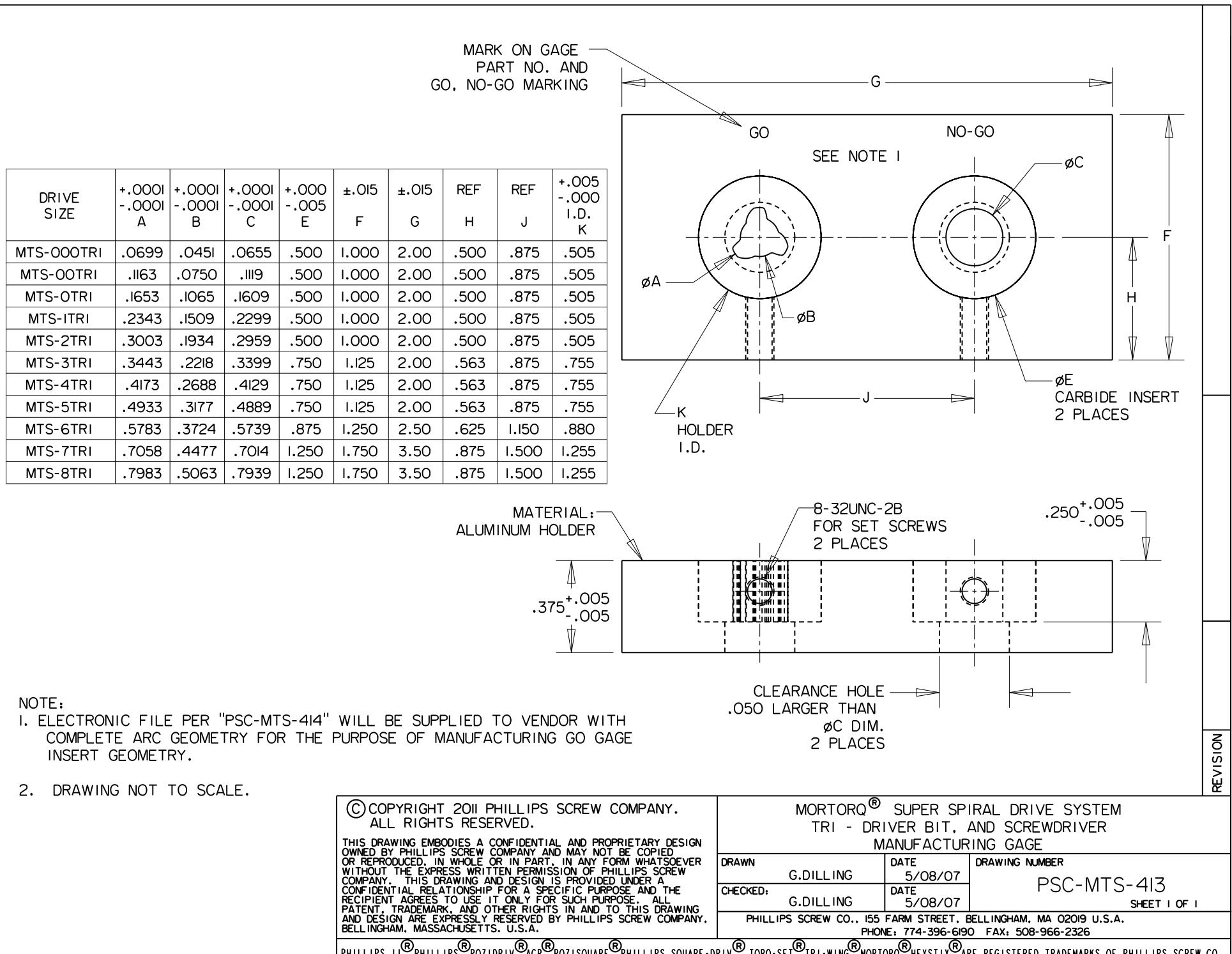
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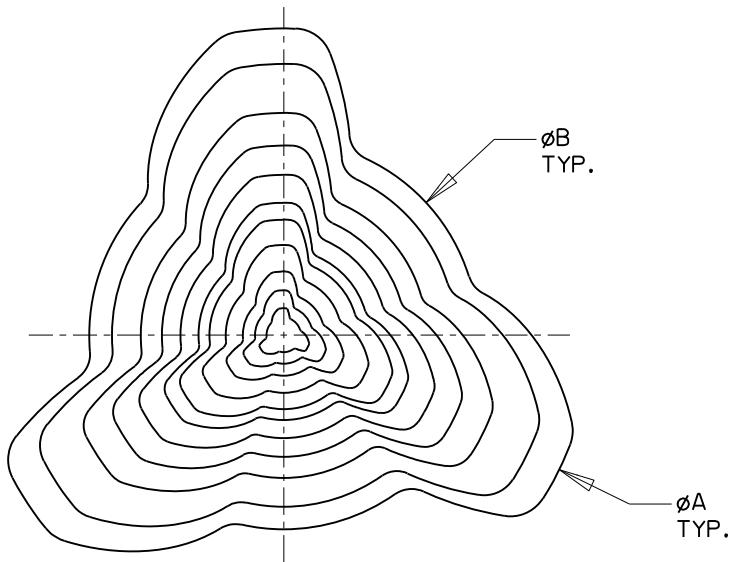
TITLE:
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TORQUE TEST BLOCKS

DRAWN G.DILLING	DATE 2/7/07	DRAWING NUMBER PSC-MTS-412
CHECKED: G.DILLING	DATE 2/7/07	SHEET 1 OF 1

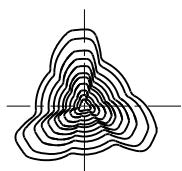
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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DRIVER BIT "GO"
RING GAGE GEOMETRY
SCALE 4.000



SCALE 1.000

DRIVE SIZE	øA	øB
MTS-000TRI	.0699	.0451
MTS-00TRI	.1163	.0750
MTS-OTRI	.1653	.1065
MTS-ITRI	.2343	.1509
MTS-2TRI	.3003	.1934
MTS-3TRI	.3443	.2218
MTS-4TRI	.4173	.2688
MTS-5TRI	.4933	.3177
MTS-6TRI	.5783	.3724
MTS-7TRI	.7058	.4477
MTS-8TRI	.7983	.5063

NOTE:

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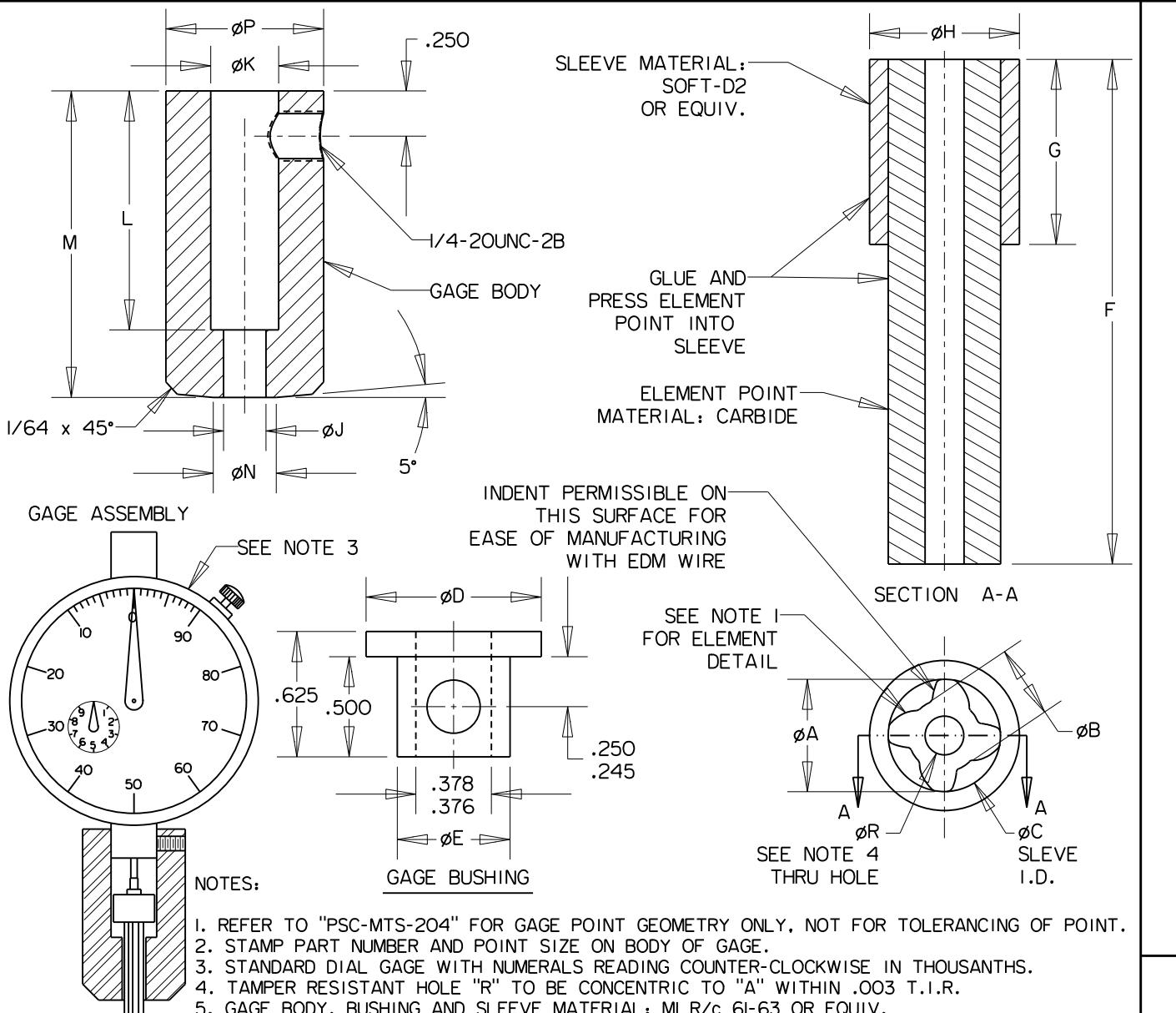
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-DRIVER BIT "GO" GAGE GEOMETRY

DRAWN G.DILLING	DATE 5/16/07	DRAWING NUMBER PSC-MTS-414
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CHECKED: G.DILLING	DATE 5/16/07	SHEET 1 OF 1
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DRIVE SIZE	.0000 -.0004 A	.0000 -.0004 B	.0000 -.0005 φC	.005 -.005 φD	.001 -.001 φE	.005 -.005 F	.005 -.005 G	.010 -.010 φH	.0002 -.0002 φJ	.001 -.001 φK	.005 -.005 L	.016 -.000 φM	.010 -.000 φN	.000 -.003 φP φR	NOTE 6
MTS-000	.0696	.0448	.0701	---	---	1.020	.390	.250	.0706	.377	.325	1.700	.175	.875	---
MTS-00	.1160	.0747	.1165	---	---	1.020	.390	.250	.1170	.377	.325	1.700	.200	.875	---
MTS-0	.1650	.1062	.1655	---	---	1.020	.390	.250	.1660	.377	.325	1.700	.275	.875	.062
MTS-1	.2340	.1506	.2340	---	---	1.020	.390	.344	.2350	.377	.325	1.700	.350	.875	.081
MTS-2	.3000	.1931	.3000	.875	.562	1.020	.390	.438	.3010	.565	.325	1.700	.450	.875	.125
MTS-3	.3440	.2215	.3440	.875	.562	1.020	.300	.438	.3450	.565	.325	1.700	.500	.875	.138
MTS-4	.4170	.2685	.4170	.875	.562	1.020	.300	.500	.4180	.565	.325	1.700	.600	.875	.173
MTS-5	.4930	.3174	.4930	1.000	.647	1.020	.300	.625	.4940	.650	.325	1.700	.700	1.000	.192
MTS-6	.5780	.3721	.5780	1.000	.672	1.110	.300	.650	.5790	.675	.235	1.700	.800	1.000	.219
MTS-7	.7055	.4474	.7055	1.500	.997	1.110	.300	.933	.7065	1.000	.235	1.700	1.000	1.500	.275
MTS-8	.7980	.5060	.7980	1.500	.997	1.110	.300	.933	.7990	1.000	.235	1.700	1.100	1.500	.305

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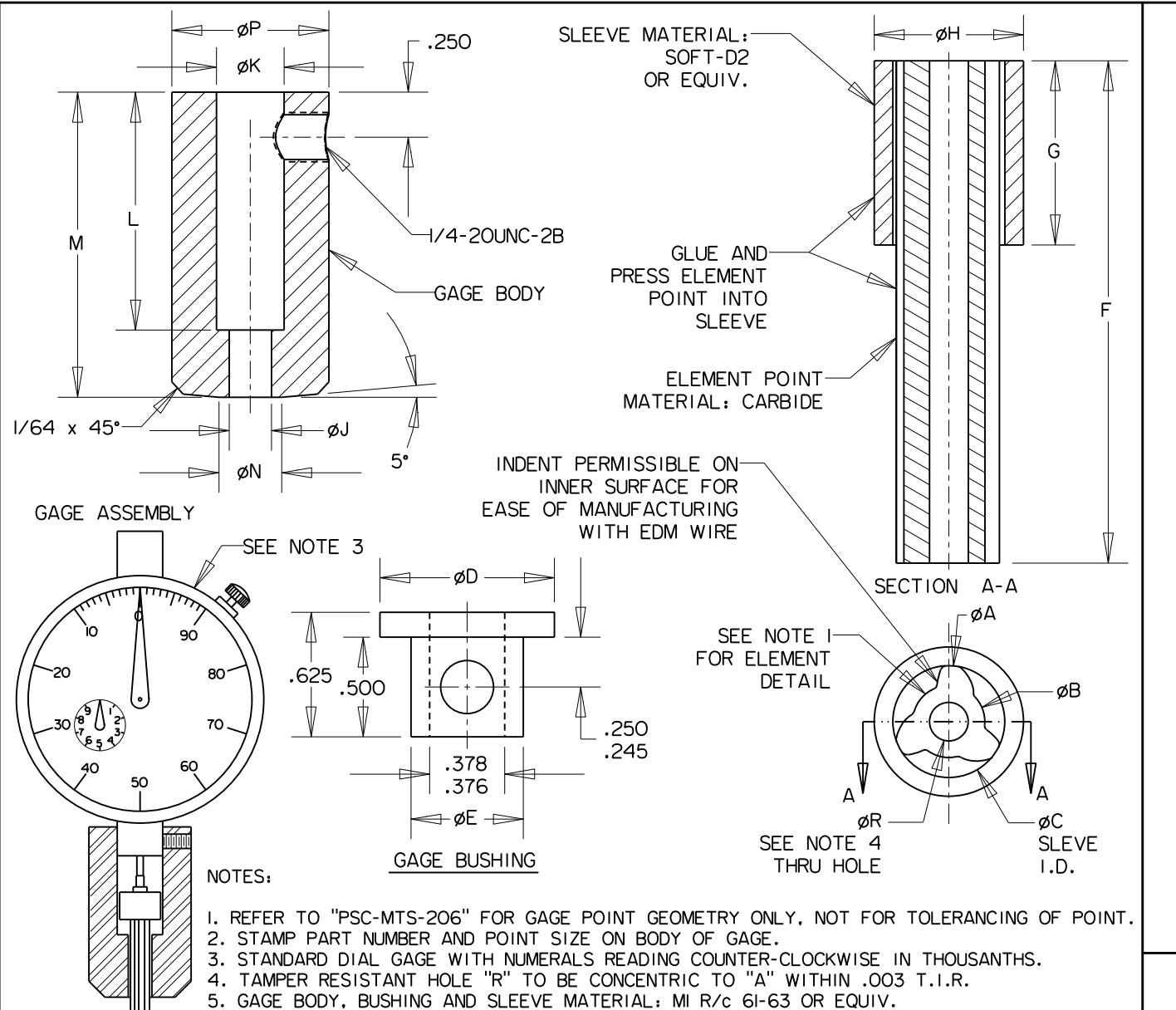
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PENETRATION GAGE ASSY

DRAWN G.DILLING	DATE 1/31/07	DRAWING NUMBER PSC-MTS-415
CHECKED: G.DILLING	DATE 2/2/07	SHEET 1 OF 1

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REVISION REV 1: 9-24-07



DRIVE SIZE	+.0000 A	+.0000 B	+.0000 ØC	+.005 ØD	+.001 ØE	+.005 F	+.005 G	+.010 ØH	+.0002 ØJ	+.001 ØK	+.005 L	+.016 M	+.010 ØN	+.000 ØP	+.000 ØR	NOTE 6
MTS-000TRI	.0696	.0448	.0701	---	---	1.020	.390	.250	.0706	.377	1.325	1.700	.175	.875	---	---
MTS-00TRI	.1160	.0747	.1165	---	---	1.020	.390	.250	.1170	.377	1.325	1.700	.200	.875	---	---
MTS-0TRI	.1650	.1062	.1655	---	---	1.020	.390	.250	.1660	.377	1.325	1.700	.275	.875	.062	---
MTS-1TRI	.2340	.1506	.2340	---	---	1.020	.390	.344	.2350	.377	1.325	1.700	.350	.875	.081	---
MTS-2TRI	.3000	.1931	.3000	.875	.562	1.020	.390	.438	.3010	.565	1.325	1.700	.450	.875	.125	---
MTS-3TRI	.3440	.2215	.3440	.875	.562	1.020	.300	.438	.3450	.565	1.325	1.700	.500	.875	.138	SEE NOTE 6
MTS-4TRI	.4170	.2685	.4170	.875	.562	1.020	.300	.500	.4180	.565	1.325	1.700	.600	.875	.173	
MTS-5TRI	.4930	.3174	.4930	1.000	.647	1.020	.300	.625	.4940	.650	1.325	1.700	.700	1.000	.192	
MTS-6TRI	.5780	.3721	.5780	1.000	.672	1.110	.300	.650	.5790	.675	1.235	1.700	.800	1.000	.219	
MTS-7TRI	.7055	.4474	.7055	1.500	.997	1.110	.300	.933	.7065	1.000	1.235	1.700	1.000	1.500	.275	
MTS-8TRI	.7980	.5060	.7980	1.500	.997	1.110	.300	.933	.7990	1.000	1.235	1.700	1.000	1.500	.305	

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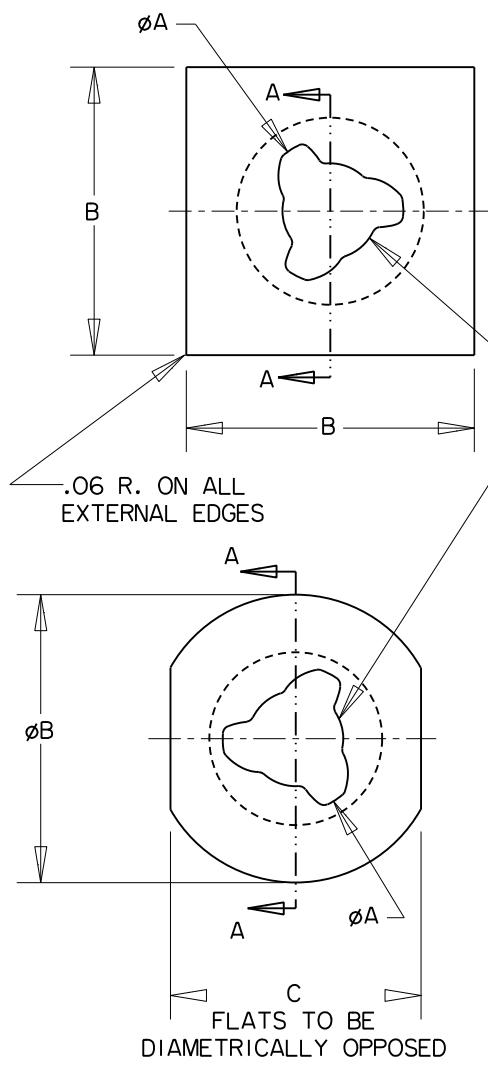
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI - PENETRATION GAGE ASSY

DRAWN G.DILLING	DATE 5/08/07	DRAWING NUMBER PSC-MTS-416
CHECKED: G.DILLING	DATE 5/08/07	SHEET 1 OF 1

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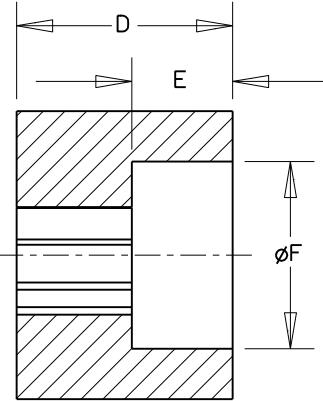
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REVISION REV 1: 9-24-07



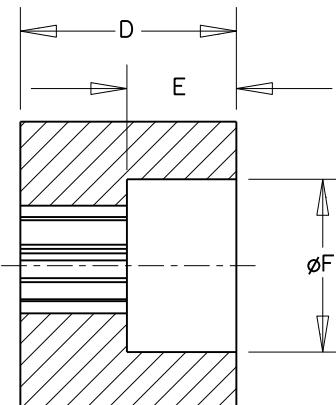
TEST BLOCK
STYLE I

RECESS DETAIL PER
PUNCH POINT GEOMETRY
PSC-MTS-504



SECTION A-A

TEST BLOCK
STYLE II



SECTION A-A

RECESS SIZE	A +.0000 -.0005	B +.0000 -.031	C REF	D REF	E REF	ϕF +.005 -.005
MTS-000TRI	.074	1.000	.870	.500	-	-
MTS-00TRI	.1220	1.000	.870	.500	-	-
MTS-0TRI	.1714	1.000	.870	.500	-	-
MTS-1TRI	.2415	1.000	.870	.500	-	-
MTS-2TRI	.3090	1.000	.870	.500	-	-
MTS-3TRI	.3547	1.500	1.370	1.500	.500	.500
MTS-4TRI	.4295	1.500	1.370	2.000	.875	.500
MTS-5TRI	.5073	2.250	2.120	2.000	1.500	.750
MTS-6TRI	.5948	3.000	2.750	2.000	1.500	.750
MTS-7TRI	.7270	3.000	2.750	2.000	1.500	1.000
MTS-8TRI	.8220	3.000	2.750	2.000	1.500	1.000

NOTES:

1. MATERIAL: MI OR EQUIV., HEAT TREAT: Rc 61-63.
2. MARKING: IDENTIFY WITH THIS DWG NO. AND APPLICABLE RECESS SIZE NO., LOCATED ON TOP OR SIDE SURFACE.

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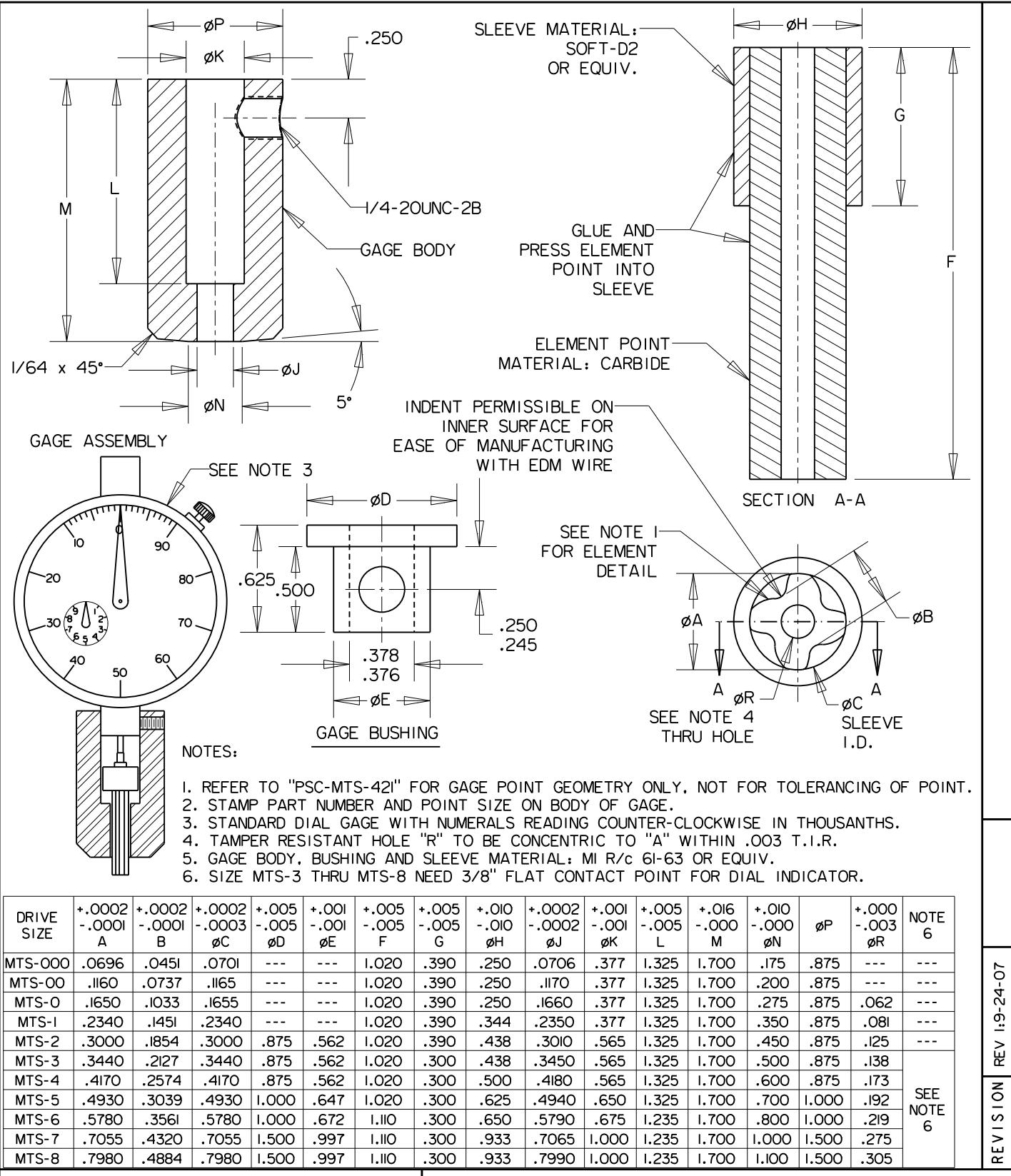
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-TORQUE TEST BLOCKS

