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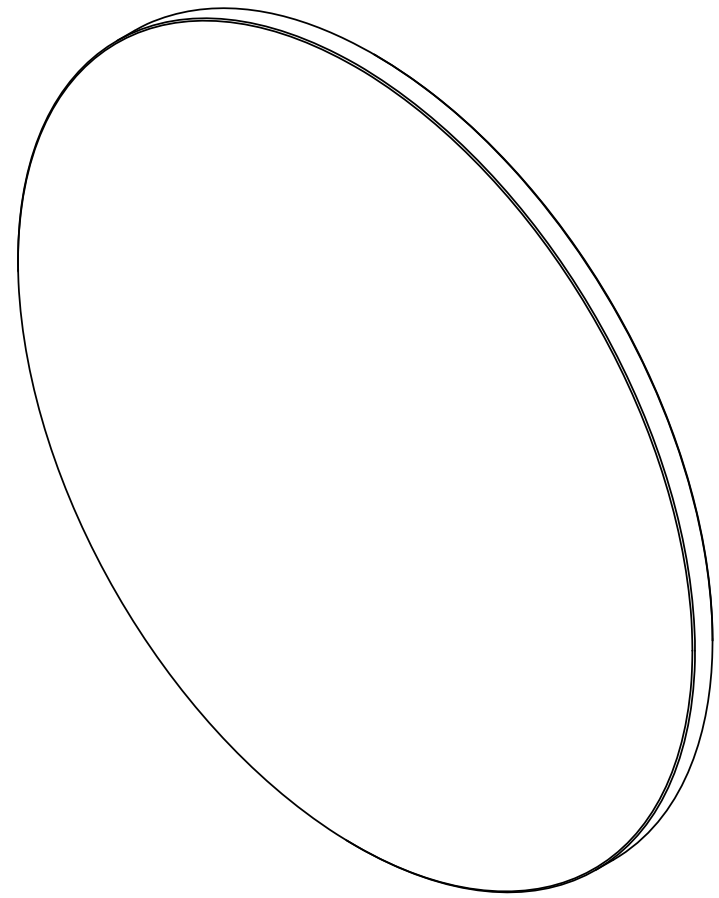
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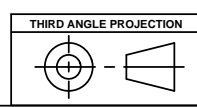


