TECHNICAL MANUAL



PHILLIPS SQUARE DRIV® Drive Systems

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



PHILLIPS SQUARE DRIV® **Drive System Technical Manual**



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Phillips Screw Company 1 Van De Graaff Drive Burlington, MA 01803

Phone: (774) 396-6190 (508) 966-2326

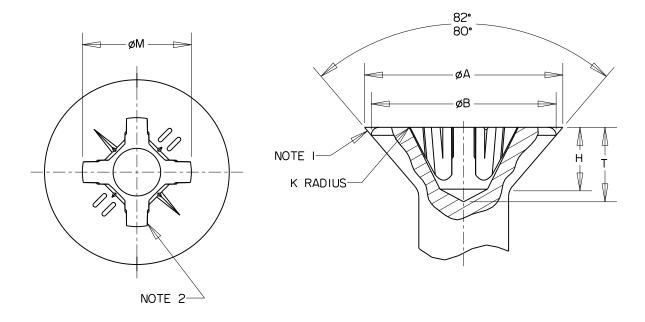
WWW: Phillips-Screw.com Issue: 10/11

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	DUNCLI	HEAD	DIMENS	SIONS		RECESS DIMENSIONS						
SCREW	PUNCH	øΑ	øΒ	Н		Т	K	PENETF	RATION	DRIVER SIZE		
SIZE	NUMBER	THEO.	MIN.	REF.	øΜ	REF	REF	MAX.	MIN.	PSD		
4	PSD-4F0I-SN	.225 .207	.195	.067	.129 .116	.090	.012	.044	.029	0-1		
6	PSD-6FI2-SN	.292 .270	.257	.090	.182 .169	.114	.015	.074	.058	I-2		
8	PSD-8F22-SN	.332 .308	.292	.100	.190 .177	.122	.015	.060	.044	2-2		
10	PSD-IOF22-SN	.385 .359	.340	.116	.209 .196	.141	.015	.079	.063	2-2		
1/4	PSD-25F33-SN	.507 .477	.452	.153	.29I .278	.179	.020	.123	.106	3-3		

- I. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
- 2. RECESS PER DRAWINGS PSC-9I4-SR, PSC-9I5-SR, PSC-9I6-SR AND PSC-9I7-SR.
- 3. DIMENSIONS ARE IN INCHES.
- 4. DRAWING NOT TO SCALE.
- 5. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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PHILLIPS SQUARE-DRIV® FLAT HEAD SCREWS (INCH)

DRAWN
E.SEGARRA
DATE
3-04-02
PSC-968

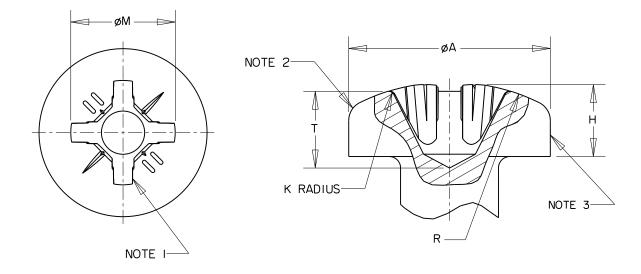
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SACHUSETTS. U.S.A.

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 78I-213-352I FAX: 78I-224-9753

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	DUNCLI	HEAD	DIMENS	SIONS		REC	ESS DIM	MENSIONS		רטוייבט
SCREW	PUNCH			R		T K PE		PENETE	RATION	DRIVER SIZE
SIZE	NUMBER	øΑ	Н	REF.	øΜ	REF	REF	MAX.	MIN.	PSD
4	PSD-4POI-SN	.220 .206	.094 .089	.248	.144 .131	.103	.012	.057	.042	0-1
6	PSD-6PI2-SN	.270 .260	.102 .097	.301	.175 .162	.103	.015	.063	.047	I-2
8	PSD-8P22-SN	.322 .306	.127 .115	.352	.199 .186	.128	.015	.065	.049	2-2
Ю	PSD-IOP22-SN	.374 .358	.146 .138	.413	.22I .208	.150	.015	.088	.072	2-2
1/4	PSD-25P33-SN	.492 .473	.188 .175	.535	.298 .285	.181	.020	.125	.108	3-3

- I. RECESS PER DRAWINGS PSC-9I4-SR, PSC-9I5-SR, PSC-9I6-SR AND PSC-9I7-SR,
- 2. THE HEAD CROWN CORNER IS NOT CONTAINED IN THE PUNCH CAVITY AND IS TO BE FREE FLOWED.
- 3. TO INSURE GOOD FILL OF THE RECESS CAVITY, THE SIDES OF THE HEAD MUST BE CONTAINED IN THE HEADING DIE.

TITLE:

- 4. DRAWING NOT TO SCALE.
- 5. DIMENSIONS ARE IN INCHES.
- 6. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

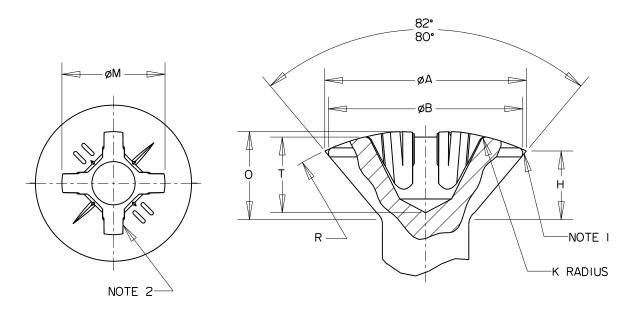
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PHILLIPS SQUARE-DRIV[®] PAN HEAD SCREWS (INCH)

DRAWN	DATE	DRAWING NUMBER
E.SEGARRA	3-04-02	PSC-969
CHECKED:	DATE	1 30-363
G, LaMONICA	8-16-02	SHEET I OF I
PHILLIPS SCREW CO. 301 EDG	EWATER ORIVE	SUITE 320 WAKEEIELD MA OIRRO LLS A

PHONE: 781-213-3521 FAX: 781-224-9753



	DUNCU		HEAD	DIMENS	SIONS				ספוערם			
SCREW SIZE	PUNCH	øΑ	øΒ	Н		R		Т	К	PENETF	RATION	DRIVER SIZE
SIZE	NUMBER	THEO.	ABS. MIN.	REF.	0	REF.	øΜ	REF	REF	MAX.	MIN.	PSD
4	PSD-4VOI-SN	.225 .207	.195	.067	.104 .084	.248	.141 .128	.100	.012	.054	.039	0-1
6	PSD-6VI2-SN	.292 .270	.257	.090	.137 .118	.301	.198 .185	.126	.015	.086	.070	I-2
8	PSD-8V22-SN	.332 .308	.292	.100	.152 .126	.352	.210 .197	.139	.015	.076	.060	2-2
10	PSD-IOV22-SN	.385 .359	.340	.116	.176 .148	.413	.234 .22I	.162	.015	.100	.084	2-2
1/4	PSD-25V33-SN	.507 .477	.452	.153	.232 .197	.535	.322 .309	.206	.020	.150	.133	3-3

- I. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
- 2. RECESS PER DRAWINGS PSC-9I4-SR, PSC-9I5-SR, PSC-9I6-SR AND PSC-9I7-SR.
- 3. DIMENSIONS ARE IN INCHES.
- 4. DRAWING NOT TO SCALE.
- 5. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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PHILLIPS SQUARE-DRIV® OVAL HEAD SCREWS (INCH)

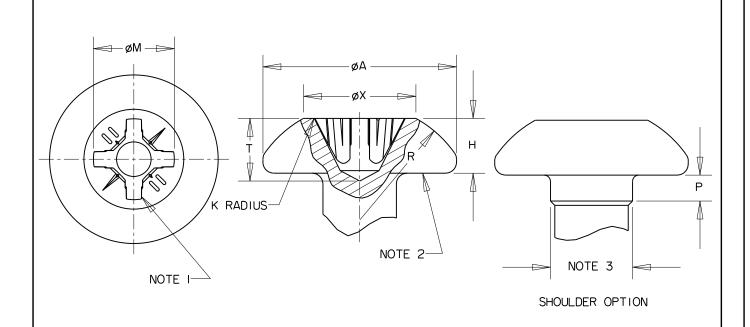
DRAWN E.SEGARRA 3-04-02 PSC-970

CHECKED: G. LOMONICA 8-23-02 SHEET I OF I

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE. SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

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

| REVISION | REV: 11-26-03 | REV: 10-19-06 | REV: 12-09-11 | REV: 11-17



	DUNCU		HEAD	DIMENS	SIONS				סטעייים			
SCREW	PUNCH			øΧ	R	Р		Т	К	PENETF	RATION	DRIVER SIZE
SIZE	NUMBER	øΑ	Н	REF.	REF.	REF.	øΜ	REF	REF	MAX.	MIN.	PSD
6	PSD-6TI2-SN	.32I .303	.100 .090	.205	.181	.031	.176 .163	.108	.015	.068	.052	I-2
8	PSD-8T22-SN	.384 .364	.120 .110	.230	.220	.031	.203 .190	.135	.015	.073	.057	2-2
Ю	PSD-IOT22-SN	.448 .425	.137 .127	.250	.269	.031	.220 .207	.152	.015	.090	.074	2-2
1/4	PSD-25T33-SN	.573 .546	.175 .165	.340	.321	.063	.302 .289	.190	.020	.134	.117	3-3

- I. RECESS PER DRAWINGS PSC-915-SR, PSC-916-SR AND PSC-917-SR.
- 2. IF RECESS FALL AWAY IS TOO GREAT, THEN UNDERHEAD RINGS ON THE FACE OF HEADING DIE MAY BE REQUIRED TO CONTROL THE FREE FLOW OF MATERIAL.
- 3. OPTIONAL SHOULDER FOR LONG SCREWS WITH REDUCE BODY DIAMETER (MACHINE SCREW ONLY). DIAMETER NOT TO EXCEED MAXIMUM MAJOR DIAMETER OF THREAD.
- 4. DIMENSIONS ARE IN INCHES.
- 5. DRAWING NOT TO SCALE.
- 6. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

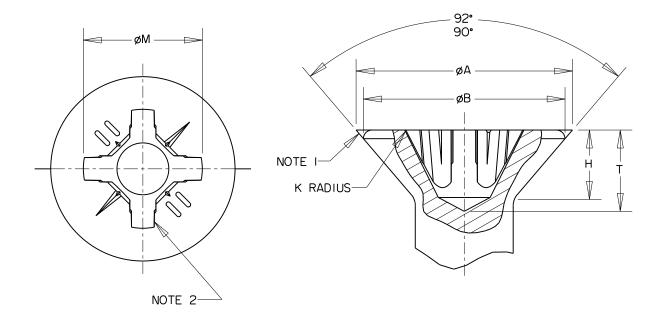
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PHILLIPS SQUARE-DRIV[®] TRUSS HEAD SCREWS (INCH)

DRAWN	DATE	DRAWING NUMBER
E.SEGARRA	3-04-02	PSC-971
CHECKED:	DATE	130 311
G. LaMONICA	8-16-02	SHEET I OF I
DUILLING SCREW CO ZOLEDO	EWATED DOINE	CHITE 300 WAREETELD MA DIOOD HIS A

HILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A PHONE: 781-213-3521 FAX: 781-224-9753



	PUNCH	HEAD	DIMENS	SIONS		RECESS DIMENSIONS						
SCREW		øΑ	øΒ	Н		Т	К	PENETF	RATION	DRIVER SIZE		
SIZE	NUMBER	THEO.	MIN.	REF.	øΜ	REF	REF	MAX.	MIN.	PSD		
M3	PSD-4F0I-SN	6.3 5.9	5.2	1.65	3.28 2.95	2.29	0.30	1.12	0.74	0-1		
M3.5	PSD-6FI2-SN	8.2 7.7	6.9	2.35	4.62 4.29	2.90	0.38	1.88	1.47	I-2		
M4	PSD-8F22-SN	9.4 8.9	8.0	2.70	4.83 4.50	3.10	0.38	1.51	1.12	2-2		
M5	PSD-IOF22-SN	10.4 9.8	8.9	2.70	5.3I 4.98	3.58	0.38	2.00	1.60	2-2		
M6	PSD-600F33-SN	12.6 11.9	10.9	3.30	6.8I 6.48	3.96	0.51	2.54	2.11	3-3		

- I. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
- 2. RECESS PER DRAWINGS PSC-914-SR, PSC-915-SR, PSC-916-SR AND PSC-917-SR.
- 3. DIMENSIONS ARE IN METRIC.
- 4. DRAWING NOT TO SCALE.
- 5. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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PHILLIPS SQUARE-DRIV® FLAT HEAD SCREWS (METRIC)

 DRAWN
 E.SEGARRA
 DATE
 DRAWING NUMBER

 3-04-02
 PSC-972

 CHECKED:
 G. LoMONICA
 DATE

 8-2I-02
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11-1-17

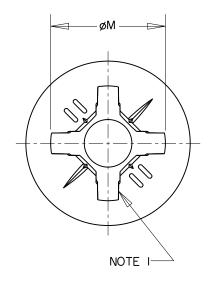
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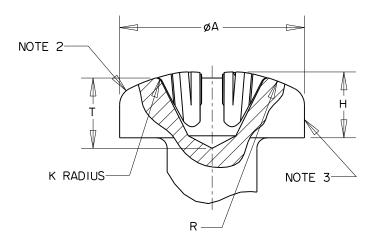
REV: 10-19-06 REV: 12-12-11

REVISION REV: 11-26-03

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753







	DUNCLI	HEAD	DIMENS	SIONS		RECESS DIMENSIONS						
SCREW	PUNCH			R		Т	К	PENETF	PENETRATION			
SIZE	NUMBER	øΑ	Н	REF.	øΜ	REF	REF	MAX.	MIN.	SIZE PSD		
М3	PSD-4POI-SN	5.6 5.3	2.4 2.2	6.30	3.66 3.33	2.62	0.30	1.45	1.07	0-1		
M3.5	PSD-6PI2-SN	7.0 6.6	2.6 2.3	7.64	4.45 4.II	2.62	0.38	1.60	1.19	I-2		
M4	PSD-8P22-SN	8.0 7.6	3.2 2.9	8.94	5.05 4.72	3.25	0.38	1.65	1.24	2-2		
M5	PSD-IOP22-SN	9.5 9.I	3.7 3.4	10.49	5.6l 5.28	3.81	0.38	2.24	1.83	2-2		
M6	PSD-25P33-SN	12.0 11.5	4.6 4.3	13.59	7.57 7.24	4.60	0.51	3.18	2.74	3-3		

- I. RECESS PER DRAWINGS PSC-9I4-SR, PSC-9I5-SR, PSC-9I6-SR AND PSC-9I7-SR,
- 2. THE HEAD CROWN CORNER IS NOT CONTAINED IN THE PUNCH CAVITY AND IS TO BE FREE FLOWED.
- 3. TO INSURE GOOD FILL OF THE RECESS CAVITY, THE SIDES OF THE HEAD MUST BE CONTAINED IN THE HEADING DIE.
- 4. DRAWING NOT TO SCALE.
- 5. DIMENSIONS ARE IN METRIC.
- 6. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

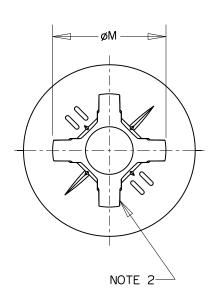
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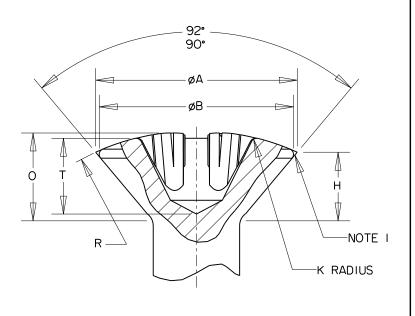
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PAN HEAD SCREWS (METRIC)

DRAWN	DATE	DRAWING NUMBER
E.SEGARRA	3-04-02	PSC-973
CHECKED:	DATE	130-313
G. LaMONICA	8-16-02	SHEET I OF I
DHILLIDG SCDEW CO 3OLEDO	EWATED DOINE	CHITE 320 WAREETELD MA DIOOD ILC A

HILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A PHONE: 781-213-3521 FAX: 781-224-9753





	DUNCL		HEAD	DIMENS	SIONS			RECES	S DIME	NSIONS		סטערס
SCREW	PUNCH	øΑ	øΒ	Н	0	R		Т	К	PENETF	RATION	DRIVER SIZE
SIZE	NUMBER	THEO.	MIN.	REF.	REF.	REF.	øΜ	REF	REF	MAX.	MIN.	PSD
M3	PSD-300VOI-SN	6.3 5.9	5.2	1.65	2.64 2.3I	6.0	3.73 3.40	2.69	0.30	1.52	1.14	0-1
M3.5	PSD-350VI2-SN	8.2 7.7	6.9	2.35	3.53 3.l3	8.5	5.08 4.75	3.25	0.38	2.23	1.83	I-2
M4	PSD-400V22-SN	9.4 8.9	8.0	2.70	4.06 3.66	9.5	5.72 5.38	3.90	0.38	2.32	1.91	2-2
M5	PSD-500V22-SN	10.4 9.8	8.9	2.70	4.39 3.9I	9.5	6.17 5.84	4.35	0.38	2.77	2.36	2-2
M6	PSD-600V33-SN	12.6 11.9	10.9	3.30	5.28 4.74	12.0	7.75 7.42	4.78	0.51	3.36	2.92	3-3

- I. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
- 2. RECESS PER DRAWINGS PSC-9I4-SR, PSC-9I5-SR, PSC-9I6-SR AND PSC-9I7-SR.
- 3. DIMENSIONS ARE IN METRIC.
- 4. DRAWING NOT TO SCALE.
- 5. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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PHILLIPS SQUARE-DRIV® OVAL HEAD SCREWS (METRIC)

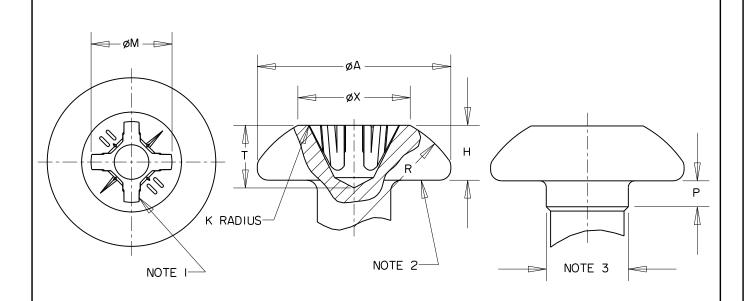
DRAWN E.SEGARRA	DATE 3-04-02	DRAWING NUMBER
CHECKED:	DATE	PSC-974
G. LaMONICA	8-21-02	SHEET I OF I
DULL LIDS SCIDEN CO. ZOLEDA	CLWATED DOLVE	CHITE 200 WAVEELELD MA OLOGO LLC A

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE, 78I-213-352I FAX, 78I-224-9753

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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11-1-17



	DUNCU		HEAD DIMENSIONS				RECESS DIMENSIONS					חחועבם
SCREW	PUNCH			øΧ	R	Р		Т	К	PENETF	RATION	DRIVER SIZE
SIZE	NUMBER	øΑ	Н	REF.	REF.	REF.	øΜ	REF	REF	MAX.	MIN.	PSD
M3.5	PSD-6TI2-SN	8.I5 7.70	2.54 2.29	5.21	4.60	0.79	4.47 4.14	2.74	0.38	1.73	1.32	I-2
M4	PSD-8T22-SN	9.75 9.25	3.05 2.79	5.84	5.59	0.79	5.l6 4.83	3.43	0.38	1.85	1.45	2-2
M5	PSD-IOT22-SN	II.38 IO.80	3.48 3.23	6.35	6.83	0.79	5.59 5.26	3.86	0.38	2.29	1.88	2-2
M6	PSD-25T33-SN	14.55 13.87	4.45 4.19	8.64	8.15	1.60	7.67 7.34	4.83	0.51	3.40	2.97	3-3

- I. RECESS PER DRAWINGS PSC-915-SR, PSC-916-SR AND PSC-917-SR.
- 2. IF RECESS FALL AWAY IS TOO GREAT, THEN UNDERHEAD RINGS ON THE FACE OF HEADING DIE MAY BE REQUIRED TO CONTROL THE FREE FLOW OF MATERIAL.
- 3. OPTIONAL SHOULDER FOR LONG SCREWS WITH REDUCE BODY DIAMETER (MACHINE SCREW ONLY). DIAMETER NOT TO EXCEED MAXIMUM MAJOR DIAMETER OF THREAD.
- 4. DIMENSIONS ARE IN METRIC.
- 5. DRAWING NOT TO SCALE.
- 6. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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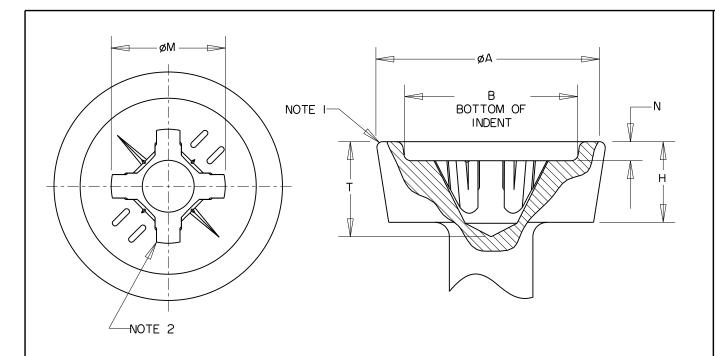
PHILLIPS SQUARE-DRIV® TRUSS HEAD SCREWS (METRIC)

DRAWN	DATE	DRAWING NUMBER			
E.SEGARRA	3-04-02	PSC-975			
CHECKED:	DATE	130-313			
G, LaMONICA	8-16-02	SHEET I OF I			
DULL UPS SOPEW SO 701 FR		0,122, 1 0, 1			

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

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

REVISION REV: 11-26-03 | REV: 10-19-06 | REV: 12-12-11 | REV: 11-17



		HEAD DIMENSIONS		RECESS DIMENSIONS						
SCREW SIZE	PUNCH NUMBER			øA ØB H		N			NETRATION DRIVER SIZE PSD	
				·		,	MAX.	REF	MAX.	MIN.
8	PSD-8SH22-SN	.400 .394	.3IO .294	.150 .140	.200 .187	.033	.165	.103	.085	2-2

- I. EDGE OF HEAD MAY BE ROUNDED OR FLAT.
- 2. RECESS PER DRAWING PSC-916-SR.
- 3. DIMENSIONS ARE IN INCHES.
- 4. DRAWING NOT TO SCALE.
- 5. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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PHILLIPS SQUARE-DRIV®

SPECIAL BUTTON HEAD SCREW

DRAWN
G.DILLING
2/20/03

CHECKED:
G.DILLING
DATE
2/24/03

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 78I-213-352I FAX: 78I-224-9753

REV: 11-17

12/13/11

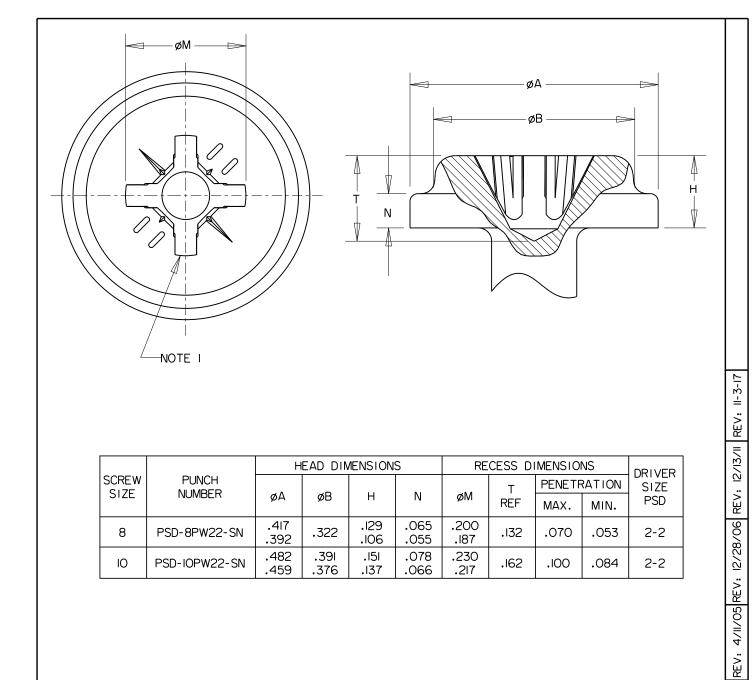
REV:

12/28/06

REV:

REV: 11/26/03

REVISION



		HEAD DIMENSIONS				RECESS DIMENSIONS				DRIVER
SCREW	PUNCH NUMBER		Ò				Т	PENETRATION		SIZE
SIZL		ØΑ	øB H		N	øΜ	REF	MAX.	MIN.	PSD
8	PSD-8PW22-SN	.417 .392	.322	.129 .106	.065 .055	.200 .187	.132	.070	.053	2-2
Ю	PSD-IOPW22-SN	.482 .459	.39I .376	.151 .137	.078 .066	.230 .2I7	.162	.100	.084	2-2

- I. RECESS PER DRAWING PSC-916-SR.
- 2. DIMENSIONS ARE IN INCHES.
- 3. DRAWING NOT TO SCALE.
- 4. SCREW PENETRATION VALUES DERIVE FROM USING GAUGES "PSC-943 THRU PSC-946".