DRAWN G.DILLING	DATE 5/16/07	DRAWING NUMBER PSC-MTS-417
CHECKED: G.DILLING	DATE 5/16/07	SHEET 1 OF 1

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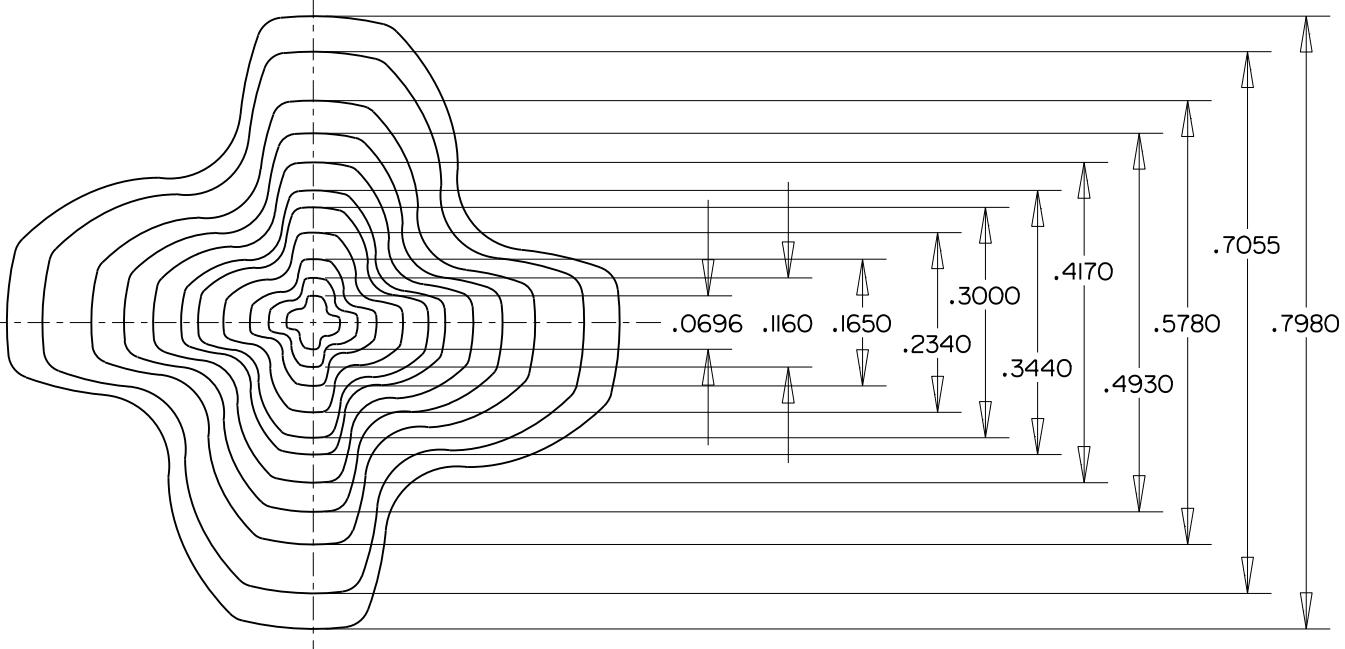
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FALLAWAY GAGE ASSY

DRAWN G.DILLING	DATE 2/5/07	DRAWING NUMBER PSC-MTS-420
CHECKED: G.DILLING	DATE 2/6/07	SHEET 1 OF 1

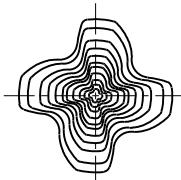
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FALLAWAY GAUGE
ELEMENT GEOMETRY
SCALE 4.000



SCALE 1.000

NOTES:

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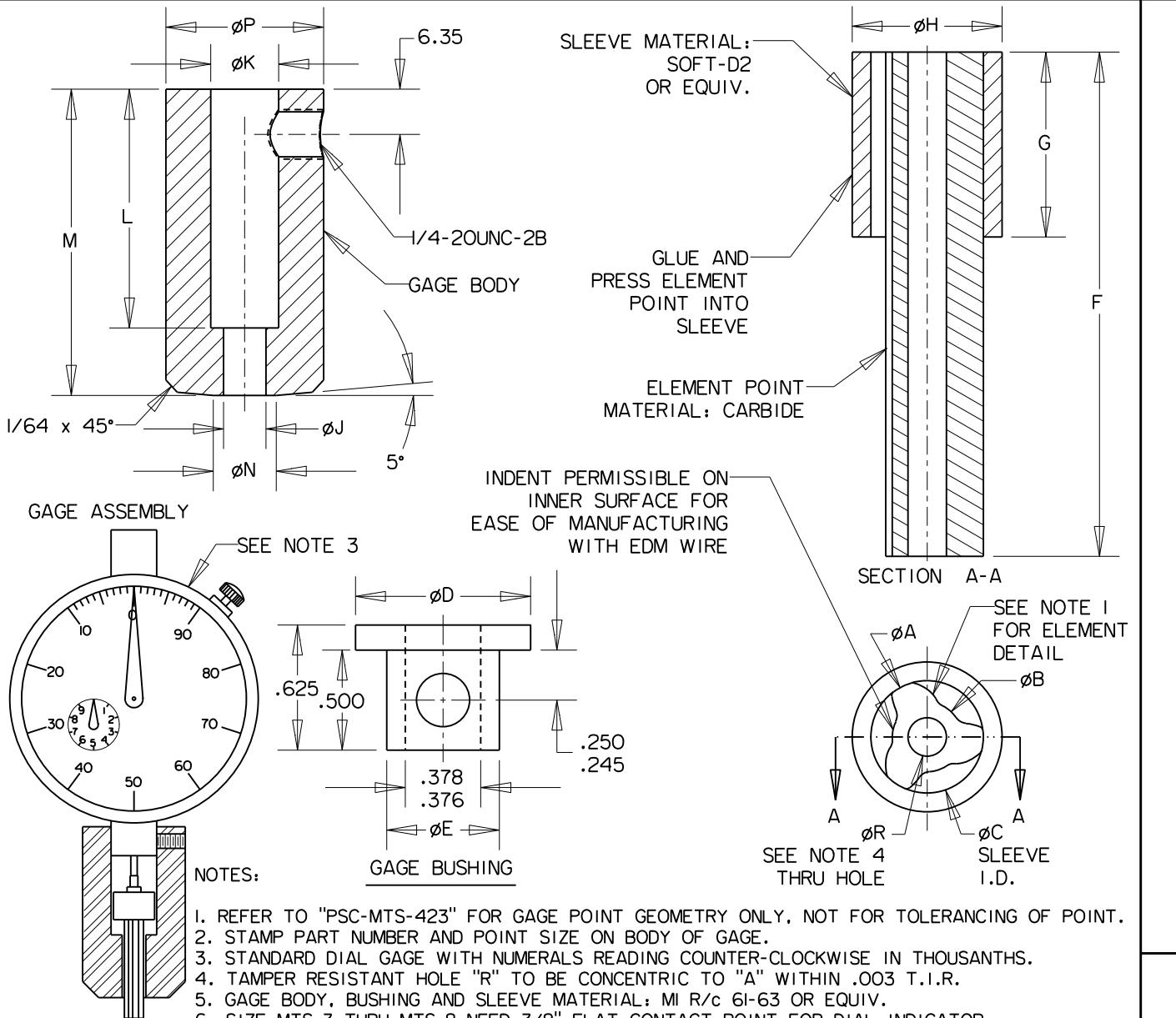
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TITLE:
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FALLAWAY POINT GEOMETRY

DRAWN	DATE	DRAWING NUMBER
G.DILLING	2/5/07	PSC-MTS-421
CHECKED:	DATE	SHEET 1 OF 1
G.DILLING	2/5/07	PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326

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DRIVE SIZE	+.0002 -.0001 A	+.0002 -.0001 B	+.0002 -.0003 ØC	+.005 -.005 ØD	+.001 -.001 ØE	+.005 -.005 F	+.005 -.005 G	+.010 -.010 ØH	+.0002 -.0002 ØJ	+.001 -.001 ØK	+.005 -.005 L	+.016 -.000 ØM	+.010 -.000 ØN	ØP ØR	+.000 -.003 ØR	NOTE 6
MTS-000TRI	.0696	.0456	.0701	---	---	1.020	.390	.250	.0706	.377	1.325	1.700	.175	.875	---	---
MTS-00TRI	.1160	.0751	.1165	---	---	1.020	.390	.250	.1170	.377	1.325	1.700	.200	.875	---	---
MTS-0TRI	.1650	.1041	.1655	---	---	1.020	.390	.250	.1660	.377	1.325	1.700	.275	.875	.062	---
MTS-1TRI	.2340	.1471	.2340	---	---	1.020	.390	.344	.2350	.377	1.325	1.700	.350	.875	.081	---
MTS-2TRI	.3000	.1871	.3000	.875	.562	1.020	.390	.438	.3010	.565	1.325	1.700	.450	.875	.125	---
MTS-3TRI	.3440	.2171	.3440	.875	.562	1.020	.300	.438	.3450	.565	1.325	1.700	.500	.875	.138	
MTS-4TRI	.4170	.2621	.4170	.875	.562	1.020	.300	.500	.4180	.565	1.325	1.700	.600	.875	.173	
MTS-5TRI	.4930	.3121	.4930	1.000	.647	1.020	.300	.625	.4940	.650	1.325	1.700	.700	1.000	.192	SEE NOTE 6
MTS-6TRI	.5780	.3671	.5780	1.000	.672	1.110	.300	.650	.5790	.675	1.235	1.700	.800	1.000	.219	
MTS-7TRI	.7055	.4421	.7055	1.500	.997	1.110	.300	.933	.7065	1.000	1.235	1.700	1.000	1.500	.275	
MTS-8TRI	.7980	.4971	.7980	1.500	.997	1.110	.300	.933	.7990	1.000	1.235	1.700	1.100	1.500	.305	

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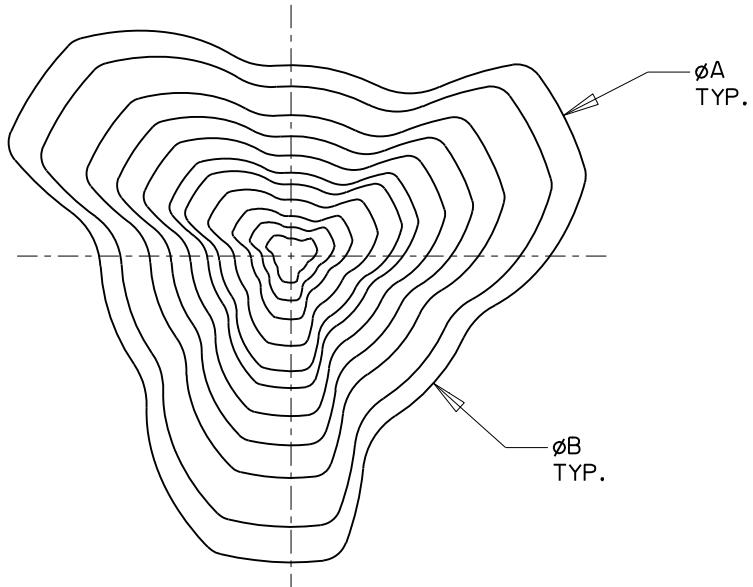
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI - FALLAWAY GAGE ASSY

DRAWN G.DILLING	DATE 5/8/07	DRAWING NUMBER PSC-MTS-422
CHECKED: G.DILLING	DATE 5/8/07	SHEET 1 OF 1

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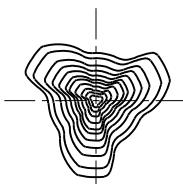
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REVISION REV I: 9-24-07



FALLAWAY GAUGE
ELEMENT GEOMETRY
SCALE 4.000

DRIVE SIZE	ØA	ØB
MTS-00OTRI	.0696	.0456
MTS-0OTRI	.1160	.0751
MTS-OTRI	.1650	.1041
MTS-ITRI	.2340	.1471
MTS-2TRI	.3000	.1871
MTS-3TRI	.3440	.2171
MTS-4TRI	.4170	.2621
MTS-5TRI	.4930	.3121
MTS-6TRI	.5780	.3671
MTS-7TRI	.7055	.4421
MTS-8TRI	.7980	.4971



SCALE 1.000

NOTES:

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TITLE:
MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI - FALLAWAY POINT GEOMETRY

DRAWN G.DILLING	DATE 5/8/07	DRAWING NUMBER PSC-MTS-423
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CHECKED: G.DILLING	DATE 5/8/07	SHEET 1 OF 1
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM**PAGE 1****QUALITY SPECIFICATIONS****12/21/12****INDEX**

PSC-MTS-300	SCOPE AND INSPECTION PLANS	8/30/11
PSC-MTS-301	DRIVER BIT INSPECTION PROCEDURES	8/30/11
PSC-MTS-302	RECESS INSPECTION PROCEDURES	12/21/12
PSC-MTS-303	PUNCH INSPECTION PROCEDURES	8/30/11

REVISION	REV 1: 2-1-11	REV 2: 8-30-11	REV 3: 12-21-12
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
QUALITY SPECIFICATIONS

DRAWN L.DUGAN	DATE 2/24/10	DRAWING NUMBER INDEX
CHECKED: G.DILLING	DATE 3/1/10	SHEET 1 OF 1
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM QUALITY SPECIFICATIONS

1.0 SCOPE:

This quality specification defines inspection plans and procedures for initial inspection requirements, first article inspection, and final conformance inspection of MORTORQ SUPER spiral drive system driver bits, punches and recesses.

Inspection practice in accordance with procedures, sampling plans and specified gages set forth herein will guarantee product uniformity for dimension, appearance and function.

2.0 INSPECTION PLANS:

2.1 Initial Qualification:

Phillips Screw Company shall perform the initial qualification inspection for all new products as required under the license agreement.

A minimum of 50 pieces of each MORTORQ SUPER spiral drive system drive size and head style are to be qualified. Phillips Screw Company shall retain 25 pieces for reference material.

2.2 Periodic Inspection:

Every (4) months a letter is sent requesting a minimum of 5 pieces of each MORTORQ SUPER spiral drive system size and head style, as required by the license agreement.

2.3 First Article Inspection:

A first article inspection is required. Any defects found by visual inspection or gage readings beyond the stated limits, is reason for rejection and corrective action is required.

2.4 Final Quality Conformance Inspection:

Typical industry standards for sampling shall be used for each lot size. These samples will be inspected for visual and dimensional characteristics.

REVISION REV 1: 8-30-11

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
QUALITY SPECIFICATIONS

DRAWN L.DOUGAN DATE 8/30/11 DRAWING NUMBER PSC-MTS-300

CHECKED: G.DILLING DATE 9/6/11 SHEET 1 OF 1

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MORTORQ® SUPER SPIRAL DRIVE SYSTEM QUALITY SPECIFICATIONS

BIT AND DRIVER INSPECTION PROCEDURES AND SPECIFICATIONS:

1.0 SCOPE:

The following document covers the equipment, procedures, test values and inspection criteria for MORTORQ Super spiral drive system screwdrivers, insert bits and power bits.

2.0 APPLICABLE DRAWINGS:

2.1 Insert driver bits:

PSC-MTS-200; PSC-MTS-201; PSC-MTS-205

2.2 Driver point dimensions:

MORTORQ SUPER

PSC-MTS-203

MORTORQ SUPER TRI-TAMPER RESISTANT

PSC-MTS-205

2.3 Driver bit and screw driver manufacturing gages:

MORTORQ SUPER

PSC-MTS-404; PSC-MTS-410

MORTORQ SUPER TRI-TAMPER RESISTANT

PSC-MTS-413

2.4 Torque test blocks:

MORTORQ SUPER

PSC-MTS-412

MORTORQ SUPER TRI-TAMPER RESISTANT

PSC-MTS-417

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM BIT AND DRIVER INSPECTION		
DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-301
CHECKED: G.DILLING	DATE 6/15/07	
SHEET 1 OF 5		
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3.0 : REQUIREMENTS

3.1 Dimensions:

All bit and driver points shall conform to Phillips Screw Company's drawings PSC-MTS-200 and PSC-MTS-203 for all standard MORTORQ SUPER spiral drive designs. The Tamper Resistant MORTORQ SUPER bits shall conform to Phillips Screw Company's drawings PSC-MTS-201, PSC-MTS-203 and PSC-MTS-205.

3.2 Quality:

The workmanship shall be of the highest quality throughout. Bits and screwdrivers shall be free from rust, fins, burrs, sharp or rough edges, corners or surfaces and defects that may impair their serviceability or durability.

3.3 Materials:

Screwdrivers and bits shall be made from the following recommended, equivalent or superior material:

3.3.1 Hand Screwdrivers - These drivers shall be made from AISI S2 steel or equivalent, and heat-treated to a hardness of HRC 58-63.

3.3.2 Insert and Power bits - These bits shall be made from AISI S2 steel or equivalent and heat-treated to a hardness of HRC 58-63.

3.3.3 Steel AISI S2 Type Analysis

Carbon .50 - .55

Manganese .45 - .55

Silicon .90 - 1.10

Molybdenum .45 - .55

Vanadium .15 - .25

3.4 Markings:

3.4.1 MORTORQ SUPER bit marking shall consist of the letters "MTS" and the point size (e.g. MTS-2). Manufacturers may also include company names, trademark, trade names, part numbers etc. if they so desire.

3.4.2 MORTORQ SUPER Tri-Tamper Resistant bit marking shall consist of the letters "MTS" and the point size and "TRI" (e.g. MTS-2TRI). Manufacturers may also include company names, trademark, trade names, part numbers etc. if so desired.

3.4.3 MORTORQ SUPER Tamper Resistant bit marking shall consist of the letters "MTS" and the point size and "TR" (e.g. MTS-2TR). Manufacturers may also include company names, trademark, trade names, part numbers etc. if they so desire.

3.4.4 In the case of hand screwdrivers, the handle and ferrule may be utilized for the above marking.

3.4.5 In the case of insert bits, if insufficient space is available for marking, the package or shipping container shall include the required identification.

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REV 2: 8-30-11

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
BIT AND DRIVER INSPECTION

DRAWN L.DOUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-301 SHEET 2 OF 5
CHECKED: G.DILLING	DATE 6/15/07	

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3.5 Bit Torsional Strength:

3.5.1 **Minimal Torsional Strength:** **Fatigue Torque Limit:**
 Drive size Torque (Lb ins) (Lb ins.) ±10 %

MTS-000	12	7
MTS-00	54	32
MTS-0	151	91
MTS-1	432	259
MTS-2	907	544
MTS-3	1362	817
MTS-4	2477	1486
MTS-5	2871*	1723*
MTS-6	4698*	2819*
MTS-7	10440*	6264*
MTS-8	14000*	8400*

NOTE: The minimum torsional strength values of tamper resistant bits (e.g. MTS-1-TR) may be as much as 15% lower than standard bit values.

* Calculated values not verified by actual test results

3.5.2 Test blocks:

Screwdrivers and bits shall be tested in the test blocks having the same form and size of the recess as the bit being tested. Screwdriver and bit test blocks shall be in accordance with drawing PSC-MTS-412 (MORTORQ SUPER) or PSC-MTS-417 (TRI-DRIVER).

REVISION 1/2-20-08 REV 2-1-11 REV 3-8-30-11

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<small>CHECKED: G.DILLING</small>		<small>DATE 6-15-07</small>	<small>SHEET 3 OF 5</small>	
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3.5.3 Test procedures:

The torsional loads shall be applied either with suitable torque wrenches or by means of a suitable lever system with dead weights. The driver or bit must be inserted fully into the test block and restrained in a hold down device to provide firm engagement with no axial movement.

The torsional load at failure shall be taken as the strength of the driver bit.

The failure load must exceed the minimum torsional strength as shown in paragraph 3.5.1

3.6 Gaging:

3.6.1 GO Ring Gage:

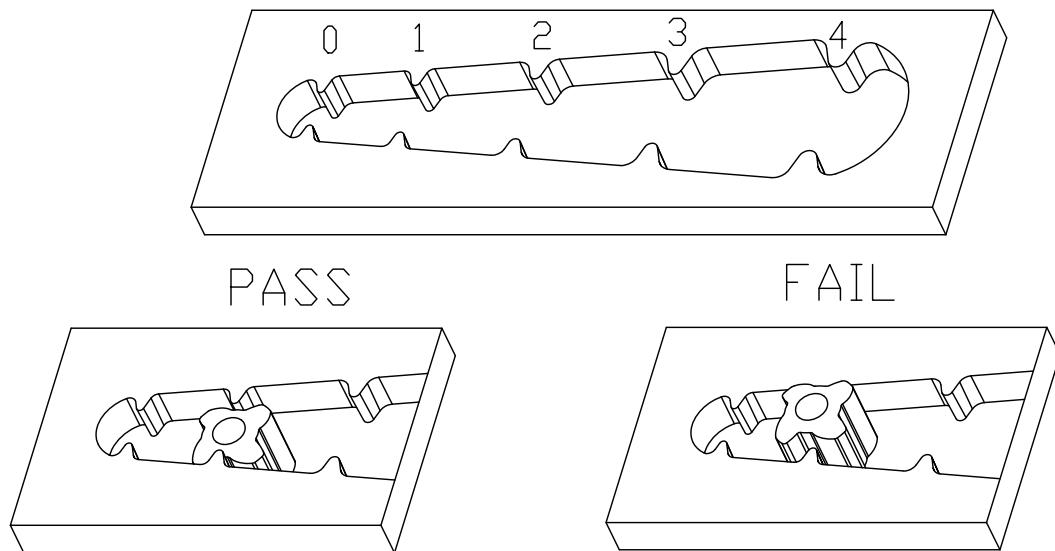
The MORTORQ® SUPER spiral drive system driver bit must go through the appropriate GO gage (PSC-MTS-410 or PSC-MTS-413) and extend into the gage for the minimum "full form" length (H) dimension as shown on the appropriate driver point drawing (PSC - MTS-200, PSC-MTS-201 or PSC-MTS-205).

3.6.2 NO-GO Ring Gage:

The driver bit must not enter the appropriate NO-GO gage (ref. PSC-MTS-410 or PSC-MTS-413).

3.6.3 Root Ring Gage: The root ring gauge (PSC-MTS-404) checks the minimum root tolerance of driver bits MTS-0, MTS-1, MTS-2, MTS-3 and MTS-4. The bit must enter the bottom of the tapered gauge but not extend beyond the top of the gauge (see pass/fail drawings below).

ROOT RING GAUGE



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TITLE:

MORTORQ® SUPER SPIRAL DRIVE SYSTEM
BIT AND DRIVER INSPECTION

DRAWN

L.DUGAN

DATE

5/21/07

DRAWING NUMBER

PSC-MTS-301

CHECKED:

G.DILLING

DATE

6/15/07

SHEET 4 OF 5

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4.0 PHYSICAL PROPERTIES

4.1 Discontinuities:

Driver bits shall be free from discontinuities such as laps, seams or inclusions greater in depth than 2 percent of the thickness at the discontinuity location.

4.2 Cracks:

Driver bits shall be free from cracks in any location or direction. A crack is defined as a clean crystalline break through the grain or grain boundary without inclusion of foreign elements.

5.0 QUALITY ASSURANCE PROVISIONS:

5.1 Responsibility for Inspection:

Unless otherwise specified in the contract or order, the manufacturer is responsible for the performance of all quality conformance inspection requirements as specified herein.

5.2 Change of Product:

After initial approval, any change of product as regards to materials, design, construction, or methods of manufacture shall require review and approval of Phillips Screw Company and may require qualification testing prior to incorporation into production lots.

5.3 Qualification Testing:

Qualification testing shall be performed per section 3.0 of this drawing.

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DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-301	SHEET 5 OF 5
CHECKED: G.DILLING	DATE 6/15/07		
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MORTORQ® SUPER SPIRAL DRIVE SYSTEM QUALITY SPECIFICATIONS

RECESS INSPECTION PROCEDURES AND SPECIFICATIONS:

1.0 SCOPE:

The following document covers the equipment, procedures, test values and inspection criteria for MORTORQ SUPER spiral drive system recesses.

2.0 APPLICABLE DRAWINGS:

2.1 Screw Recess GO, NO-GO gages: MTS-000 thru MTS-8 PSC-MTS-400
PSC-MTS-401

MTS-000TRI thru MTS-8TRI PSC-MTS-405
PSC-MTS-406

2.2 Recess Penetration Gage Assy:

MTS-000 thru MTS-8 PSC-MTS-415

MTS-000TRI thru MTS-8TRI PSC-MTS-416

2.3 Recess Fallaway Gage Assy:

MTS-000 thru MTS-8 PSC-MTS-420

MTS-000TRI thru MTS-8TRI PSC-MTS-422

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM RECESS INSPECTION			
DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-302	
CHECKED G.DILLING	DATE 6/15/07		
SHEET 1 OF 6			
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3.0 REQUIREMENTS:

3.1 Dimensions:

All MORTORQ® SUPER spiral drive system recesses shall conform to the appropriate Phillips Screw Company head standards.

3.2 Quality:

The workmanship shall be of the highest quality throughout. Recesses shall be free from rust, fins, burrs, sharp or rough edges, corners or surfaces and defects that may impair their serviceability or durability.

3.3 Markings:

3.3.1 No special marking is required.

3.4 Gaging:

3.4.1 GO Plug Gage:

Using light finger pressure only, place the appropriate GO gage (PSC-MTS-400 or PSC-MTS-405) into the recess until resistance is felt.

Failure to bottom the gage in the recess shall be cause for rejection.

3.4.2 NO-GO Plug Gage:

Using light finger pressure only, attempt to place the appropriate NO-GO gage (PSC-MTS-400 or PSC-MTS-405) into the recess.

Gage entry beyond the acceptable fallaway limit at the head surface is cause for rejection.

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
RECESS INSPECTION

DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-302
CHECKED: G.DILLING	DATE 6/15/07	
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3.4.3 Penetration Gage:

Using the appropriate size penetration gage (section 2.2), check the zero adjustment against a known flat piece of steel stock.

Insert the penetration element into the MORTORQ SUPER spiral drive system recess and firmly push the top of the recess against the bottom of the gage body.

Measure and record the gage penetration. The reading must be within acceptable limits per the application part standard.

Gage readings outside the stated limits are cause for rejection.

3.4.4 Fallaway gage:

Fallaway is a condition whereby the material of the screw does not completely conform to the shape of the header punch that produced it.

Using the appropriate size fallaway gage (section 2.3), check the zero adjustment against a known flat piece of steel stock.

Insert the fallaway element into the MORTORQ SUPER spiral drive system recess and firmly push the top of the recess against the bottom of the gage body.

Measure and record the gage fallaway.

A gage reading greater than the maximum limit as shown in TABLE 1 (inch series) or Table 2 (metric series) is cause for rejection.

For any non-standard head styles not in the MORTORQ SUPER spiral drive system manual, the maximum fallaway gage reading shall not exceed 25% of the maximum recess penetration depth.

3.4.5 Tamper Resistant Post:

Using a standard depth micrometer, measure from the top of the recess to the top of the post:

Post must not extend beyond the top of the recess.

The measurement to the top of the tamper resistant post must not exceed the fallaway specifications (PSC-MTS-302 Sheets 3 and 4) for that recess.