ISOMETRIC VIEW

REV		REVISIONS		DATE	APPROVED
REV	SHEET/ZONE	DESCRIPTION			
A	MULT	ADDED 6X FIDUCIALS TO S2. ADDED VIEW SHOWING CIRCULAR AND HEXAGONAL CLEAR APERTURES AND RELATION TO SEGMENTATION DATABASE VALUES. ADDED SEPARATE AXIS FOR POLISHER MARKING AT 7.5° FROM BIREFRINGENCE MARK.		07/06/15	E. HANSEN
	2/A4	ADDED "P" MARKING NEXT TO POLISHER CLOCKING MARK			
	2/B1	R337.5 WAS 675.0 DIAMETER			
	2/B2	R490.0 WAS 975.0 DIAMETER			
	5/B8	ADDED NOTE 19, AND LOCAL NOTES 18 AND 20 THROUGH 25.			
B	5/D8	NOTE 5 WAS LOCAL NOTE. OPTICAL PRESCRIPTION SHALL BE CENTERED ON ROUNDEL WITHIN 10mm DIAMETER.		10/19/15	E. HANSEN
	2/C2	FIDUCIAL PATTERN ROTATED 30 CW (FIDUCIAL #1 WAS COINCIDENT WITH VECTOR FROM MIRROR CENTER THROUGH POLISHER CLOCKING MARK)			
	2/D1	3.00 DIAMETER FIDUCIAL WAS 4.00 DIAMETER. 2.000 DIAMETER POSITIONAL TOLERANCE WAS TBD.			
	2/D3	1112.000 DIAMETER BASIC DIMENSION WAS 1132.000 BASIC			
	5/B8	DELETED NOTE 19 (REPEAT OF NOTE 14 GRINDING PROCESS)			
C	2/B2	UPDATED DRAWING TO CLARIFY THAT PART NUMBERING IS CENTERED ON THE PRINCIPAL OPTICAL AXIS AS DEFINED IN THE SEGMENTATION DATABASE		01/08/16	E. HANSEN
	5/D8	LOCAL NOTE 10: ADDED "CENTERED ON THE PRINCIPAL OPTICAL AXIS WITHIN ±3mm AND PERPENDICULAR TO THE PRINCIPAL OPTICAL AXIS WITHIN ±3mm."			
D	MULT	ROTATED POLISHER CLOCKING MARK, ALONG WITH ASSOCIATED FIDUCIALS AND BIREFRINGENCE MARK, SO THE POLISHER CLOCKING MARK IS 180° FROM THE PRINCIPAL OPTICAL AXIS.		02/23/16	E. HANSEN
E	2/B5	SCRIBE COORDINATE SYSTEM 0,0 WAS MECHANICAL CENTER OF ROUNDEL		05/15/17	E. HANSEN
	2/C4	222 PROFILE TOLERANCE WAS .125 RUNOUT TOLERANCE TO DATUMS A AND B			
	2/C5	SR62525.8 BASIC DIMENSION WAS SR62525.8±1500.0			
	2/D3, D6	SCRIBE COORDINATE SYSTEM +X WAS CYLINDER VERTEX SCRIBE AT +X			
	3/D8	SCRIBE COORDINATE SYSTEM 0,0 WAS MECHANICAL CENTER OF ROUNDEL			
	5/B7	LOCAL NOTE 22: "POINTING AWAY FROM THE VERTEX" WAS "POINTING TO THE VERTEX."			
	5/B6	LOCAL NOTE 22: "+X IS DEFINED BY THE VECTOR FROM 0,0 POINTING AWAY FROM THE VERTEX." WAS "+X IS DEFINED BY THE VECTOR FROM 0,0 TO THE VERTEX CYLINDER MARK."			
F	5/D8	LOCAL NOTE 9 WAS: S2 RUNOUT SHALL BE MEASURED WITH ROUNDEL SUPPORTED ON A UNIFORM, 106±.50mm DIAMETER CIRCULAR SUPPORT OR OTHER SUPPORT APPROVED BY TMT. LOCAL NOTE 7: ADDED "P-V OF THE DIFFERENCE FROM TNOM MUST BE LESS THAN 0.125 ON THE SIX POINTS USED TO DETERMINE TNOM, EXCLUDING THE CENTER POINT."		06/12/17	E. HANSEN
	5/MULT	EXTENSIVELY REVISED NOTES			
	5/C7	LOCAL NOTE 12: M1S-001-01002 WAS M1S-001-00102			

SEE SHEET 5 FOR NOTES.

DCC #: TMT.OPT.DWG.15.008.REL06



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
-TOLERANCES-

DECIMALS ANGULAR = +/- .30°
X = +/- 1.0
XX = +/- .30
XXX = +/- .100

FINISH
SEE NOTES

NEXT ASSEMBLY
M1S-001-01000

CAD GENERATED DRAWING.
DO NOT MANUALLY UPDATE
DO NOT SCALE DRAWING

	SIGNATURE	DATE
Designer	Alan Tubb	7/18/2014
Drawn	Alan Tubb	7/18/2014
Checked	Eric Williams	7/18/2014
Engineer	Eric Williams	7/18/2014
Approved	Eric Williams	7/18/2014