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TITLE: PHILLIPS SQUARE-DRIV® SPECIAL FLAT PAN WASHER HEAD SCREW

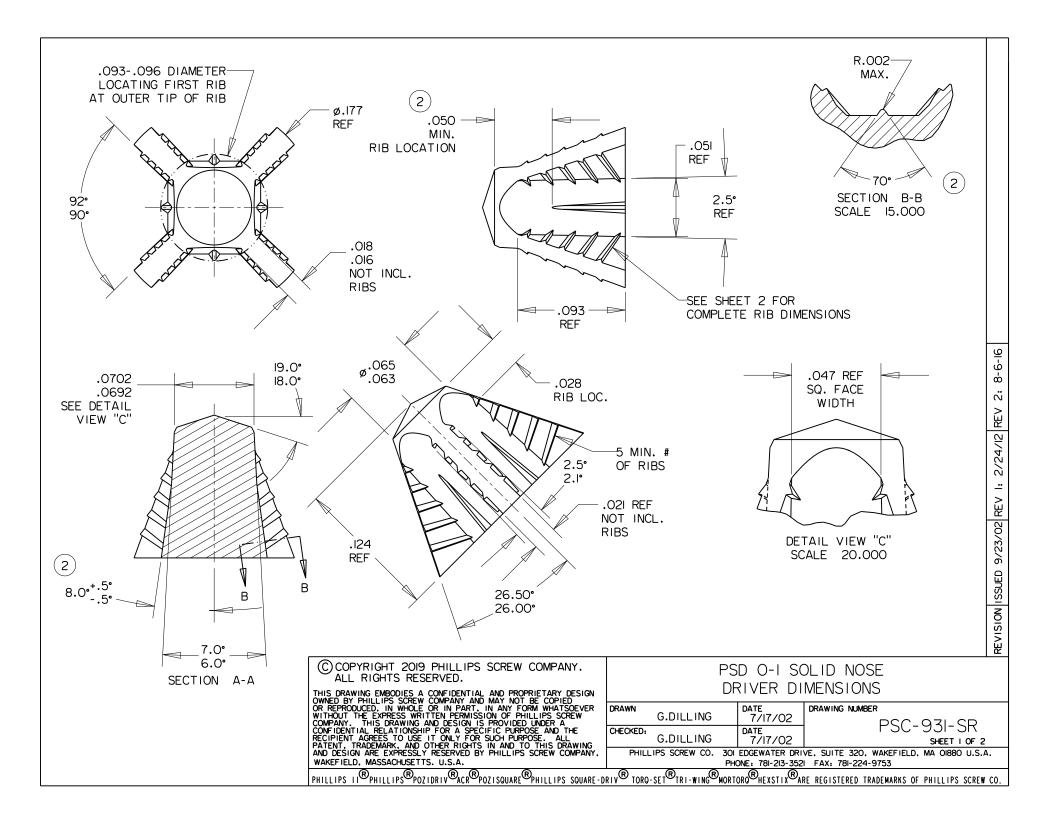
REVISION REV: 11/26/03

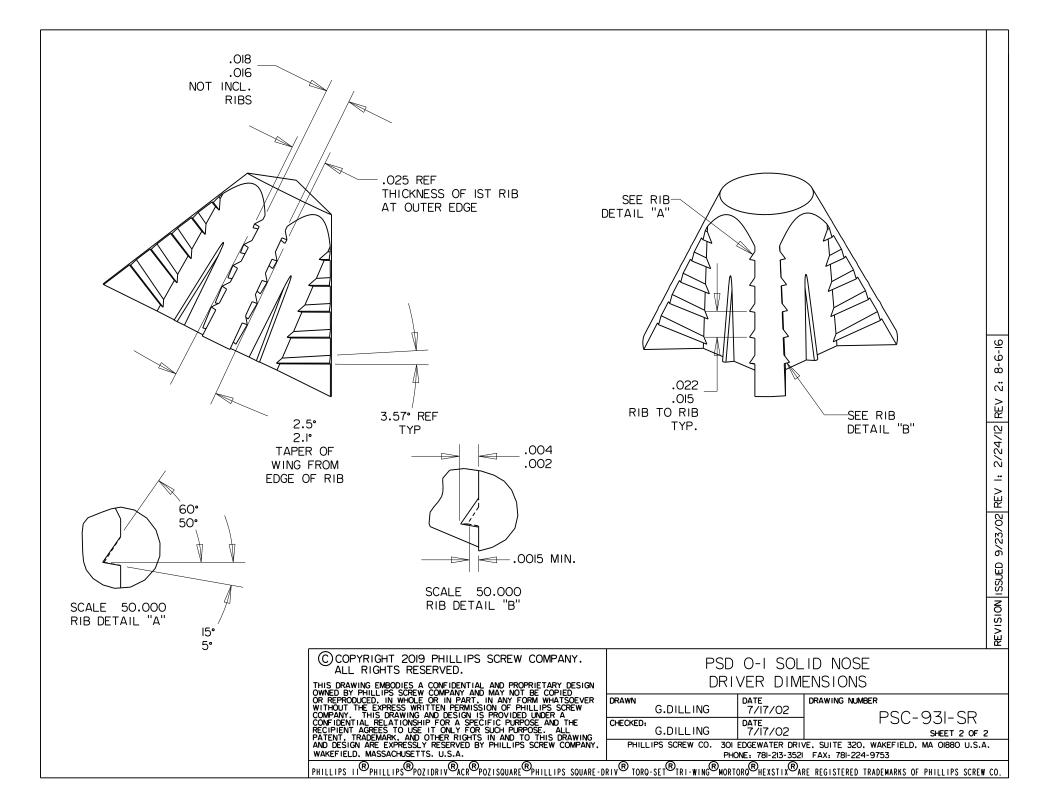
DRAWN DATE DRAWING NUMBER G.DILLING 2/20/03 PSC-997 DATE 2/24/03 CHECKED: G.DILLING SHEET I OF I

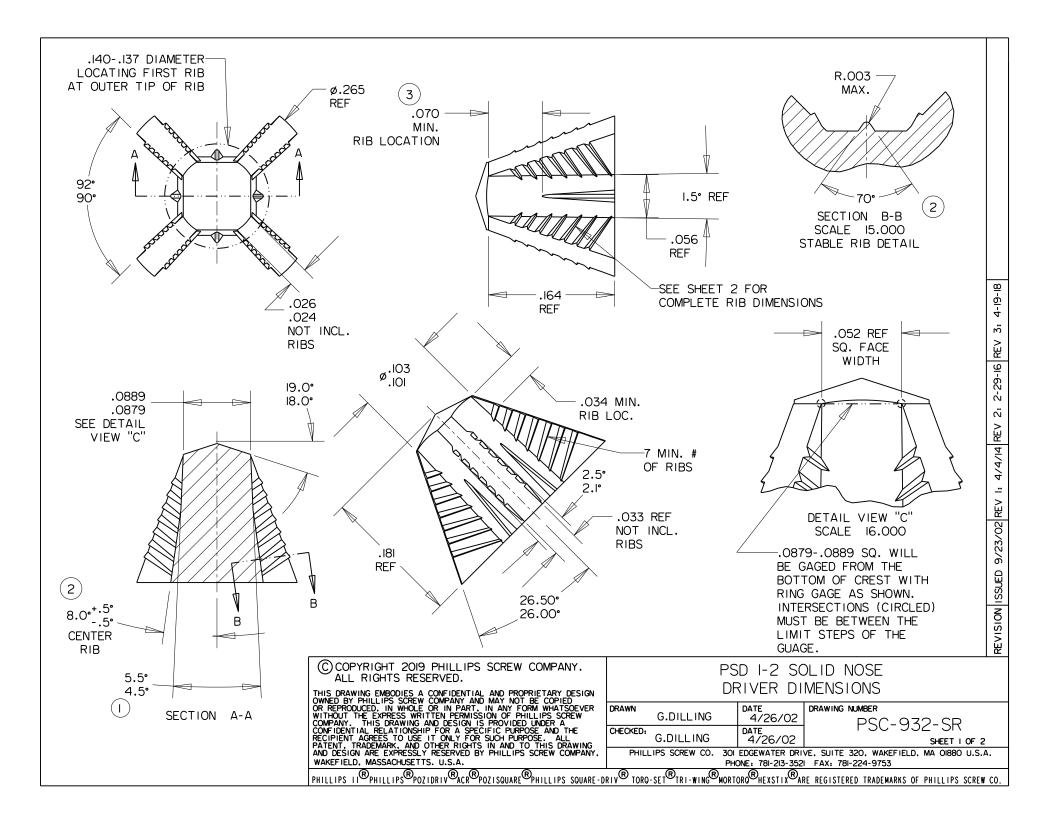
PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753

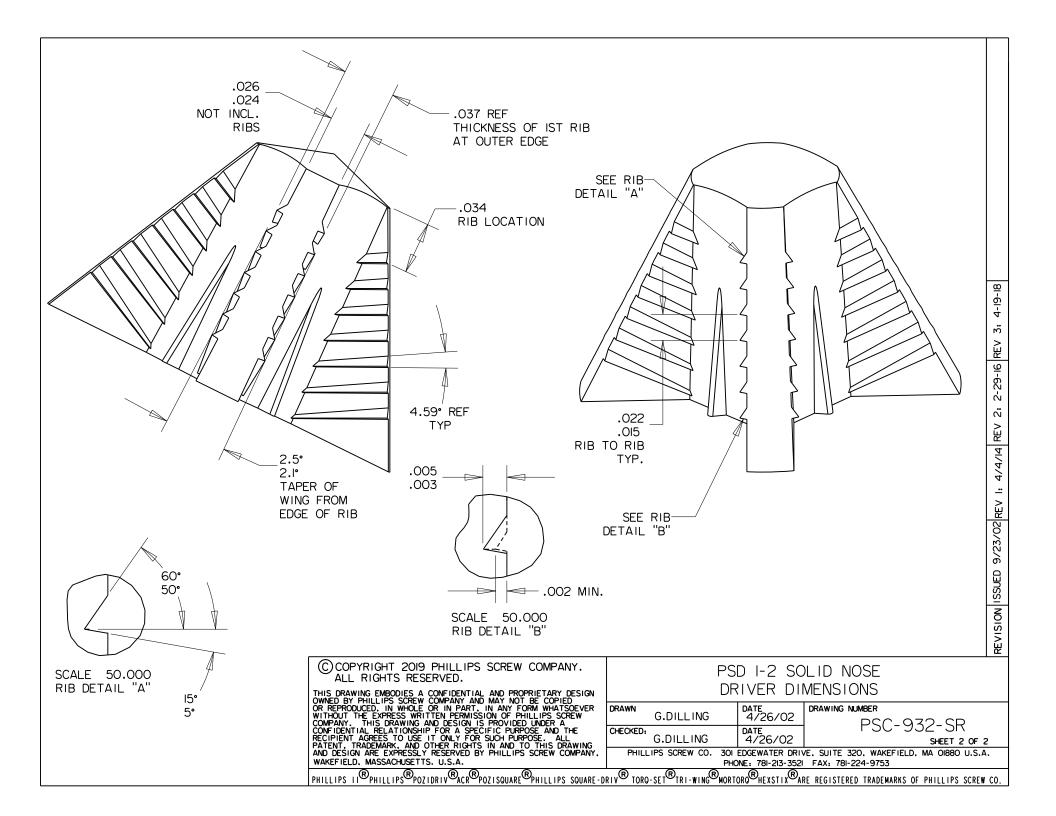
PHILLIPS SQUARE-DRIV® ENGINEERING MANUAL INDEX DRIVERS

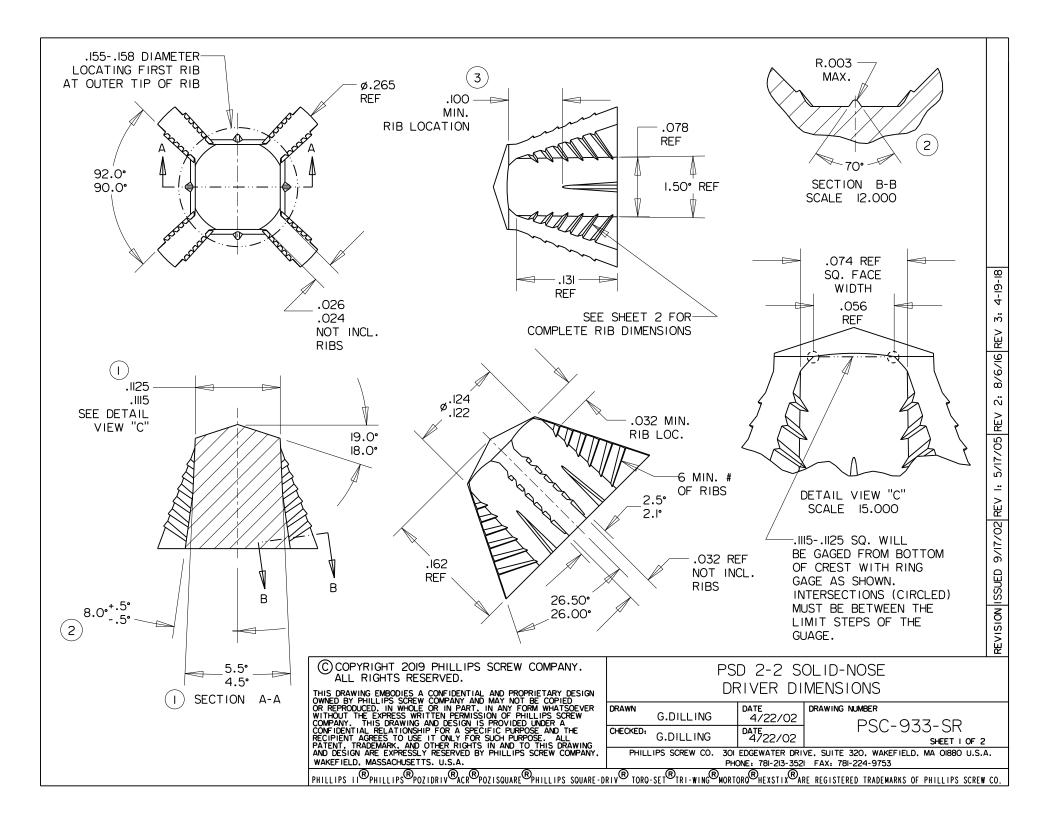
PSC-93I-SR	PSD (O-I) SOLID NOSE DRIVER POINT DIMENSIONS	8-6-16
PSC-932-SR	PSD (I-2) SOLID NOSE DRIVER POINT DIMENSIONS	4-19-18
PSC-933-SR	PSD (2-2) SOLID NOSE DRIVER POINT DIMENSIONS	4-19-18
PSC-934-SR	PSD (3-3) SOLID NOSE DRIVER POINT DIMENSIONS	4-19-18
PSC-937-SR	PSD INSERT DRIVER BITS	10-27-17