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REV 1: 2-1-11
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MAXIMUM FALAWAY

TABLE 1

SCREW SIZE	PSC-MTS-105 82° FLAT	PSC-MTS-106 100° FLAT	PSC-MTS-107 FLAT FILLISTER	PSC-MTS-108 PAN	PSC-MTS-109 SOCKET BUTTON	PSC-MTS-110 130° FLAT	PSC-MTS-111 100° FLAT REDUCED	PSC-MTS-112 82° FLAT UNDERCUT
2	.006	.006	.007	.007	.006	—	—	—
3	—	—	.008	.007	.007	—	—	—
4	.007	.006	.009	.009	.007	—	—	—
6	.010	.009	.011	.010	.008	—	—	.008
8	.011	.009	.011	.013	.009	.007	.008	.008
10	.013	.011	.013	.014	.011	.007	.008	.009
12	.013	—	.016	.015	—	—	—	.010
1/4	.016	.013	.019	.018	.014	.008	.008	.013
5/16	.020	.016	.022	.020	.019	.013	.012	.015
3/8	.024	.020	.024	.025	.021	.013	.013	.019
7/16	.024	.023	.026	.026	—	.015	.017	.020
1/2	.024	.026	.030	.035	.026	—	.018	.023
9/16	.026	.028	—	—	—	—	.023	.023
5/8	.031	.034	—	—	.033	—	.023	.024
3/4	.039	.040	—	—	—	—	.028	.030
7/8	—	.045	—	—	—	—	.033	—
1"	—	.049	—	—	—	—	.041	—

MAXIMUM FALAWAY

TABLE 1 (CONTINUED)

SCREW SIZE	PSC-MTS-113 100° UND. FLAT	PSC-MTS-116 TRUSS HEAD
2	—	.005
3	—	—
4	—	.007
6	—	.008
8	—	.010
10	.008	.012
12	—	.015
1/4	.011	.016
5/16	.013	.020
3/8	.019	.023
7/16	.021	.024
1/2	.024	.026
9/16	—	.033
5/8	—	.035
3/4	—	.040
7/8	—	—
1"	—	—

MAXIMUM FALAWAY

TABLE 2

SCREW SIZE	PSC-MTS-114 PAN METRIC	PSC-MTS-115 92° FLAT METRIC	PSC-MTS-117 TRUSS HEAD METRIC
M2	0.14	—	—
M2.5	0.16	—	—
M3	0.18	0.20	—
M3.5	0.26	—	0.22
M4	0.29	0.29	0.29
M5	0.32	0.29	0.35
M6	0.41	0.45	0.43
M8	0.51	0.57	0.51
M10	0.66	0.67	0.66
M12	0.80	0.80	0.88
M14		0.80	—
M16	—	1.01	—
M20	—	1.08	—

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
RECESS INSPECTION

DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-302
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CHECKED: G.DILLING	DATE 6/15/07	SHEET 4 OF 6
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4.0 PHYSICAL PROPERTIES:

4.1 Head Discontinuities:

See FIGURE #1 for examples of head discontinuities that shall be considered "ACCEPTABLE". Screws will be rejected if they exhibit imperfections as shown as "NOT ACCEPTABLE".

5.0 RECESS TO SHANK ECCENTRICITY:

5.1 The recesses in screw heads shall not be eccentric with the screw bodies by more than 6% of the nominal (basic) body diameter or .015", whichever is smaller.

5.2 Generally, this inspection will be most readily accomplished by a simple visual examination.

6.0 QUALITY ASSURANCE PROVISIONS:

6.1 Responsibility for Inspection:

Unless otherwise specified in the contract or order, the manufacturer is responsible for the performance of all quality conformance inspection requirements as specified herein.

6.2 Qualification Testing:

Qualification testing shall be performed per sections 3.0, 4.0 and 5.0 of this drawing.

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DRAWN	DATE	DRAWING NUMBER								
L.DOUGAN	5/21/07	PSC-MTS-302								

FIGURE #1
NOT ACCEPTABLE



(1)

(2)

(3)

LARGE IMPERFECTIONS
EXTENDING OVER $\frac{1}{2}$ WAY
TO RECESS

OPEN ANGULAR
IMPERFECTIONS
ON EDGE OF HEAD

SLIVERS OR LOOSE
FLAKES ON TOP
OF HEAD

ACCEPTABLE



(4)



(5)



(6)



(7)

MULTIPLE IMPERFECTIONS
NOT EXTENDING $\frac{1}{2}$ WAY
TO RECESS AND NOT
AFFECTING USABILITY

SLIGHT HAIR
LINES

SLIGHT RECESS
FLOW LINES
LINES

SLIGHT TOOL MARKS
SLIGHT PIN MARKS

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
MINIATURE RECESS SPECIFICATIONS

DRAWN:	L. DOUGAN	DATE:	8/26/2011
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DRAWING:
PSC-MTS-307

CHECKED:	G. DILLING	DATE:	8/29/2011
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SHEET 6 OF 6

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MORTORQ® SUPER SPIRAL DRIVE SYSTEM QUALITY SPECIFICATIONS

PUNCH INSPECTION PROCEDURES AND SPECIFICATIONS:

1.0 SCOPE:

The following document covers the equipment, procedures, test values and inspection criteria for MORTORQ SUPER spiral drive system punches.

2.0 APPLICABLE DRAWINGS:

2.1 Punch Recess GO, NO-GO gages:

MORTORQ SUPER MTS-000 thru MTS-8	PSC-MTS-402
	PSC-MTS-407

2.2 Punch Point Dimensions:

MORTORQ SUPER MTS-000 thru MTS-8	PSC-MTS-500
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MORTORQ SUPER MTS-000TR thru MTS-8TR (TAMPER RESISTANT)	PSC-MTS-502
---	-------------

MORTORQ SUPER MTS-000TRI thru MTS-8TRI (TRI-TAMPER RESISTANT)	PSC-MTS-503
---	-------------

2.3 Recess Penetration Gage Assy:

MORTORQ SUPER MTS-000 thru MTS-8	PSC-MTS-415
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MORTORQ SUPER MTS-000TRI thru MTS-8TRI (TRI-TAMPER RESISTANT)	PSC-MTS-416
---	-------------

REVISION REV 1: 2-1-11 REV 2: 8-30-11

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CHECKED: G.DILLING		DATE 6/15/07	SHEET 1 OF 3	
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326				
PHILLIPS®, PHILLIPS®, POZIDRIV®, ACR®, POZISQUARE®, PHILLIPS SQUARE-DRIV®, TORQ-SET®, TRI-WING®, MORTORQ®, HEXSTIX®, POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY				

3.0 REQUIREMENTS:

3.1 Dimensions:

All MORTORQ® SUPER spiral drive system punches shall conform to the appropriate Phillips Screw Company's punch standards and punch point dimensions as shown in section 2.2.

3.2 Quality:

The workmanship shall be of the highest quality throughout. Punches shall be free from rust, fins, burrs, sharp or rough edges, corners or surfaces and defects that may impair their serviceability or durability.

3.3 Markings:

3.3.1 MORTORQ SUPER punch marking shall consist of the letters "MTS", the drive size and the punch number (e.g. MTS-2-4) and the manufacturer's symbol. Manufacturers may also include company names, trademark, trade names, part numbers etc., if they so desired.

3.3.2 MORTORQ SUPER Tamper Resistant punch marking shall consist of the letters "MTS", the drive size and the punch number (e.g. MTS-2-4TR) and the manufacturer's symbol. Manufacturers may also include company names, trademark, trade names, part numbers etc., if they so desired.

3.3.3 MORTORQ SUPER Tri-Tamper Resistant punch marking shall consist of the letters "MTS", the drive size, the punch number and "TRI" (e.g. MTS-2-4TRI) and the manufacturer's symbol. Manufacturers may also include company names, trademark, trade names if so desired.

3.3.4 MORTORQ SUPER punch, with ramp feature, marking shall consist of the letters "MTS", the drive size, the punch number and "R" (e.g. MTS-2-4R) and the manufacturer's symbol. Manufacturers may also include company names, trademark, trade names if so desired.

3.3.5 MORTORQ SUPER punch, with stick fit feature, marking shall consist of the letters "MTS", the drive size, the punch number and "SF" (e.g. MTS-2-4SF) and the manufacturer's symbol. Manufacturers may also include company names, trademark, trade names if so desired.

3.4 Gaging:

3.4.1 Punches may be inspected using casts, plug and penetration gages. Casts must be made of a good grade casting material. (Buehler® Ultra-mount™ or equivalent)

3.4.2 GO Plug Gage:

Using light finger pressure only, place the appropriate GO gage (PSC-MTS-402 or PSC-MTS-407) into the recess until resistance is felt.

Failure to bottom the gage in the recess shall be cause for rejection.

3.4.3 NO-GO Plug Gage:

Using light finger pressure only, attempt to place the appropriate NO-GO gage (PSC-MTS-402 or PSC-MTS-407) into the recess. Gage entry beyond the recess radius at the face of the punch is cause for rejection.

3.4.4 Special Gages:

Special GO/NO-GO Plug Gages will be required for any non-standard punch recesses.

REVISION REV 1: 2-1-11 REV 1: 8-30-11

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DRAWN	L.DUGAN	DATE	5/21/07	DRAWING NUMBER
CHECKED:	G.DILLING	DATE	6/15/07	PSC-MTS-303 SHEET 2 OF 3
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326				
PHILLIPS II PHILLIPS POZIDRIV ACR POZISQUARE PHILLIPS SQUARE-DRIV TORQ-SET TRI-WING MORTORQ® HEXSTIX® POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY				

3.4.5 Penetration Gage:

Using the appropriate size penetration gage (PSC-MTS-415 or PSC-MTS-416), check the zero adjustment against a known flat piece of steel stock.

Insert the penetration element into the MORTORQ SUPER spiral drive system recess formed in the cast and firmly push the top of the recess against the bottom of the gage body.

Measure and record the gage penetration. The reading must be within acceptable limits per the application part standard.

Gage readings outside the stated limits are cause for rejection.

4.0 QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

Unless otherwise specified in the contract or order, the manufacturer is responsible for the performance of all quality conformance inspection requirements as specified herein.

4.2 Change of Product:

After initial approval, any change of product as regards to materials, design, construction, or methods of manufacture shall require review and approval of Phillips Screw Company and may require qualification testing prior to incorporation into production lots.

4.3 Qualification Testing:

Qualification testing shall be performed per section 3.0 of this drawing.

REVISION REV I: 8-30-11

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH INSPECTION

DRAWN L.DUGAN	DATE 5/21/07	DRAWING NUMBER PSC-MTS-303
CHECKED: G.DILLING	DATE 6/15/07	
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. 1880 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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MORTORQ® SUPER ENGINEERING MANUAL

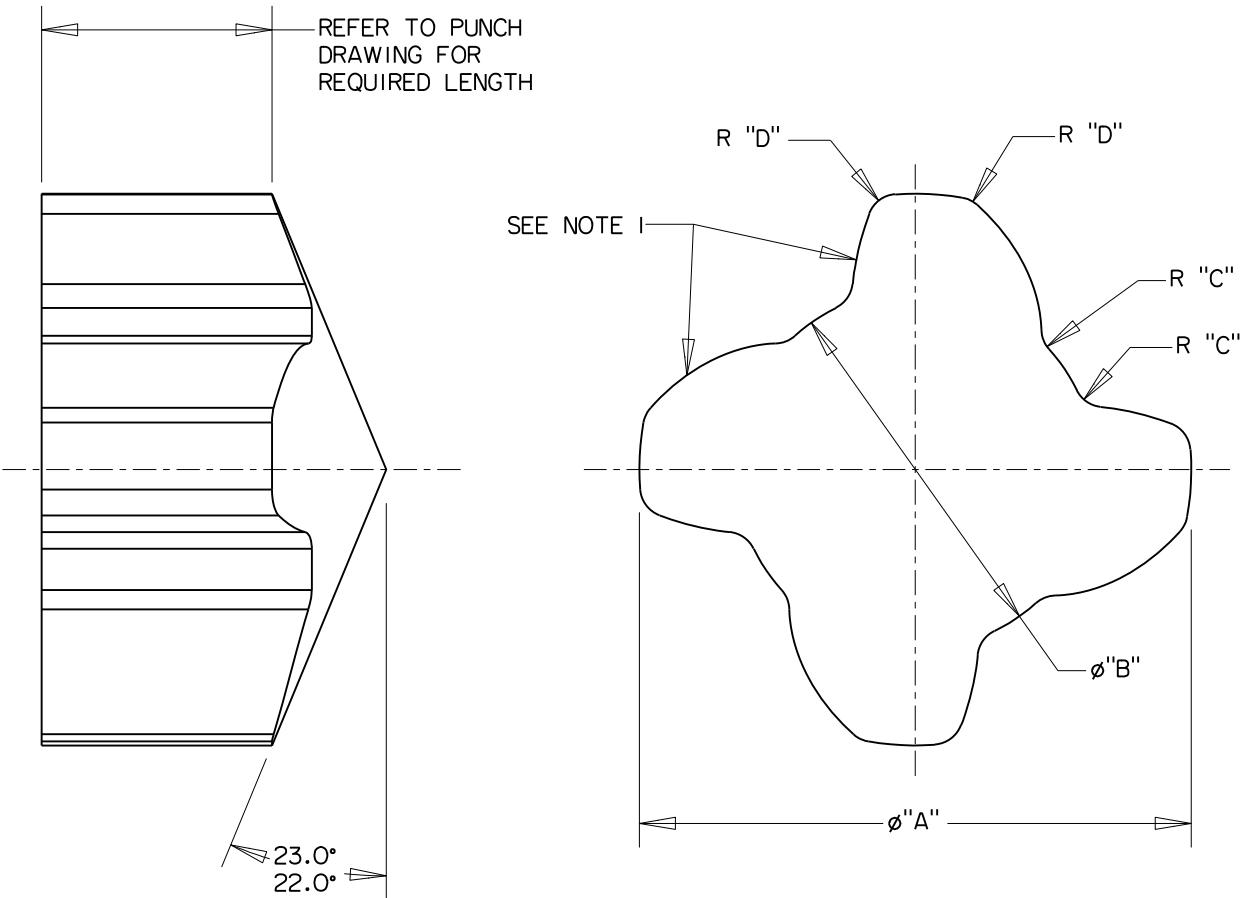
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MORTORQ® SUPER ENGINEERING MANUAL
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PUNCH STANDARDS

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NOTES:

- I. REFER TO PSC-MTS-50I FOR ARC GEOMETRY FOR ALL SIZES. IT CAN BE EXPORTED FOR USE IN OTHER CAD/CAM APPLICATIONS FOR THE PURPOSE OF MANUFACTURING THIS PART.

DRIVE SIZE	+ .002 -.000	+ .002 -.000	"C" RAD	"D" RAD
	"A" REC O.D.	"B" REC ROOT		
MTS-000	.0720	.0470	.0039	.0039
MTS-00	.1200	.0783	.0065	.0065
MTS-0	.1694	.1105	.0092	.0092
MTS-1	.2395	.1562	.0130	.0130
MTS-2	.3070	.2002	.0167	.0167
MTS-3	.3527	.2300	.0192	.0192
MTS-4	.4275	.2788	.0232	.0232
MTS-5	.5053	.3295	.0275	.0275
MTS-6	.5928	.3866	.0322	.0322
MTS-7	.7250	.4613	.0439	.0439
MTS-8	.8200	.5218	.0497	.0497

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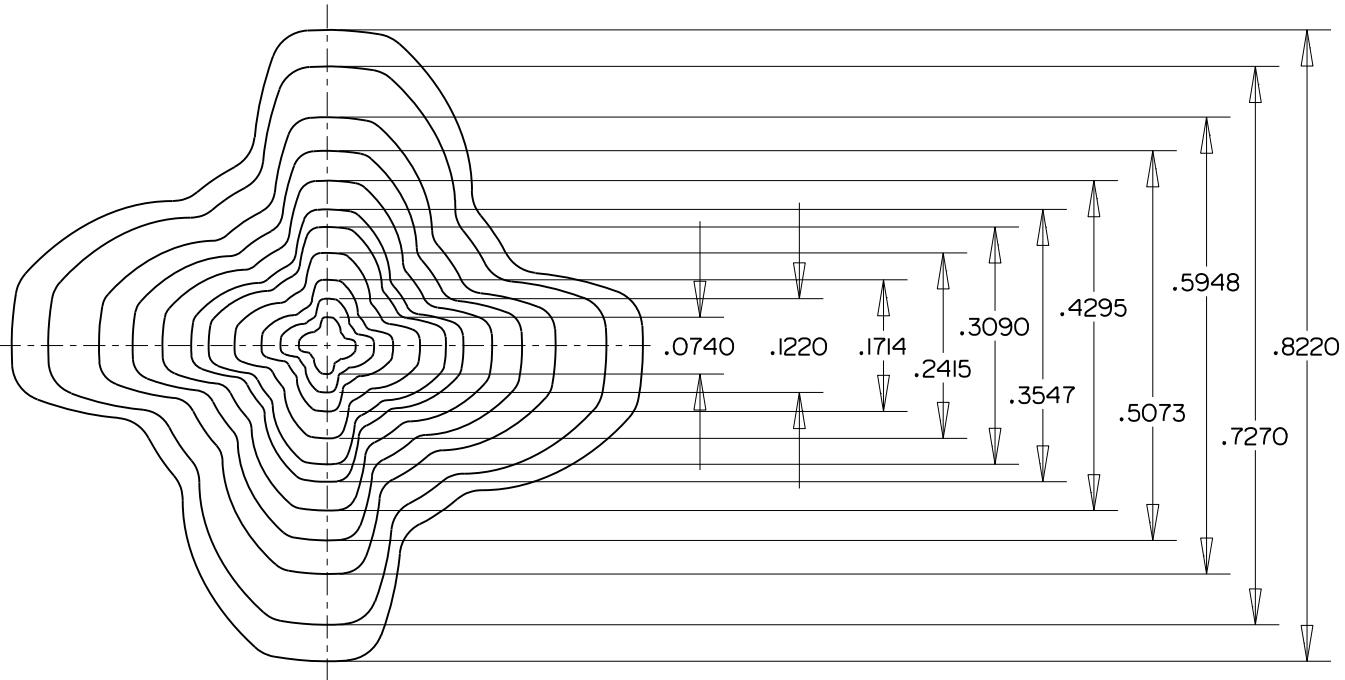
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH POINT DIMENSIONS

DRAWN G.DILLING	DATE 1/02/07	DRAWING NUMBER PSC-MTS-500
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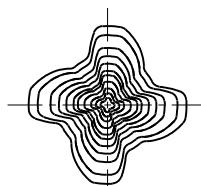
CHECKED: G.DILLING	DATE 1/02/07	SHEET 1 OF 1
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PUNCH POINT GEOMETRY
SCALE 4.000



SCALE 1.000

NOTE:

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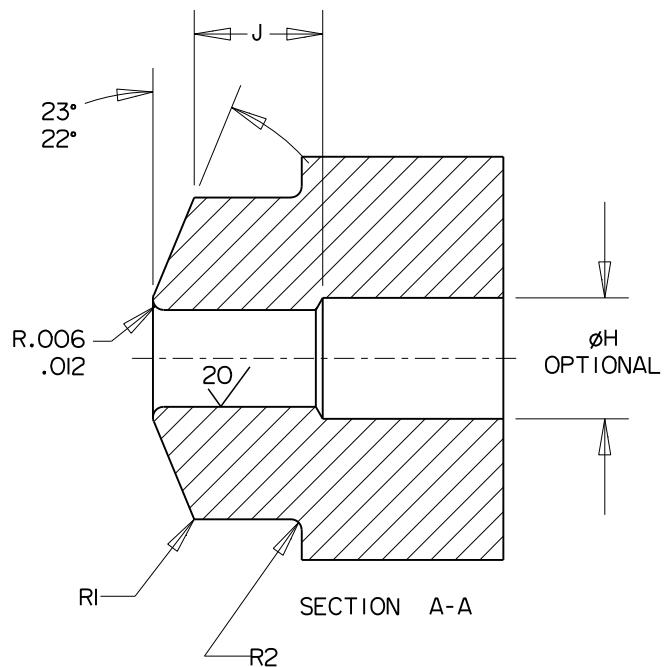
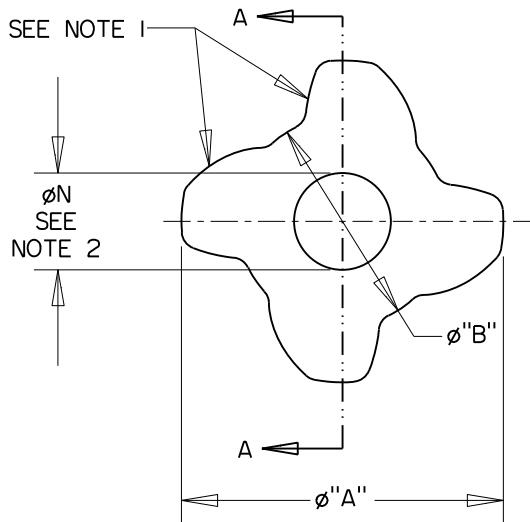
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PUNCH POINT GEOMETRY

DRAWN	DATE	DRAWING NUMBER
G.DILLING	1/9/07	PSC-MTS-501
CHECKED: G.DILLING	DATE 1/9/07	SHEET 1 OF 1
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DRIVE SIZE	+.002 -.000	+.002 -.000	+.000 -.002	+.015 -.000	±.002	RI	R2 MAX.
"A" REC O.D.	"B" REC ROOT	ØN	J	ØH			
MTS-000TR	.0720	.0470	---	---	---	.001-.003	.004
MTS-00-TR	.1200	.0783	---	---	---	.001-.003	.005
MTS-OTR	.1694	.1105	.053	.060	.070	.001-.003	.005
MTS-ITR	.2395	.1562	.072	.090	.080	.001-.003	.005
MTS-2TR	.3070	.2002	.116	.110	.136	.002-.005	.008
MTS-3TR	.3527	.2300	.123	.160	.140	.002-.005	.008
MTS-4TR	.4275	.2788	.158	.180	.170	.002-.005	.012
MTS-5TR	.5053	.3295	.177	.195	.190	.002-.005	.018
MTS-6TR	.5928	.3866	.204	.215	.221	.004-.006	.020
MTS-7TR	.7250	.4613	.259	.250	.283	.004-.006	.025
MTS-8TR	.8200	.5218	.290	.320	.298	.004-.006	.025

NOTES:

1. REFER TO PSC-MTS-50I FOR ARC GEOMETRY FOR ALL SIZES. IT CAN BE EXPORTED FOR USE IN OTHER CAD/CAM APPLICATIONS FOR THE PURPOSE OF MANUFACTURING THIS PART.

2. HOLE DIAMETER "N" TO BE CONCENTRIC TO "A" DIAMETER WITHIN .003 T.I.R.

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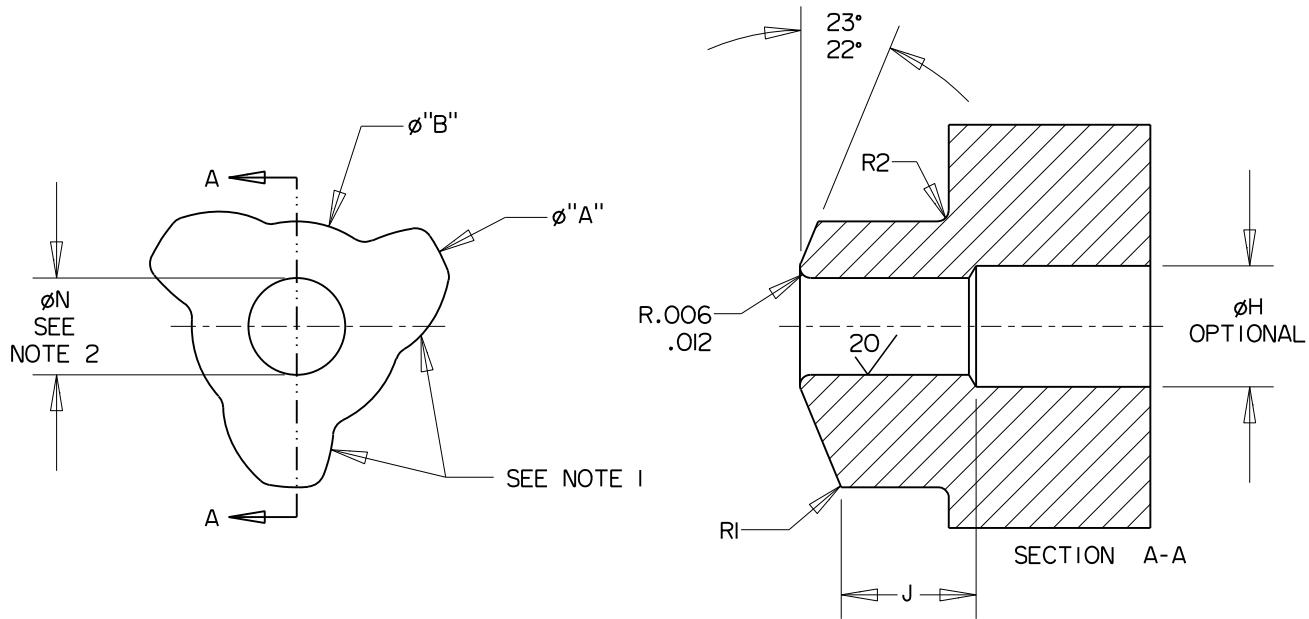
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TAMPER RESISTANT PUNCH POINT DIMENSIONS

DRAWN G.DILLING	DATE 1/19/07	DRAWING NUMBER PSC-MTS-502
CHECKED: G.DILLING	DATE 1/19/07	SHEET 1 OF 1

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DRIVE SIZE	$+.002$ $-.000$ "A" REC O.D.	$+.002$ $-.000$ "B" REC ROOT	$+.000$ $-.002$ ϕN	$+.015$ $-.000$ J	$\pm .002$ ϕH	RI	R2 MAX.
MTS-000TRI	.0720	.0470	---	---	---	.001-.003	.004
MTS-00TRI	.1200	.0783	---	---	---	.001-.003	.005
MTS-OTRI	.1694	.1105	.053	.060	.070	.001-.003	.005
MTS-ITRI	.2395	.1562	.072	.090	.080	.001-.003	.005
MTS-2TRI	.3070	.2002	.116	.110	.136	.002-.005	.008
MTS-3TRI	.3527	.2300	.123	.160	.140	.002-.005	.008
MTS-4TRI	.4275	.2788	.158	.180	.170	.002-.005	.012
MTS-5TRI	.5053	.3295	.177	.195	.190	.002-.005	.018
MTS-6TRI	.5928	.3866	.204	.215	.221	.004-.006	.020
MTS-7TRI	.7250	.4613	.259	.250	.283	.004-.006	.025
MTS-8TRI	.8200	.5218	.290	.320	.298	.004-.006	.025

NOTES:

- REFER TO PSC-MTS-504 FOR ARC GEOMETRY FOR ALL SIZES. IT CAN BE EXPORTED FOR USE IN OTHER CAD/CAM APPLICATIONS FOR THE PURPOSE OF MANUFACTURING THIS PART.