TMT
TMT Observatory Corporation
www.tmt.org

TITLE
**TMT M1
POLISHED ROUNDEL**

DWG. NO. M1S-001-01001	REV F	SHEET NO. 1 of 5
SCALE 1:6	SHEET SIZE D	

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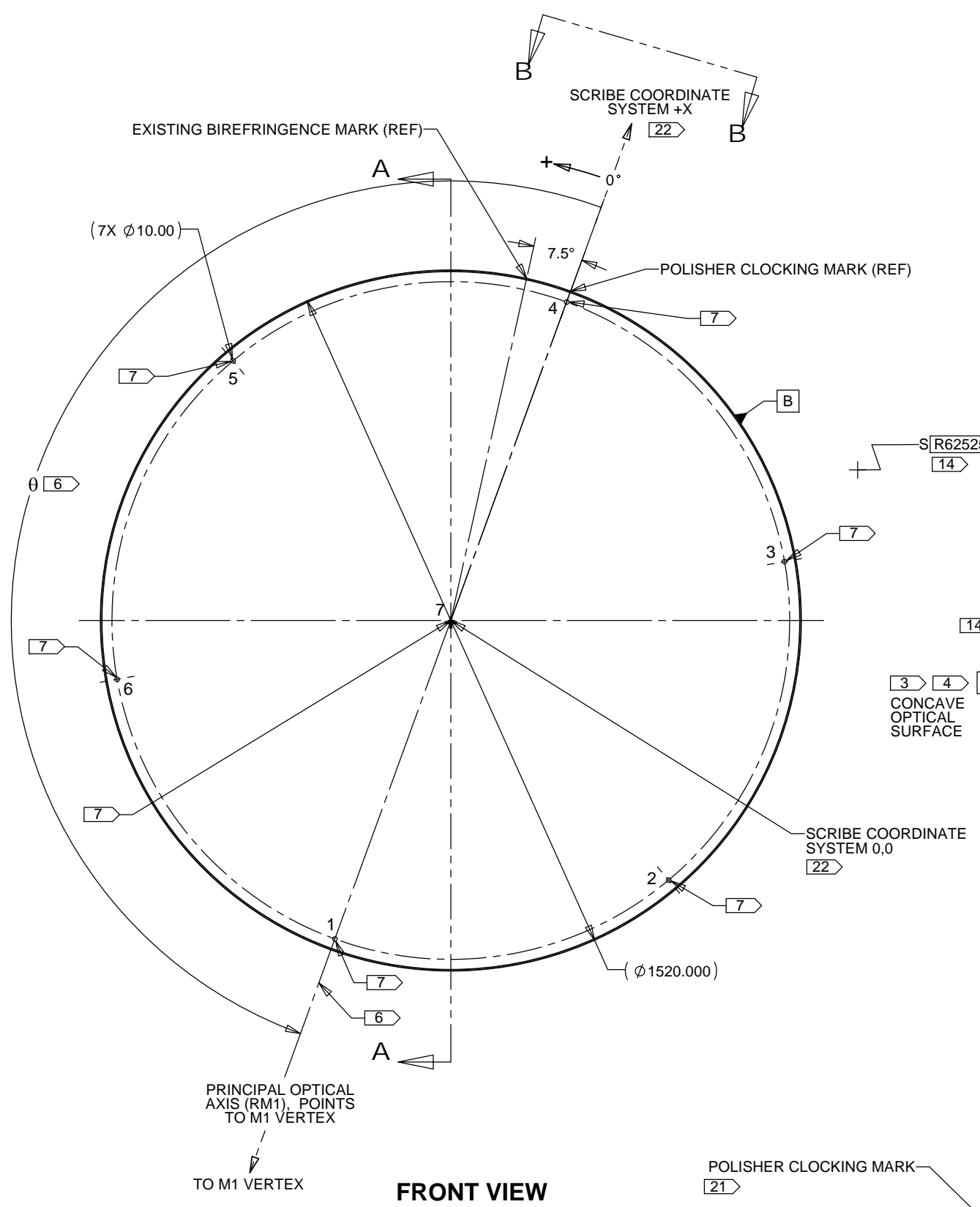