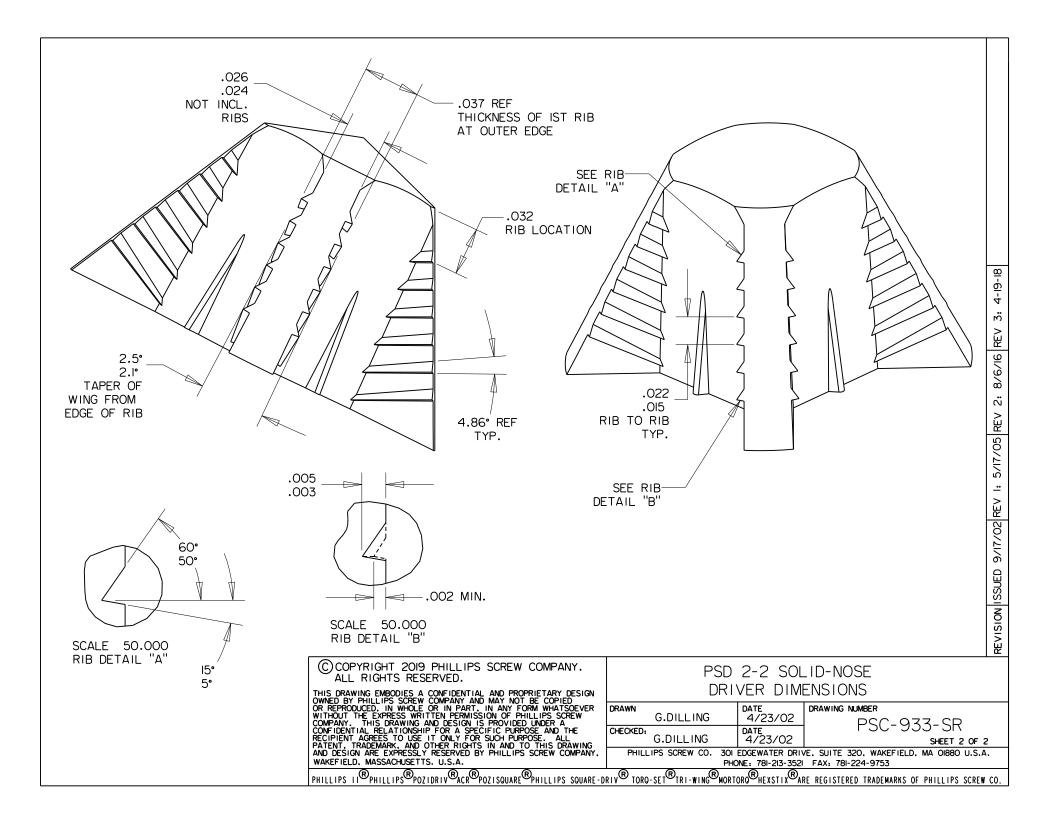


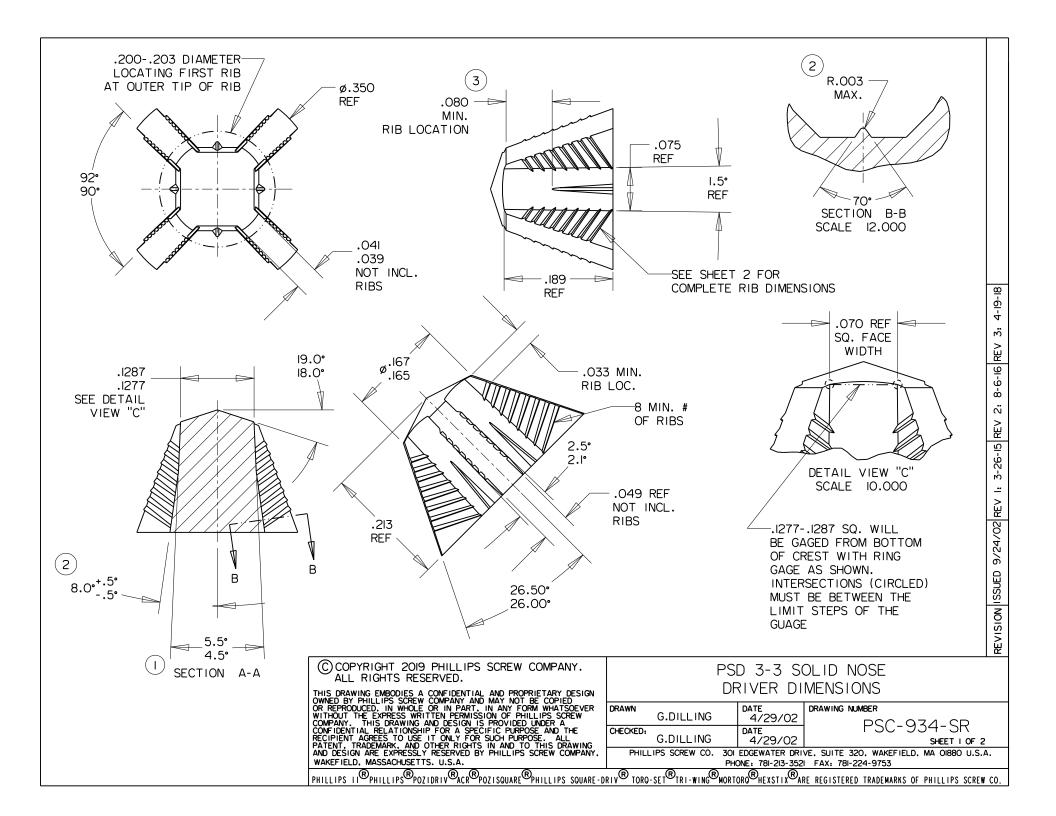


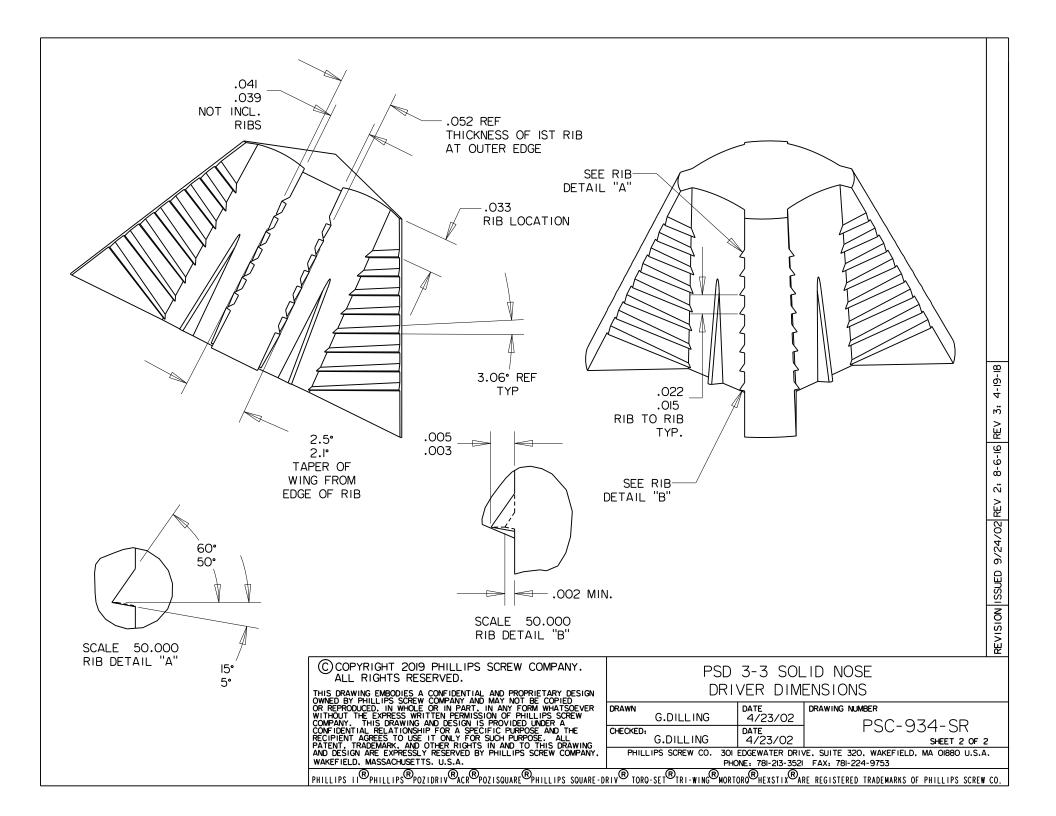


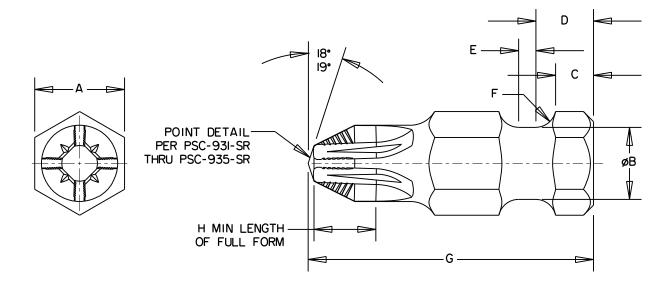




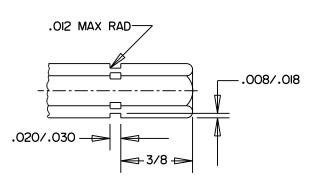


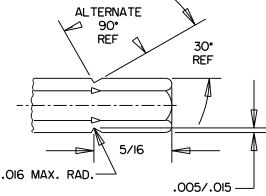






STYLE A GROOVE





5/16 HEX

STYLE B GROOVE

I/4 HEX

POINT	+.000	+.000	±.015	±.015	±.015	±.015	±.015	±.015
SIZE	A	В В	С	D	E	F	G	н
0-1								.125
I-2	.250	.187	.250	.375			1.000	
2-2					063	.094		.187
2-2	.312	.250	.281	.406	.062	.094	1.250	
2 2	.250	.187	.250	.375			1.000	201
3-3	.312	.250	.281	.406			1.250	.281

REFER TO PSC-PSC-908 FOR MATERIAL, HEAT TREAT AND MARKING.

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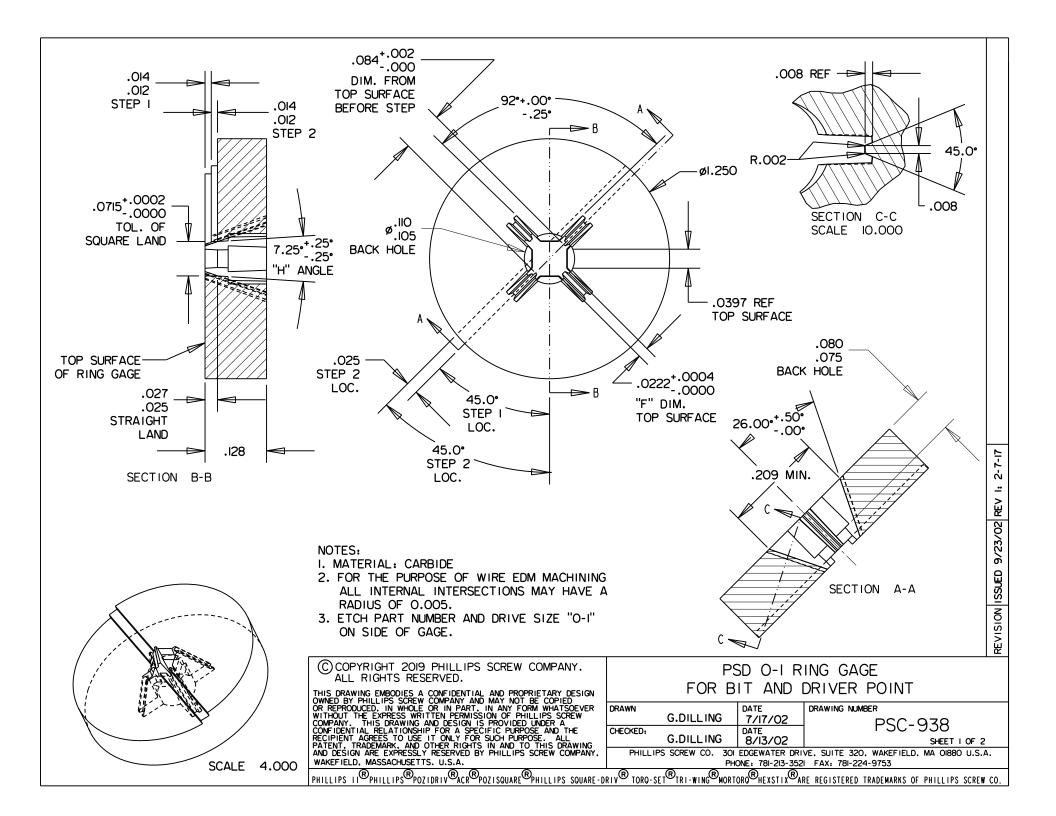
PHILLIPS SQUARE-DRIV

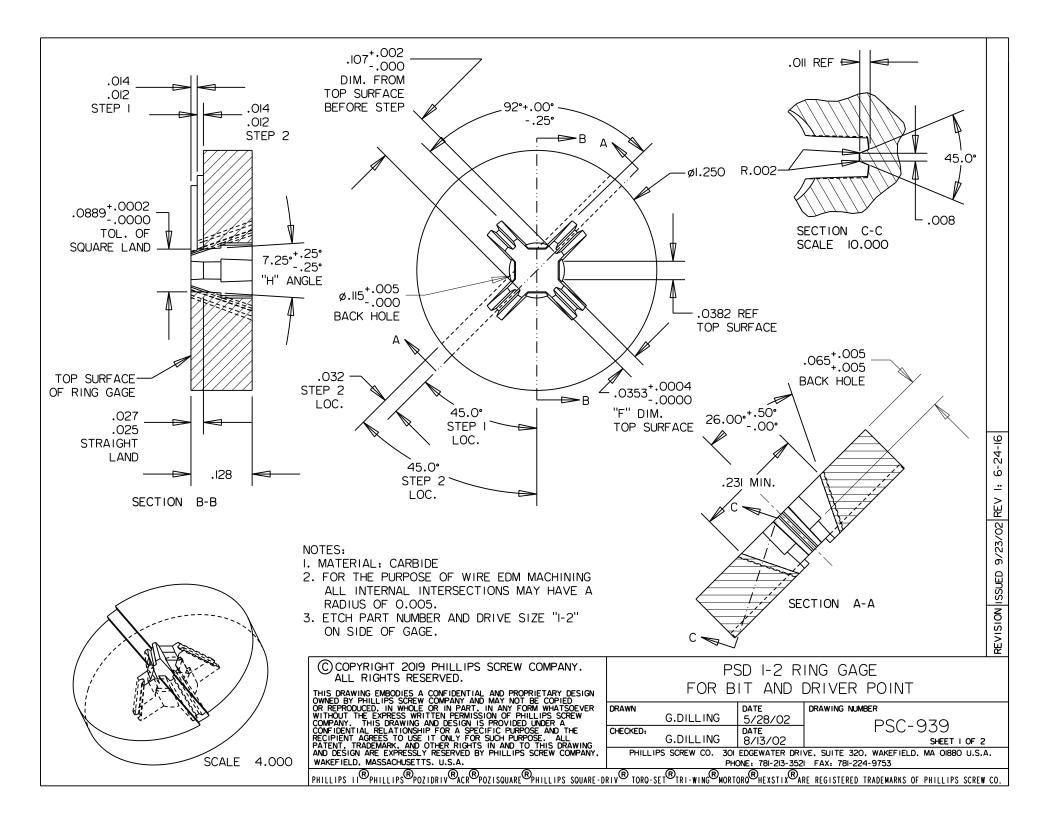
REVISION

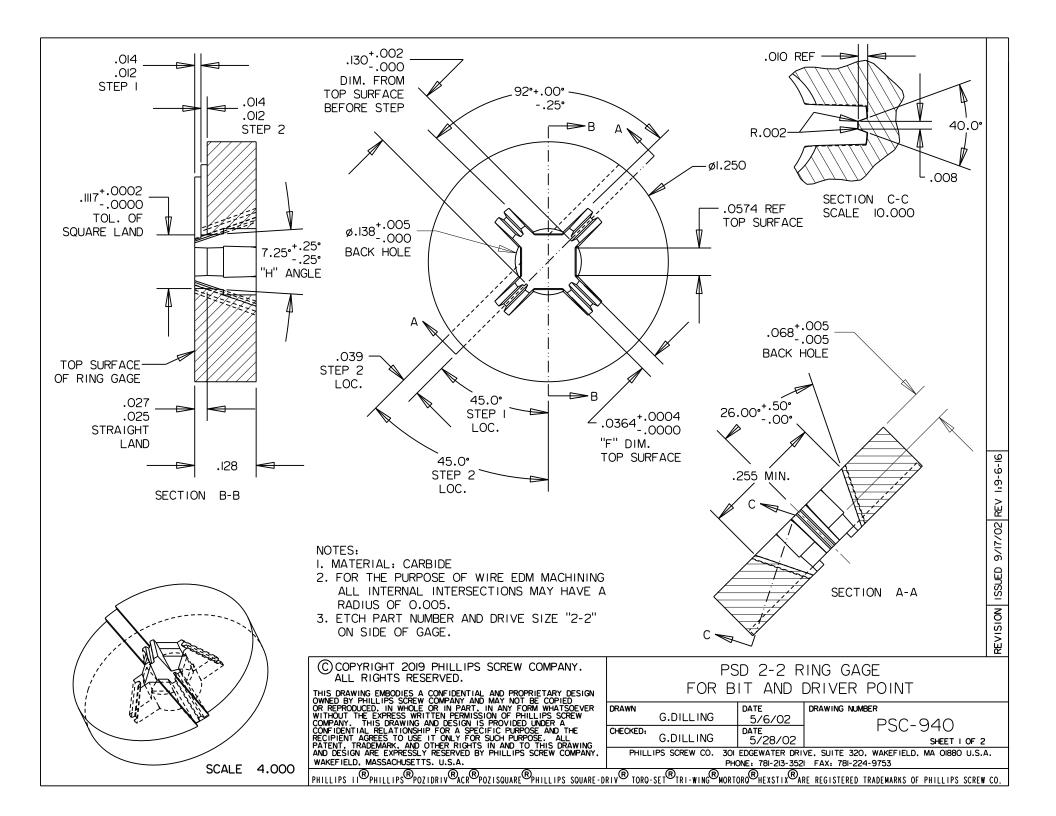
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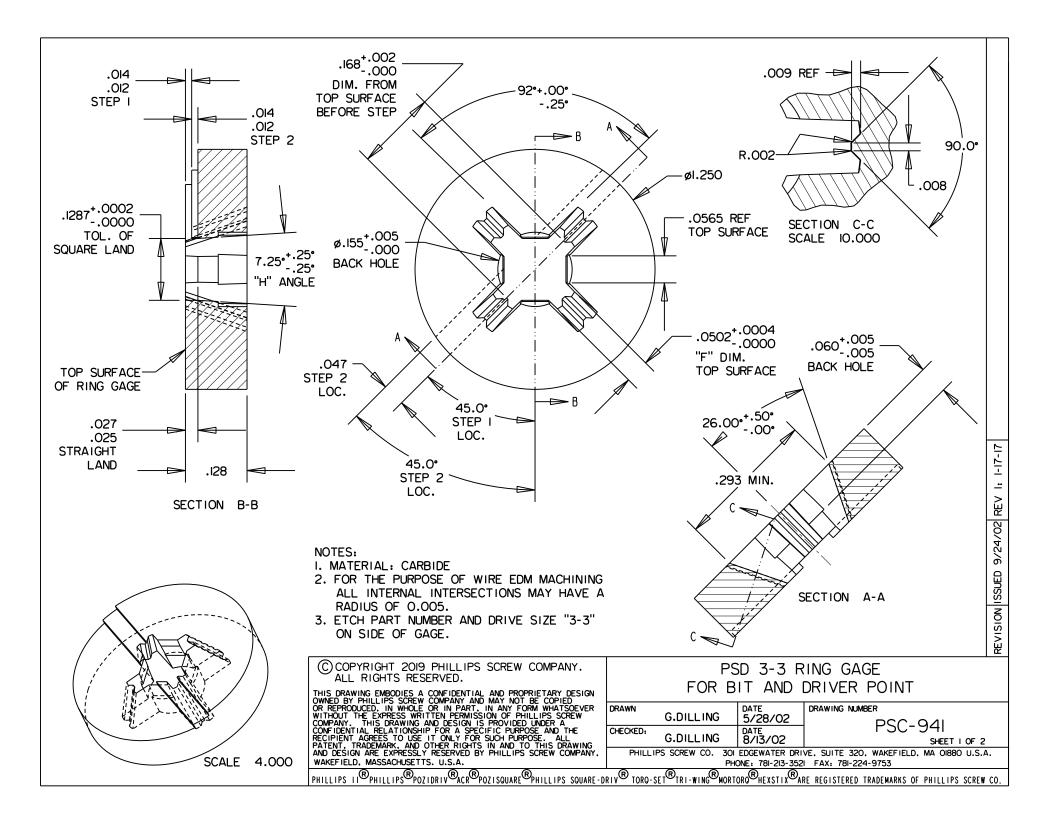
PHILLIPS SQUARE-DRIV® ENGINEERING MANUAL INDEX GAGES

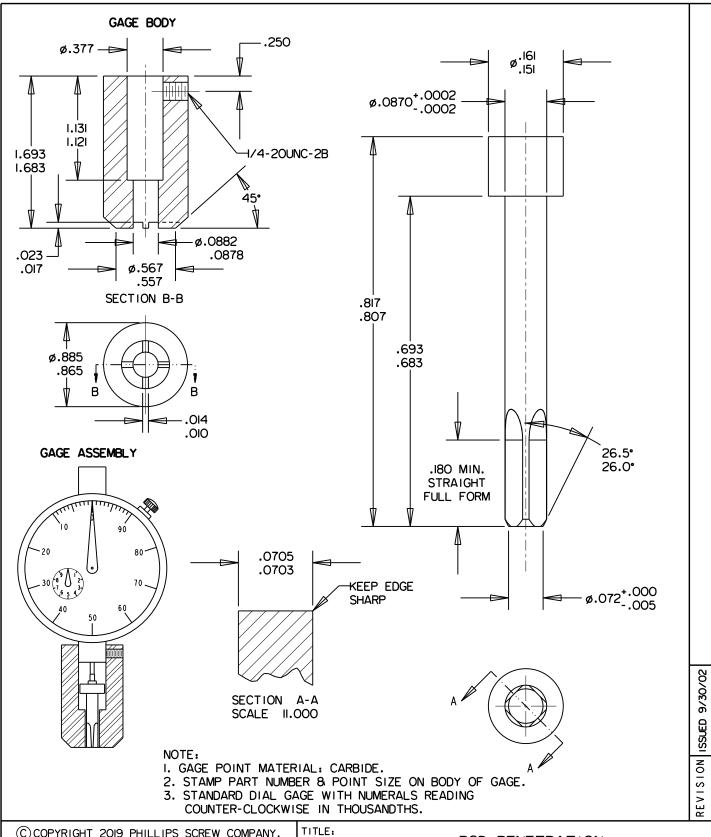
PSC-938	PSD (O-I) DIMENSIONAL BIT RING GAGE	2/7/17
PSC-939	PSD (I-2) DIMENSIONAL BIT RING GAGE	6/24/16
PSC-940	PSD (2-2) DIMENSIONAL BIT RING GAGE	9/6/16
PSC-94I	PSD (3-3) DIMENSIONAL BIT RING GAGE	1/17/17
PSC-943	PSD (O-I) PENETRATION GAGE	9/30/02
PSC-944	PSD (I-2) PENETRATION GAGE	9/30/02
PSC-945	PSD (2-2) PENETRATION GAGE	9/30/02
PSC-946	PSD (3-3) PENETRATION GAGE	9/30/02
PSC-948	PSD (O-I) SQUARE PLUG GAGE	12/16/02
PSC-949	PSD (I-2) SQUARE PLUG GAGE	12/16/02
PSC-950	PSD (2-2) SQUARE PLUG GAGE	12/16/02
PSC-95I	PSD (3-3) SQUARE PLUG GAGE	12/16/02
PSC-953	PSD (O-I) WING PLUG GAGE	10/8/19
PSC-954	PSD (I-2) & (2-2) WING PLUG GAGE	10/8/19
PSC-955	PSD (3-3) WING PLUG GAGE	10/8/19
PSC-957	PSD PENETRATION LAYOUT AND FORMULA	10/23/02
PSC-959	PSD (O-I) PUNCH PENETRATION GAGE	1/11/03
PSC-960	PSD (I-2) PUNCH PENETRATION GAGE	1/11/03
PSC-96I	PSD (2-2) PUNCH PENETRATION GAGE	1/10/03
PSC-962	PSD (3-3) PUNCH PENETRATION GAGE	1/14/03
PSC-977	PSD (O-I) STICK FIT RING GAGE	2/7/17
PSC-978	PSD (I-2) STICK FIT RING GAGE	6/24/16
PSC-979	PSD (2-2) STICK FIT RING GAGE	9/6/16
PSC-980	PSD (3-3) STICK FIT RING GAGE	1/12/17
PSC-99I	PSD (O-I) TORQUE TEST BLOCK	8/17/17
PSC-992	PSD (I-2) TORQUE TEST BLOCK	8/17/17
PSC-993	PSD (2-2) TORQUE TEST BLOCK	8/17/17
PSC-994	PSD (3-3) TORQUE TEST BLOCK	8/17/17











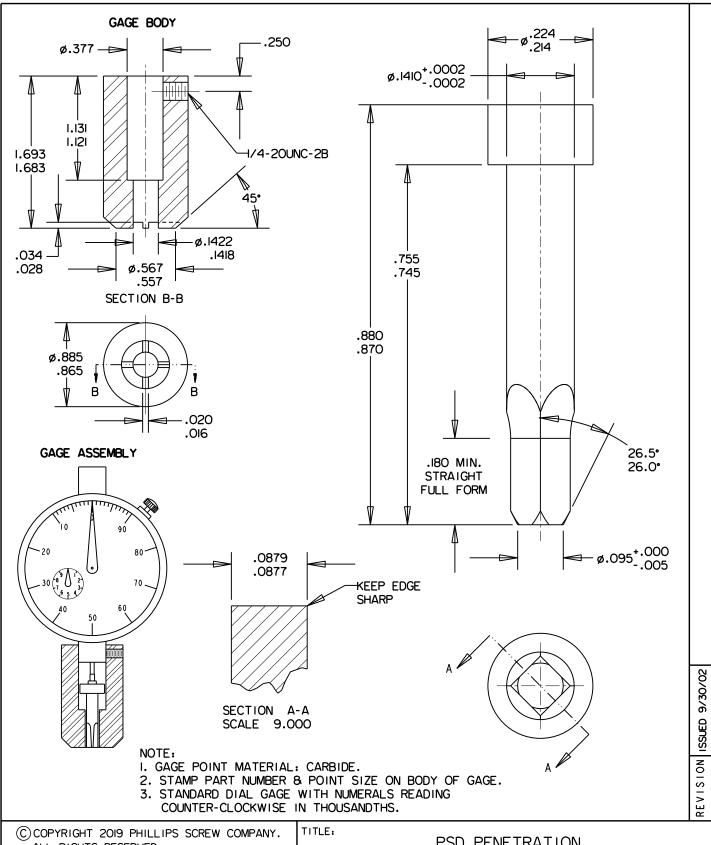
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PSD PENETRATION
GAGE POINT O-I

!	DRAWN		DATE	DRAWING NUMBER
		G.DILLING	7-25-02	PSC-943
	CHECKED:		DATE	F3C-943
,		G.DILLING	8-06-02	SHEET I OF I
۲.	PHILL IPS SO	REW CO. 30L FDC	FWATER DRIVE	SULTE 320. WAKEFIELD, MA OI880 U.S.A.