- HOLE DIAMETER "N" TO BE CONCENTRIC TO "A" DIAMETER WITHIN .003 T.I.R.

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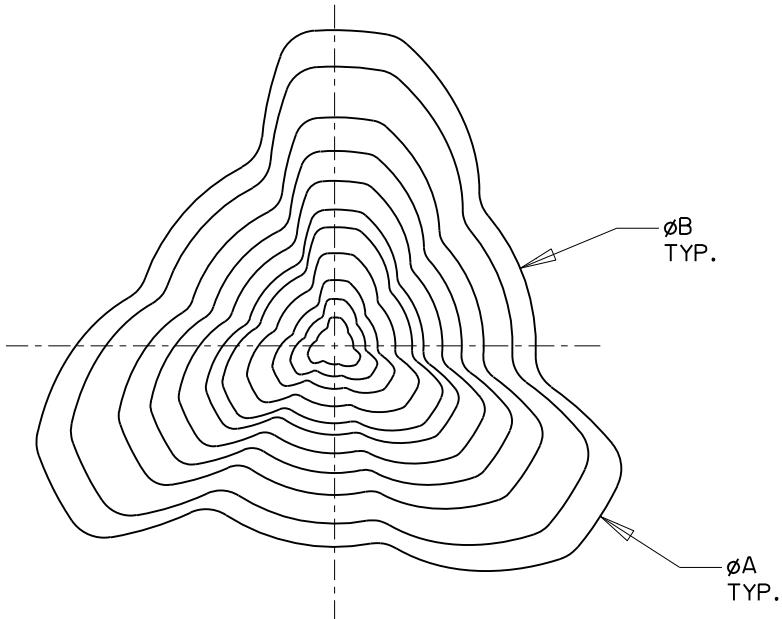
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-TAMPER RESISTANT PUNCH POINT DIMENSIONS

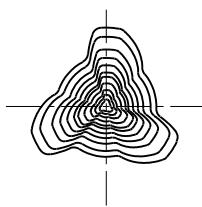
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PUNCH POINT GEOMETRY
SCALE 4.000



SCALE 1.000

DRIVE SIZE	ØA	ØB
MTS-000TRI	.0740	.0490
MTS-00TRI	.1220	.0803
MTS-OTRI	.1714	.1125
MTS-ITRI	.2415	.1582
MTS-2TRI	.3090	.2022
MTS-3TRI	.3547	.2320
MTS-4TRI	.4295	.2808
MTS-5TRI	.5073	.3315
MTS-6TRI	.5948	.3886
MTS-7TRI	.7270	.4633
MTS-8TRI	.8220	.5238

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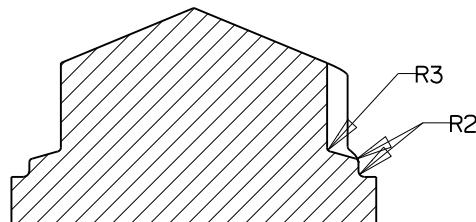
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-TAMPER RESISTANT PUNCH POINT GEOMETRY

DRAWN G.DILLING	DATE 4/30/07	DRAWING NUMBER PSC-MTS-504
CHECKED: G.DILLING	DATE 4/30/07	SHEET 1 OF 1

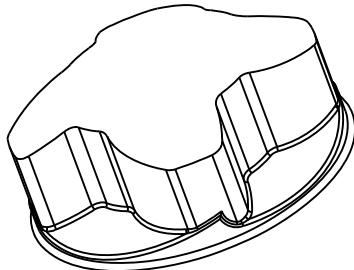
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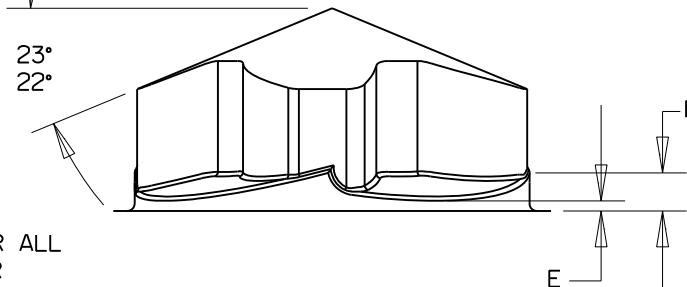
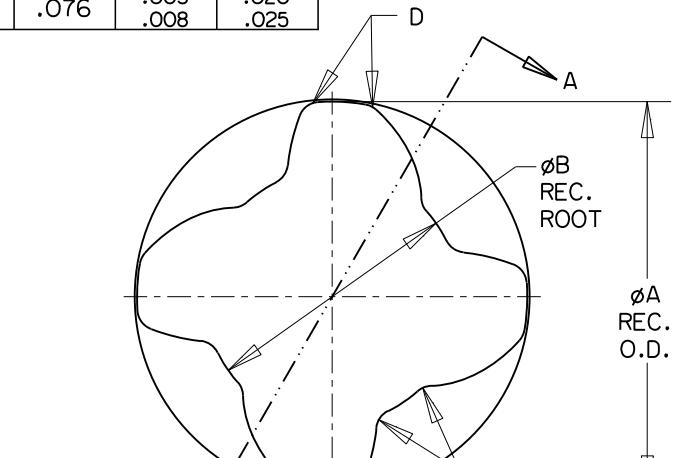
DRIVE SIZE	^{+.002} ^{- .000}	^{+.002} ^{- .000}	"C" REC O.D.	"D" RAD	"E"	"F" REF	R2	R3
MTS-00R	.0720	.0470	.0039	.0039	---	---	---	---
MTS-0R	.1200	.0783	.0065	.0065	---	---	---	---
MTS-OR	.1694	.1105	.0092	.0092	.005 .003	.016	.001 .003	.001 .003
MTS-IR	.2395	.1562	.0130	.0130	.007 .004	.022	.003 .005	.003 .005
MTS-2R	.3070	.2002	.0167	.0167	.008 .005	.028	.003 .005	.003 .005
MTS-3R	.3527	.2300	.0192	.0192	.008 .005	.032	.003 .005	.005 .008
MTS-4R	.4275	.2788	.0232	.0232	.010 .007	.039	.003 .005	.008 .012
MTS-5R	.5053	.3295	.0275	.0275	.012 .008	.046	.004 .006	.014 .018
MTS-6R	.5928	.3866	.0322	.0322	.013 .009	.054	.004 .006	.015 .020
MTS-7R	.7250	.4613	.0439	.0439	.017 .013	.066	.005 .008	.020 .025
MTS-8R	.8200	.5218	.0497	.0497	.019 .015	.076	.005 .008	.020 .025



SECTION A-A
SCALE 10.000



SCALE 10.000



NOTES:

1. REFER TO PSC-MTS-50I FOR ARC GEOMETRY FOR ALL SIZES. IT CAN BE EXPORTED FOR USE IN OTHER CAD/CAM APPLICATIONS FOR THE PURPOSE OF MANUFACTURING THIS PART.
2. RAMP GEOMETRY MADE FROM MASTER TOOLING PRINT "PSC-MTS-600".

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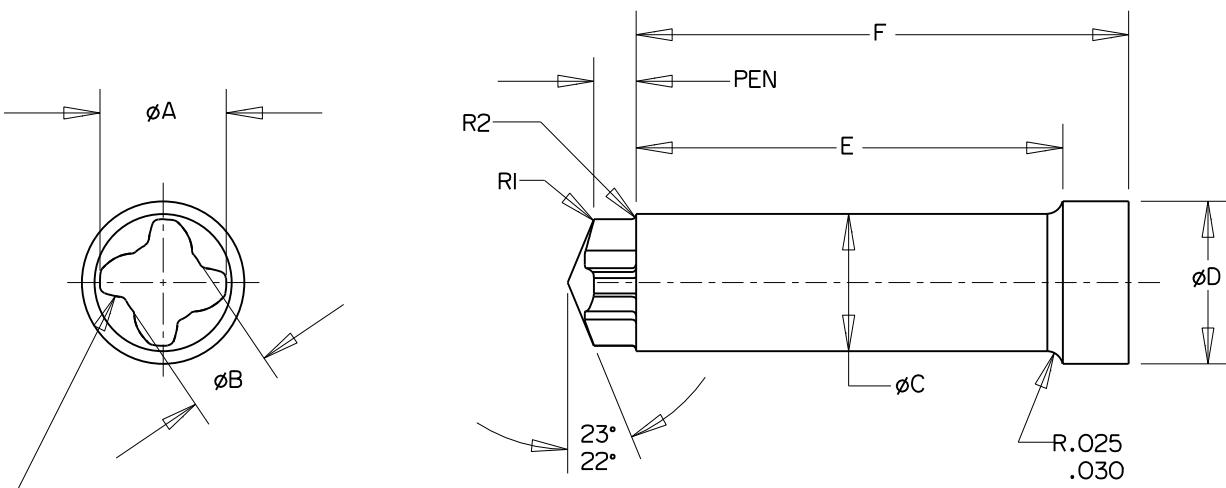
TITLE:
MORTORQ® SUPER RAMP SPIRAL DRIVE SYSTEM
PUNCH POINT DIMENSIONS

DRAWN G.DILLING	DATE 4/20/07	DRAWING NUMBER PSC-MTS-505
CHECKED: G.DILLING	DATE 4/20/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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REVISION



MORTORQ SUPER
PUNCH POINT
PER PSC-MTS-500

EXAMPLE: PUNCH PIN NO. MTS-I-080-M42

DRIVE SIZE MATERIAL
PEN = .080

DRIVE SIZE	+.0020	+.0020	+.0005	+.001	+.020	+.002	RI	R2 MAX.	+.000 -.005 PEN	MAT'L	PUNCH PIN NO.
	-.0000	-.0000	-.0000	-.003	-.000	-.000					SEE PIN NO. EXAMPLE
MTS-000	.0720	.0470	.0740	.087 .085	.323 .313	.377 .375	.001 .003	.004			MTS-000-PEN - MAT'L
MTS-00	.1200	.0783	.1360	.149	.441	.629	.001 .003	.005			MTS-00-PEN - MAT'L
MTS-0	.1694	.1105	.1825	.204	.444	.632	.001 .003	.005			MTS-0-PEN - MAT'L
MTS-1	.2395	.1562	.2710	.300	.572	.760	.001 .003	.005			MTS-1-PEN - MAT'L
MTS-2	.3070	.2002	.3300	.374	.822	1.010	.002 .005	.008			MTS-2-PEN - MAT'L
MTS-3	.3527	.2300	.3740	.417	.822	1.010	.002 .005	.008			MTS-3-PEN - MAT'L
MTS-4	.4275	.2788	.4690	.515	.822	1.010	.002 .005	.012			MTS-4-PEN - MAT'L
MTS-5	.5053	.3295	.5620	.592	.822	1.010	.002 .005	.018			MTS-5-PEN - MAT'L
MTS-6	.5928	.3866	.6520	.682	1.322	1.510	.004 .006	.020			MTS-6-PEN - MAT'L
MTS-7	.7250	.4613	.8295	.870	1.322	1.510	.004 .006	.025			MTS-7-PEN - MAT'L
MTS-8	.8200	.5218	.9165	.948	1.322	1.510	.004 .006	.025			MTS-8-PEN - MAT'L

NOTES:

1. REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
 2. DIMENSIONS ARE IN INCHES.
 3. "A" TO BE CONCENTRIC TO "C" WITHIN .002 T.I.R.
 4. MORTORQ PIN MATERIAL: MI. Rc 61-63. OR M42, Rc 63-65. DEPENDING ON CUSTOMER ORDER.

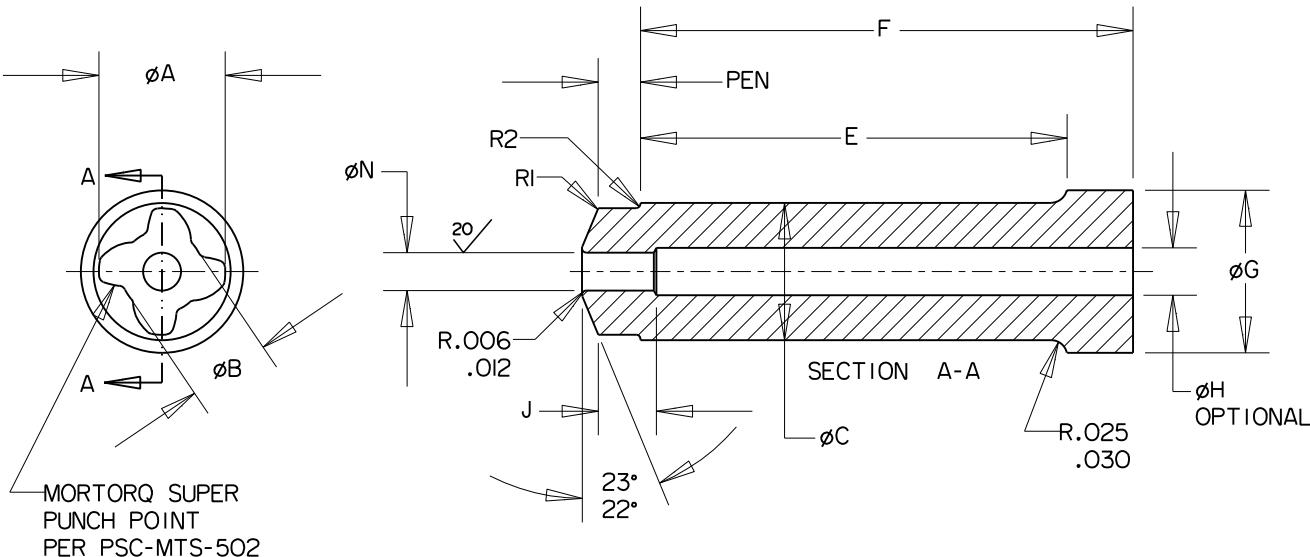
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**TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PIN TOOLING STANDARDS**

DRAWN G.DILLING	DATE 1/31/07	DRAWING NUMBER PSC-MTS-510 SHEET 1 OF 1
CHECKED: G.DILLING	DATE 1/31/07	

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PHONE: 774-396-6190 FAX: 508-966-2326

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AND POZILOCK[®] ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



EXAMPLE: PUNCH PIN NO. MTS-IT-080-M42

DRIVE SIZE

MATERIAL
PEN = .080

DRIVE SIZE	+.0020 -.0000	+.0020 -.0000	+.0005 -.0000	+.001 -.003	+.020 -.000	+.002 -.000	RI	R2 MAX	+.000 -.005	±.002	+.000 -.002	+.015 -.000
	φA	φB	φC	G	E	F	RI	R2 MAX	PEN	H	N	J
MTS-000TR	.0720	.0470	.0740	.087 .085	.323 .313	.377 .375	.001 .003	.004	PER CUSTOMER ORDER	---	---	---
MTS-00TR	.1200	.0783	.1360	.149	.441	.629	.001 .003	.005		---	---	---
MTS-0TR	.1694	.1105	.1825	.204	.444	.632	.001 .003	.005		.070	.053	.060
MTS-ITR	.2395	.1562	.2710	.300	.572	.760	.001 .003	.005		.080	.072	.090
MTS-2TR	.3070	.2002	.3300	.374	.822	1.010	.002 .005	.008		.136	.116	.110
MTS-3TR	.3527	.2300	.3740	.417	.822	1.010	.002 .005	.008		.140	.123	.160
MTS-4TR	.4275	.2788	.4690	.515	.822	1.010	.002 .005	.012		.170	.158	.180
MTS-5TR	.5053	.3295	.5620	.592	.822	1.010	.002 .005	.018		.190	.177	.195
MTS-6TR	.5928	.3866	.6520	.682	1.322	1.510	.004 .006	.020		.221	.204	.215
MTS-7TR	.7250	.4613	.8295	.870	1.322	1.510	.004 .006	.025		.283	.259	.250
MTS-8TR	.8200	.5218	.9165	.948	1.322	1.510	.004 .006	.025		.298	.290	.320

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-502 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- DIMENSIONS ARE IN INCHES.
- "A" TO BE CONCENTRIC TO "C" WITHIN .002 T.I.R.
- MORTORQ PIN MATERIAL: MI, Rc 61-63, OR M42, Rc 63-65, DEPENDING ON CUSTOMER ORDER.

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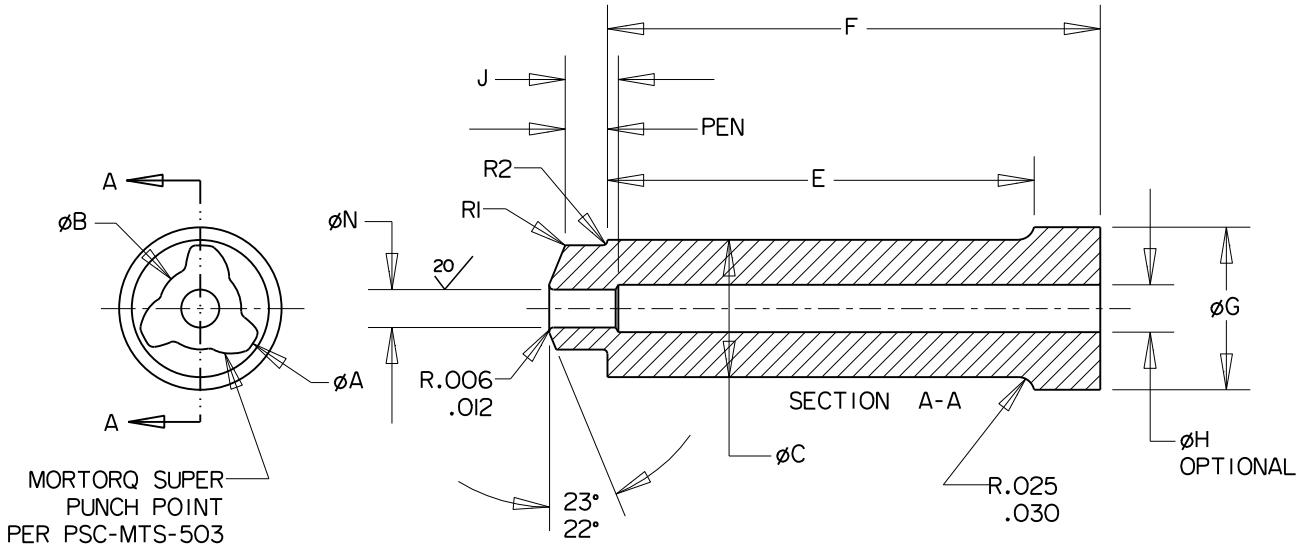
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TAMPER RESISTANT PIN TOOLING STANDARDS

DRAWN G.DILLING	DATE 4/25/07	DRAWING NUMBER PSC-MTS-5II
CHECKED: G.DILLING	DATE 4/25/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
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EXAMPLE: PUNCH PIN NO. MTS-ITR-080-M42

DRIVE SIZE ━━━━━━ MATERIAL
PEN = .080

DRIVE SIZE	ϕA	ϕB	ϕC	G	E	F	R1	R2 MAX	ϕC	PEN	H	N	J
MTS-000TRI	.0720	.0470	.0740	.087 .085	.323 .313	.377 .375	.001 .003	.004	PER CUSTOMER ORDER	---	---	---	
MTS-00TRI	.1200	.0783	.1360	.149	.441	.629	.001 .003	.005		---	---	---	
MTS-0TRI	.1694	.1105	.1825	.204	.444	.632	.001 .003	.005		.070	.053	.060	
MTS-ITRI	.2395	.1562	.2710	.300	.572	.760	.001 .003	.005		.080	.072	.090	
MTS-2TRI	.3070	.2002	.3300	.374	.822	1.010	.002 .005	.008		.136	.116	.110	
MTS-3TRI	.3527	.2300	.3740	.417	.822	1.010	.002 .005	.008		.140	.123	.160	
MTS-4TRI	.4275	.2788	.4690	.515	.822	1.010	.002 .005	.012		.170	.158	.180	
MTS-5TRI	.5053	.3295	.5620	.592	.822	1.010	.002 .005	.018		.190	.177	.195	
MTS-6TRI	.5928	.3866	.6520	.682	1.322	1.510	.004 .006	.020		.221	.204	.215	
MTS-7TRI	.7250	.4613	.8295	.870	1.322	1.510	.004 .006	.025		.283	.259	.250	
MTS-8TRI	.8200	.5218	.9165	.948	1.322	1.510	.004 .006	.025		.298	.290	.320	

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-503 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- DIMENSIONS ARE IN INCHES.
- "A" TO BE CONCENTRIC TO "C" WITHIN .002 T.I.R.
- MORTORQ PIN MATERIAL: MI, Rc 61-63, OR M42, Rc 63-65, DEPENDING ON CUSTOMER ORDER.

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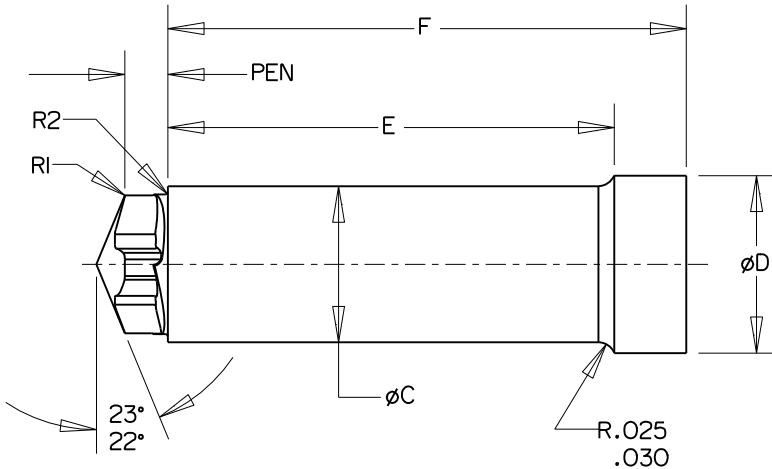
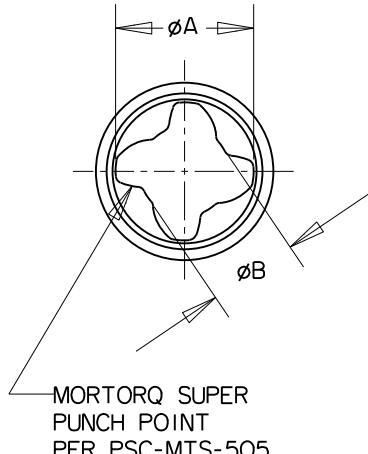
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRI-TAMPER RESISTANT PIN TOOLING STANDARDS

DRAWN G.DILLING	DATE 4/25/07	DRAWING NUMBER PSC-MTS-512
CHECKED: G.DILLING	DATE 4/25/07	SHEET 1 OF 1

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EXAMPLE: PUNCH PIN NO. MTS-IR-080-M42

DRIVE SIZE ━━━━━━ MATERIAL
PEN = .080

DRIVE SIZE	+.0020 -.0000	.0020 -.0000	+.0005 -.0000	+.001 -.003	.020 -.000	.002 -.000	R1	R2	+.000 -.005	MAT'L	PUNCH PIN NO. SEE PIN NO. EXAMPLE
	ØA	ØB	ØC	D	E	F			PEN		
MTS-OR	.1694	.1105	.1825	.204	.444	.632	.001 .003	.001 .003			MTS-OR-PEN - MAT'L
MTS-IR	.2395	.1562	.2710	.300	.572	.760	.001 .003	.003 .005			MTS-IR-PEN - MAT'L
MTS-2R	.3070	.2002	.3300	.374	.822	1.010	.002 .005	.003 .005			MTS-2R-PEN - MAT'L
MTS-3R	.3527	.2300	.3740	.417	.822	1.010	.002 .005	.003 .005			MTS-3R-PEN - MAT'L
MTS-4R	.4275	.2788	.4690	.515	.822	1.010	.002 .005	.003 .005			MTS-4R-PEN - MAT'L
MTS-5R	.5053	.3295	.5620	.592	.822	1.010	.002 .005	.004 .006			MTS-5R-PEN - MAT'L
MTS-6R	.5928	.3866	.6520	.682	1.322	1.510	.004 .006	.004 .006			MTS-6R-PEN - MAT'L
MTS-7R	.7250	.4613	.8295	.870	1.322	1.510	.004 .006	.005 .008			MTS-7R-PEN - MAT'L
MTS-8R	.8200	.5218	.9165	.948	1.322	1.510	.004 .006	.005 .008			MTS-8R-PEN - MAT'L

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-505 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- DIMENSIONS ARE IN INCHES.
- "A" TO BE CONCENTRIC TO "C" WITHIN .002 T.I.R.
- MORTORQ PIN MATERIAL: MI, Rc 61-63, OR M42, Rc 63-65, DEPENDING ON CUSTOMER ORDER.