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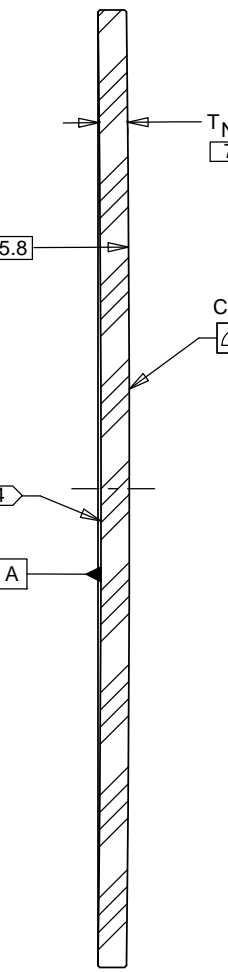
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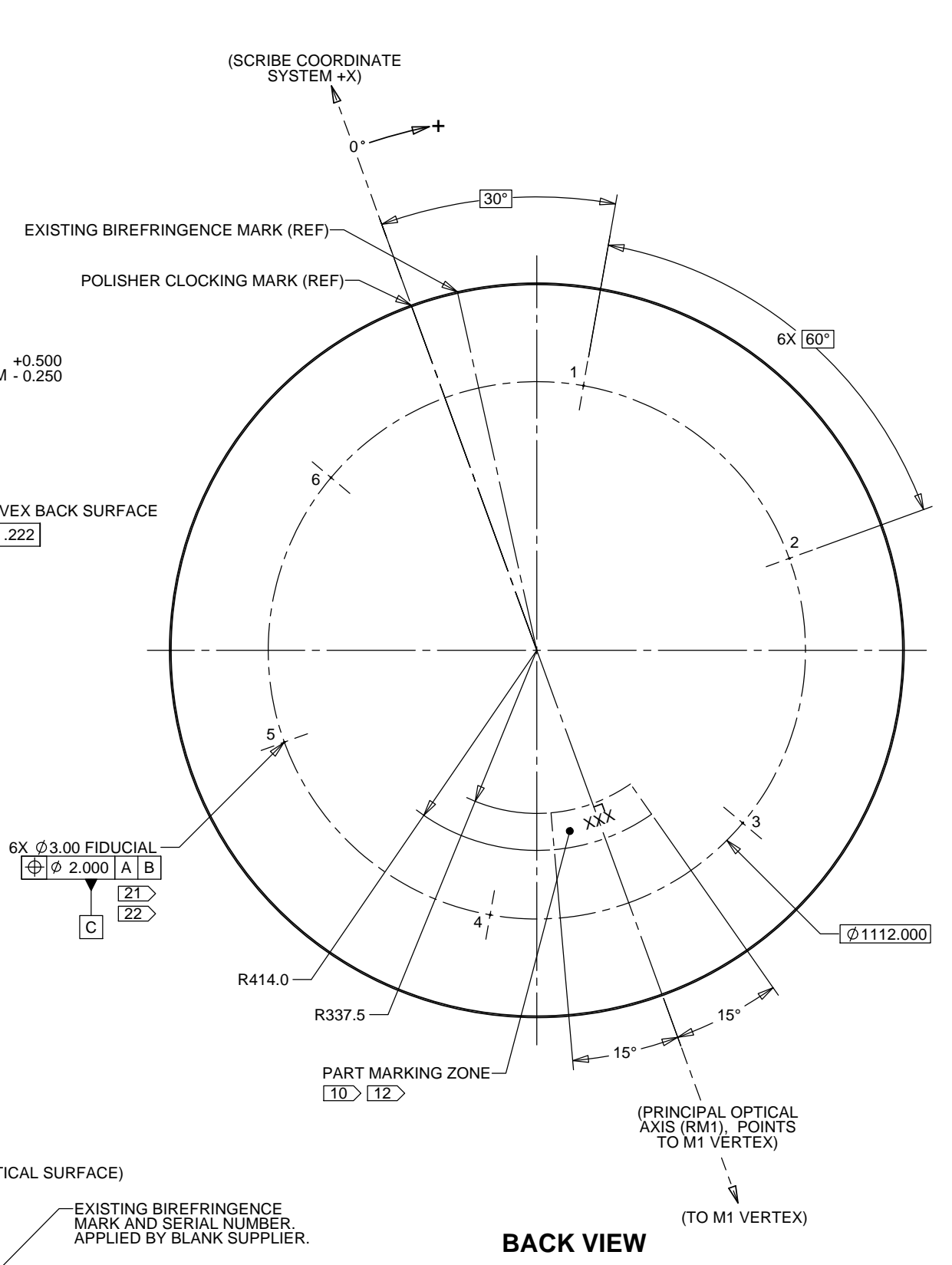
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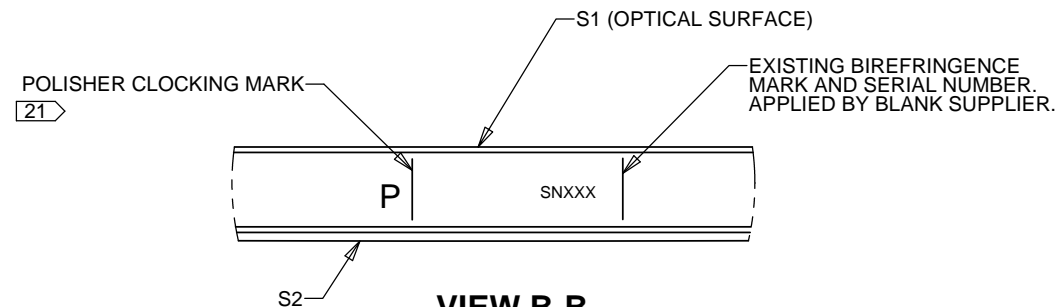
FRONT VIEW