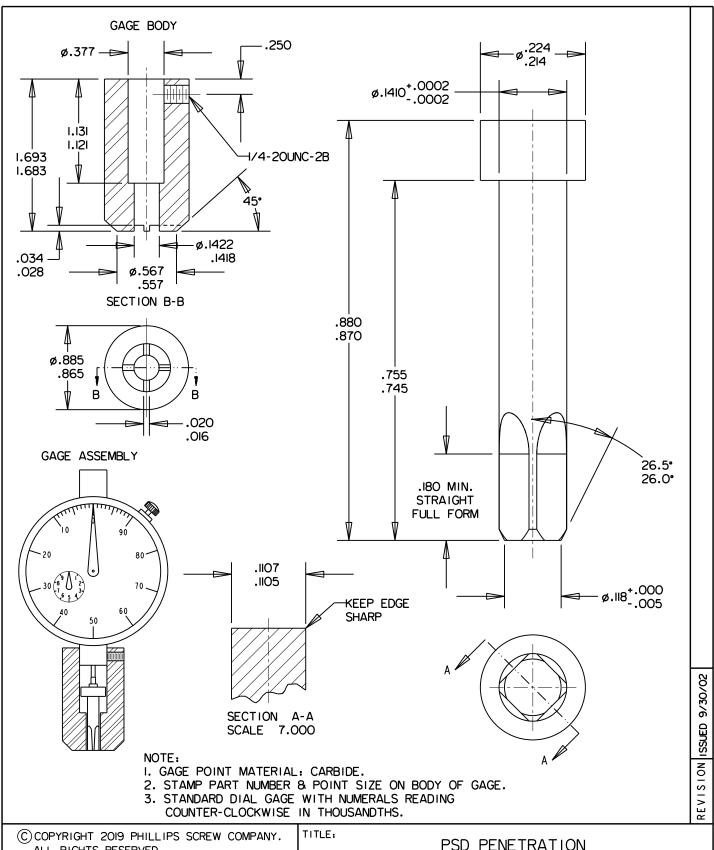
PHONE: 781-213-3521 FAX: 781-224-9753



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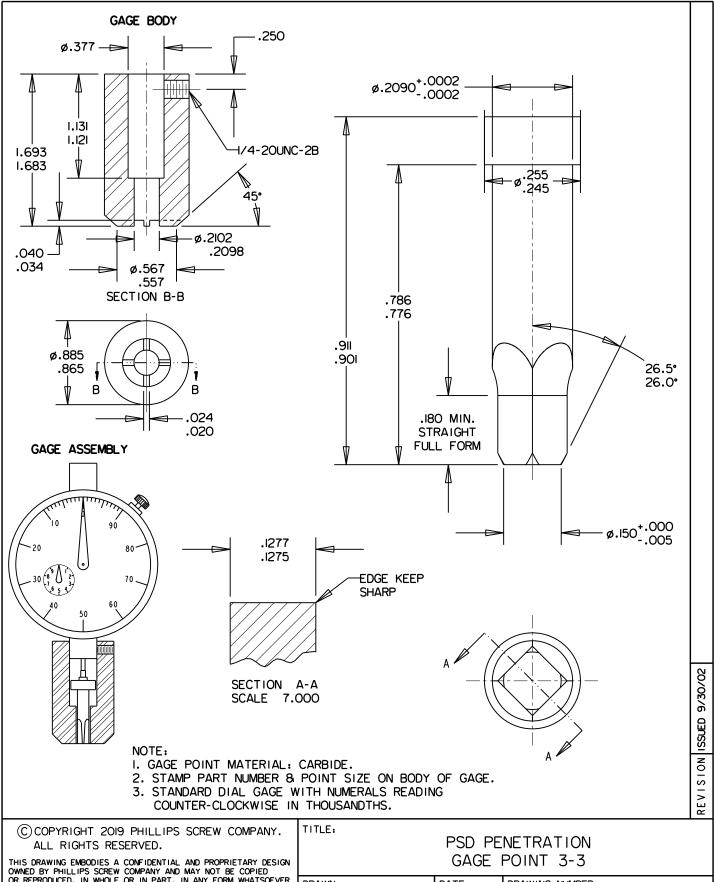
PSD PENETRATION GAGE POINT I-2 DRAWN DATE DRAWING NUMBER 7-25-02 G.DILLING PSC-944 DATE CHECKED: G.DILLING SHEET I OF I 8-05-02 PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753



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	TITLE:	PSD PENETRATION GAGE POINT 2-2					
	DRAWN		DATE	DRAWING NUMBER			
		G.DILLING	7-22-02	PSC-945			
	CHECKED:		DATE	1 30-343			
		G.DILLING	8-05-02	SHEET I OF I			
•	PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753						



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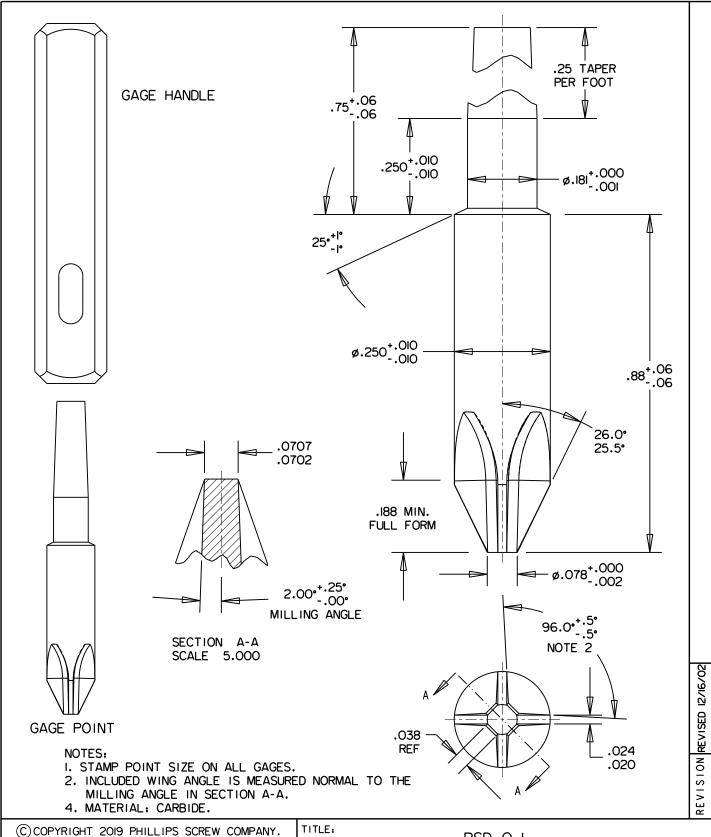
PSD PENETRATION
GAGE POINT 3-3

DRAWN

G.DILLING
T-23-02

CHECKED:
G.DILLING
B-06-02

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE. SUITE 320, WAKEFIELD, MA 01880 U.S.A.
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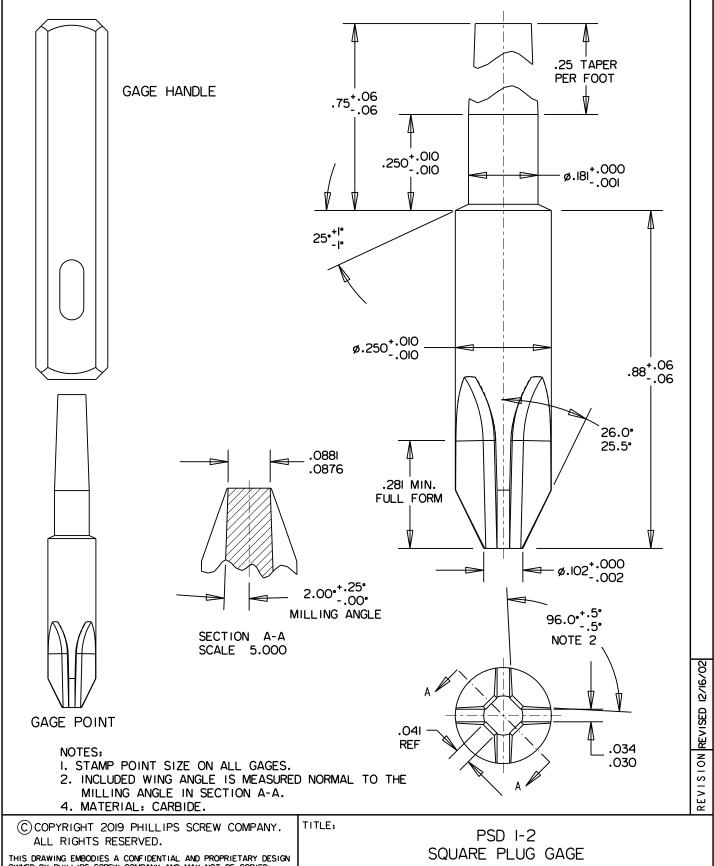
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PSD O-I
SQUARE PLUG GAGE

DRAWN
DATE
G.DILLING
B-I2-O2

CHECKED:
G.DILLING
B-I3-O2

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 78I-213-352I FAX: 78I-224-9753



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PSD I-2

SQUARE PLUG GAGE

DRAWN

G.DILLING

CHECKED:

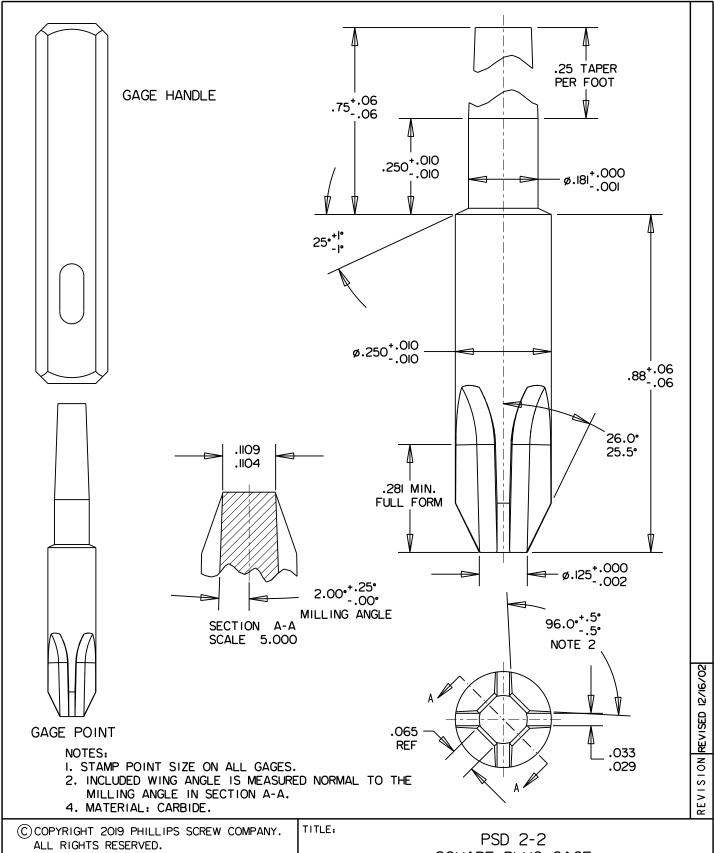
G.DILLING

DATE

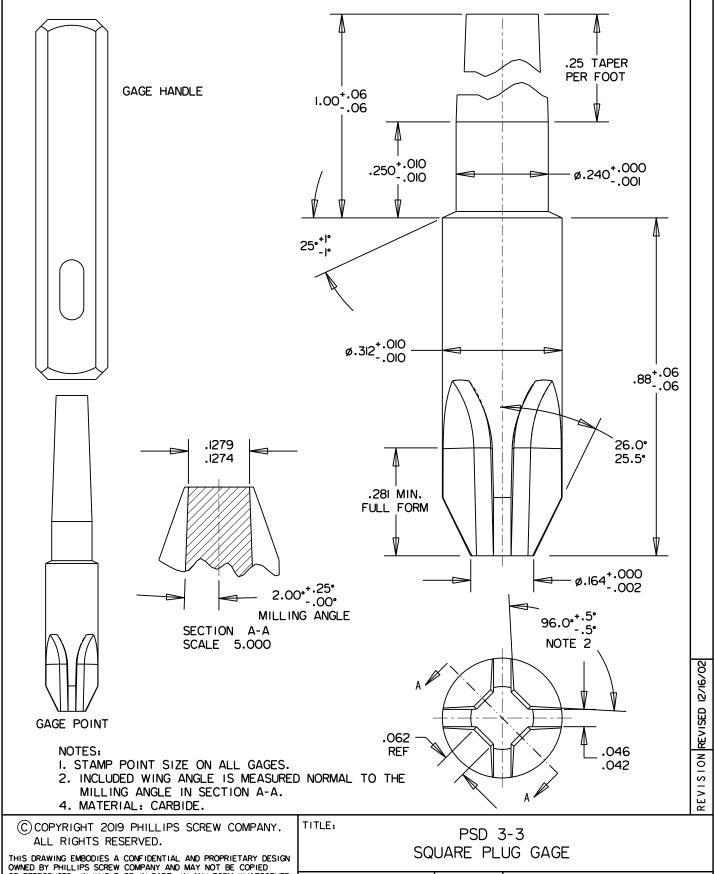
G.DILLING

B-06-02

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 78I-213-352I FAX: 78I-224-9753



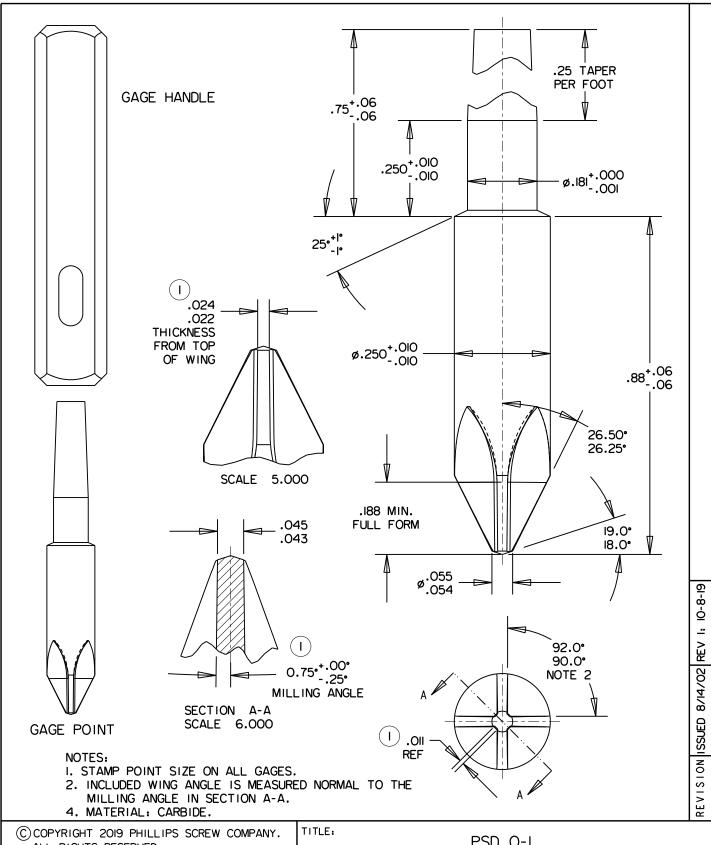
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	DRAWN	DATE	DRAWING NUMBER
	G.DILLING	8-12-02	PSC-95I
	CHECKED:	DATE	1.20-321
	G.DILLING	8-13-02	SHEET I OF I
•	PHILLIPS SCREW CO. 301 EDG	EWATER DRIVE	, SUITE 320, WAKEFIELD, MA 01880 U.S.A.

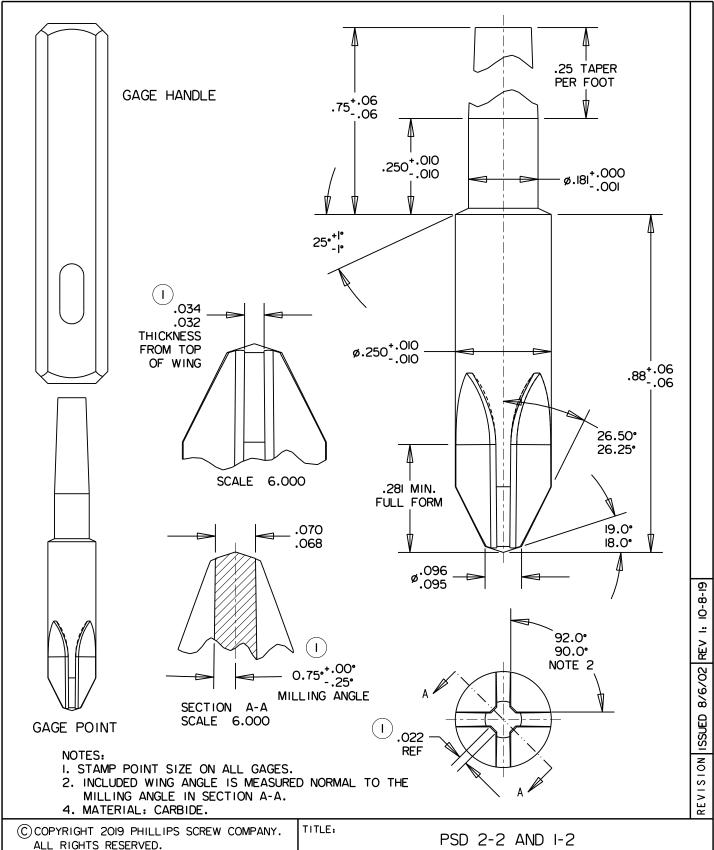
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PSD O-I WING PLUG GAGE DRAWN DATE DRAWING NUMBER 8-13-02 G.DILLING PSC-953 DATE CHECKED: 8-14-02 G.DILLING SHEET I OF I PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753



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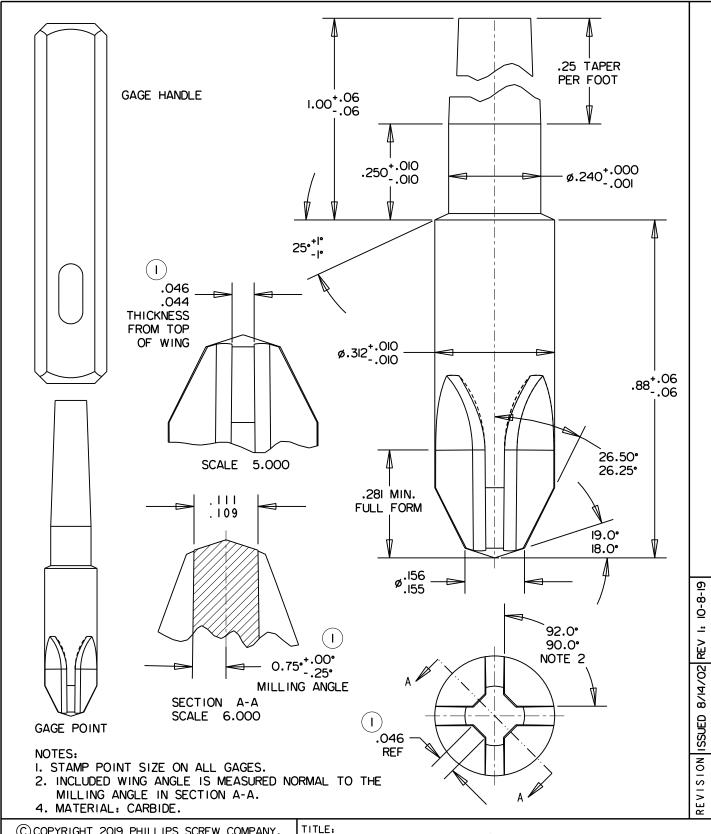
PSD 2-2 AND I-2
WING PLUG GAGE

DRAWN
G.DILLING
T-22-02

CHECKED:
G.DILLING
DATE
B-06-02

PSC-954
SHEET I OF I

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753



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PSD 3-3
WING PLUG GAGE

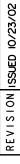
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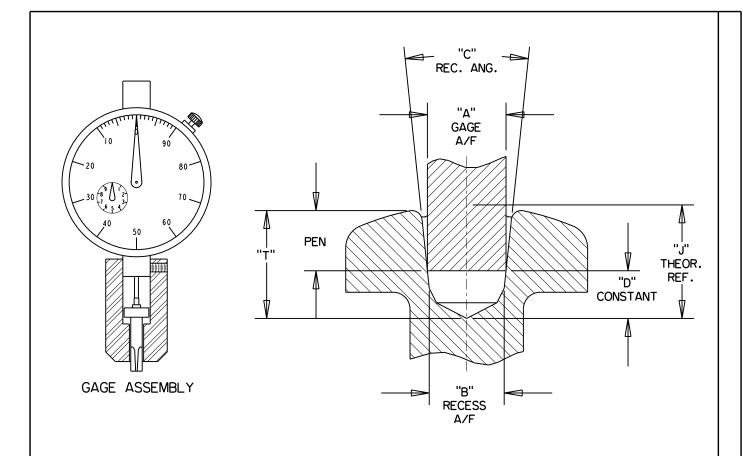
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B-I4-02

PSC-955

SHEET I OF I

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753





PSD MAX. PENETRATION				
RECESS	Α	В	С	D
SIZE	MIN.	MAX.	MAX.	
0-1	.0703	.0682	8°	.046
I-2	.0877	.0852	8°	.040
2-2	.1105	.1075	8°	.062
3-3	.1275	.1242	8°	.056
SCREW HEAD MAX. T - D = MAX. PEN				

PSD MIN. PENETRATION					
RECESS	Α	В	С	D	
SIZE	MAX.	MIN.	MIN.		
0-1	.0705	.0672	7°	.057	
I-2	.0879	.0842	7°	.052	
2-2	.1107	.1065	7°	.074	
3-3	.1277	7°	.069		
SCREW HEAD MIN. T - D = MIN. PEN					