REVISION

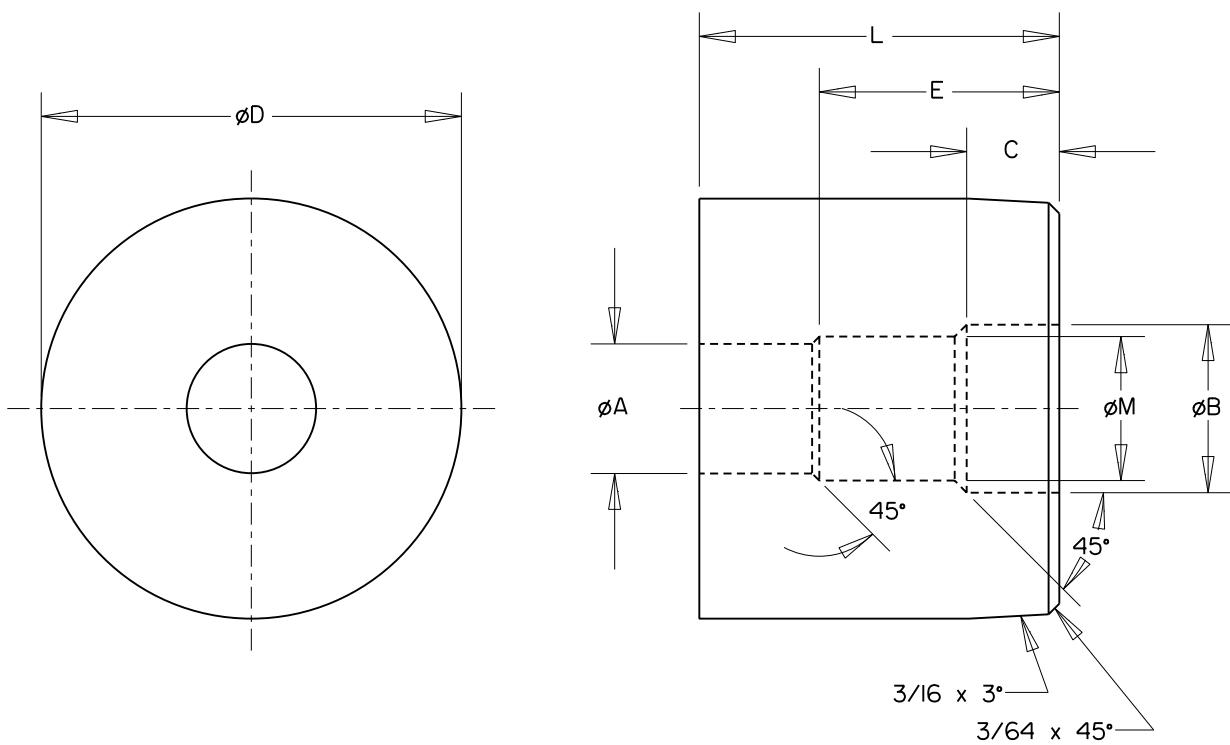
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TITLE:
**MORTORQ® SUPER RAMP SPIRAL DRIVE SYSTEM
PIN TOOLING STANDARDS**

DRAWN G.DILLING	DATE 4/26/07	DRAWING NUMBER PSC-MTS-513
CHECKED: G.DILLING	DATE 4/26/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
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DRIVE SIZE	$+.0005$ $-.0000$	$+.012$ $-.003$	$+.004$ $-.000$	$+.0005$ $-.0005$	$+.010$ $-.010$	$+.000$ $-.002$	$+.005$ $-.000$
	ϕA	ϕB	C	ϕD	E	L	ϕM
MTS-000	.0730	.092 .089	.065	.5625	.302	.375 .374	.0760 .0730
MTS-00	.1350	.156	.193	.5625	.484	.629	.1380
MTS-0	.1815	.218	.193	.8750	.438	.629	.1845
MTS-1	.2700	.306	.193	.8750	.500	.760	.2730
MTS-2	.3290	.380	.193	1.0000	.625	1.010	.3320
MTS-3	.3730	.422	.193	1.0000	.625	1.010	.3760
MTS-4	.4680	.521	.193	1.2500	.625	1.010	.4710
MTS-5	.5610	.598	.193	1.5000	.875	1.010	.5640
MTS-6	.6510	.688	.193	1.5000	.875	1.510	.6540
MTS-7	.8285	.866	.193	2.0000	1.125	1.510	.8315
MTS-8	.9155	.954	.193	2.0000	1.375	1.510	.9185

NOTES:

1. "A" TO BE CONCENTRIC TO "D" WITHIN .002 T.I.R.
2. MATERIAL: MI, Rc 61-63, OR EQUIVALENT.

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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM HOLDER STANDARDS FOR PIN TOOLING

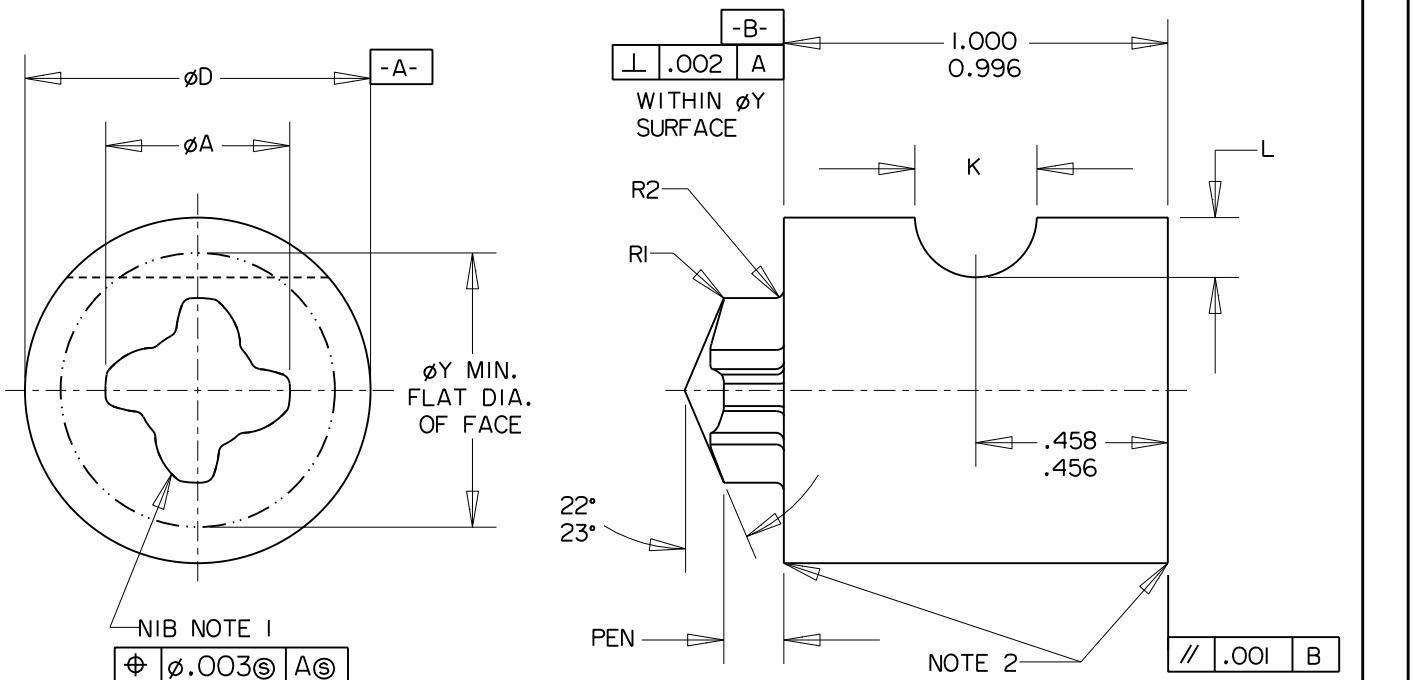
DRAWN G.DILLING	DATE 4/4/08	DRAWING NUMBER
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PSC-MTS-519

SHEET 1 OF 1

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	øA	øD	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. øY	PUNCH PENETRATION		DRIVE SIZE MTS
										MAX.	MIN.	
00	MTS-06-1	.0455 .0445		.4375	.001-.002	.002	.125	.062	.125	.015	.013	MTS-06
0	MTS-04-1	.0555 .0545		.4375	.001-.003	.003	.125	.062	.150	.017	.015	MTS-04
1	MTS-04-2	.0555 .0545		.4375	.001-.003	.003	.125	.062	.175	.023	.021	MTS-04
2	MTS-000-4	.0720		.5625	.001-.003	.004	.212	.106	.250	.025	.022	MTS-000
4	MTS-00-8	.1200		.5625	.001-.003	.005	.212	.106	.250	.028	.024	MTS-00
6	MTS-00-9	.1200		.5625	.001-.003	.005	.212	.106	.375	.038	.034	MTS-00
8	MTS-0-6	.1694		.5625	.001-.003	.005	.212	.106	.375	.042	.037	MTS-0
10	MTS-0-7	.1694		.5625	.001-.003	.005	.212	.106	.400	.052	.047	MTS-0
12	MTS-I-6	.2395		.5625	.001-.003	.005	.212	.106	.500	.052	.047	MTS-I
1/4	MTS-I-7	.2395		.8750	.001-.003	.005	.212	.106	.650	.065	.060	MTS-I
5/16	MTS-2-3	.3070		1.0000	.002-.005	.008	.212	.106	.700	.080	.075	MTS-2
3/8	MTS-3-3	.3527		1.0000	.002-.005	.008	.212	.106	.800	.094	.089	MTS-3
7/16	MTS-4-4	.4275		1.2500	.002-.005	.012	.212	.106	1.050	.094	.089	MTS-4
1/2	MTS-5-4	.5053		1.2500	.002-.005	.018	.212	.106	.950	.094	.089	MTS-5
9/16	MTS-6-3	.5928		1.5000	.004-.006	.020	.212	.106	1.200	.105	.100	MTS-6
5/8	MTS-6-4	.5928		1.5000	.004-.006	.020	.212	.106	1.200	.125	.120	MTS-6
3/4	MTS-7-2	.7250		2.0000	.004-.006	.025	.212	.106	1.500	.155	.150	MTS-7

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/1/10

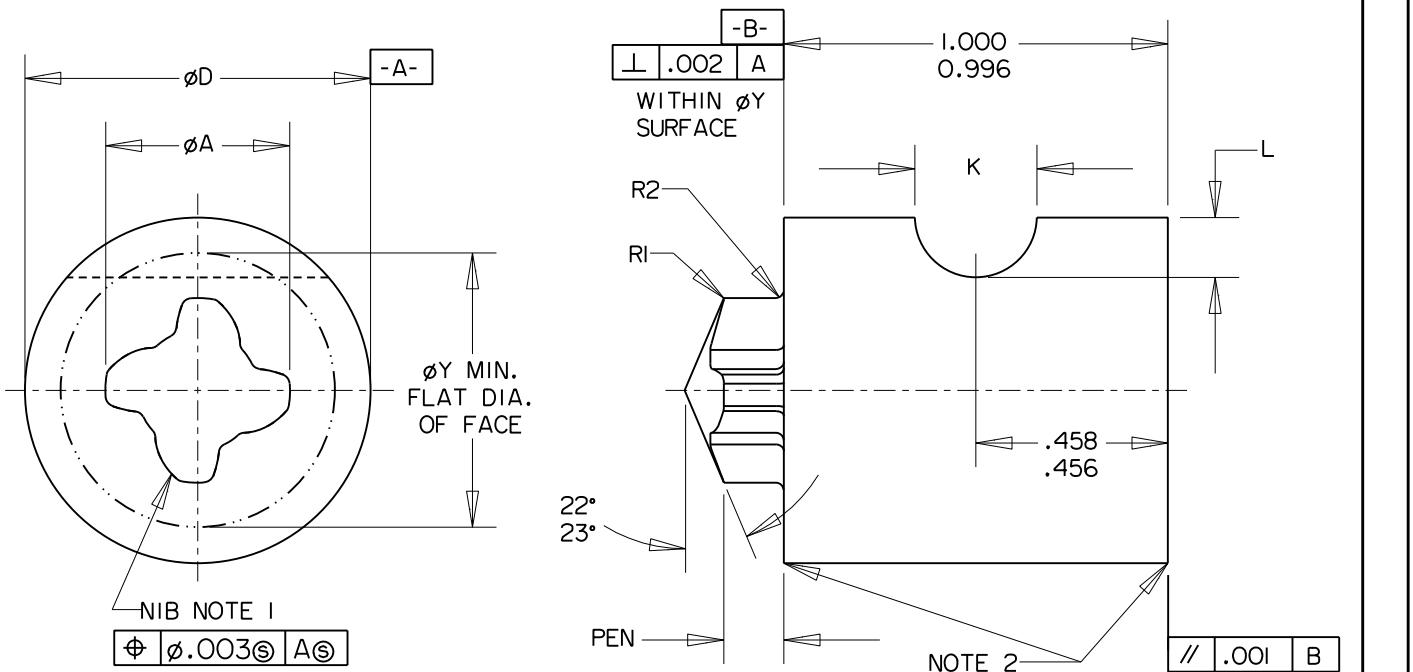
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 82° HEAD (INCH)

DRAWN G.DILLING	DATE 4/18/07	DRAWING NUMBER PSC-MTS-520
CHECKED: G.DILLING	DATE 4/18/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN.	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
00	MTS-06-2	.0455 .0445	.4375	.001-.002	.002	.125	.062	.125	.011	.009	MTS-06
0	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015	MTS-04
1	MTS-04-2	.0555 .0545	.4375	.001-.003	.003	.125	.062	.175	.023	.021	MTS-04
2	MTS-000-1	.0720	.5625	.001-.003	.004	.212	.106	.250	.023	.020	MTS-000
4	MTS-00-1	.1200	.5625	.001-.003	.005	.212	.106	.250	.023	.019	MTS-00
6	MTS-00-2	.1200	.5625	.001-.003	.005	.212	.106	.305	.035	.031	MTS-00
8	MTS-0-1	.1694	.5625	.001-.003	.005	.212	.106	.400	.035	.030	MTS-0
10	MTS-0-2	.1694	.5625	.001-.003	.005	.212	.106	.438	.045	.040	MTS-0
1/4	MTS-1-1	.2395	.8750	.001-.003	.005	.212	.106	.750	.050	.045	MTS-1
5/16	MTS-2-1	.3070	1.0000	.002-.005	.008	.212	.106	.750	.065	.060	MTS-2
3/8	MTS-3-1	.3527	1.0000	.002-.005	.008	.212	.106	.844	.079	.074	MTS-3
7/16	MTS-4-1	.4275	1.2500	.002-.005	.012	.212	.106	.925	.090	.085	MTS-4
1/2	MTS-5-1	.5053	1.2500	.002-.005	.018	.212	.106	1.020	.105	.100	MTS-5
9/16	MTS-6-1	.5928	1.5000	.004-.006	.020	.212	.106	1.150	.110	.105	MTS-6
5/8	MTS-6-2	.5928	1.5000	.004-.006	.020	.212	.106	1.375	.135	.130	MTS-6
3/4	MTS-7-1	.7250	2.0000	.004-.006	.025	.212	.106	1.625	.160	.155	MTS-7
7/8	MTS-8-1	.8200	2.0000	.004-.006	.025	.212	.106	1.812	.180	.175	MTS-8
1"	MTS-8-2	.8200	2.5000	.004-.006	.025	.212	.106	2.050	.195	.190	MTS-8

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/1/10

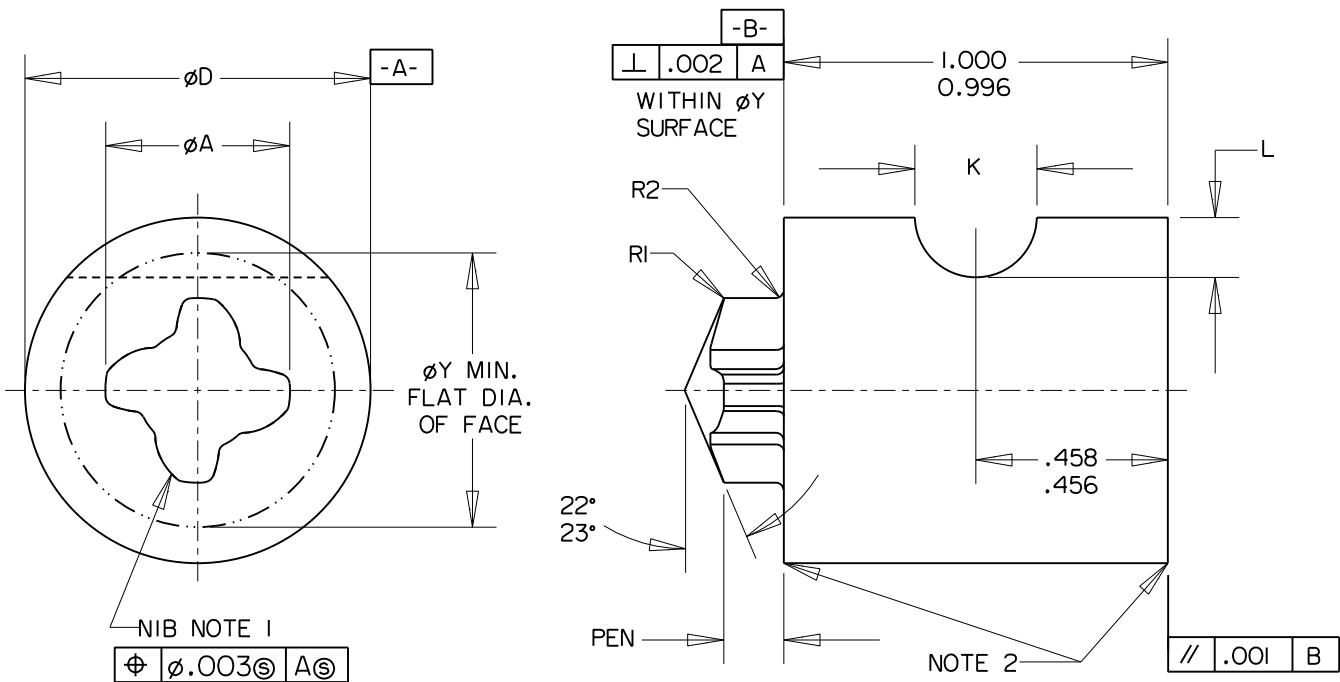
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 100° HEAD (INCH)

DRAWN G.DILLING	DATE 4/17/07	DRAWING NUMBER PSC-MTS-521
CHECKED: G.DILLING	DATE 4/17/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
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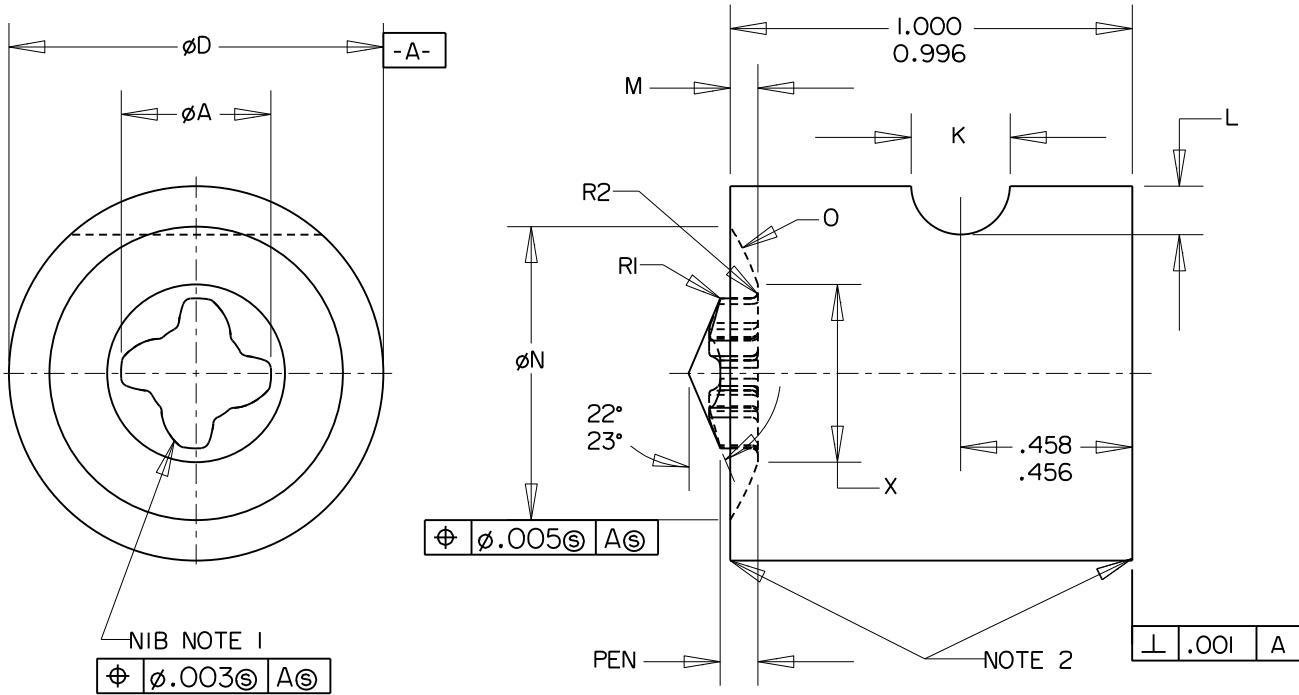
SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN.	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
00	MTS-06-1	.0455 .0445	.4375	.001-.002	.002	.125	.062	.125	.015	.013	MTS-06
0	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015	MTS-04
1	MTS-04-2	.0555 .0545	.4375	.001-.003	.003	.125	.062	.175	.023	.021	MTS-04
2	MTS-000-7	.0720	.5625	.001-.003	.004	.212	.106	.250	.028	.025	MTS-000
3	MTS-000-8	.0720	.5625	.001-.003	.004	.212	.106	.250	.032	.029	MTS-000
4	MTS-00-2	.1200	.5625	.001-.003	.005	.212	.106	.305	.035	.031	MTS-00
6	MTS-00-14	.1200	.5625	.001-.003	.005	.212	.106	.375	.042	.038	MTS-00
8	MTS-0-2	.1694	.5625	.001-.003	.005	.212	.106	.438	.045	.040	MTS-0
10	MTS-0-7	.1694	.5625	.001-.003	.005	.212	.106	.400	.052	.047	MTS-0
12	MTS-1-7	.2395	.8750	.001-.003	.005	.212	.106	.650	.065	.060	MTS-1
1/4	MTS-1-14	.2395	.8750	.001-.003	.005	.212	.106	.675	.075	.070	MTS-1
5/16	MTS-2-8	.3070	1.0000	.002-.005	.008	.212	.106	.700	.088	.083	MTS-2
3/8	MTS-3-3	.3527	1.0000	.002-.005	.008	.212	.106	.800	.094	.089	MTS-3
7/16	MTS-4-9	.4275	1.2500	.002-.005	.012	.212	.106	.925	.105	.100	MTS-4
1/2	MTS-5-7	.5053	1.2500	.002-.005	.018	.212	.106	.950	.120	.115	MTS-5

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/1/10

© COPYRIGHT 2011 PHILLIPS SCREW COMPANY. ALL RIGHTS RESERVED.	TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM FLAT FILLISTER HEAD PUNCH (INCH)		
	DRAWN G.DILLING	DATE 4/18/07	DRAWING NUMBER PSC-MTS-522
CHECKED: G.DILLING		DATE 4/18/07	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326			
PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX® AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY			



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2	X	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
00	MTS-06-3	.0455 .0445	.4375	.001-.002	.002	.060	.011	.104	.090	.125	.062	.015	.013	MTS-06
0	MTS-04-3	.0555 .0545	.4375	.001-.003	.003	.067	.015	.131	.120	.125	.062	.017	.015	MTS-04
1	MTS-04-4	.0555 .0545	.4375	.001-.003	.003	.067	.017	.160	.170	.125	.062	.023	.021	MTS-04
2	MTS-000-3	.0720	.5625	.001-.003	.004	.090	.021	.190	.185	.212	.106	.028	.025	MTS-000
3	MTS-00-6	.1200	.5625	.001-.003	.005	.145	.019	.215	.190	.212	.106	.028	.024	MTS-00
4	MTS-00-7	.1200	.5625	.001-.003	.005	.145	.020	.241	.248	.212	.106	.035	.031	MTS-00
6	MTS-00-5	.1200	.5625	.001-.003	.005	.145	.022	.280	.350	.212	.106	.040	.036	MTS-00
8	MTS-0-4	.1694	.5625	.001-.003	.005	.205	.030	.346	.350	.212	.106	.050	.045	MTS-0
10	MTS-0-5	.1694	.5625	.001-.003	.005	.205	.040	.409	.425	.212	.106	.055	.050	MTS-0
12	MTS-I-4	.2395	.8750	.001-.003	.005	.285	.041	.459	.440	.212	.106	.060	.055	MTS-I
1/4	MTS-I-5	.2395	.8750	.001-.003	.005	.285	.055	.519	.475	.212	.106	.072	.067	MTS-I
5/16	MTS-2-2	.3070	1.0000	.002-.005	.008	.370	.062	.665	.669	.212	.106	.080	.075	MTS-2
3/8	MTS-3-2	.3527	1.2500	.002-.005	.008	.425	.075	.788	.800	.212	.106	.098	.093	MTS-3
7/16	MTS-4-3	.4275	1.2500	.002-.005	.012	.520	.086	.913	.900	.212	.106	.105	.100	MTS-4
1/2	MTS-5-3	.5053	1.5000	.002-.005	.018	.610	.087	1.038	1.100	.212	.106	.140	.135	MTS-5

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

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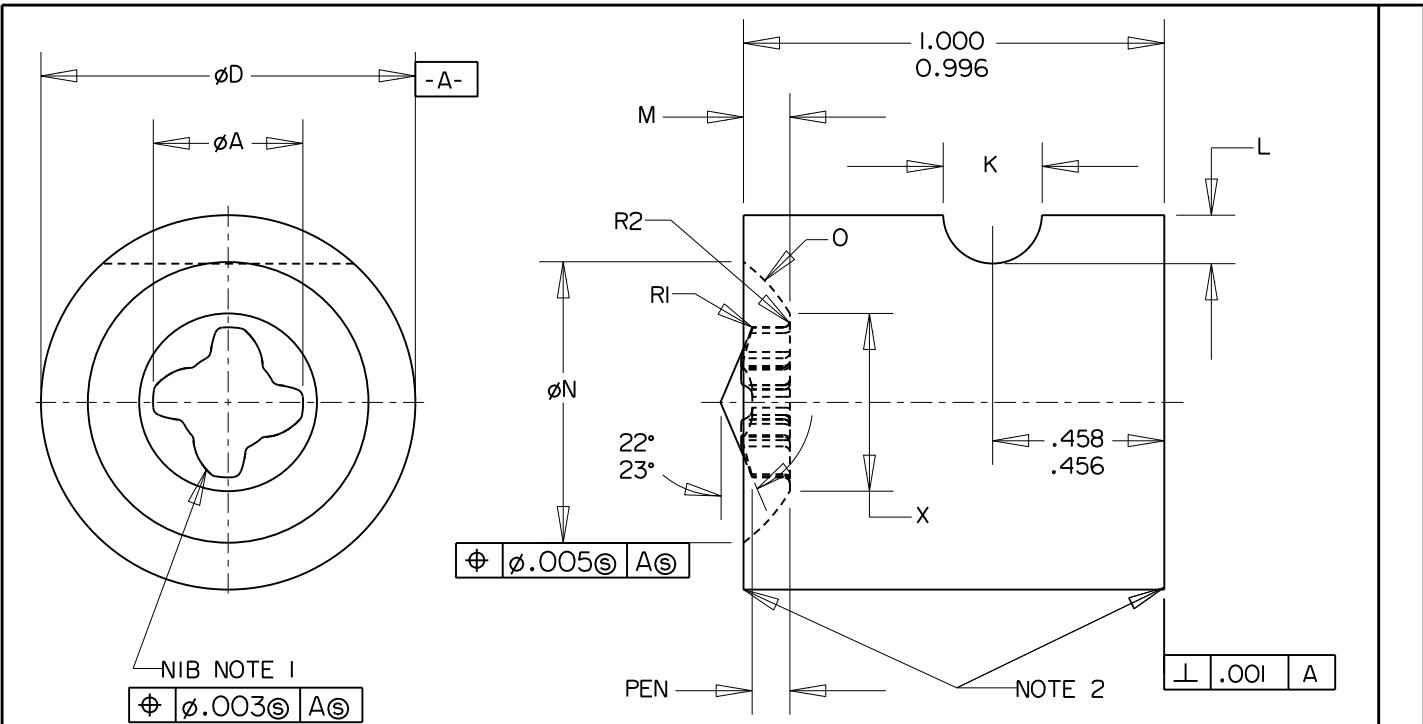
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PAN HEAD PUNCH (INCH)