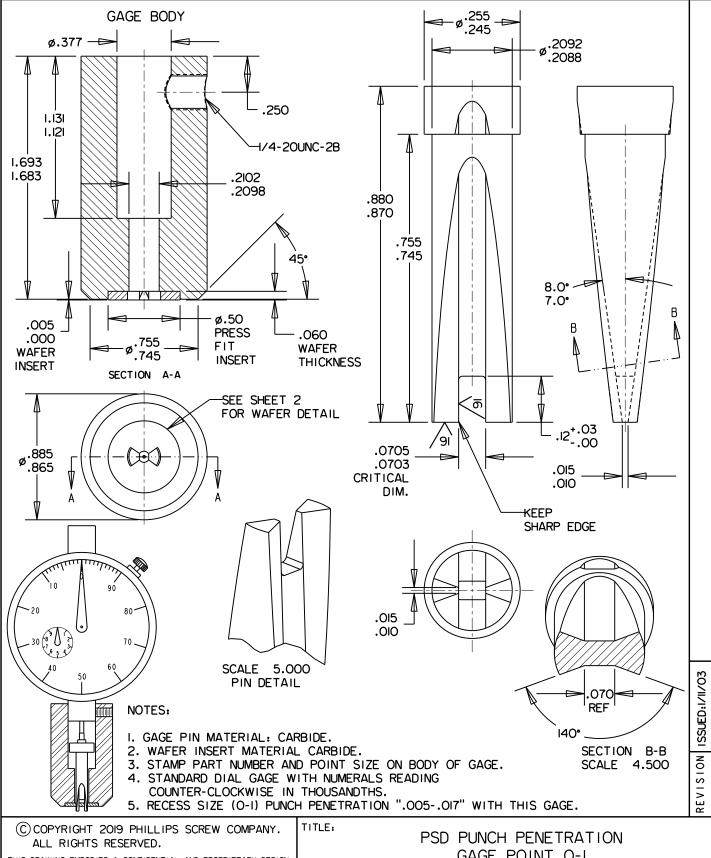
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TITLE:

PSD PENETRATION LAYOUT AND FORMULA

	DRAWN	DATE	DRAWING NUMBER
	G.DILLING	10-22-02	PSC-957
	CHECKED:	DATE	1 30-331
		10-23-02	SHEET I OF I
			. SUITE 320, WAKEFIELD, MA 01880 U.S.A.
	PHONE	: 781-213-3521	FAX: 78I-224-9753
_	,	-	_

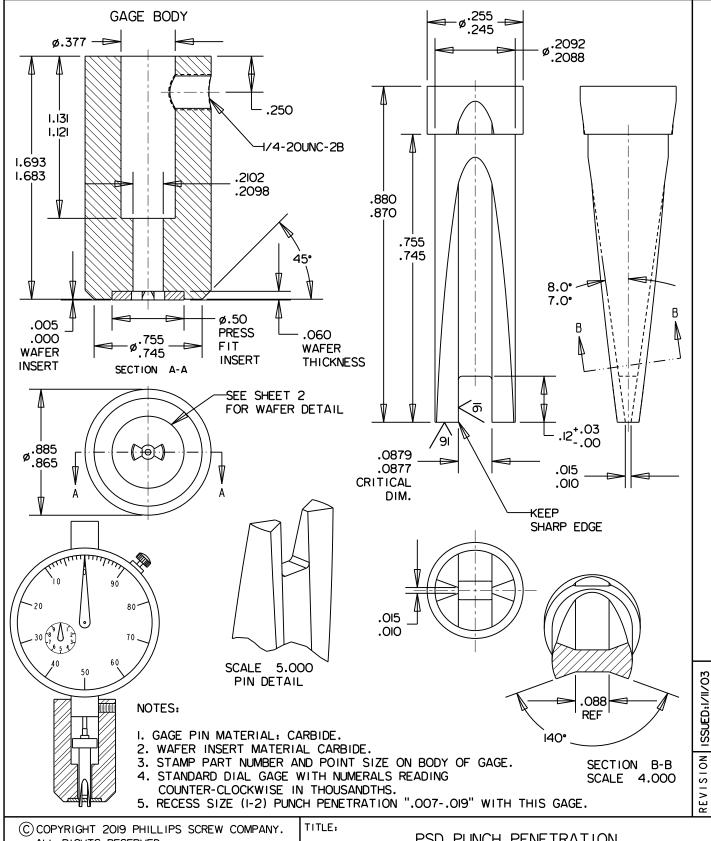


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GAGE POINT O-I

DRAWN DATE DRAWING NUMBER G.DILLING 1/09/03 PSC-959 DATE CHECKED: G.DILLING 1/11/03 SHEET I OF 2

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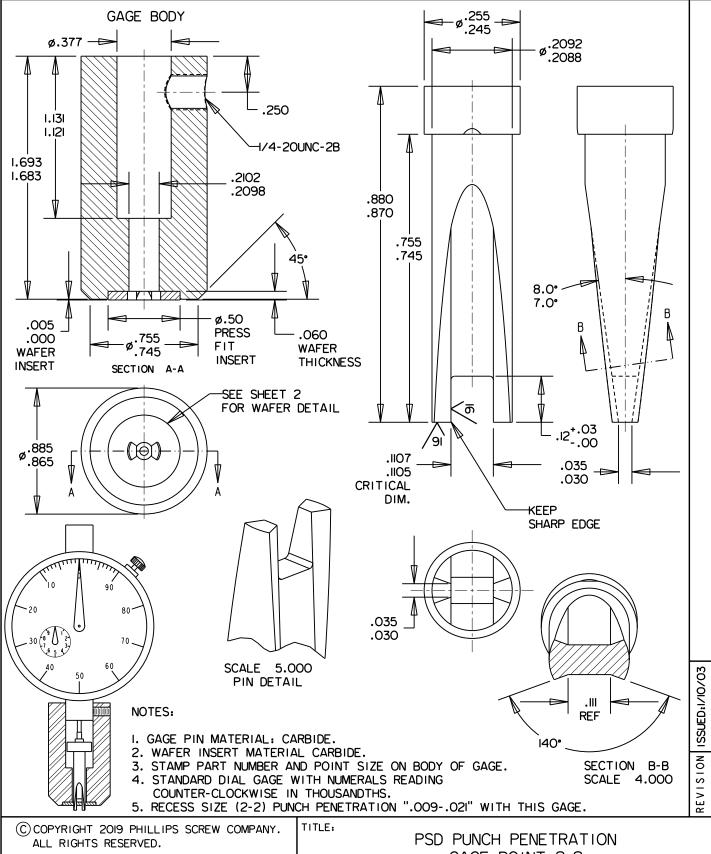
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PSD PUNCH PENETRATION GAGE POINT I-2

DRAWN DATE DRAWING NUMBER 1/09/03 G.DILLING PSC-960 DATE CHECKED: G.DILLING 1/11/03 SHEET I OF 2

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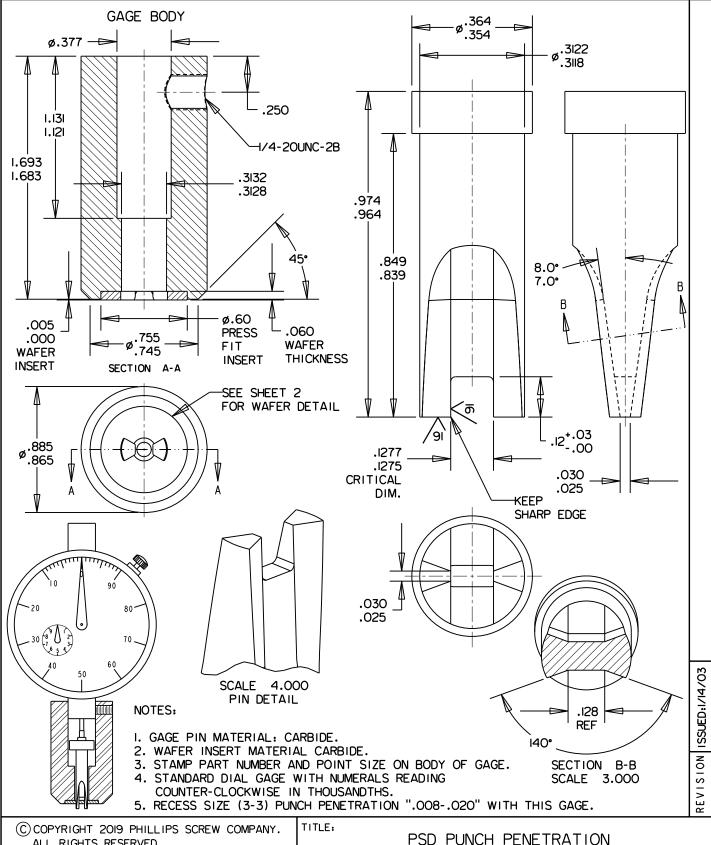


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GAGE POINT 2-2

DRAWN DATE DRAWING NUMBER 1/08/03 G.DILLING **PSC-96I** DATE CHECKED: G.DILLING 1/10/03 SHEET I OF 2

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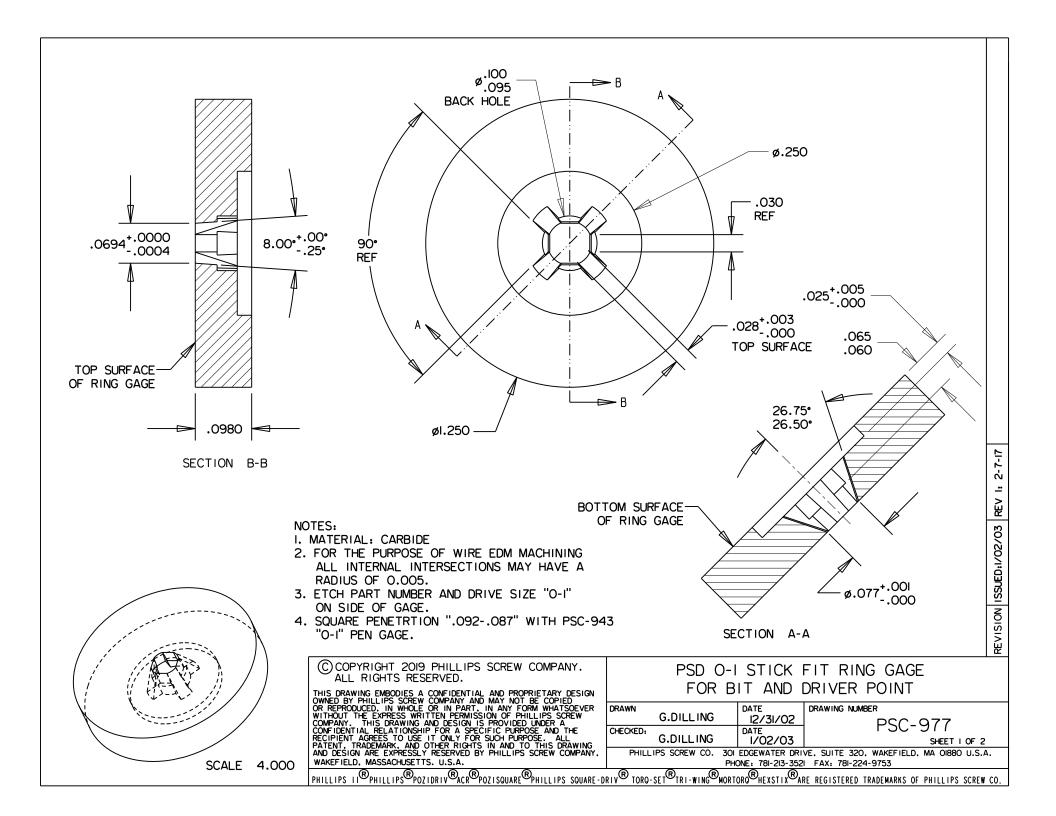
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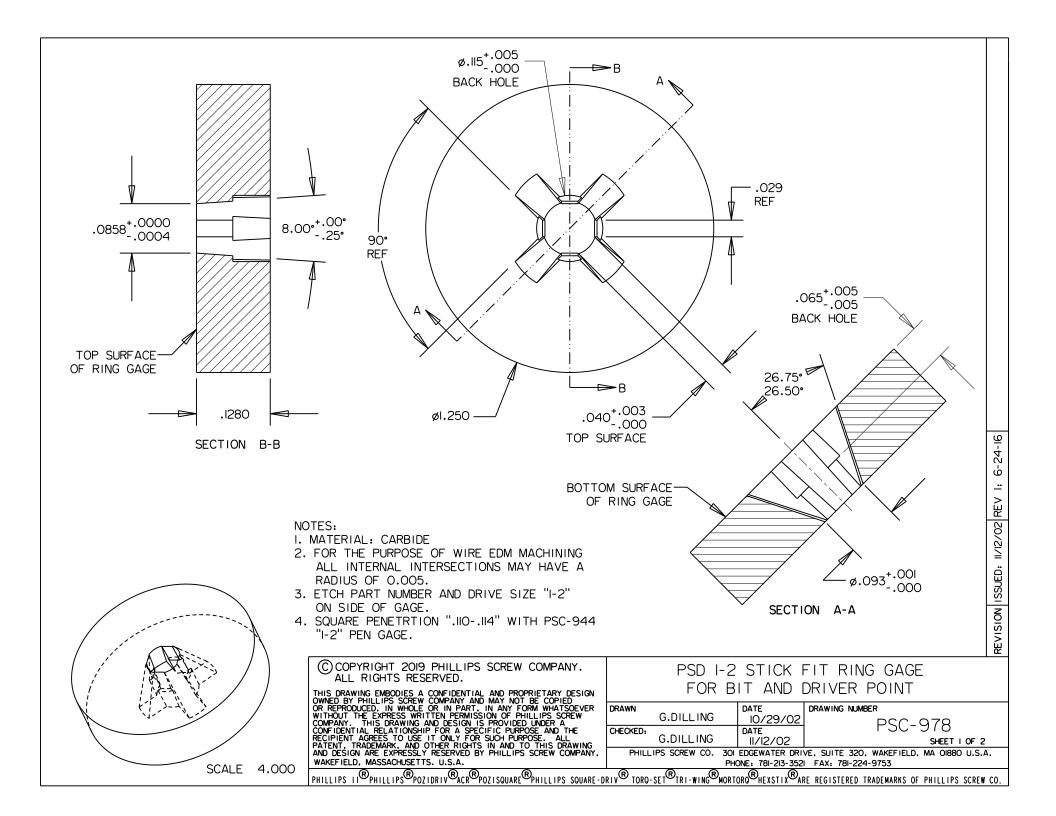
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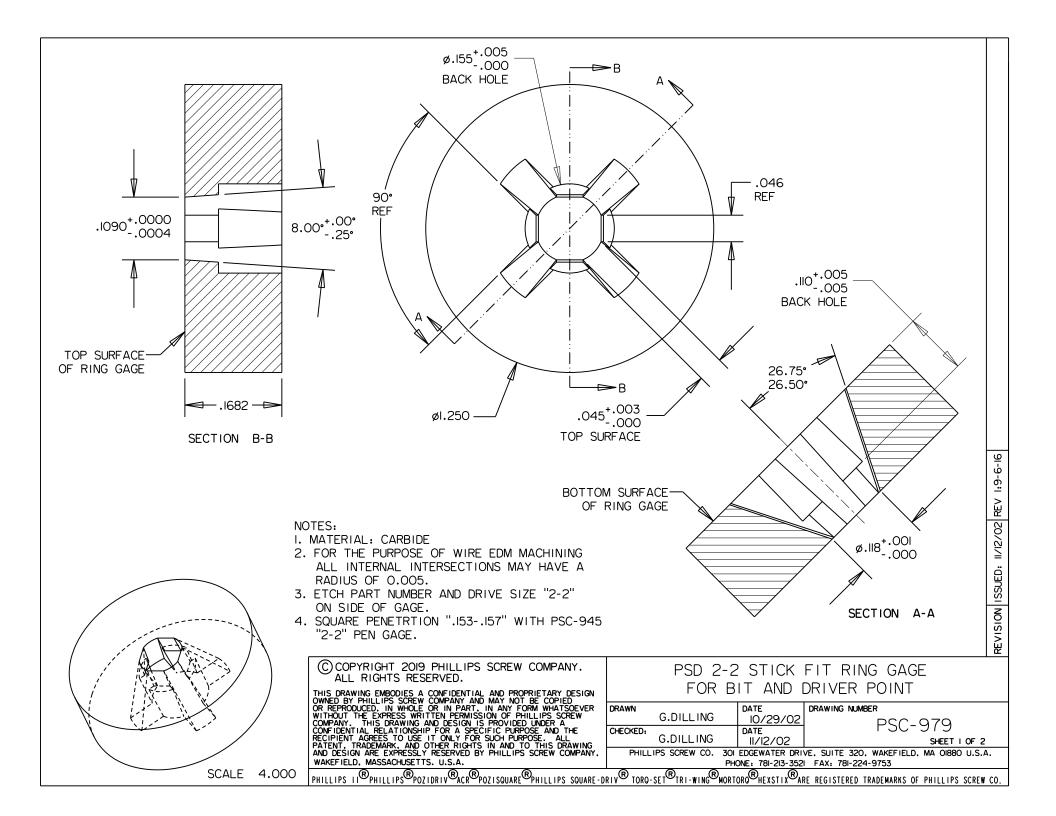
PSD PUNCH PENETRATION GAGE POINT 3-3

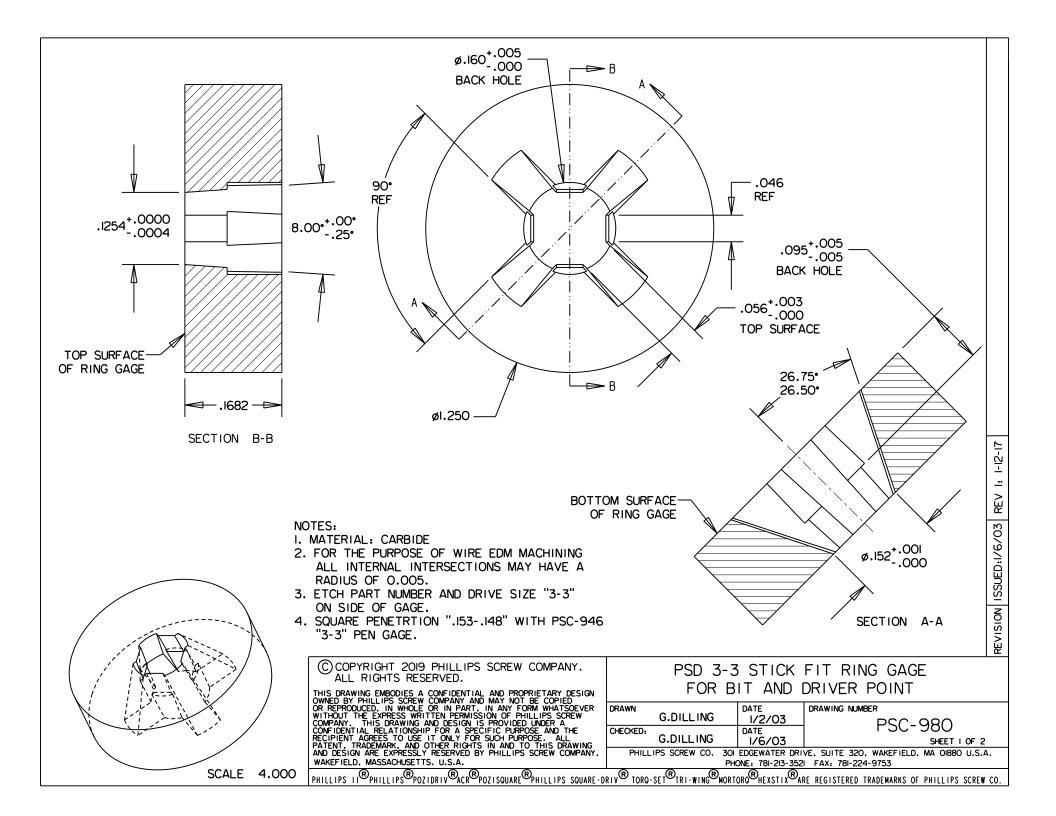
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	G.DILLING	1/13/03	PSC-962	
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٠	DUILLING SCREW CO ZOLEDO	CEWATED DRIVE	CHITE 300 WAVEELEID MA 01000 H.C.A.	•

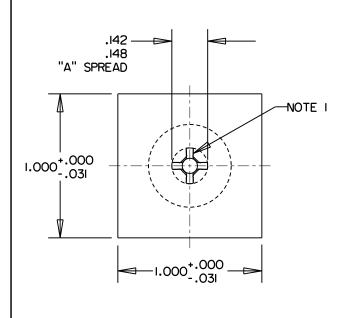
PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 781-213-3521 FAX: 781-224-9753 PHILLIPS II PHILLIPS POZIDRIV ACR POZISQUARE PHILLIPS SQUARE-DRIV TORQ-SET TRI-WING MORTORQ HEXSTIX AND POZILOCK ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

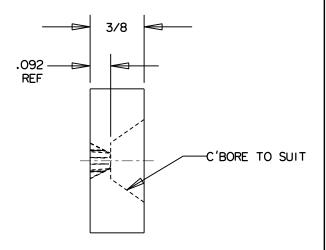


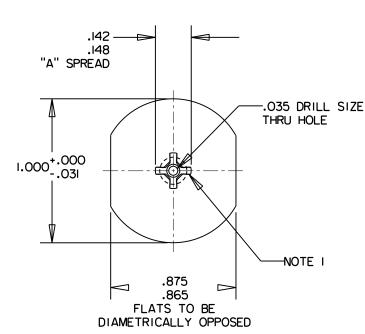


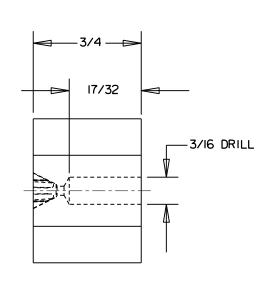












REV 1:8-17-17

ISSUED:1/03/03

REVISION

NOTES:

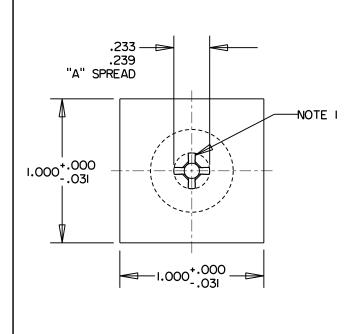
- I. PSD O-I RECESS PER "PSC-9I4-SR" DRAWING.
- 2. MATERIAL: MOTUNG OR EQUIV., HEAT TREAT: Rc 61-63.
- 3. MARKING: IDENTIFY WITH THIS DWG NO. AND APPLICABLE POINT SIZE NO., LOCATED ON TOP OR SIDE SURFACE.
- 4. RECESS PENETRATION .065-.048 WITH PSC-943 PEN GAGE.

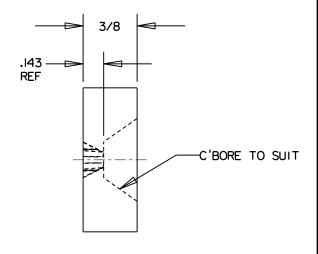
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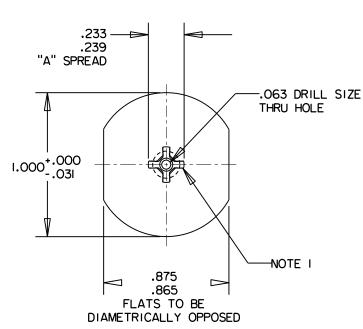
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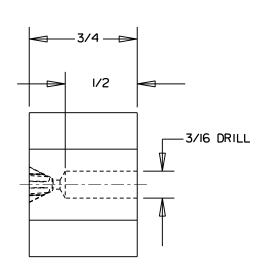
PSD 0-I TORQUE TEST BLOCKS

ı	DRAWN		DATE	DRAWING NUMBER
		G.DILLING	8/12/02	DCC 001
ı	CHECKED:		DATE	PSC-99I
ı		G.DILL ING	8/12/02	SHEET I OF I
ı	PHILLIPS SO			, SUITE 320, WAKEFIELD, MA OI880 U.S.A.
		PHONE	: 78I-2I3-352I	FAX: 78I-224-9753









REV 1:8-17-17

ISSUED:1/03/03

REVISION

NOTES:

- I. PSD I-2 RECESS PER "PSC-9I5-SR" DRAWING.
- 2. MATERIAL: MOTUNG OR EQUIV., HEAT TREAT: Rc 61-63.
- 3. MARKING: IDENTIFY WITH THIS DWG NO. AND APPLICABLE POINT SIZE NO., LOCATED ON TOP OR SIDE SURFACE.
- 4. RECESS PENETRATION .133-.115 WITH PSC-944 PEN GAGE.

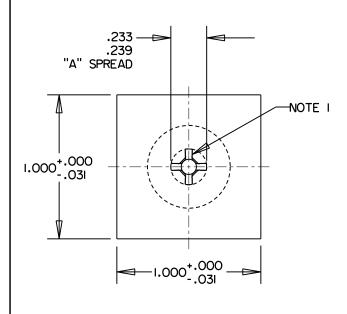
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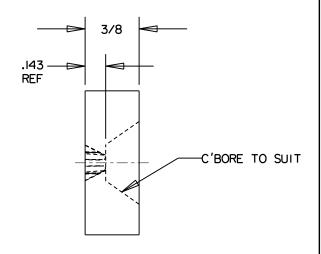
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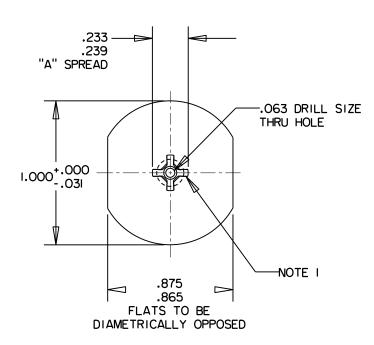
PSD 1-2 TORQUE TEST BLOCKS

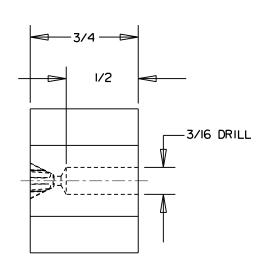
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PHILLIPS SCREW CO. 3	OL EDGEWAT	R DRIVE	SHITE 3	320	WAKEEIELD	MΛ	CIRRO	11.5	$\overline{}$

PHONE: 781-213-3521 FAX: 781-224-9753









REV 1:8-17-17

REVISION | ISSUED:1/03/03

NOTES:

- I. PSD 2-2 RECESS PER "PSC-9I6-SR" DRAWING.
- 2. MATERIAL: MOTUNG OR EQUIV., HEAT TREAT: Rc 61-63.
- 3. MARKING: IDENTIFY WITH THIS DWG NO. AND APPLICABLE POINT SIZE NO., LOCATED ON TOP OR SIDE SURFACE.
- 4. RECESS PENETRATION .III-.093 WITH PSC-945 PEN GAGE.

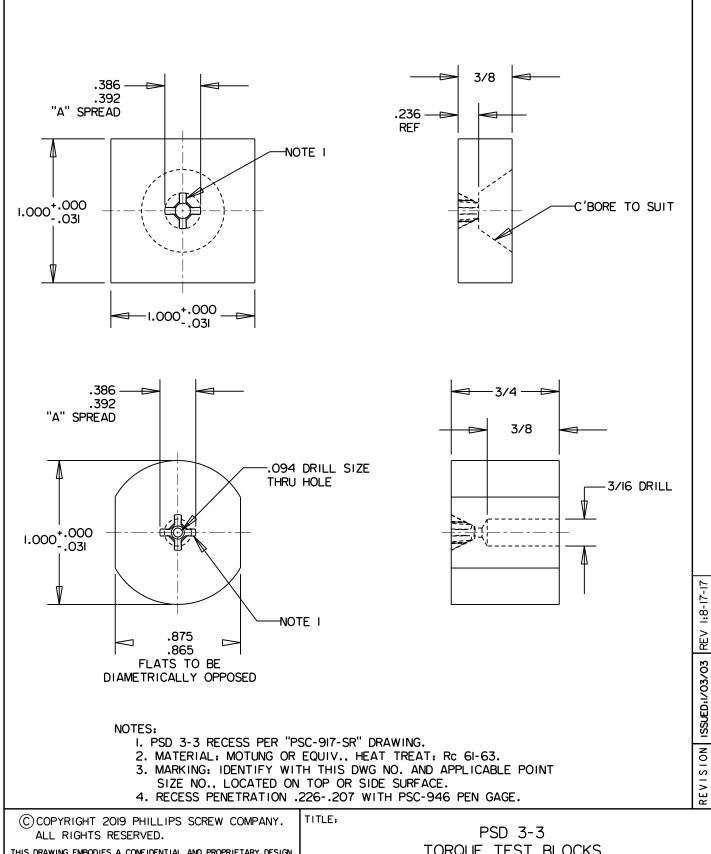
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PSD 2-2 TORQUE TEST BLOCKS

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	G.DILLI	NG 8/12/02	D2 SHEET	I OF I
•	PHILLIPS SCREW CO. :		RIVE, SUITE 320, WAKEFIELD, MA	A 01880 U.S.A
		PHONE: 781-213-35	52I FAX: 78I-224-9753	



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PSD 3-3 TORQUE TEST BLOCKS DRAWN G.DILLING B/12/02 CHECKED: G.DILLING B/12/02 B/12/02 CHECKED: G.DILLING B/12/02 SHEET I OF I BUILLING SCREW CO. 701 EDCEMATER DRIVE. SUITE 730. WAKEFELD MA. 01880 ILS A.

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

PHILLIPS SQUARE-DRIV [®] ENGINEERING MANUAL INDEX QUALITY SPECIFICATIONS

PSC-908 PSD	BIT AND HAND DRIVER SPECIFICATIONS	SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5 SHEET 6 SHEET 7 SHEET 8 SHEET 9	12-04-18 12-04-18 12-04-18 12-04-18 12-04-18 12-04-18 12-04-18 12-04-18
PSC-930 PSD	RECESS INSPECTION PROCEDURES	SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5 SHEET 6 SHEET 7	12-11-18 12-11-18 12-11-18 12-11-18 12-11-18 12-11-18 12-11-18

PHILLIPS SQUARE-DRIV[®] BIT AND HAND DRIVER SPECIFICATIONS

1.0 Scope:

The following document covers the equipment, procedures, test values and inspection criteria for Phillips Square-Driv screwdrivers, insert bits and power bits.

2.0 Applicable Drawings:

PSC-931-SR for 0-1, PSC-932-SR for 1-2, PSC-933-SR for 2-2 & PSC-934-SR for 3-3 drawings for bit and driver point dimensions.

PSC-938 for 0-1, PSC-939 for 1-2, PSC-940 for 2-2 & PSC-941 for 3-3 drawings for bit and driver point ring gages.

PSC-991 for 0-1, PSC-992 for 1-2, PSC-993 for 2-2 & PSC-994 for 3-3 drawings for bit Torque test blocks. PSC-977 for 0-1, PSC-978 for 1-2, PSC-979 for 2-2 and PSC-980 for 3-3 drawings for functional "stick fit" ring gauges.

3.0 Requirements:

- 3.1.1 Materials ~ The materials used to manufacture Phillips Square-Driv bits and drivers shall conform to the material specified within this document, or have suitable characteristics in the final product form to satisfy the dimensional and physical test specified in this document.
- 3.2.1 In the case of hand screwdrivers, the handle and ferrule may be utilized for the "Point size" markings in 4.2.1
- 3.2.2 Dimensions ~ All bit and driver points shall conform to Phillips Screw Company's drawings PSC-931-SR for 0-1, PSC-932-SR for 1-2, PSC-933-SR for 2-2 & PSC-934-SR for 3-3.
- 3.3 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 which may impair their serviceability or durability.
- 4.0 Detail Requirements:
- 4.1 Materials ~ Screwdrivers and bits shall be made from the following recommended, equivalent or superior material.
- 4.1.2 Hand Screwdrivers ~ These drivers shall be made from AISI S2 steel or equivalent, and heat-treated to a hardness of HRC 58-63.

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BIT AND DRIVER SPECIFICATION PHILLIPS SQUARE-DRIV® RECESS

PHONE: 781-213-3521 FAX: 781-224-9753

DRAWN
C.LOUIS-JACQUES

12-4-18

CHECKED:
G.DILLING

DATE
12-4-18

DRAWING NUMBER
PSC-908

SHEET 1 OF 9

PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.

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

REV: 12/04/18

REVISION

4.1.4 Steel ~

AISI S2 - Type Analysis		
Carbon	.5055	
Manganese	.4555	
Silicon	.90 - 1.10	
Molybdenum	.4555	
Vanadium	.1525	

4.2 Test Requirements and Procedures:

All Phillips Square-Drive bits and drivers shall meet the minimum torsional strength specified under each type shown below:

4.2.1 Hand Screwdrivers and Power Bits ~

Minimum Torsional Strength:			
Point Size Torque (Lb Ins.)			
PSD 0-1	38		
PSD 1-2	128		
PSD 2-2	182		
PSD 3-3	350		

4.2.2 Test Blocks ~

Screwdrivers and bits shall be tested in test blocks having the same form and size of recess as the bit point being tested. Screwdriver and bit test blocks shall be in accordance with drawings PSC-991 for 0-1, PSC-992 for 1-2, PSC-993 for 2-2 & PSC-994 for 3-3.

4.2.3 Test Procedure ~

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 and positive engagement with no axial movemnet. The torsional load at failure shall be taken as the strength of the driver or bit.

4.3 Sampling and Inspection Procedure:

4.3.1 Initial Qualification ~

Phillips Screw Company shall perform initial qualification inspection as required by the product and trademark license agreements. A required minimum of 25 pieces of each point are to be qualified.

4.3.2 Periodic Inspection ~

Every four (4) months, a letter will be sent requesting a minimum of three (3) pieces of each bit point size as required by the product and trademark license agreements.

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BIT AND DRIVER SPECIFICATION
PHILLIPS SQUARE-DRIV® RECESS

DRAWN
C.LOUIS-JACQUES
12-4-18
CHECKED:
G.DILLING
CHECKED:
DATE
12-4-18
DRAWING NUMBER
PSC-908
SHEET 2 OF 9

PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

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

REV: 12/04/18

REVISION

4.3.3 Visual and Dimensional Inspection Sampling ~

All drivers and bits of the same size, class and type presented at one time shall be considered a lot for purposes of acceptance inspection and test.

- 4.3.4 Count Bits up to 200 pieces, hand count. Over 200 pieces, scale count using small bench scales.
- 4.3.5 Inspect for burrs, proper identification and general acceptance.

Up to 200 pieces - 100% check. Over 200 pieces use sampling plan as contained in this specification at the 6.5% AQL.

4.3.6 Gage other bit physical dimensions per drawing: PSC-936-SR. At the 6.5% AQL. check hex size and overall length and effectiveness of retaining grooves. Up to 200 pieces - check 10 pieces. Over 200 pieces - check 15 pieces.

Retaining groove can be checked by inserting bits in a driver socket and verifying that they enter the socket reasonably well, are retained adequately, and will disengage readily. A detailed dimensional check of the retaining groove is not required.

4.4 Final Quality Conformance Inspections ~

All drivers and bits of the same size, class and type presented at one time shall be considered a lot for purpose of acceptance in inspection and test. Typical industry standards for random sample of bits from each lot shall be inspected for visual and dimesional characteristics.

4.4.1 Point Dimensions ~

Conformance to the required dimesions for the point shall be determined by the use of the PHILLIPS SQUARE-DRIV bit point gages PSC-938 for size 0-1, PSC-939 for size 1-2, PSC-940 for size 2-2 and PSC-941 for size 3-3.

4.4.2 Acceptance ~

The bit point must seat firmly in the ring gage without shake or wobble. For PSD 1-2, 2-2 and 3-3 bits, the square face tip must lie between the bottom and middle steps in the gage (See PSC-908 Sheet 4 or 9, Figures 1 and 2). For PSD 0-1 bits, the square face tip must lie between the top and middle steps in the gage (See PSC-908 Sheet 4 of 9, Figures 1A and 2A).

Bits that pass the preceding dimensional acceptance test must be subjected to a functional "stick fit" test using the following ring gauges; PSC-977 for 0-1, PSC-978 for 1-2, PSC-979 for 2-2 and PSC-980 for 3-3.

The bit must be pressed by firm hand pressure into the ring gauge. The assembly must then be held vertically by the bit with the gauge suspended on the tip. Any seperation of the ring gauge from the bit denotes failure.

4.4.3 Rejection ~ For PSD 1-2, 2-2, and 3-3 bits, the bit point is rejected if the square face tip extends above the middle step or falls short of the bottom step (see PSC-908 sheet 5 of 9, Figure 3 and 4) For PSD 0-1 bits, the bit point is rejected if the square face tip extends above the top step or falls short of the middle step (see Figures 3A and 4A).

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BIT AND DRIVER SPECIFICATION PHILLIPS SQUARE-DRIV[®] RECESS

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G.DILLING
DATE
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12-4-18
SHEET 3 OF 9

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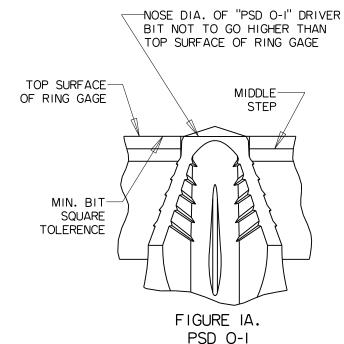
NOTE: VISUAL INSPECTION WITH MIN. 5X MAGNIFICATION

ACCEPTABLE CONDITIONS

DATUM LINE
MIN. BIT
SQ. TOLERENCE

FIGURE I.

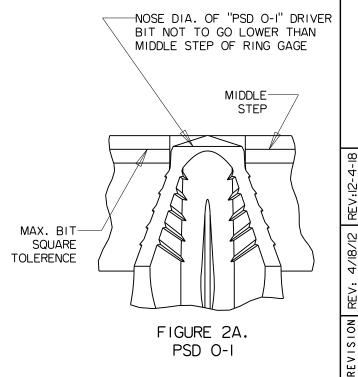
PSD I-2, PSD 2-2 AND PSD 3-3



DATUM LINE
MAX. BIT
SQ. TOLERENCE

BOTTOM
STEP

FIGURE 2.
PSD I-2, PSD 2-2



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AND PSD 3-3

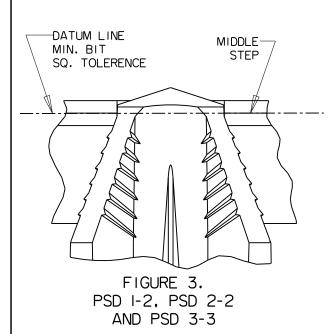
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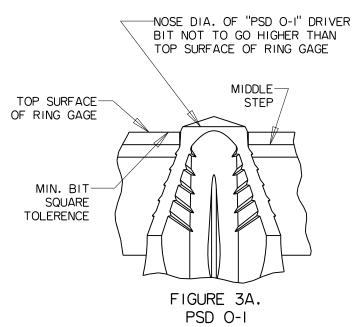
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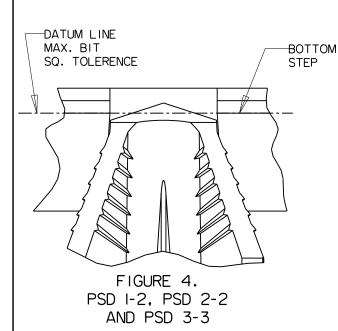
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	G.DILLING	12/20/2002	SHEET 4 OF 9
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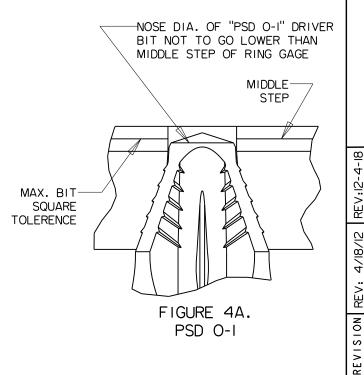
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REJECTABLE CONDITIONS









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TITLE: BIT AND DRIVER SPECIFICATION PHILLIPS SQUARE-DRIV® RECESS

DRAWN DATE DRAWING NUMBER **B.HUGHES** 12/20/2002 PSC-908 DATE CHECKED: G.DILLING 12/20/2002 SHEET 5 OF 9 PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
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Specified hardness requirements shall be tested on a Rockwell Tester using a diamond penetration point and employing a 150 Kilogram major load. Surface shall be suitably ground for test. Plating, decarburization shall be removed before testing. The hardness of all drivers and bits shall be taken as near to the tip as practicable.

For convenience in inspection, bits may be checked on surface of hex (non-destructive test) and accepted if Rc reading is within \pm 2 points of specification. If surface reading exceeds \pm 2 points, sample must be mounted and polished and micro-hardness tests conducted.

Rockwell Hardness: Up to 200 pieces - check 10 pieces.

Over 200 pieces - check 15 pieces.

4.4.5 Torsional Strength: Up to 200 pieces - check 10 pieces.

Over 200 pieces - check 15 pieces.

4.4.6 Torsional Fatigue Strength:

Drivers shall withstand 50 application cycles of the torsional fatigue load specified in Table 1. One cycle consists of torque first applied in the clockwise direction, then in the counterclockwise direction.

	TABLE 1	
DRIVER SIZE	MINIMUM TORSIONAL	FATIGUE TORQUE LIMIT
	Strength (Lb Ins.)	(Lb ins.) \pm 10%
0-1	38	23
1-2	128	77
2-2	182	109
3-3	350	210

5.0 Physical Properties:

5.0.1 Discontinuities:

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

5.0.2 Cracks:

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

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Driver bits shall be marked by etching, stamping, or engraving onto each bit, the following minimum information:

- A. Manufacturer's name, symbol or code.
- B. Recess or driver size.
- C. The legend "PSD"
- D. The legend "SR" (e.g. PSD 2-2 SR)

In addition, if desired, the manufacturers or Phillips Screw Company part number may be marked when space permits. Marking may use more than one hex flat as required. Marking on the round shank is also permitted.

5.2 Workmanship:

Hanging burrs and slivers which might become dislodged in service shall be removed.

All points must conform to the across the wing profiles for each size of bit. This must be done using a comparator at a minimum magnification of 20x.

6.0 Quality Assurance Provisions:

6.1 Responsibility for Inspection:

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

6.2 Change of Product:

After initial qualification 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 new qualification testing prior to incorporation into production lots.

6.3 Qualification Testing:

Qualification testing shall be performed per Paragraph 4.2 of this specification.

6.4 Quality Conformance Inspection:

Quality conformance inspection shall consist of the examinations and tests listed in Table II.

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TABLE II

QUALITY CONFORMANCE INSPECTION

(Average Quality Level)

A 01	Evenination of Tool	Condintions & Dogwissmants				
AQL	Examination or Test	Condintions & Requirements				
1.0	Point Dimensions	Inspect using appropriate ring gage PSC-938 for size 0-1, PSC-939 for size, 1-2, PSC-940 for size 2-2 and PSC-941 for size 3-3.				
1.0	"Stick Fit" Functional Test	Using the appropriate Gauge size 0-1, PSC-977, 1-2, PSC-978, 2-2, PSC-979 & 3-3, PSC-980. Press the bit into the gauge. "Stick Fit" is acceptable if the gauge remains on the bit.				
1.0	Drive End Dimensions	Standard Inspection Equipment or Gages				
2.5	Torsional Fatigue	Test per Paragraph 4.2.3 of this specification				
2.5	Ultimate Torsional Strength	Using the same parts that passed Torque Fatigue, test per Paragraph 4.4.6 of this Specification.				
2.5	Hardness*	Grind parallel flats perpendicular to the bit axis, measure hardness at point end per ASTM E18.				
2.5	Marking	Visual				
2.5	Surface Finish	Visual Inspection per ANSI B46.1.				
2.5	Physical Properties	Visual Examination at a minimum of 6x Magnification.				
4.0	Workmanship	Visual Examination				
* Destructive Test - test pieces shall not be delivered.						

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7.0 Notes:

7.1 Patent Coverage:

United States Patent number 6,223,634 B1 covers the ACR Rib System feature on the driver. Foreign Patents have also been issued.

7.2 Authorized Sources:

The product defined herein and on associated detail drawings is subject to Product and Trademark Licenses issued by Phillips Screw Company.

7.3 Intended Use:

Screwdriver and power driving bits for driving fasteners having Phillips Square-Driv recesses.

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This specification defines the recess inspection requirements for initial qualification inspection, first article inspection at the header and the final quality conformance inspection of Phillips Square-Driv recesses.

Inspection practice in accordance with procedures, sampling plans and specified gage sets forth herein will guarantee product uniformity for dimension, apperance and function.

2.0 INSPECTION PLANS

2.1 Initial Qualification:

The Phillips Screw Company shall perform initial qualification inspection.

Initial product qualification inspection is required by the product and trademark license agreements.

A requirement minimum of 50 pieces of each recess 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 recess size and head style, as required by the product and trademark license agreements.

2.3 First Article Inspection:

The first article inspection requirements must be met at the header. Any defects in visual inspection or gage readings beyond the stated limits require head adjustment. This indicates a defective or incorrect punch number.

2.4 Final Quality Conformance

Typical random sample of sizes of the screw lot must meet the inspection requirements listed below.

3. INSPECTION REQUIREMENTS

3.1 Visual Inspection:

Visual inspection uses an optical magnifying device of at least 10 (X) power.

Visually inspect the recess for the following:

- 3.1.1 Presence of 8 pads located on each of the inner wing surfaces. These pads must not be distorted in any way.
- 3.1.2 Head Markings must be to Phillips Screw Company drawing PSC-963
- 3.1.3 Definition of pad and recess formation: All surface intersections should exhibit clean smooth radii.