DRAWN G.DILLING	DATE 4/19/07	DRAWING NUMBER PSC-MTS-523
CHECKED: G.DILLING	DATE 4/19/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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REVISION REV I: 10/4/10



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
O	MTS-04-5	.0555 .0545	.4375	.001-.003	.003	.067	.015	.117	.090	.125	.062	.017	.015	MTS-04
I	MTS-04-6	.0555 .0545	.4375	.001-.003	.003	.067	.018	.142	.125	.125	.062	.023	.021	MTS-04
2	MTS-000-5	.0720	.5625	.001-.003	.004	.090	.029	.167	.110	.212	.106	.022	.019	MTS-000
3	MTS-000-6	.0720	.5625	.001-.003	.004	.090	.034	.191	.130	.212	.106	.026	.023	MTS-000
4	MTS-00-10	.1200	.5625	.001-.003	.005	.145	.039	.216	.125	.212	.106	.026	.022	MTS-00
6	MTS-00-II	.1200	.5625	.001-.003	.005	.145	.049	.266	.168	.212	.106	.032	.028	MTS-00
8	MTS-0-8	.1694	.5625	.001-.003	.005	.205	.061	.315	.180	.212	.106	.034	.029	MTS-0
10	MTS-0-9	.1694	.5625	.001-.003	.005	.205	.072	.369	.225	.212	.106	.045	.040	MTS-0
1/4	MTS-1-8	.2395	.8750	.001-.003	.005	.285	.106	.447	.240	.212	.106	.055	.050	MTS-1
5/16	MTS-2-4	.3070	1.0000	.002-.005	.008	.370	.125	.557	.300	.212	.106	.075	.070	MTS-2
3/8	MTS-3-4	.3527	1.2500	.002-.005	.008	.425	.154	.666	.360	.212	.106	.085	.080	MTS-3
1/2	MTS-4-5	.4275	1.2500	.002-.005	.012	.520	.199	.885	.495	.212	.106	.105	.100	MTS-4
5/8	MTS-5-5	.5053	1.5000	.002-.005	.018	.610	.254	1.010	.540	.212	.106	.130	.125	MTS-5

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/4/10

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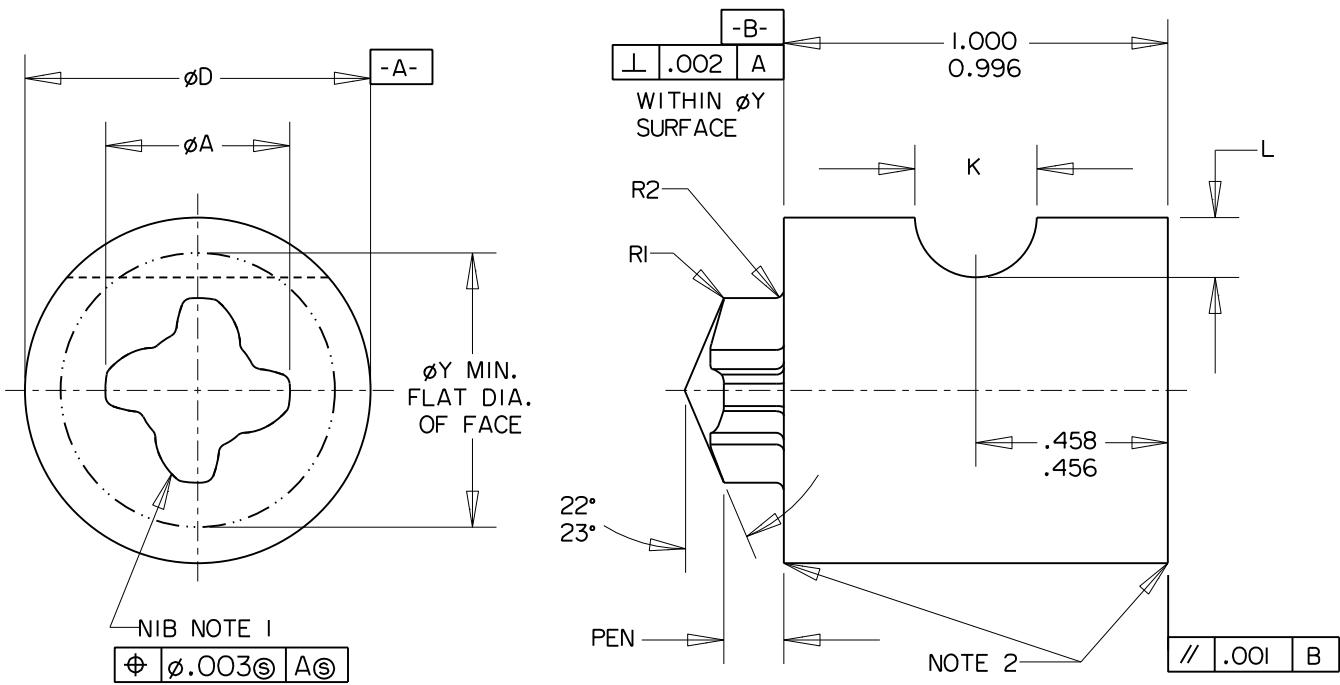
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
BUTTON HEAD PUNCH (INCH)

DRAWN G.DILLING	DATE 4/20/07	DRAWING NUMBER PSC-MTS-524
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CHECKED: G.DILLING	DATE 4/20/07	SHEET 1 OF 1
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PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN.	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
0	MTS-06-2	.0455 .0445	.4375	.001-.002	.002	.125	.062	.125	.011	.009	MTS-06
1	MTS-04-7	.0555 .0545	.4375	.001-.003	.003	.125	.062	.175	.014	.012	MTS-04
2	MTS-000-14	.0720	.5625	.001-.003	.004	.212	.106	.200	.015	.013	MTS-000
4	MTS-005-1	.0845	.5625	.001-.003	.004	.212	.106	.250	.020	.018	MTS-005
6	MTS-00-30	.1200	.5625	.001-.003	.005	.212	.106	.300	.020	.017	MTS-00
8	MTS-00-12	.1200	.5625	.001-.003	.005	.212	.106	.350	.026	.022	MTS-00
10	MTS-0-10	.1694	.5625	.001-.003	.005	.212	.106	.400	.027	.022	MTS-0
1/4	MTS-1-9	.2395	.8750	.001-.003	.005	.212	.106	.600	.032	.027	MTS-1
5/16	MTS-1-1	.2395	.8750	.001-.003	.005	.212	.106	.750	.050	.045	MTS-1
3/8	MTS-2-5	.3070	1.0000	.002-.005	.008	.212	.106	.750	.050	.045	MTS-2
7/16	MTS-3-5	.3527	1.2500	.002-.005	.008	.212	.106	.900	.060	.055	MTS-3

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/10/01

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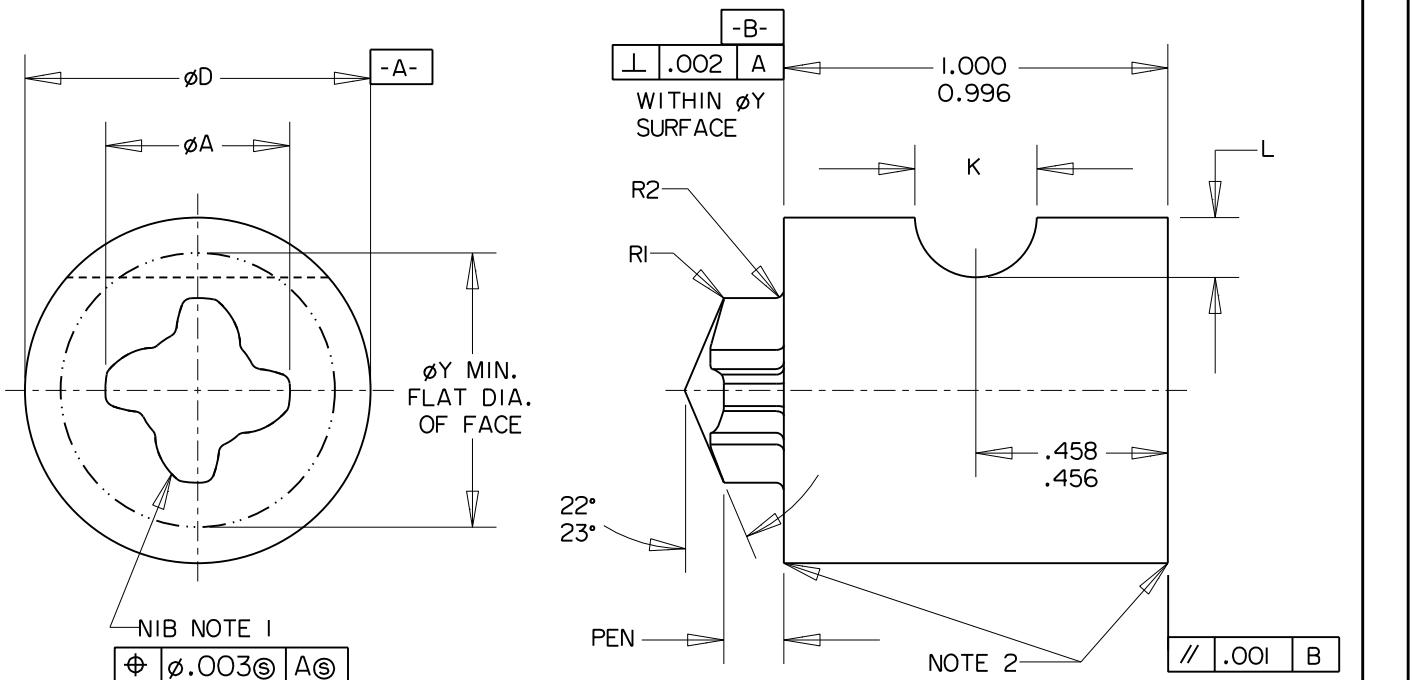
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 130° HEAD (INCH)

DRAWN G.DILLING	DATE 4/18/07	DRAWING NUMBER PSC-MTS-525
CHECKED: G.DILLING	DATE 4/18/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.00020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.0000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
0	MTS-06-2	.0455 .0445	.4375	.001-.002	.002	.125	.062	.125	.011	.009	MTS-06
1	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015	MTS-04
2	MTS-04-2	.0555 .0545	.4375	.001-.003	.003	.125	.062	.175	.023	.021	MTS-04
4	MTS-005-2	.0845	.5625	.001-.003	.004	.212	.106	.250	.025	.023	MTS-005
6	MTS-00-13	.1200	.5625	.001-.003	.005	.212	.106	.350	.030	.026	MTS-00
8	MTS-00-13	.1200	.5625	.001-.003	.005	.212	.106	.350	.030	.026	MTS-00
10	MTS-0-II	.1694	.5625	.001-.003	.005	.212	.106	.400	.030	.025	MTS-0
1/4	MTS-I-II	.2395	.5625	.001-.003	.005	.212	.106	.450	.030	.025	MTS-I
5/16	MTS-I-10	.2395	.8750	.001-.003	.005	.212	.106	.500	.048	.043	MTS-I
3/8	MTS-2-5	.3070	1.0000	.002-.005	.008	.212	.106	.750	.050	.045	MTS-2
7/16	MTS-3-6	.3527	1.0000	.002-.005	.008	.212	.106	.750	.067	.062	MTS-3
1/2	MTS-4-6	.4275	1.0000	.002-.005	.012	.212	.106	.800	.072	.067	MTS-4
9/16	MTS-4-7	.4275	1.2500	.002-.005	.012	.212	.106	.950	.092	.087	MTS-4
5/8	MTS-5-6	.5053	1.5000	.002-.005	.018	.212	.106	1.100	.092	.087	MTS-5
3/4	MTS-6-5	.5928	1.5000	.004-.006	.020	.212	.106	1.150	.112	.107	MTS-6
7/8	MTS-7-3	.7250	2.0000	.004-.006	.025	.212	.106	1.350	.130	.125	MTS-7
1"	MTS-8-3	.8200	2.5000	.004-.006	.025	.212	.106	1.650	.162	.157	MTS-8

NOTES:

1. REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
2. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
3. DIMENSIONS ARE IN INCHES.
4. PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/1/10

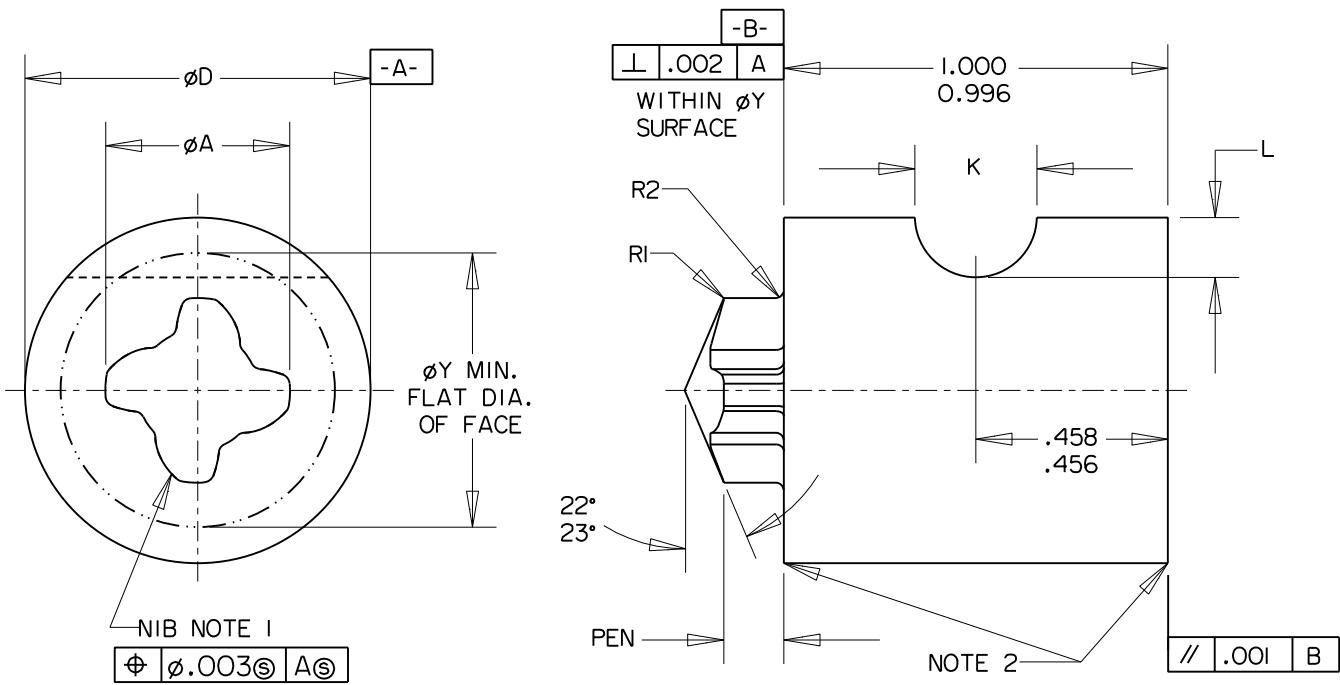
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 100° REDUCED HEAD (INCH)

DRAWN G.DILLING	DATE 4/18/07	DRAWING NUMBER PSC-MTS-526
CHECKED: G.DILLING	DATE 4/18/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
0	MTS-06-1	.0455 .0445	.4375	.001-.002	.002	.125	.062	.125	.015	.013	MTS-06
1	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015	MTS-04
2	MTS-000-1	.072	.5625	.001-.003	.004	.212	.106	.250	.023	.020	MTS-000
4	MTS-005-2	.0845	.5625	.001-.003	.004	.212	.106	.250	.025	.023	MTS-005
6	MTS-00-13	.1200	.5625	.001-.003	.005	.212	.106	.350	.030	.026	MTS-00
8	MTS-0-12	.1694	.5625	.001-.003	.005	.212	.106	.400	.032	.027	MTS-0
10	MTS-0-1	.1694	.5625	.001-.003	.005	.212	.106	.400	.035	.030	MTS-0
12	MTS-1-13	.2395	.5625	.001-.003	.005	.212	.106	.450	.039	.034	MTS-1
1/4	MTS-1-1	.2395	.8750	.001-.003	.005	.212	.106	.750	.050	.045	MTS-1
5/16	MTS-2-7	.3070	1.0000	.002-.005	.008	.212	.106	.700	.060	.055	MTS-2
3/8	MTS-3-8	.3527	1.0000	.002-.005	.008	.212	.106	.800	.075	.070	MTS-3
7/16	MTS-4-8	.4275	1.0000	.002-.005	.012	.212	.106	.825	.080	.075	MTS-4
1/2	MTS-4-7	.4275	1.2500	.002-.005	.012	.212	.106	.950	.092	.087	MTS-4
9/16	MTS-5-6	.5053	1.5000	.002-.005	.018	.212	.106	1.100	.092	.087	MTS-5
5/8	MTS-6-6	.5928	1.5000	.004-.006	.020	.212	.106	1.200	.095	.090	MTS-6
3/4	MTS-7-4	.7250	2.0000	.004-.006	.025	.212	.106	1.400	.120	.115	MTS-7

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
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- DIMENSIONS ARE IN INCHES.
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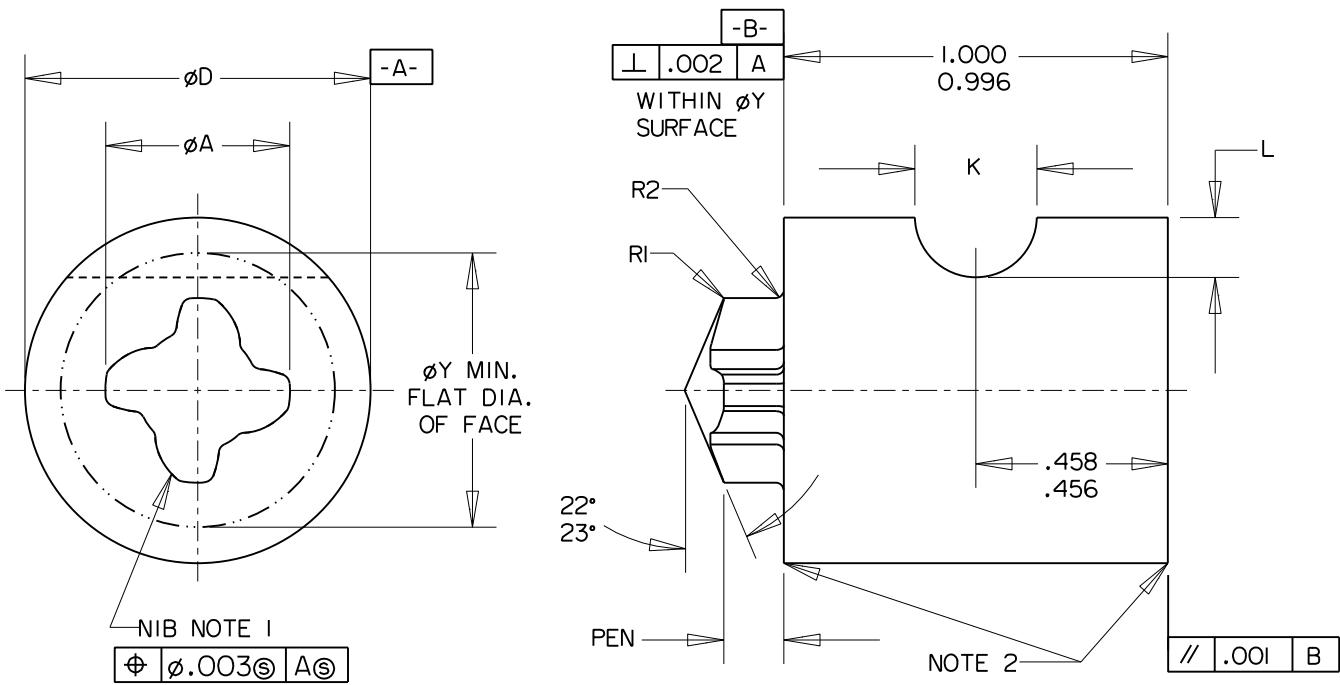
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 82° UNDERCUT HEAD (INCH)

DRAWN G.DILLING	DATE 4/19/07	DRAWING NUMBER PSC-MTS-527
CHECKED: G.DILLING	DATE 4/19/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

REVISION REV I: 10/1/10



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
									MAX.	MIN.	
10	MTS-0-12	.1694	.5625	.001-.003	.005	.212	.106	.400	.032	.027	MTS-0
1/4	MTS-1-12	.2395	.8750	.001-.003	.005	.212	.106	.550	.045	.040	MTS-1
5/16	MTS-2-5	.3070	1.0000	.002-.005	.008	.212	.106	.750	.050	.045	MTS-2
3/8	MTS-2-6	.3070	1.0000	.002-.005	.008	.212	.106	.800	.075	.070	MTS-2
7/16	MTS-3-7	.3527	1.2500	.002-.005	.008	.212	.106	.900	.085	.080	MTS-3
1/2	MTS-4-4	.4275	1.2500	.002-.005	.012	.212	.106	1.050	.094	.089	MTS-4

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
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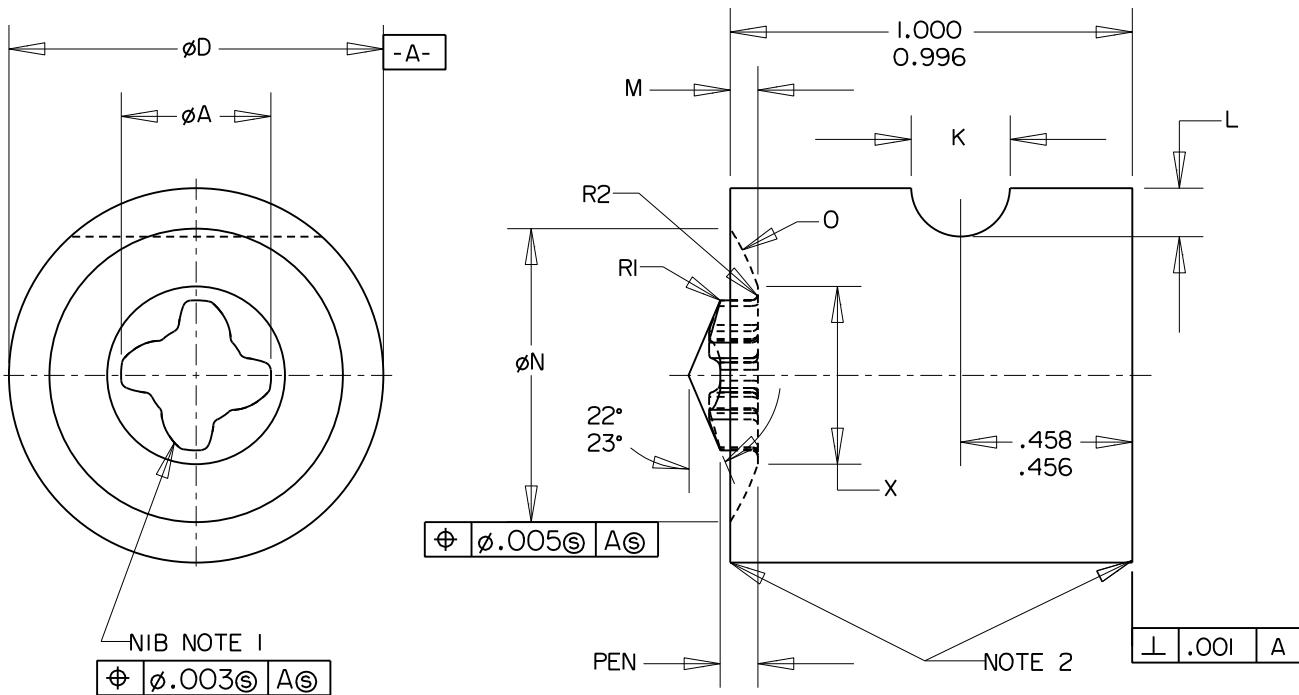
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT HEAD PUNCH 100° UNDERCUT HEAD (INCH)

DRAWN G.DILLING	DATE 4/19/07	DRAWING NUMBER PSC-MTS-528
CHECKED: G.DILLING	DATE 4/19/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
M2	MTS-000-2	.0720	.5625	.001-.003	.004	.090	.016	.175	.185	.212	.106	.022	.019	MTS-000
M2.5	MTS-00-3	.1200	.5625	.001-.003	.005	.145	.019	.215	.190	.212	.106	.025	.021	MTS-00
M3	MTS-00-4	.1200	.5625	.001-.003	.005	.145	.020	.241	.248	.212	.106	.028	.024	MTS-00
M3.5	MTS-00-5	.1200	.5625	.001-.003	.005	.145	.022	.280	.350	.212	.106	.040	.036	MTS-00
M4	MTS-0-3	.1694	.5625	.001-.003	.005	.205	.030	.346	.350	.212	.106	.045	.040	MTS-0
M5	MTS-I-2	.2395	.8750	.001-.003	.005	.285	.033	.409	.375	.212	.106	.050	.045	MTS-I
M6	MTS-I-3	.2395	.8750	.001-.003	.005	.285	.055	.519	.475	.212	.106	.065	.060	MTS-I
M8	MTS-2-2	.3070	1.0000	.002-.005	.008	.370	.062	.665	.669	.212	.106	.080	.075	MTS-2
M10	MTS-4-2	.4275	1.2500	.002-.005	.012	.520	.103	.913	.782	.212	.106	.104	.099	MTS-4
M12	MTS-5-2	.5053	1.5000	.002-.005	.018	.610	.092	1.000	.950	.212	.106	.125	.120	MTS-5

NOTES:

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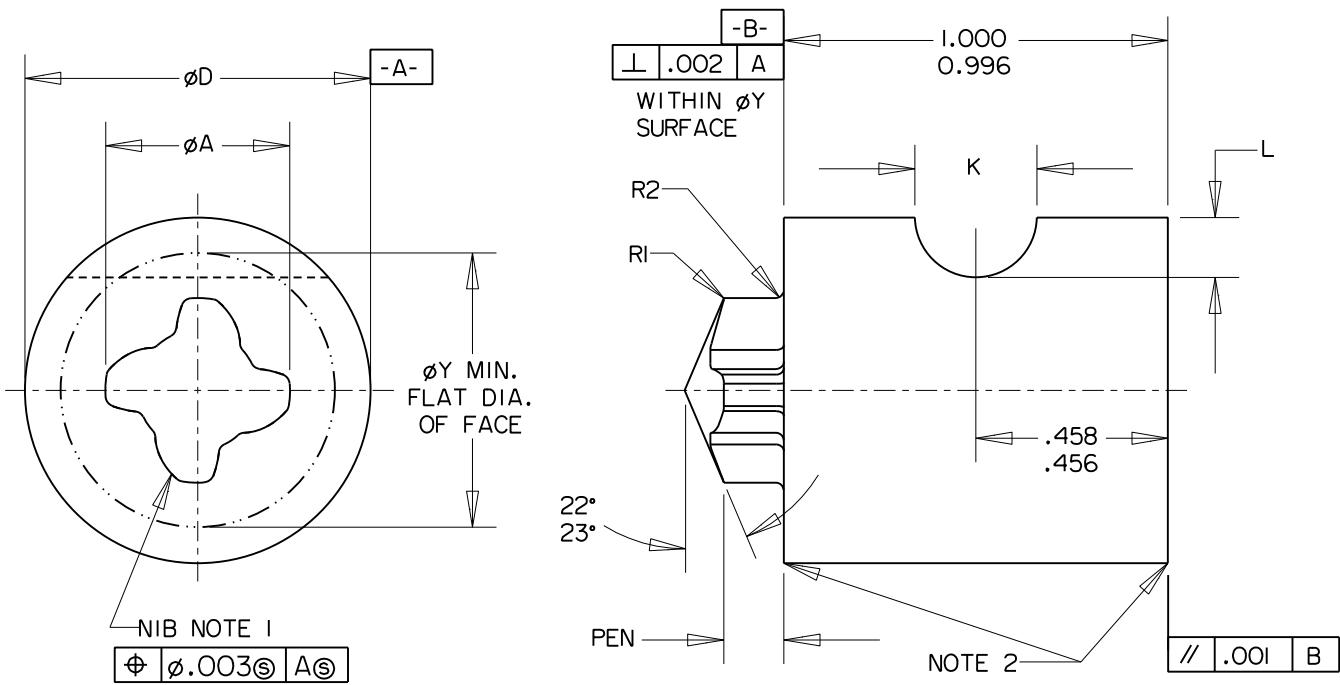
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
PAN HEAD PUNCH (METRIC)

DRAWN G.DILLING	DATE 4/20/07	DRAWING NUMBER PSC-MTS-529
CHECKED: G.DILLING	DATE 4/20/07	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	ØA	ØD	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN.	PUNCH PENETRATION		DRIVE SIZE MTS
											MAX.	MIN.	
M3	MTS-00-15	.1200	.5625	.001-.003	.005	.212	.106	.300	.032	.028	.028	.028	MTS-00
M4	MTS-0-2	.1694	.5625	.001-.003	.005	.212	.106	.438	.045	.040	.040	.040	MTS-0
M5	MTS-I-12	.2395	.8750	.001-.003	.005	.212	.106	.550	.045	.040	.040	.040	MTS-I
M6	MTS-I-15	.2395	.8750	.001-.003	.005	.212	.106	.600	.070	.065	.065	.065	MTS-I
M8	MTS-2-9	.3070	1.0000	.002-.005	.008	.212	.106	.750	.090	.085	.085	.085	MTS-2
M10	MTS-4-9	.4275	1.2500	.002-.005	.012	.212	.106	.925	.105	.100	.100	.100	MTS-4
M12	MTS-5-8	.5053	1.2500	.002-.005	.018	.212	.106	1.100	.125	.120	.120	.120	MTS-5
M14	MTS-6-4	.5928	1.5000	.004-.006	.020	.212	.106	1.200	.125	.120	.120	.120	MTS-6
M16	MTS-6-7	.5928	1.5000	.004-.006	.020	.212	.106	1.375	.159	.154	.154	.154	MTS-6
M20	MTS-7-5	.7250	2.0000	.004-.006	.025	.212	.106	1.625	.170	.165	.165	.165	MTS-7

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
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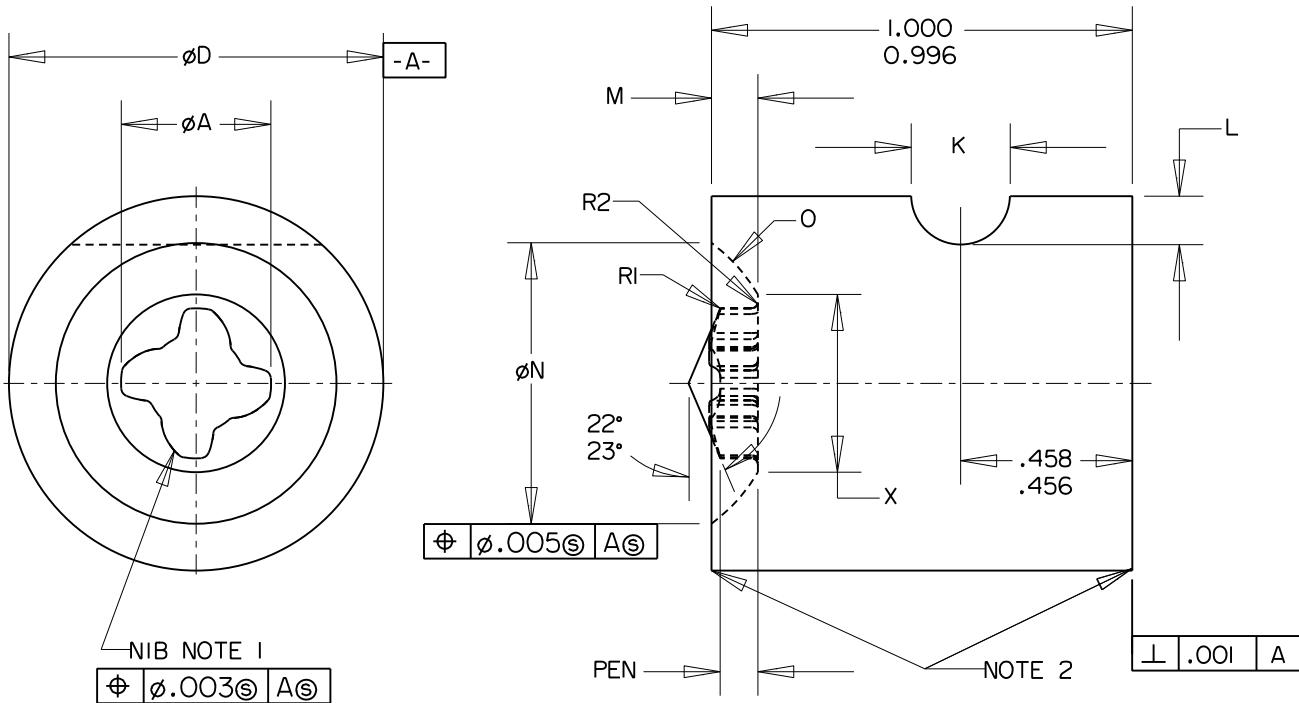
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
FLAT SOCKET HEAD PUNCH 92° HEAD (METRIC)

DRAWN G.DILLING	DATE 4/19/07	DRAWING NUMBER PSC-MTS-530
CHECKED: G.DILLING	DATE 4/19/07	SHEET 1 OF 1

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
2	MTS-000-9	.0720	.5625	.001-.003	.004	.090	.030	.190	.138	.212	.106	.020	.017	MTS-000
4	MTS-00-16	.1200	.5625	.001-.003	.005	.145	.045	.257	.165	.212	.106	.026	.023	MTS-00
6	MTS-00-17	.1200	.5625	.001-.003	.005	.145	.052	.321	.235	.212	.106	.032	.028	MTS-00
8	MTS-0-13	.1694	.5625	.001-.003	.005	.205	.062	.384	.265	.212	.106	.038	.033	MTS-0
10	MTS-0-14	.1694	.8750	.001-.003	.005	.205	.071	.448	.330	.212	.106	.046	.041	MTS-0
12	MTS-I-16	.2395	.8750	.001-.003	.005	.285	.100	.511	.310	.212	.106	.060	.055	MTS-I
1/4	MTS-I-17	.2395	.8750	.001-.003	.005	.285	.095	.573	.400	.212	.106	.065	.060	MTS-I
5/16	MTS-2-10	.3070	1.0000	.002-.005	.008	.370	.115	.698	.475	.212	.106	.080	.075	MTS-2
3/8	MTS-3-9	.3527	1.2500	.002-.005	.008	.425	.133	.823	.575	.212	.106	.090	.085	MTS-3
7/16	MTS-3-10	.3527	1.2500	.002-.005	.008	.425	.153	.948	.695	.212	.106	.095	.090	MTS-3
1/2	MTS-4-10	.4275	1.5000	.002-.005	.012	.520	.163	1.073	.800	.212	.106	.105	.100	MTS-4
9/16	MTS-5-9	.5053	1.5000	.002-.005	.018	.610	.182	1.198	.875	.212	.106	.130	.125	MTS-5
5/8	MTS-5-10	.5053	2.0000	.002-.005	.018	.610	.210	1.323	.975	.212	.106	.140	.135	MTS-5
3/4	MTS-6-8	.5928	2.0000	.004-.006	.020	.740	.267	1.573	1.100	.212	.106	.160	.155	MTS-6

NOTES:

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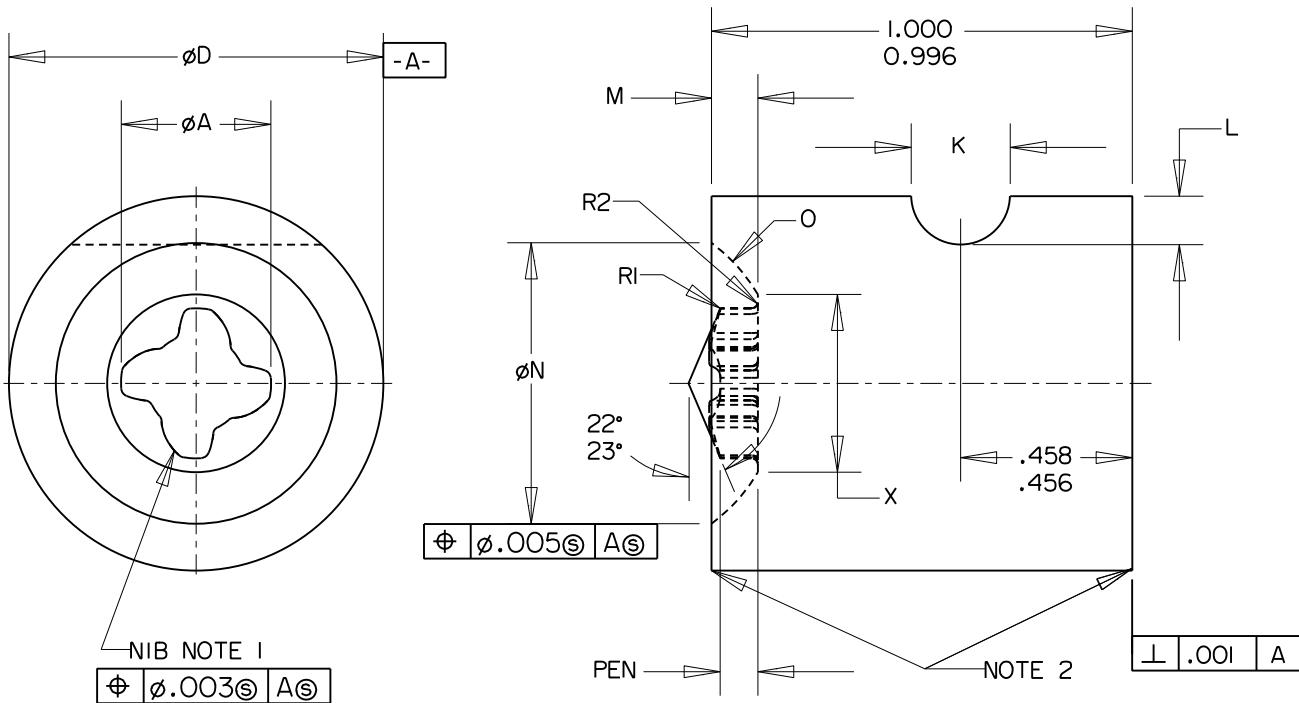
TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRUSS HEAD PUNCH (INCH)

DRAWN G.DILLING	DATE 6/27/07	DRAWING NUMBER PSC-MTS-531
CHECKED: G.DILLING	DATE 6/28/07	SHEET 1 OF 1

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2	X	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
M3.5	MTS-00-I8	.1200	.5625	.001-.003	.005	.145	.062	.321	.210	.212	.106	.035	.031	MTS-00
M4	MTS-0-I5	.1694	.5625	.001-.003	.005	.205	.081	.384	.228	.212	.106	.045	.040	MTS-0
M5	MTS-0-I6	.1694	.8750	.001-.003	.005	.205	.090	.448	.285	.212	.106	.055	.050	MTS-0
M6	MTS-I-I8	.2395	.8750	.001-.003	.005	.285	.122	.573	.345	.212	.106	.068	.063	MTS-I
M8	MTS-2-II	.3070	1.0000	.002-.005	.008	.370	.143	.698	.420	.212	.106	.080	.075	MTS-2
M10	MTS-4-II	.4275	1.2500	.002-.005	.012	.520	.199	.823	.440	.212	.106	.103	.098	MTS-4
M12	MTS-5-II	.5053	1.5000	.002-.005	.018	.610	.245	1.043	.575	.212	.106	.138	.133	MTS-5

NOTES:

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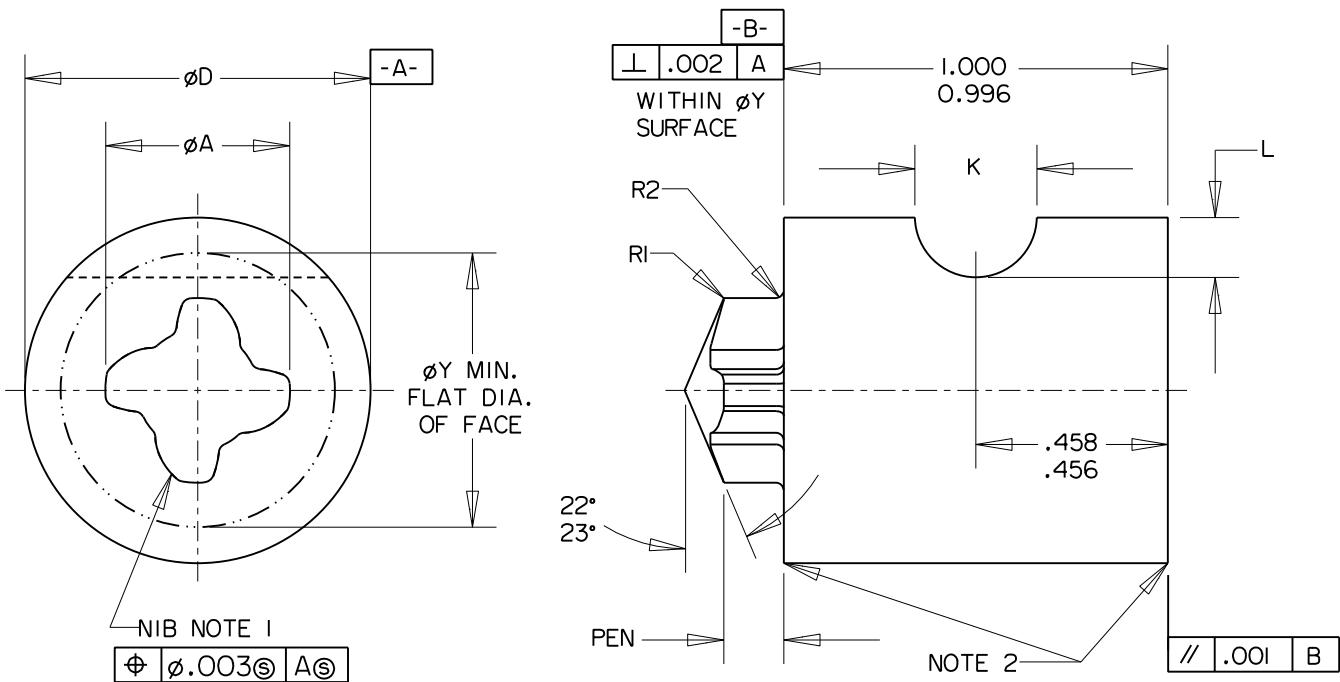
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
TRUSS HEAD PUNCH (METRIC)

DRAWN G.DILLING	DATE 6/28/07	DRAWING NUMBER PSC-MTS-532
CHECKED: G.DILLING	DATE 6/29/07	SHEET 1 OF 1

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PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.00020 -.00000	ØA	ØD	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
										MAX.	MIN.	
0	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015		MTS-04
1	MTS-04-2	.0555 .0545	.4375	.001-.003	.003	.125	.062	.175	.023	.021		MTS-04
2	MTS-000-7	.0720	.5625	.001-.003	.004	.212	.106	.250	.028	.024		MTS-000
4	MTS-00-19	.1200	.5625	.001-.003	.005	.212	.106	.250	.034	.030		MTS-00
5	MTS-00-19	.1200	.5625	.001-.003	.005	.212	.106	.250	.034	.030		MTS-00
6	MTS-00-14	.1200	.5625	.001-.003	.005	.212	.106	.375	.042	.038		MTS-00
8	MTS-0-17	.1694	.5625	.001-.003	.005	.212	.106	.375	.059	.055		MTS-0
10	MTS-0-18	.1694	.5625	.001-.003	.005	.212	.106	.400	.066	.062		MTS-0
1/4	MTS-1-19	.2395	.8750	.001-.003	.005	.212	.106	.600	.073	.069		MTS-1
5/16	MTS-2-12	.3070	1.0000	.002-.005	.008	.212	.106	.750	.095	.091		MTS-2
3/8	MTS-3-11	.3527	1.0000	.002-.005	.008	.212	.106	.825	.110	.106		MTS-3
7/16	MTS-4-13	.4275	1.2500	.002-.005	.012	.212	.106	.925	.131	.127		MTS-4
1/2	MTS-5-12	.5053	1.2500	.002-.005	.018	.212	.106	1.020	.136	.132		MTS-5
5/8	MTS-6-9	.5928	1.5000	.004-.006	.020	.212	.106	1.375	.180	.176		MTS-6
3/4	MTS-7-6	.7250	2.0000	.004-.006	.025	.212	.106	1.500	.200	.196		MTS-7
7/8	MTS-8-4	.8200	2.0000	.004-.006	.025	.212	.106	1.500	.248	.244		MTS-8

NOTES:

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- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION REV I: 10/4/0

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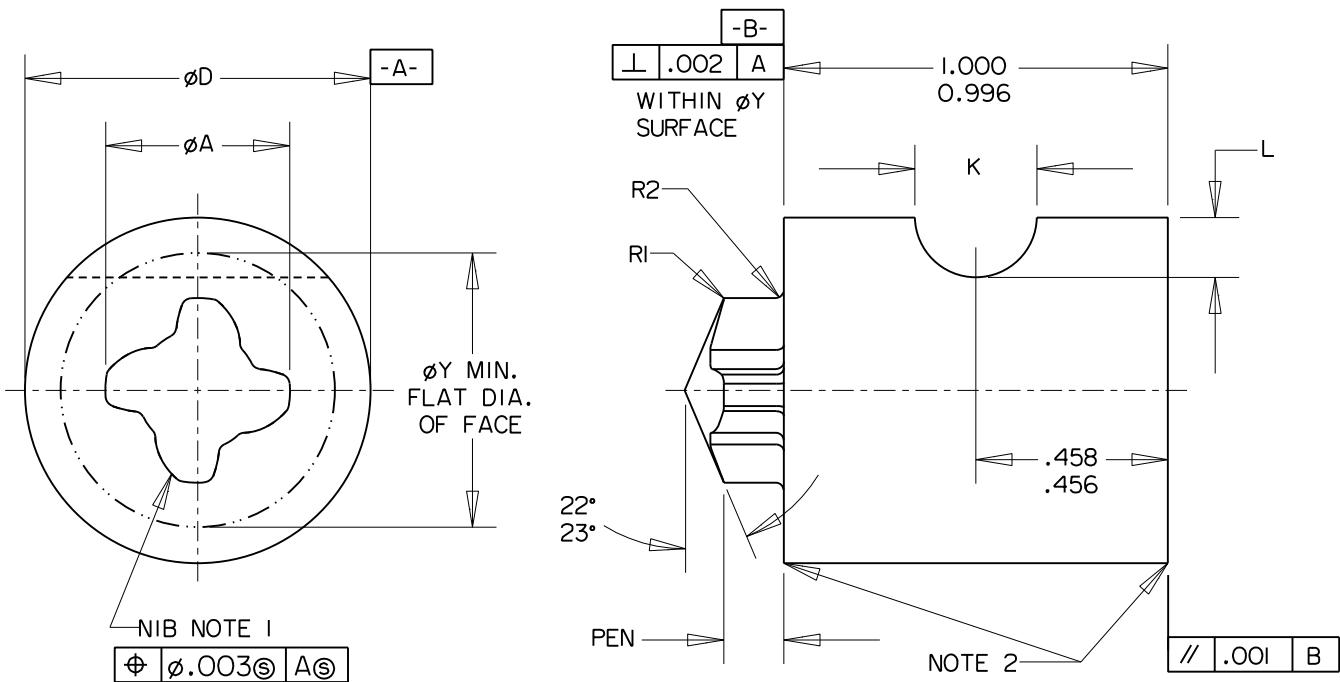
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
SOCKET HEAD CAP PUNCH HEAD (INCH)

DRAWN G.DILLING	DATE 3/12/08	DRAWING NUMBER PSC-MTS-533
CHECKED: G.DILLING	DATE 3/12/08	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX®
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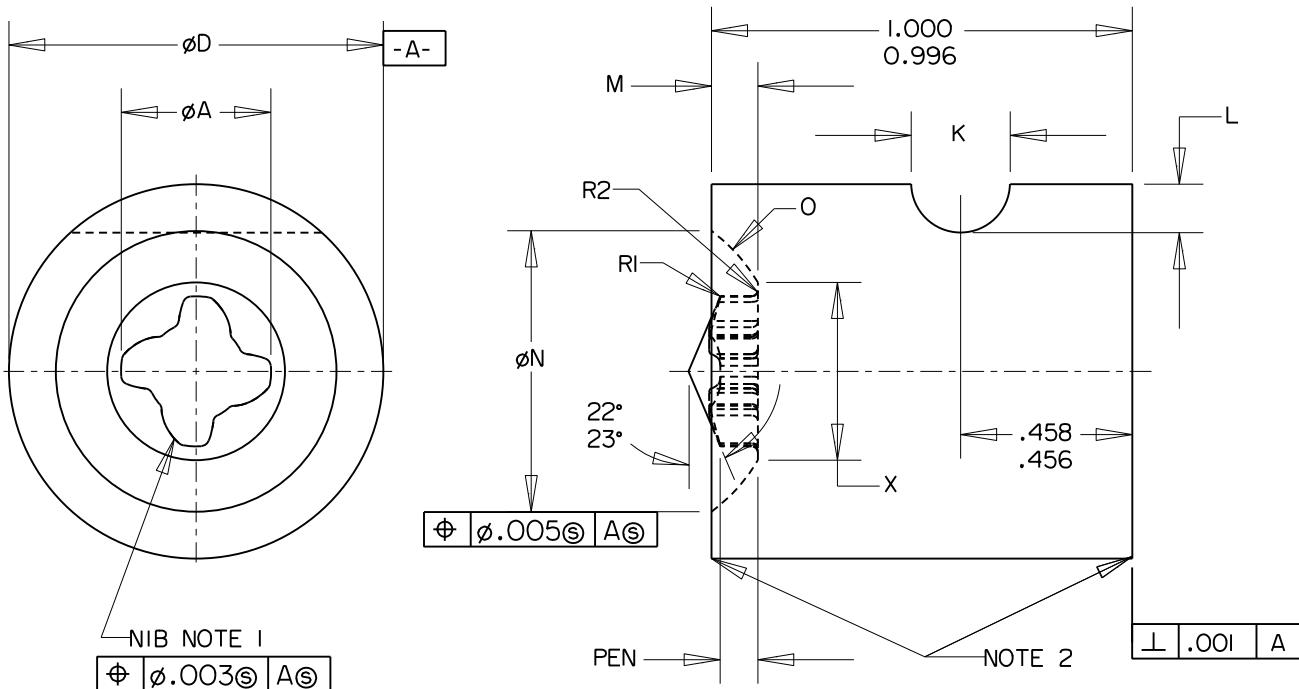
SCREW SIZE	PUNCH NO.	+.0020 -.0000	ØA	ØD	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
										MAX.	MIN.	
M2	MTS-000-I	.0720	.5625	.001-.003	.004	.212	.106	.250	.023	.019		MTS-000
M2.5	MTS-00-8	.1200	.5625	.001-.003	.005	.212	.106	.250	.028	.024		MTS-00
M3	MTS-00-19	.1200	.5625	.001-.003	.005	.212	.106	.250	.034	.030		MTS-00
M4	MTS-0-19	.1694	.5625	.001-.003	.005	.212	.106	.375	.047	.043		MTS-0
M5	MTS-0-17	.1694	.5625	.001-.003	.005	.212	.106	.375	.059	.055		MTS-0
M6	MTS-1-20	.2395	.8750	.001-.003	.005	.212	.106	.500	.068	.064		MTS-1
M8	MTS-2-12	.3070	1.0000	.002-.005	.008	.212	.106	.750	.095	.091		MTS-2
M10	MTS-3-II	.3527	1.0000	.002-.005	.008	.212	.106	.825	.110	.106		MTS-3
M12	MTS-4-13	.4275	1.2500	.002-.005	.012	.212	.106	.925	.131	.127		MTS-4
M14	MTS-5-13	.5053	1.2500	.002-.005	.018	.212	.106	1.020	.162	.158		MTS-5
M16	MTS-6-10	.5928	1.5000	.004-.006	.020	.212	.106	1.375	.190	.186		MTS-6
M18	MTS-7-6	.7250	2.0000	.004-.006	.025	.212	.106	1.500	.200	.196		MTS-7
M20	MTS-8-4	.8200	2.0000	.004-.006	.025	.212	.106	1.500	.248	.244		MTS-8

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION

© COPYRIGHT 2011 PHILLIPS SCREW COMPANY. ALL RIGHTS RESERVED.	TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM SOCKET HEAD CAP PUNCH HEAD (METRIC)		
	DRAWN G.DILLING	DATE 3/12/08	DRAWING NUMBER PSC-MTS-534
CHECKED: G.DILLING	DATE 3/12/08		SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326			
PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ® HEXSTIX® AND POZILOCK® ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY			



SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
												MAX.	MIN.	
M3	MTS-00-20	.1200	.5625	.001-.003	.005	.145	.049	.227	.125	.212	.106	.030	.026	MTS-00
M3.5	MTS-00-21	.1200	.5625	.001-.003	.005	.145	.055	.266	.158	.212	.106	.036	.032	MTS-00
M4	MTS-0-20	.1694	.5625	.001-.003	.005	.205	.067	.303	.163	.212	.106	.040	.036	MTS-0
M5	MTS-0-21	.1694	.5625	.001-.003	.005	.205	.083	.382	.223	.212	.106	.055	.051	MTS-0
M6	MTS-I-21	.2395	.8750	.001-.003	.005	.285	.103	.423	.222	.212	.106	.061	.057	MTS-I
M8	MTS-2-13	.3070	1.0000	.002-.005	.008	.370	.140	.561	.294	.212	.106	.085	.081	MTS-2
M10	MTS-3-12	.3527	1.2500	.002-.005	.008	.425	.179	.699	.371	.212	.106	.099	.095	MTS-3
M12	MTS-4-14	.4275	1.2500	.002-.005	.012	.520	.210	.837	.445	.212	.106	.135	.131	MTS-4
M14	MTS-5-14	.5053	1.5000	.002-.005	.018	.610	.250	.975	.514	.212	.106	.141	.137	MTS-5
M16	MTS-6-II	.5928	2.0000	.004-.006	.020	.740	.289	1.112	.577	.212	.106	.167	.163	MTS-6

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION

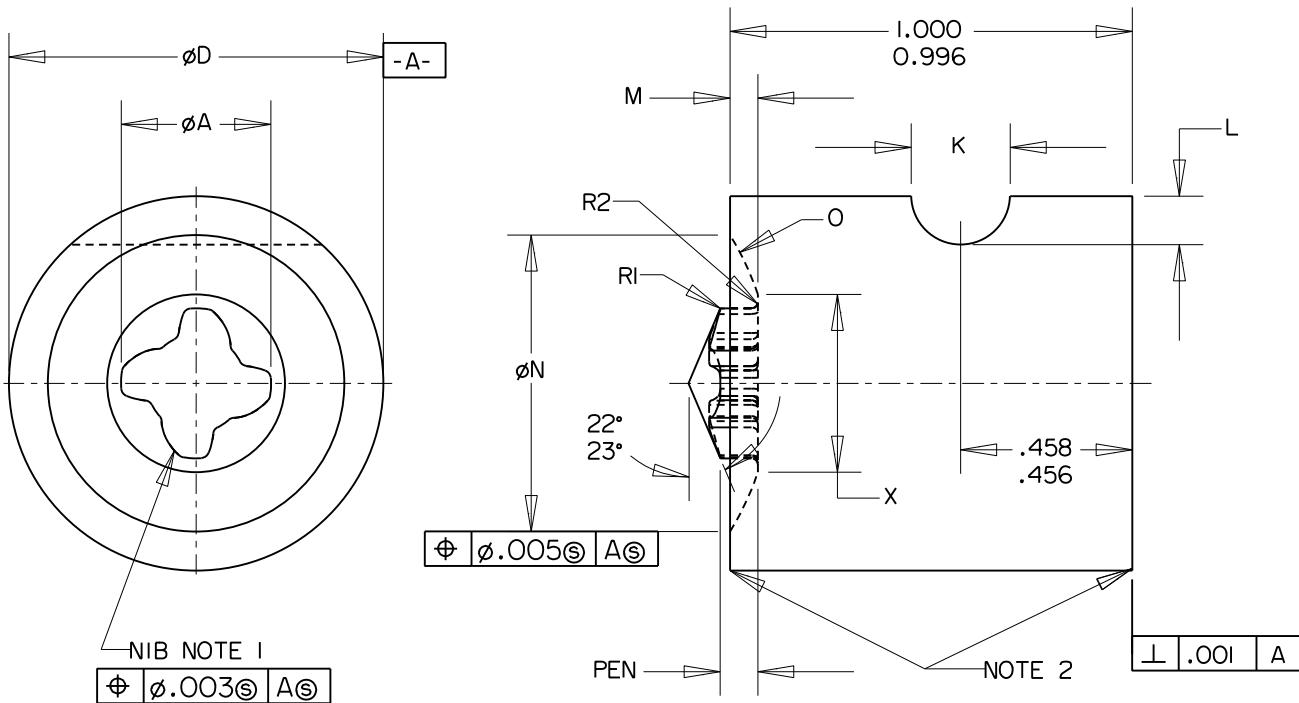
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
BUTTON HEAD PUNCH (METRIC)

DRAWN G.DILLING	DATE 3/12/08	DRAWING NUMBER PSC-MTS-535
CHECKED: G.DILLING	DATE 3/12/08	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	ØA	ØD	RI	R2 MAX.	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
														MAX.	MIN.	
M2	MTS-000-10	.0720	.5625	.001-.003	.004	.090	.013	.169	.215	.212	.106	.025	.021	MTS-000		
M2.5	MTS-00-22	.1200	.5625	.001-.003	.005	.145	.012	.213	.263	.212	.106	.028	.024	MTS-00		
M3	MTS-00-23	.1200	.5625	.001-.003	.005	.145	.018	.243	.278	.212	.106	.040	.036	MTS-00		
M3.5	MTS-00-24	.1200	.5625	.001-.003	.005	.145	.024	.317	.433	.212	.106	.053	.049	MTS-00		
M4	MTS-0-22	.1694	.5625	.001-.003	.005	.205	.026	.364	.452	.212	.106	.056	.052	MTS-0		
M5	MTS-I-22	.2395	.8750	.001-.003	.005	.285	.024	.403	.454	.212	.106	.056	.052	MTS-I		
M6	MTS-I-23	.2395	.8750	.001-.003	.005	.285	.038	.489	.557	.212	.106	.080	.076	MTS-I		
M8	MTS-2-14	.3070	1.0000	.002-.005	.008	.370	.052	.672	.800	.212	.106	.092	.088	MTS-2		
M10	MTS-4-15	.4275	1.2500	.002-.005	.012	.520	.053	.777	.852	.212	.106	.115	.111	MTS-4		

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
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- DIMENSIONS ARE IN INCHES.
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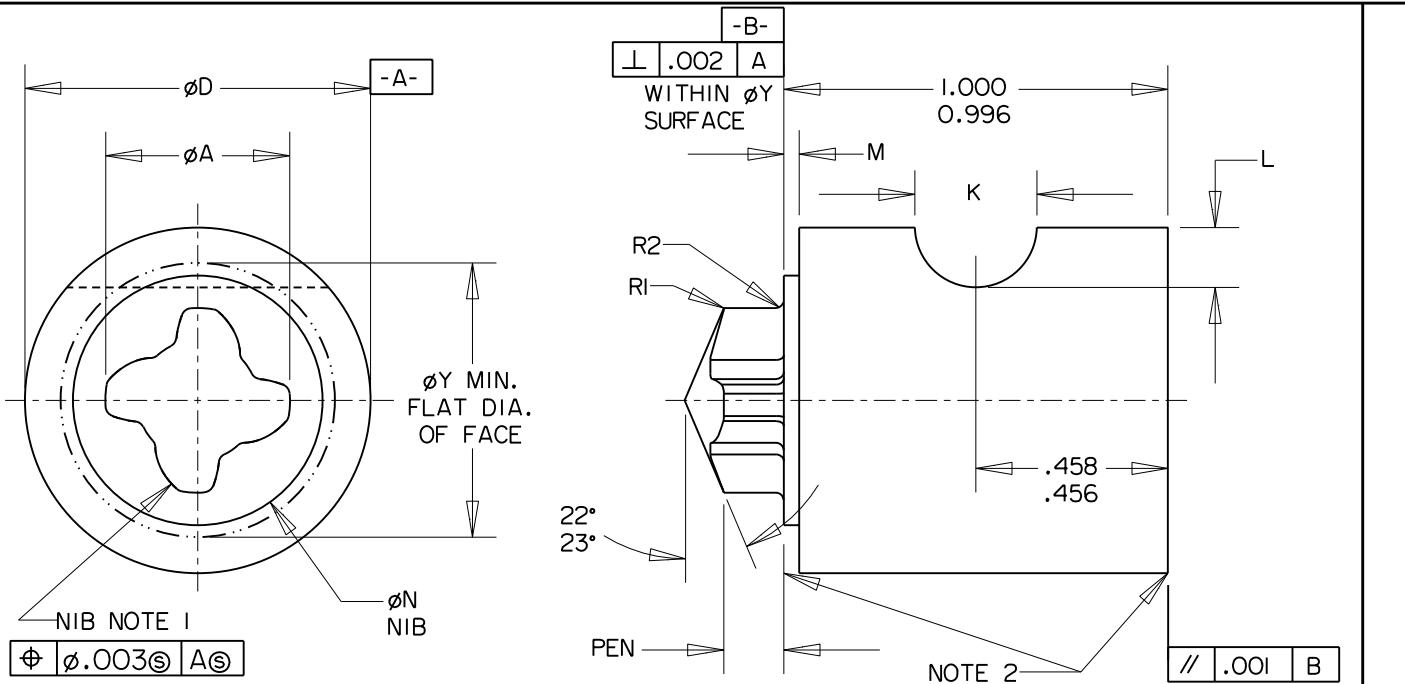
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
OVAL HEAD PUNCH (METRIC)

DRAWN G.DILLING	DATE 3/14/08	DRAWING NUMBER PSC-MTS-536
CHECKED: G.DILLING	DATE 3/14/08	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	+.002 -.000	+.005 -.000	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
											MAX.	MIN.	
M2	MTS-000-II	.0720	.5625	.001-.003	.004	.212	.106	.006	.100	.250	.022	.019	MTS-000
M2.5	MTS-000-I2	.0720	.5625	.001-.003	.004	.212	.106	.006	.125	.250	.030	.026	MTS-000
M3	MTS-00-25	.1200	.5625	.001-.003	.005	.212	.106	.006	.150	.275	.036	.032	MTS-00
M3.5	MTS-00-26	.1200	.5625	.001-.003	.005	.212	.106	.010	.170	.275	.043	.039	MTS-00
M4	MTS-0-23	.1694	.5625	.001-.003	.005	.212	.106	.018	.210	.350	.050	.046	MTS-0
M5	MTS-0-24	.1694	.5625	.001-.003	.005	.212	.106	.020	.270	.400	.058	.054	MTS-0
M6	MTS-I-24	.2395	.8750	.001-.003	.005	.212	.106	.030	.320	.500	.072	.068	MTS-I
M8	MTS-2-15	.3070	1.0000	.002-.005	.008	.212	.106	.036	.430	.625	.085	.081	MTS-2
M10	MTS-3-13	.3527	1.0000	.002-.005	.008	.212	.106	.040	.490	.750	.103	.099	MTS-3

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
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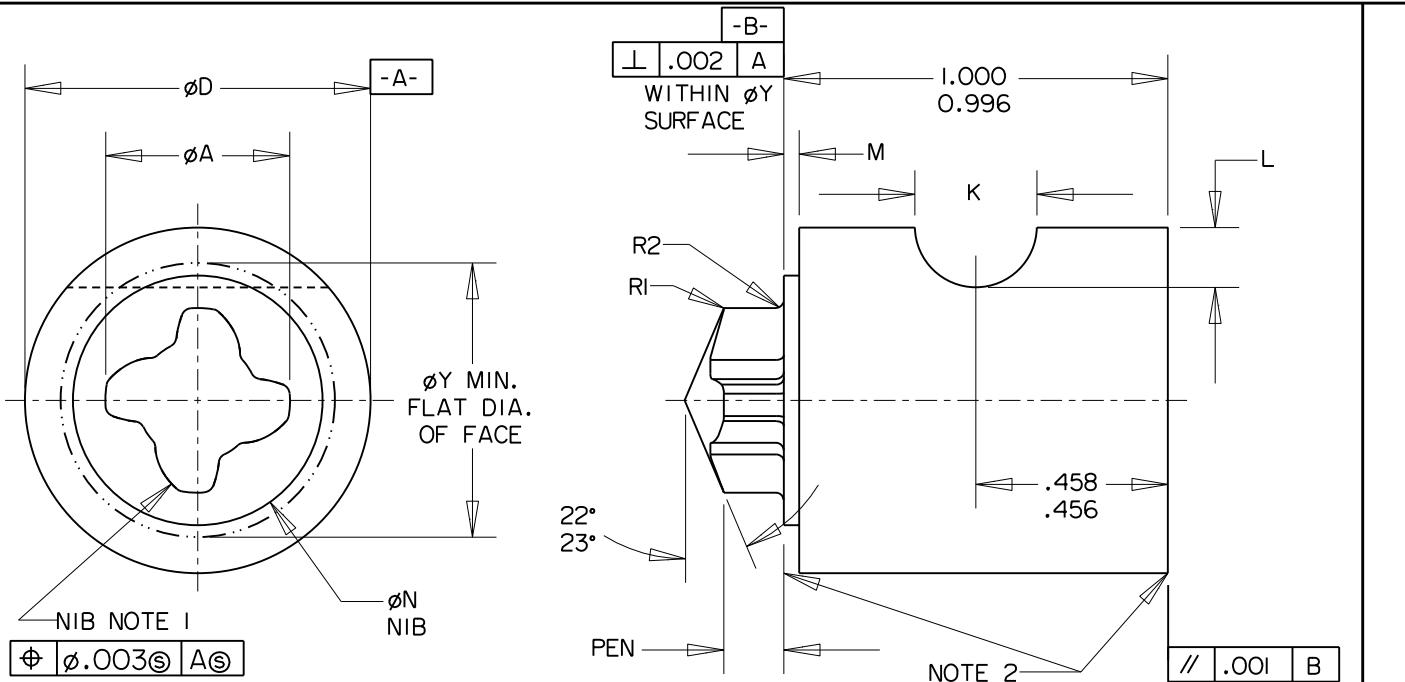
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
INDENTED HEXAGON HEAD PUNCH (METRIC)

DRAWN G.DILLING	DATE 3/20/08	DRAWING NUMBER PSC-MTS-537
CHECKED: G.DILLING	DATE 3/20/08	SHEET 1 OF 1

PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A.
PHONE: 774-396-6190 FAX: 508-966-2326

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	±.0005	RI	R2 MAX.	+.001 -.000	+.000 -.001	+.002 -.000	+.005 -.000	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
											MAX.	MIN.	
2	MTS-000-13	.0720	.5625	.001-.003	.004	.212	.106	.006	.100	.250	.026	.023	MTS-000
3	MTS-00-27	.1200	.5625	.001-.003	.005	.212	.106	.006	.145	.275	.028	.024	MTS-00
4	MTS-00-28	.1200	.5625	.001-.003	.005	.212	.106	.007	.145	.275	.035	.031	MTS-00
5	MTS-00-28	.1200	.5625	.001-.003	.005	.212	.106	.007	.145	.275	.035	.031	MTS-00
6	MTS-00-29	.1200	.5625	.001-.003	.005	.212	.106	.016	.190	.300	.040	.036	MTS-00
8	MTS-0-25	.1694	.5625	.001-.003	.005	.212	.106	.016	.190	.300	.045	.041	MTS-0
10	MTS-0-26	.1694	.5625	.001-.003	.005	.212	.106	.020	.270	.400	.055	.051	MTS-0
1/4	MTS-I-25	.2395	.8750	.001-.003	.005	.212	.106	.030	.300	.500	.078	.074	MTS-I
5/16	MTS-2-16	.3070	1.0000	.002-.005	.008	.212	.106	.036	.400	.625	.083	.079	MTS-2
3/8	MTS-3-14	.3527	1.0000	.002-.005	.008	.212	.106	.040	.465	.750	.097	.093	MTS-3

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
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REVISION

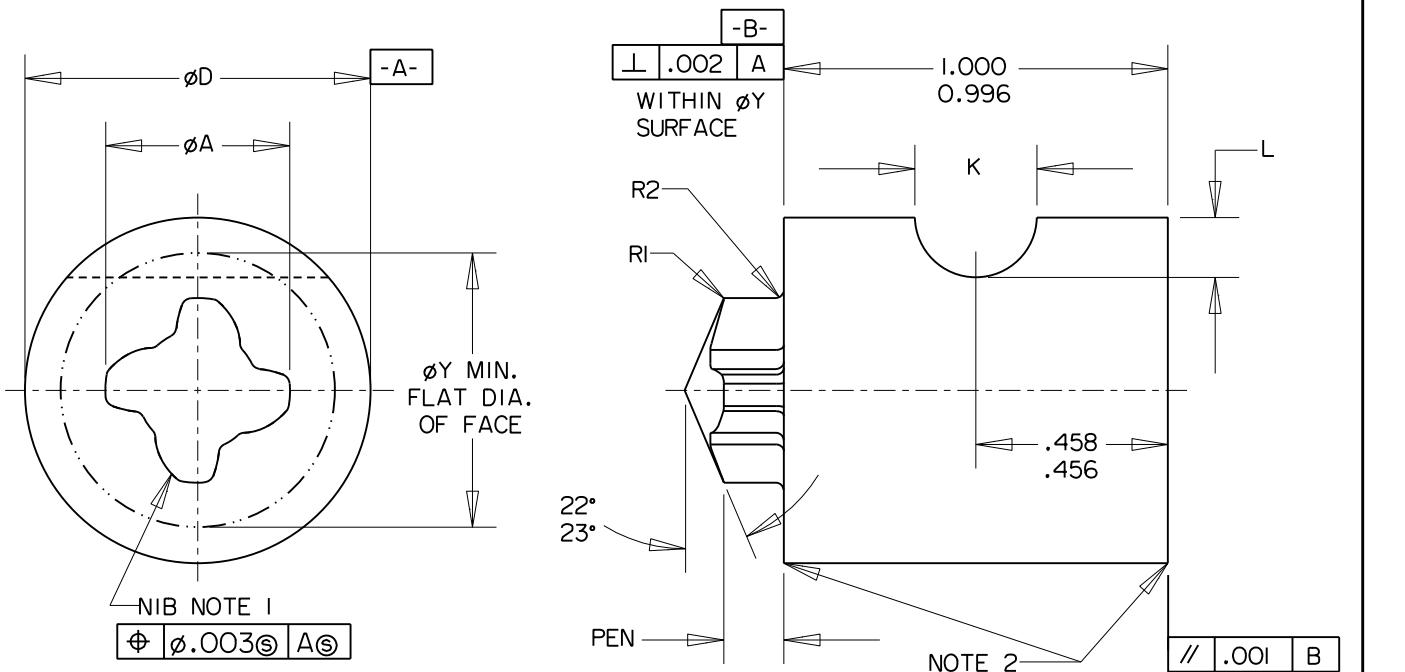
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TITLE: MORTORQ® SUPER SPIRAL DRIVE SYSTEM
INDENTED HEXAGON HEAD PUNCH (INCH)

DRAWN G.DILLING	DATE 4/18/08	DRAWING NUMBER PSC-MTS-538
CHECKED G.DILLING	DATE 4/18/08	SHEET 1 OF 1
PHILLIPS SCREW CO. 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	ØA	ØD	RI	R2 MAX.	+.001 -.000	+.000 -.001	MIN. ØY	PUNCH PENETRATION		DRIVE SIZE MTS
										MAX.	MIN.	
0	MTS-04-1	.0555 .0545	.4375	.001-.003	.003	.125	.062	.150	.017	.015		MTS-04
1	MTS-04-8	.0555 .0545	.4375	.001-.003	.003	.125	.062	.200	.020	.018		MTS-04
2	MTS-000-15	.0720	.5625	.001-.003	.004	.212	.106	.200	.027	.023		MTS-000
3	MTS-000-16	.0720	.5625	.001-.003	.004	.212	.106	.200	.029	.025		MTS-000
4	MTS-00-13	.1200	.5625	.001-.003	.005	.212	.106	.350	.030	.026		MTS-00
5	MTS-00-19	.1200	.5625	.001-.003	.005	.212	.106	.250	.034	.030		MTS-00
6	MTS-00-30	.1200	.5625	.001-.003	.005	.212	.106	.300	.037	.033		MTS-00
8	MTS-0-2	.1694	.5625	.001-.003	.005	.212	.106	.438	.045	.041		MTS-0
10	MTS-0-27	.1694	.5625	.001-.003	.005	.212	.106	.400	.048	.044		MTS-0
1/4	MTS-I-15	.2395	.8750	.001-.003	.005	.212	.106	.600	.070	.066		MTS-I
5/16	MTS-2-17	.3070	.8750	.002-.005	.008	.212	.106	.550	.085	.081		MTS-2
3/8	MTS-3-II	.3527	1.0000	.002-.005	.008	.212	.106	.825	.110	.106		MTS-3
7/16	MTS-4-16	.4275	1.2500	.002-.005	.012	.212	.106	.750	.125	.121		MTS-4
1/2	MTS-5-15	.5053	1.2500	.002-.005	.018	.212	.106	.800	.140	.136		MTS-5
5/8	MTS-6-12	.5928	1.5000	.004-.006	.020	.212	.106	1.000	.165	.161		MTS-6

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
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REVISION

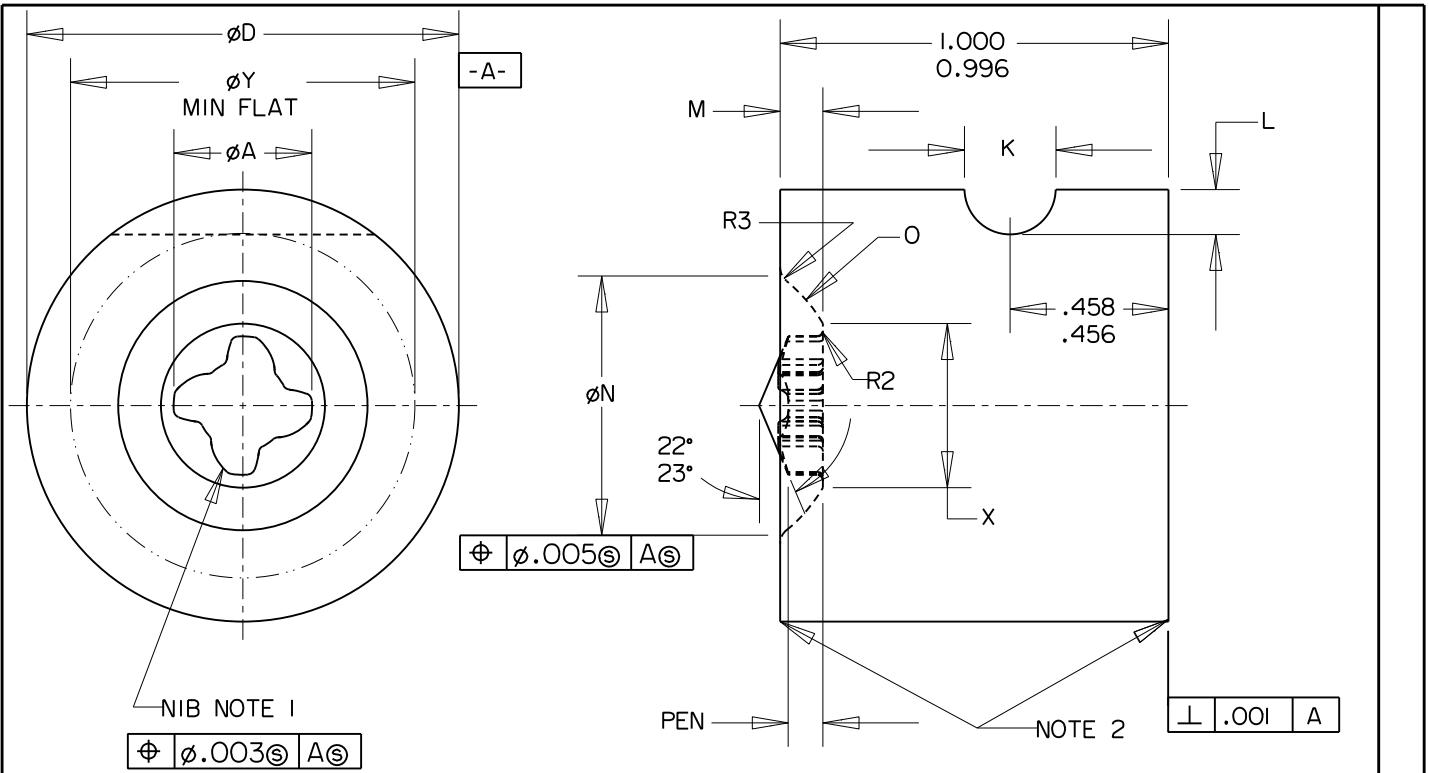
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TITLE:
MORTORQ® SUPER SPIRAL DRIVE SYSTEM, S.S.
LOW PROFILE SOCKET HEAD CAP PUNCH HEAD (INCH)

DRAWN G.DILLING	DATE 10/4/10	DRAWING NUMBER PSC-MTS-539
CHECKED: G.DILLING	DATE 10/4/10	SHEET 1 OF 1
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326		

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SCREW SIZE	PUNCH NO.	+.0020 -.0000	ØA	ØD	R2 MAX	R3	Y MIN FLAT	X REF	+.002 -.000	+.005 -.000	+.005 -.000	+.001 -.000	+.000 -.001	PUNCH PENETRATION		DRIVE SIZE MTS
														MAX.	MIN.	
M2	MTS-000-17	.0720	.5625	.004	.008	.195	.095	.031	.130	.067	.212	.106	.020	.017	MTS-000	
M2.5	MTS-005-3	.0505 .0495	.5625	.004	.008	.240	.125	.036	.180	.099	.212	.106	.025	.022	MTS-000	
M3	MTS-00-3I	.1200	.5625	.005	.010	.275	.155	.048	.200	.102	.212	.106	.026	.023	MTS-00	
M3.5	MTS-00-32	.1200	.5625	.005	.012	.325	.155	.054	.225	.118	.212	.106	.033	.029	MTS-00	
M4	MTS-0-28	.1694	.5625	.005	.018	.395	.220	.065	.300	.157	.212	.106	.040	.036	MTS-0	
M5	MTS-0-29	.1694	.5625	.005	.020	.445	.220	.085	.330	.171	.212	.106	.052	.048	MTS-0	
M6	MTS-I-26	.2395	.8750	.005	.025	.560	.300	.119	.428	.217	.212	.106	.080	.076	MTS-I	
M8	MTS-2-18	.3070	1.0000	.008	.030	.720	.385	.135	.565	.297	.212	.106	.085	.081	MTS-2	
M10	MTS-4-17	.4275	1.2500	.012	.035	1.000	.520	.125	.700	.384	.212	.106	.100	.095	MTS-4	

NOTES:

- REFER TO PUNCH DRAWING PSC-MTS-500 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- DIMENSIONS ARE IN INCHES.
- PUNCH RECESS DIMENSIONS ARE PREDICATED ON COLD HEADED SCREWS. HOT FORGED SCREWS MAY REQUIRE AN OVERSIZE RECESS TO COMPENSATE FOR SHRINK FACTOR.

REVISION

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DRAWN G.DILLING		DATE 9/29/10	DRAWING NUMBER PSC-MTS-540
CHECKED: G.DILLING		DATE 9/30/10	
PHILLIPS SCREW CO., 155 FARM STREET, BELLINGHAM, MA 02019 U.S.A. PHONE: 774-396-6190 FAX: 508-966-2326			
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