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RECESS INSPECTION PROCEDURE PHILLIPS SQUARE-DRIV® RECESS

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3.1.1 The presence of irregular surfaces, as may be caused by a chipped punch is acceptable, provided that both the gage penetration and torque values obtained are acceptable.

3.2 Recess Wobble Gauging:

The condition of the recess is checked for wobble by the use of a master plug gage, per PSC-948 for size 0-1, PSC-949 for size 1-2, PSC-950 for size 2-2 and PSC-951 for size 3-3 within the Phillips square-Driv recesses.

The Phillips wobble gage assembly is shown in Figure 1. on Sheet 3 of 7 of this QC Inspection requirements of the Phillips Square-Driv Technical Manual. Screws coated to a thickness greater than .003 inches (0.08mm) shall be stripped of such coaing before inspection.

The limits of angular wobble for various recess sizes are as follows:

Recess Size	Allowable Wobble Angle
0-1	6
1-2	6
2-2	6
3-3	6

TABLE 1

Any individual screw recess having a reading beyond the tabulated limits is considered defective.

Accept the screw lot if no defective is found in alot of 10 parts. Reject the lot if one or more defective parts are found in the lot.

3.3 In Process Control Gauging:

In process control is required to check for chipped and/or worn punches and under filled recesses.

All readings must be taken at the heading machine and the frequency must be determined by S.P.C. Critical Dimension recommendations. Use a "Catch Pan" for part collection at the heading machine. Before emptying the full "Catch Pan" into the production batch container the last 5 pieces must be checked as follows.

3.4 Recess Wobble Gauging:

Check for gauge wobble in the recess as defined in 3.2 Recess Wobble Gauging.

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G.DILLING

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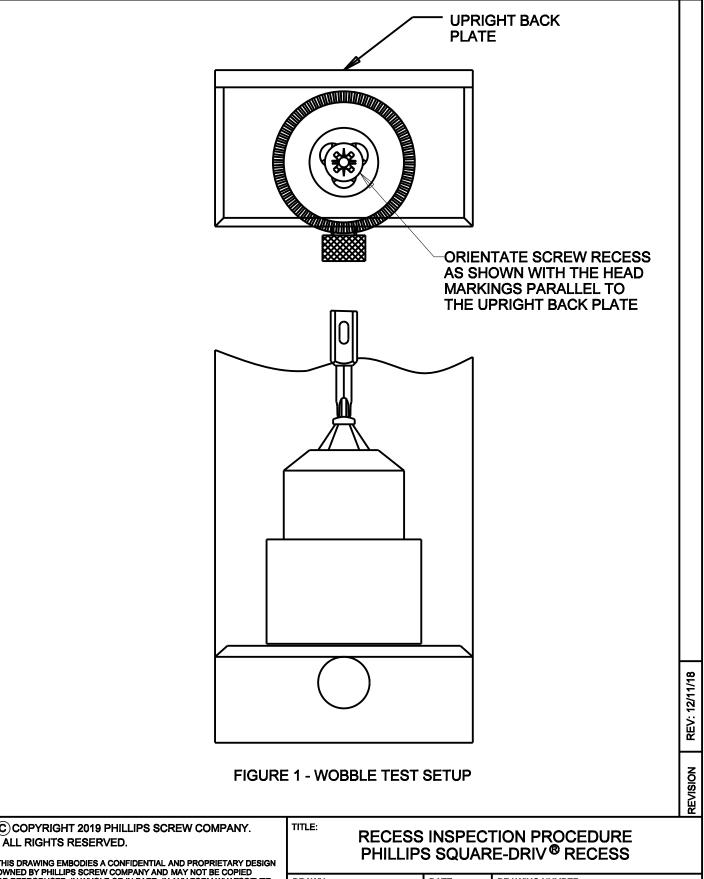
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SHEET 2 OF 7

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m B}$ TRI-WING $^{
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3.4.1 Recess Square Gauging:

Using the appropriate Phillips Screw Company Square Recess Penetration Gauge PSC-943 for #0-1, PSC-944 for #1-2, PSC-945 for #2-2, PSC-946 for #3-3

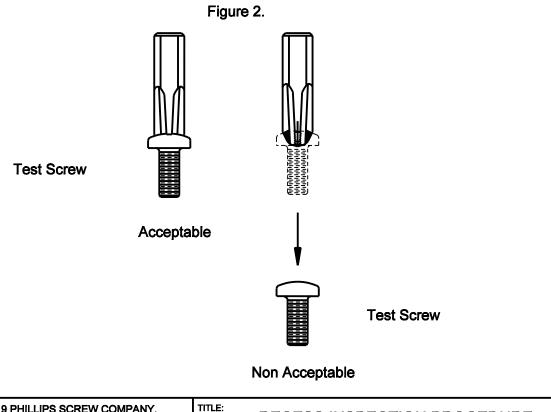
Measure and record the gage penetration reading. This gage reading must lie between the Maximum and Minimum shown in the Head Dimension Standards in this Phillips Square-Driv Technical Manual.

For Special head designs approved by the Phillips Screw Company the gauging limits will be shown on the associated drawing.

3.4.2 Functional Gage Fit:

This feature defines the functional gage fit of the Phillips Square-Driv recess. This is achieved when a screw blank or finished screw is pushed with firm finger pressure onto the appropriate sized Plug Gage as shown in Para: 3.2. The screw should remain on the gage when both are held in a downwards vertical position.

See FIGURE 2. for depiction of Acceptable and Non-Acceptable product.



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RECESS INSPECTION PROCEDURE PHILLIPS SQUARE-DRIV® RECESS

REV: 12/11/18

 DRAWN C.LOUIS-JACQUES
 DATE 12-11-18
 DRAWING NUMBER

 CHECKED:
 G.DILLING
 DATE 12-11-18
 SHEET 4 OF 7

 PHILLIPS SCREW CO.
 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
 SHEET 4 OF 7

PHONE: 781-213-3521 FAX: 781-224-9753

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

3.4.3 Recess Wing Gauging:

To ensure that punch chipping and or wear of the punch nose does not cause the recess to be malformed and restrict the square on the bit from engaging correctly, a Wing Master Plug Gauge is to be used in the wings of the recess. The gauge must fully enter the recess and must clearly register along the outer surface of all four wings in the recess. This gauging also ensures that the recess is fully compatible with either Phillips or Pozidriv drivers.

The following gages are to be used: PSC-953 for 0-1 size, PSC-954 for either the 1-2 or 2-2 sizes & PSC-955 for 3-3 size.

3.4.4 Measurements out of tolerance shall be cause for rejection.

3.5 Head Discontinuities:

Using the same sample lot, examine each piece for head discontinuities in accordance with figure 3, page #6 of this document. Any individual piece exceedomg these limitis shall be considered a defective.

Accept the lot for further inspection if less than the allowable number of defectives is found.

Reject the lot if more than the allowable number of defectives is found.

3.6 Recess to Shank Eccentricity:

Using the same sample lot, inspect each piece for eccentricity of recess shank.

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

The recesses in screw heads shall not be eccentric with screw bodies by more than 6% of the nominal (basic) body diameter or .015", whichever is the greater. Table 2 lists the amount of recess eccentricity permitted for popular screw sizes.

TITLE:

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RECESS INSPECTION PROCEDURE PHILLIPS SQUARE-DRIV® RECESS

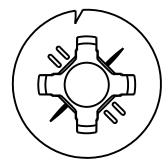
DRAWN DRAWING NUMBER C.LOUIS-JACQUES 12-11-18 PSC-930 CHECKED: DATE **G.DILLING** 12-11-18 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.

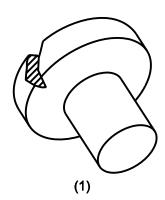
PHONE: 781-213-3521 FAX: 781-224-9753 PHILLIPS II $^{ ext{R}}$ PHILLIPS $^{ ext{R}}$ POZIDRIV $^{ ext{R}}$ ACR $^{ ext{R}}$ POZISQUARE $^{ ext{R}}$ PHILLIPS SQUARE-DRIV $^{ ext{R}}$ TORQ-SET $^{ ext{R}}$ TRI-WING $^{ ext{R}}$ MORTORQ $^{ ext{R}}$ HEXSTIX $^{ ext{R}}$ AND POZILOCK[®] ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

REV: 12/11/18

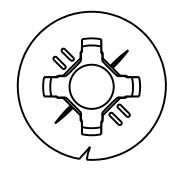
REVISION

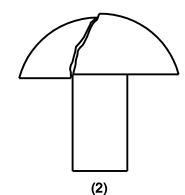
NOT ACCEPTABLE



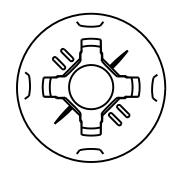


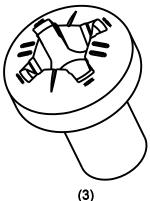
LARGE OPEN IMPERFECTIONS EXTENDING OVER 1/2 WAY TO RECESS





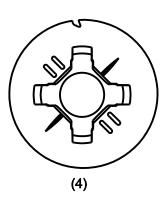
OPEN ANGULAR IMPERFECTIONS ON EDGE OF HEAD



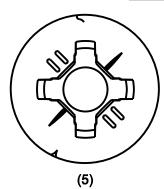


SLIVERS OR LOOSE FLAKES ON TOP OF HEAD

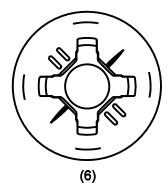
ACCEPTABLE



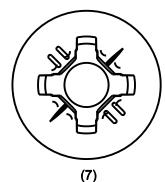
MULTIPLE IMPERFECTIONS NOT EXTENDING 1/2 WAY TO RECESS AND NOT AFFECTING USEABILITY



SLIGHT HAIR LINES



SLIGHT RECESS FLOW LINES



SLIGHT TOOL MARKS SLIGHT PIN MARKS

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TITLE:

RECESS INSPECTION PROCEDURE PHILLIPS SQUARE-DRIV® RECESS

 DRAWN
 DATE

 C.LOUIS-JACQUES
 12-11-18

 CHECKED:
 G.DILLING
 DATE

 12-11-18
 12-11-18

DRAWING NUMBER

PSC-930

SHEET 6 OF 7

REV: 12/11/18

REVISION

PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

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

TABLE II

Screw Size	Normal Body Diameter	Allowable Eccentricity
0	.060	.015
1	.073	.015
2	.086	.015
3	.089	.015
4	.112	.015
5	.125	.015
6	.138	.015
7	.151	.015
8	.164	.015
9	.177	.015
10	.190	.015
12	.216	.015
14	.242	.015
1/4	.250	.015
16	.268	.016
18	.294	.018
5/16	.3125	.019
20	.320	.019
24	.372	.022
3/8	.375	.023
7/16	.4375	.026
1/2	.500	.030
Screw Size (Metric)	Normal Body Diameter (Inches)	Allowable Eccentricity (Inches
M1.6	.063	.015
M2	.079	.015
M2.2	.087	.015
M2.9	.114	.015
M3	.118	.015
M3.5	.138	.015
M3.9	.154	.015
M4	.157	.015
M4.2	.165	.015
M4.5	.177	.015
M4.8	.189	.015
M5	.197	.015
M5.5	.216	.015
M6	.236	.015
M6.3	.248	.015
	.276	.016
M7		545
м <i>7</i> М8	.315	.019
	.315 .374	.019 .022
M8		

Any individual piece exceeding these limits shall be considerede defective.

The lot is acceptable if fewer than the allowable number of defectives is found.

The lot must be rejected if more than the allowable number of defectives is found.

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RECESS INSPECTION PROCEDURE PHILLIPS SQUARE-DRIV® RECESS

DRAWN	DATE	DRAWING NUMBER
C.LOUIS-JACQUES	12-11-18	PSC-930
CHECKED:	DATE	1
G.DILLING	12-11-18	SHEET 7 OF 7

REV: 12/11/18

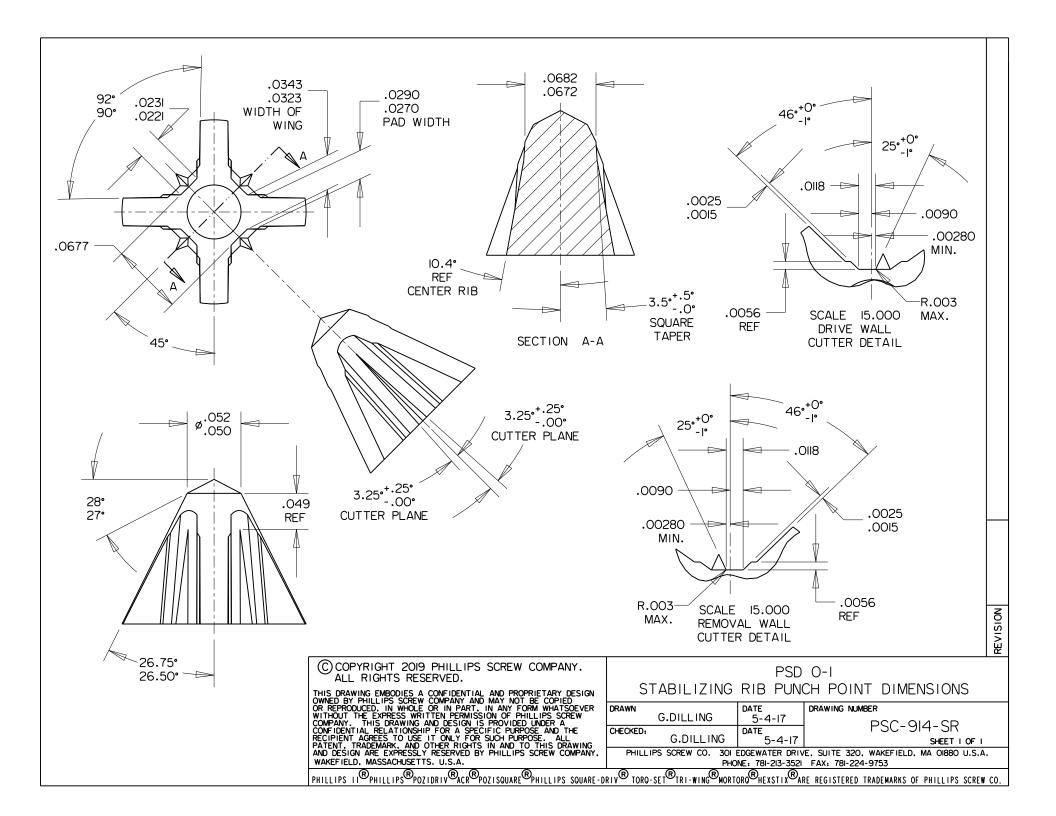
REVISION

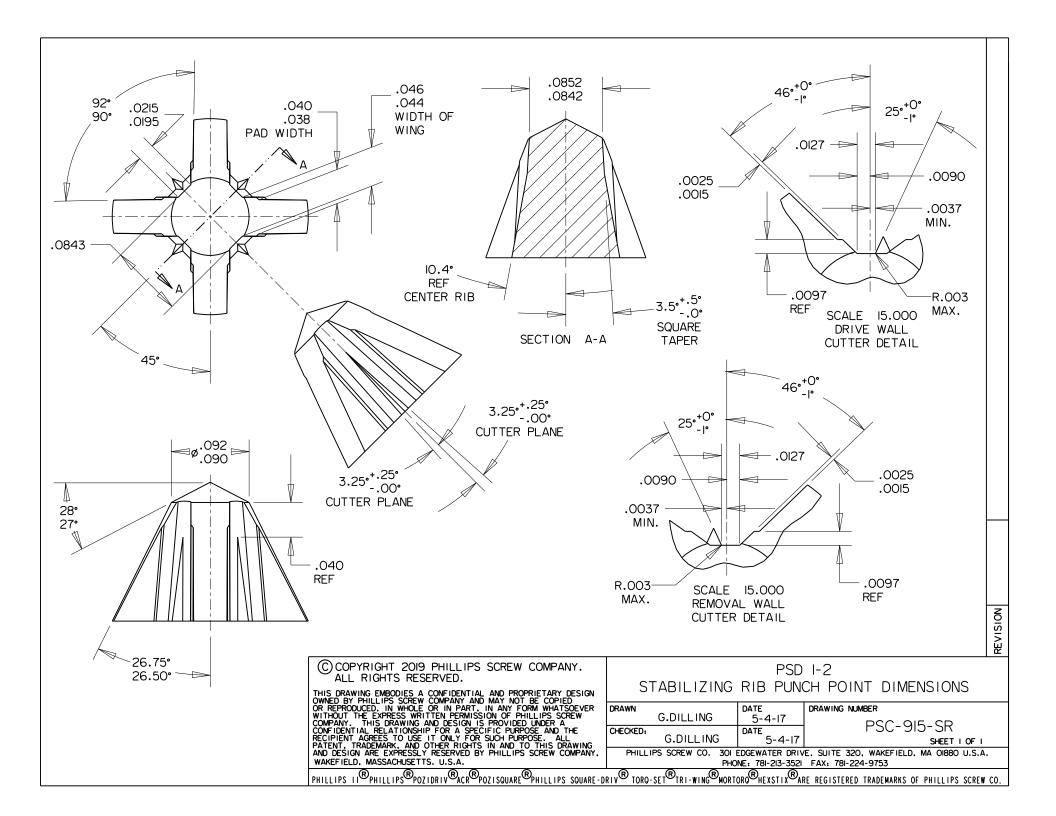
PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-213-3521 FAX: 781-224-9753

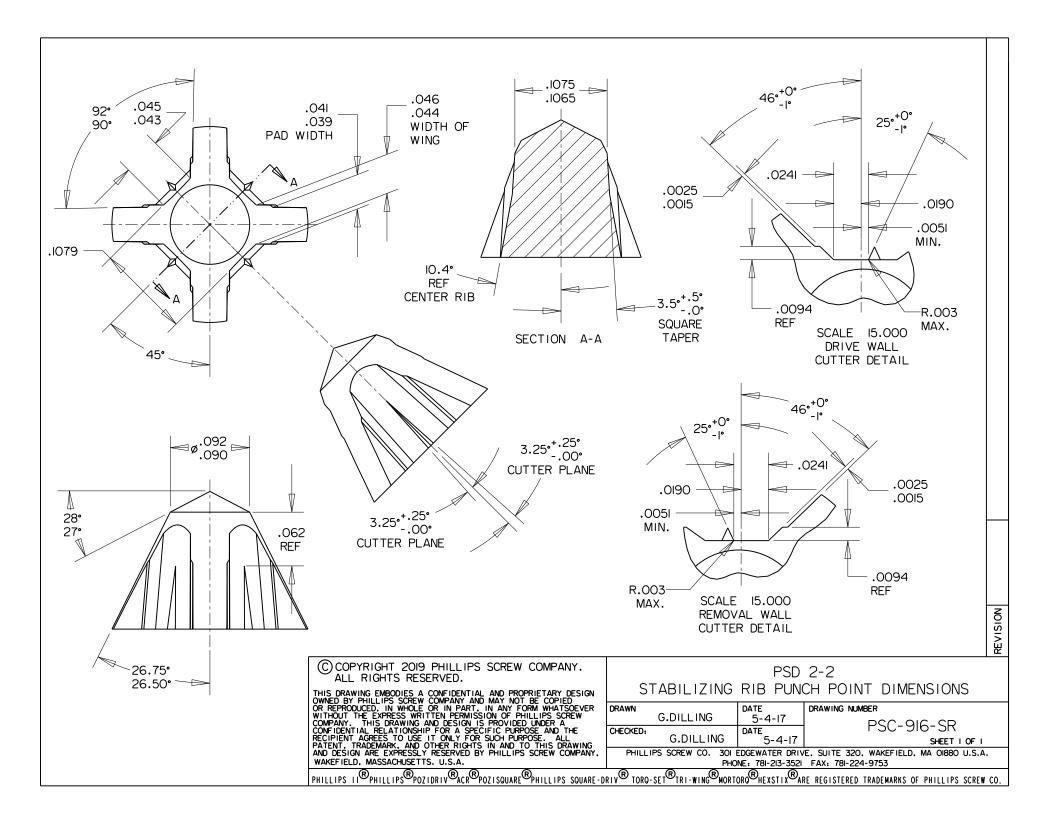
PHILLIPS II[®]PHILLIPS[®]POZIDRIV[®]ACR[®]POZISQUARE [®]PHILLIPS SQUARE-DRIV[®]TORQ-SET[®]TRI-WING[®]MORTORQ[®]HEXSTIX[®]
AND POZILOCK[®]ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

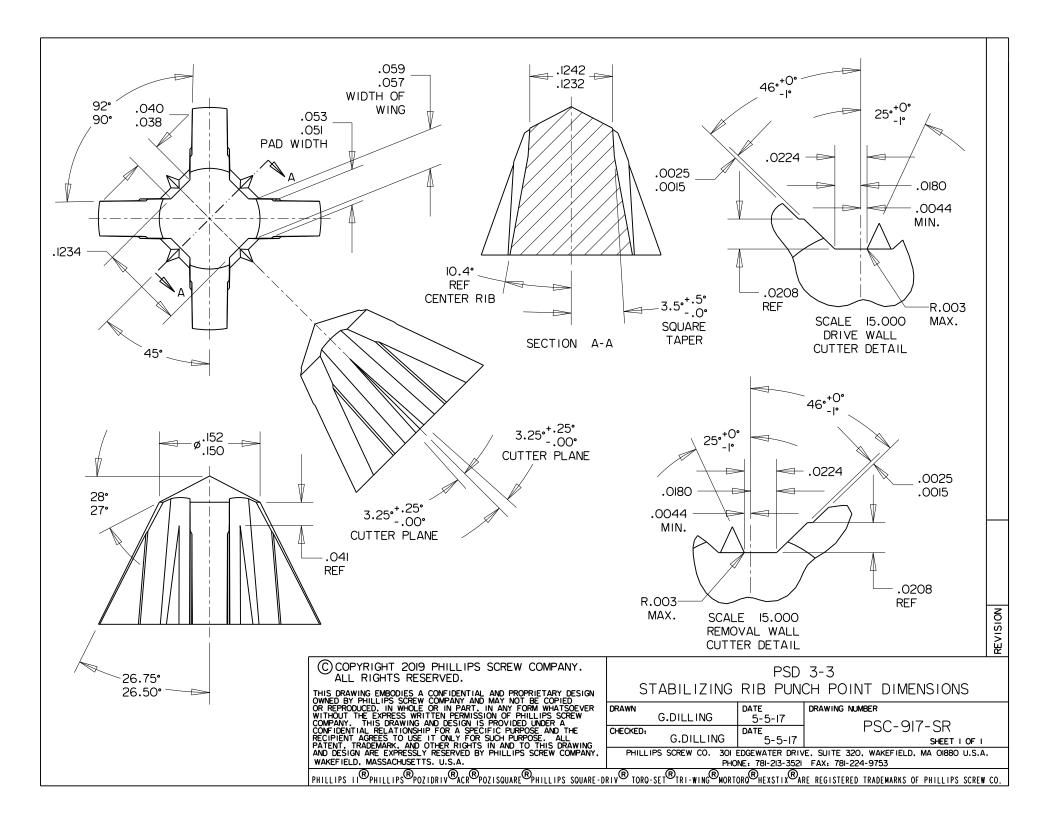
PHILLIPS SQUARE-DRIV® ENGINEERING MANUAL INDEX PUNCH STANDARDS

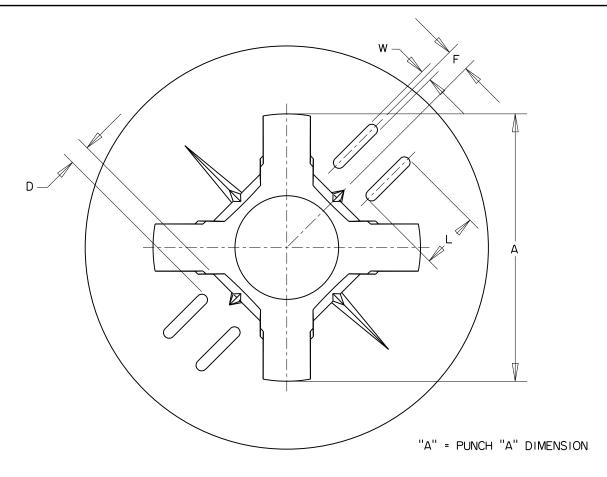
PSC-9I4 SR	PSD (O-I) PUNCH POINT DIMENSIONS	5-4-17
PSC-9I5 SR	PSD (I-2) PUNCH POINT DIMENSIONS	5-4-17
PSC-9I6 SR	PSD (2-2) PUNCH POINT DIMENSIONS	5-4-17
PSC-9I7 SR	PSD (3-3) PUNCH POINT DIMENSIONS	5-5-17
PSC-963	PSD HEAD MARKINGS	10-27-17
PSC-982	FLAT HEAD PUNCHES	10-27-17
PSC-983	PAN HEAD PUNCHES	10-27-17
PSC-984	OVAL HEAD PUNCHES	10-27-17
PSC-985	TRUSS HEAD PUNCHES	10-27-17
PSC-987	FLAT TOP HEAD PUNCH SPECIALS	10-27-17
PSC-988	FLAT TOP PAN HEAD PUNCH SPECIALS	10-27-17











RECESS	W (REF.)	D (MIN.)	F	L	HEIGHT NOTE 2
PSD2 O-I	.008	.005	.015 .010	.025 .030	.002 .004
PSD2 I-2	.008	.010	.015 .010	.025 .030	.002 .004
PSD2 2-2	.010	.018	.020 .015	.035 .040	.002 .004
PSD2 3-3	.010	.025	.020 .015	.050 .060	.002 .004

NOTES:

- I. MARKING FOR PHILLIPS SQUARE-DRIV SCREWS CONSISTS OF TWO PAIRS OF PARALLEL LINES ON OPPOSITE SIDES OF THE SCREW HEAD AND RADIAL NOTCHES IN THE TWO REMAINING QUADRANTS.
- 2. THIS DIMENSION WOULD BE THE HEIGHT OF MARKING ON A PUNCH FACE AND DEPTH ON A SCREW HEAD.
- 3. MARKING MUST BE PLAINLY VISIBLE ON HEAD PRODUCT.

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PHILLIPS SQUARE-DRIV HEAD MARKINGS DRAWN G.DILLING DATE 10/22/02 CHECKED: G.DILLING DATE 10/23/02 SHEET I OF I

PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A. PHONE: 78I-213-352I FAX: 78I-224-9753

								SEE N	OTE 6	
SCREW	PUNCH	+.004	±.0005	+.004	+.00I 000	+.000	MIN.	PHIL PEN		DRIVE
SIZE	NO.	øΔ	øD	J	K	L	øΥ	MAX.	MIN.	SIZE
4 M3	PSD-4FOI-SN	.123	.5625	.086	.212	.106	.305	.084	.078	0-1
6 M3.5	PSD-6FI2-SN	.176	.5625	.110	.212	.106	.358	.104	.098	I-2
8 M4	PSD-8F22-SN	.184	.5625	.118	.212	.106	.385	.112	.106	2-2
IO M5	PSD-IOF22-SN	.203	.5625	.137	.212	.106	.385	.131	.125	2-2
M6	PSD-600F33-SN	.262	.8750	.152	.212	.106	.485	.140	.134	3-3
1/4	PSD-25F33-SN	.285	.8750	.175	.212	.106	.597	.163	.157	3-3

NOTES:

- I. REFER TO PUNCH DRAWING PSC-914-SR, PSC-915-SR, PSC-916-SR, AND PSC-917-SR FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963, UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- 4. DIMENSIONS ARE IN INCHES.
- 5. PUNCH PENETRATION VALUES DERIVE FROM USING GAGES "PSC-959 THRU PSC-962".
- 6. USE STANDARD PHILLIPS RECESS PENETRATION GAGE AND LAST DIGIT OF DRIVE SIZE TO DETERMINE PEN VALUES. THESE VALUES ARE FOR THE PUNCH ONLY AND NOT THE SCREW.

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TITLE:

PHILLIPS SQUARE-DRIV® FLAT HEAD PUNCH

SEE NOTE 5
PUNCH PEN

MIN.

.005

.007

.009

.008

MAX.

.017

.019

.021

.020

	DRAWN	DATE	DRAWING NUMBER
	G.DILLING	9/27/02	PSC-982
	CHECKED:	DATE	1 30 302
	G.DILLING	10/01/02	SHEET I OF I
٠	DUILLING SCREW CO ZOLEDO	EWATER ORIVE	SUITE 320 WAKEEIELD MA OIRRO ILS A

PHONE: 781-213-3521 FAX: 781-224-9753

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

REVISION REV: 2/24/03 REV: 10/20/06 REV: 12/13/11 REV:

DRIVE

SIZE

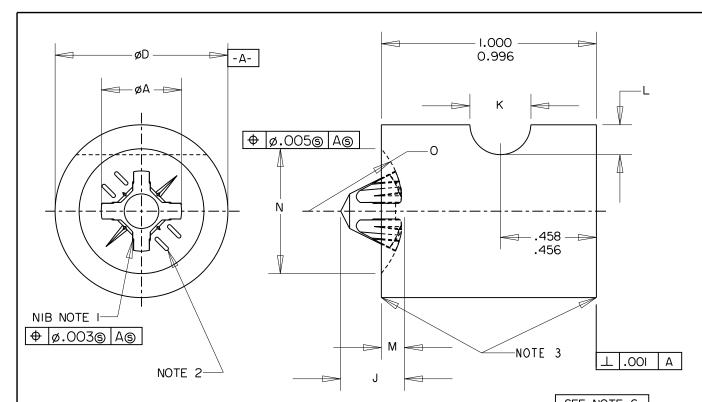
0-1

1-2

2-2

3-3

10-27-17



										SEE NO	JIE 6	
SCREW	PUNCH	+.004	±.0005	+.004	+.001	+.000	+.002	+.005 000	+.005 000	PHILI PEN (DRIVE
SIZE	NO.	øΑ	øD	J	K	L	øΜ	øΝ	øΟ	MAX.	MIN.	SIZE
4 M3	PSD-4POI-SN	.138	.5625	.112	.212	.106	.031	.241	.248	.095	.089	0-1
6 M3.5	PSD-6PI2-SN	.169	.5625	.115	.212	.106	.037	.290	.301	.092	.086	I-2
8 M4	PSD-8P22-SN	.193	.5625	.141	.212	.106	.045	.346	.352	.117	.≡	2-2
10 M5	PSD-IOP22-SN	.215	.5625	.164	.212	.106	.054	.409	.413	.139	.133	2-2
1/4 M6	PSD-25P33-SN	.292	.8750	.202	.212	.106	.067	.519	.535	.166	.160	3-3

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- I. REFER TO PUNCH DRAWING PSC-914-SR. PSC-915-SR. PSC-916-SR. AND PSC-917-SR FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963. UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- 4. DIMENSIONS ARE IN INCHES.
- 5. PUNCH PENETRATION VALUES DERIVE FROM USING GAGES "PSC-959 THRU PSC-962".
- 6. USE STANDARD PHILLIPS RECESS PENETRATION GAGE AND LAST DIGIT OF DRIVE SIZE TO DETERMINE PEN VALUES. THESE VALUES ARE FOR THE PUNCH ONLY AND NOT THE SCREW.

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TITLE:

PHILLIPS SQUARE-DRIV® PAN HEAD PUNCH

SEE NOTE 5

PUNCH PEN

MIN.

.005

.007

.009

.008

MAX.

.017

.019

.021

.020

DRAWN	DATE	DRAWING NUMBER			
G.DILLING	10/01/02	PSC-983			
CHECKED: G.DILLING	DATE	1 30 309			
0.BILLING	10/01/02	SHEET I OF I			
DUILLING SCREW CO ZOLEDO	CWATED DOLVE	CHITE 300 WAVEELELD MA 01000 H.C.A.			

PHILLIPS SCREW CO. 301 EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
PHONE: 781-213-3521 FAX: 781-224-9753

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

10/20/06 REV 2/24/03 REV:

DRIVE SIZE

0-1

1-2

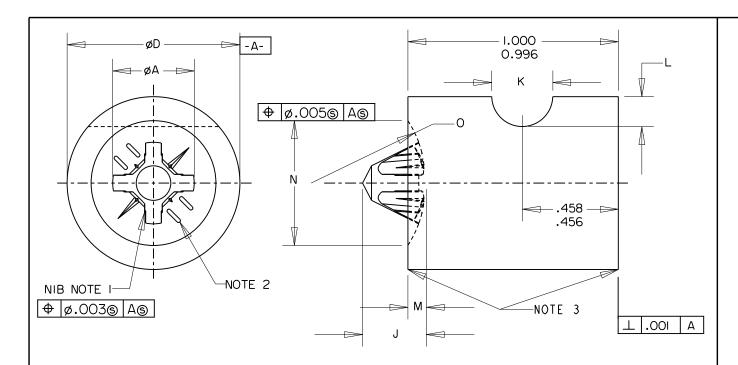
2-2

3-3

REV: 10-27-17

REV 12/13/11

REVISION



										SEE N	OTE 6	
SCREW		+.004	±.0005	+.004	+.001	+.000	+.002	+.005 000	+.005 000	PHIL PEN		DRIVE
SIZE	NO.	øΑ	øD	J	К	L	М	N	0	MAX.	MIN.	SIZE
4	PSD-4VOI-SN	.135	.5625	.108	.212	.106	.026	.221	.248	.092	.086	0-1
М3	PSD-300VOI-SN	.141	.5625	.116	.212	.106	.034	.243	.236	.098	.092	0-1
6	PSD-6VI2-SN	.192	.5625	.142	.212	.106	.036	.286	.301	.115	.109	1-2
M3.5	PSD-350VI2-SN	.194	.5625	.142	.212	.106	.040	.318	.335	.117	.111	1-2
8	PSD-8V22-SN	.204	.5625	.154	.212	.106	.040	.326	.352	.128	.122	2-2
M4	PSD-400V22-SN	.219	.5625	.170	.212	.106	.048	.365	.374	.143	.137	2-2
10	PSD-IOV22-SN	.228	.5625	.178	.212	.106	.046	.379	.413	.151	.145	2-2
M5	PSD-500V22-SN	.237	.5625	.191	.212	.106	.059	.404	.374	.160	.154	2-2
1/4	PSD-25V33-SN	.316	.8750	.231	.212	.106	.062	.500	.535	.191	.185	3-3
М6	PSD-600V33-SN	.299	.8750	.214	.212	.106	.069	.491	.472	.173	.167	3-3

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- I. REFER TO PUNCH DRAWING PSC-9I4-SR. PSC-9I5-SR. PSC-9I6-SR. AND PSC-917-SR FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963, UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- 4. DIMENSIONS ARE IN INCHES.
- 5. PUNCH PENETRATION VALUES DERIVE FROM USING GAGES "PSC-959 THRU PSC-962".
- 6. USE STANDARD PHILLIPS RECESS PENETRATION GAGE AND LAST DIGIT OF DRIVE SIZE TO DETERMINE PEN VALUES. THESE VALUES ARE FOR THE PUNCH ONLY AND NOT THE SCREW.

TITLE:

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PHILLIPS SQUARE-DRIV OVAL HEAD PUNCH

SEE NOTE 5 PUNCH PEN

MIN.

.005

.007

.009

.008

MAX.

.017

.019

.021

.020

DRAWN DATE DRAWING NUMBER 10/01/02 G.DILLING PSC-984 DATE CHECKED: G.DILLING SHEET I OF I 10/02/02 PHILLIPS SCREW CO. 30I EDGEWATER DRIVE, SUITE 320, WAKEFIELD, MA OI880 U.S.A.
PHONE: 78I-213-352I FAX: 78I-224-9753

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

10-27-17 REV: 12/13/11 Æ\ 10/20/06 Æ< 2/24/03

REV: REVISION

DRIVE

SIZE

0-1

1-2

2-2

3-3

											SEE N	OTE 6	
SCREW	PUNCH	+.004	±.0005	+.004	+.00I 000	+.000 001	+.002	+.005 000		REF.	PHIL PEN		DRIVE
SIZE	NO.	øΑ	øD	J	K	L	М	øΝ	0	øΧ	MAX.	MIN.	SIZE
6 M3.5	PSD-6TI2-SN	.170	.5625	.104	.212	.106	.066	.321	.181	.205	.102	.096	I-2
8 M4	PSD-8T22-SN	.197	.5625	.131	.212	.106	.080	.384	.220	.230	.125	.119	2-2
IO M5	PSD-IOT22-SN	.214	.8750	.148	.212	.106	.089	.448	.269	.250	.142	.136	2-2
1/4 M6	PSD-25T33-SN	.296	.8750	.186	.212	.106	.128	.573	.321	.340	.174	.168	3-3

NOTES:

- I. REFER TO PUNCH DRAWING PSC-915-SR, PSC-916-SR, AND PSC-917-SR FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963, UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- 4. DIMENSIONS ARE IN INCHES.
- 5. PUNCH PENETRATION VALUES DERIVE FROM USING GAGES "PSC-959 THRU PSC-962".
- 6. USE STANDARD PHILLIPS RECESS PENETRATION GAGE AND LAST DIGIT OF DRIVE SIZE TO DETERMINE PEN VALUES. THESE VALUES ARE FOR THE PUNCH ONLY AND NOT THE SCREW.

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TLE:	R
	PHILLIPS SQUARE-DRIV [®]
	TD::CC ::EAD D::N:C::

ALL RIGHTS RESERVED. THIS DRAWING EMBODIES A CONFIDENTIAL AND PROPRIETARY DESIGN OWNED BY PHILLIPS SCREW COMPANY AND MAY NOT BE COPIED	F	PHILLIPS SQUARE-DRIV TRUSS HEAD PUNCH						
OR REPRODUCED, IN WHOLE OR IN PART, IN ANY FORM WHATSOEVER WITHOUT THE EXPRESS WRITTEN PERMISSION OF PHILLIPS SCREW	DRAWN	DATE	DRAWING NUMBER					
COMPANY. THIS DRAWING AND DESIGN IS PROVIDED UNDER A CONFIDENTIAL RELATIONSHIP FOR A SPECIFIC PURPOSE AND THE	G.DILLING	9/27/02	PSC-985					
RECIPIENT AGREES TO USE IT ONLY FOR SUCH PURPOSE. ALL PATENT, TRADEMARK, AND OTHER RIGHTS IN AND TO THIS DRAWING AND DESIGN ARE EXPRESSLY RESERVED BY PHILLIPS SCREW COMPANY.	CHECKED: G.DILLING	DATE 10/03/02	SHEET I OF I					
WAKEFIELD, MASSACHUSETTS, U.S.A.	PHILLIPS SCREW CO. 301 EDG PHONE	: 781-213-3521	E, SUITE 320, WAKEFIELD, MA 01880 U.S.A. FAX: 781-224-9753					
PHILLIPS II PHILLIPS POZIDRIV ACR POZISC	QUARE PHILLIPS SQUARE-D	RIV [®] TORQ-SI	ET TRI-WING MORTORQ HEXSTIX ®					

SEE NOTE 5 PUNCH PEN

MIN.

.007

.009

.008

MAX.

.019

.021

.020

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

10-27-17 REV: 12/13/11 Æ 10/20/06 REV

2/24/03 REV. REVISION

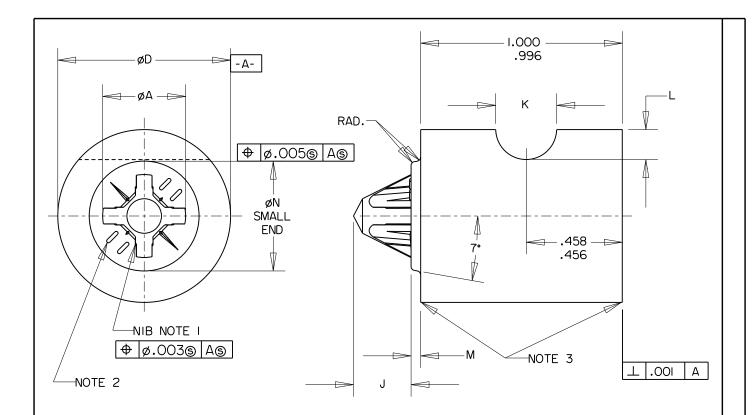
DRIVE

SIZE

1-2

2-2

3-3



									SEE N	OTE 6	
SCREW	PUNCH	+.004	±.0005			+.000			PHIL PEN (DRIVE
SIZE	NO.	øΑ	øD	J	K	L	М	øN	MAX.	MIN.	SIZE
8	PSD-8SH22-SN	.194	.5625	.128	.212	.106	.031	.300	.122	.118	2-2

SEE N						
PUNCH	H PEN	DRIVE				
MAX.	MAX. MIN.					
.017	.005	0-1				
.019	.007	I-2				
.021	.009	2-2				
.020	.008	3-3				

REV: 10-27-17

REV: 12/13/11

12/28/08

REV:

REV: 2/27/03

REVISION

NOTES:

- I. REFER TO PUNCH DRAWING PSC-916-SR.
 FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963, UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
- 4. DIMENSIONS ARE IN INCHES.
- 5. PUNCH PENETRATION VALUES DERIVE FROM USING GAGES "PSC-959 THRU PSC-962".
- 6. USE STANDARD PHILLIPS RECESS PENETRATION GAGE AND LAST DIGIT OF DRIVE SIZE TO DETERMINE PEN VALUES. THESE VALUES ARE FOR THE PUNCH ONLY AND NOT THE SCREW.

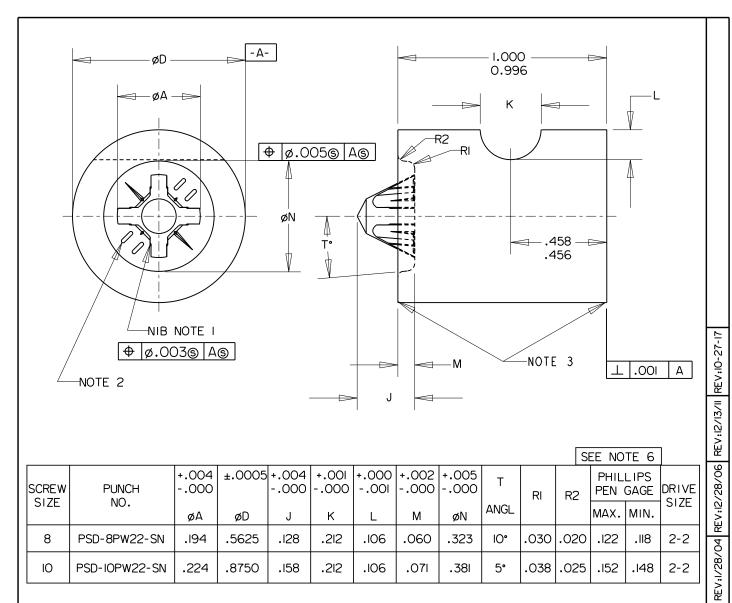
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PHILLIPS SQUARE-DRIV[®] FLAT TOP HEAD PUNCH SPECIALS

ſ	DRAWN	DATE	DRAWING NUMBER
l	G.DILLING	2/24/03	PSC-987
ſ	CHECKED:	DATE	F3C-901
L	G.DILLING	2/27/03	SHEET I OF I
•			. SUITE 320, WAKEFIELD, MA 01880 U.S.A.
⅃	PHONE	: 78I-2I3-352I	FAX: 78I-224-9753



SEE NOTE 6

SEE NOTE 5 PUNCH PEN

MIN.

.005

.007

.009

.008

MAX.

.017

.019

.021

.020

REV: 1/5/04

2/27/03

REV:

REVISION

DRIVE SIZE

0-1

1-2

2-2

3-3

SCREW		+.004	±.0005		+.00I 000		+.002				R2	PHILI PEN (DRIVE SIZE
SIZE	NO.	øΑ	øD	J	K	اـ	М	øΝ	ANGL			мах.	MIN.	SIZE
8	PSD-8PW22-SN	.194	.5625	.128	.212	.106	.060	.323	10°	.030	.020	.122	.118	2-2
Ю	PSD-IOPW22-SN	.224	.8750	.158	.212	.106	.071	.381	5°	.038	.025	.152	.148	2-2

NOTES:

- I. REFER TO PUNCH DRAWING PSC-916-SR. FOR PUNCH POINT DIMENSIONS NOT SHOWN.
- 2. HEAD MARKINGS PER PSC-963, UNLESS OTHERWISE SPECIFIED.
- 3. CHAMFER TO SUIT CUSTOMER OR COMPANY SPECIFICATIONS.
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TITLE: PHILLIPS SQUARE-DRIV® FLAT TOP PAN HEAD PUNCH SPECIALS

ſ	DRAWN	DATE	DRAWING NUMBER
l	G.DILLING	2/24/03	DCC 000
ſ	CHECKED:	DATE	PSC-988
ı	G.DILLING	2/27/03	SHEET I OF I
1			, SUITE 320, WAKEFIELD, MA 01880 U.S.A.
1	PHONE	: 78I-2I3-352I	FAX: 78I-224-9753