SECTION A-A



BACK VIEW



**VIEW B-B
SCALE 1 : 2
SHOWN ROTATED 155.25° CW**

DCC #: TMT.OPT.DWG.15.008.REL06

DWG. NO. M1S-001-01001	REV F	SHEET NO. 2 of 5
SCALE 1:6	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

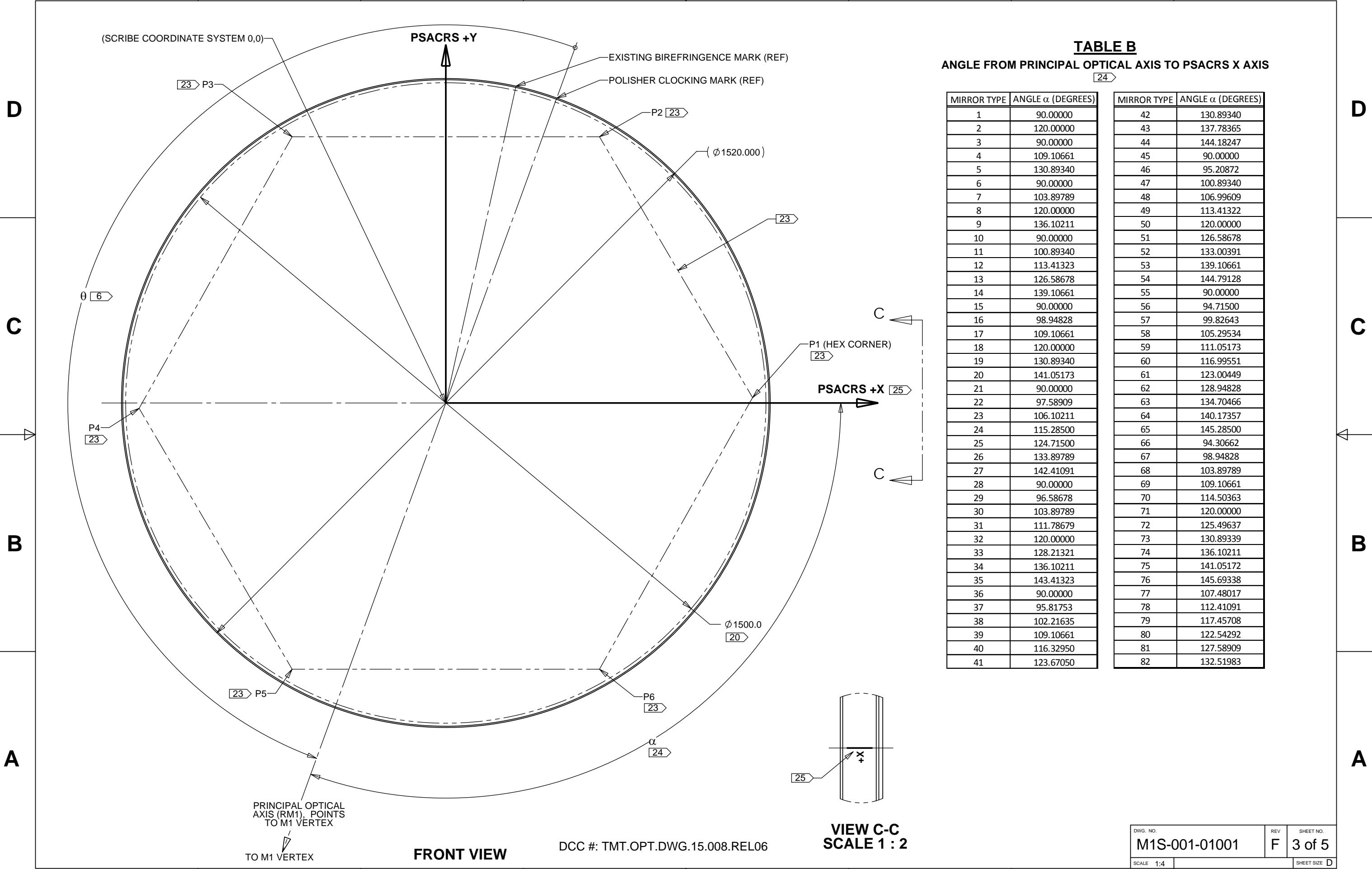


TABLE B

ANGLE FROM PRINCIPAL OPTICAL AXIS TO PSACRS X AXIS

MIRROR TYPE	ANGLE α (DEGREES)	MIRROR TYPE	ANGLE α (DEGREES)
1	90.00000	42	130.89340
2	120.00000	43	137.78365
3	90.00000	44	144.18247
4	109.10661	45	90.00000
5	130.89340	46	95.20872
6	90.00000	47	100.89340
7	103.89789	48	106.99609
8	120.00000	49	113.41322
9	136.10211	50	120.00000
10	90.00000	51	126.58678
11	100.89340	52	133.00391
12	113.41323	53	139.10661
13	126.58678	54	144.79128
14	139.10661	55	90.00000
15	90.00000	56	94.71500
16	98.94828	57	99.82643
17	109.10661	58	105.29534
18	120.00000	59	111.05173
19	130.89340	60	116.99551
20	141.05173	61	123.00449
21	90.00000	62	128.94828
22	97.58909	63	134.70466
23	106.10211	64	140.17357
24	115.28500	65	145.28500
25	124.71500	66	94.30662
26	133.89789	67	98.94828
27	142.41091	68	103.89789
28	90.00000	69	109.10661
29	96.58678	70	114.50363
30	103.89789	71	120.00000
31	111.78679	72	125.49637
32	120.00000	73	130.89339
33	128.21321	74	136.10211
34	136.10211	75	141.05172
35	143.41323	76	145.69338
36	90.00000	77	107.48017
37	95.81753	78	112.41091
38	102.21635	79	117.45708
39	109.10661	80	122.54292
40	116.32950	81	127.58909
41	123.67050	82	132.51983

PRINCIPAL OPTICAL AXIS (RM1), POINTS TO M1 VERTEX
TO M1 VERTEX

FRONT VIEW

DCC #: TMT.OPT.DWG.15.008.REL06

VIEW C-C
SCALE 1 : 2

DWG. NO. M1S-001-01001	REV F	SHEET NO. 3 of 5
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

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TABLE A

NOMINAL MIRROR THICKNESS AT LOCATIONS 1 THROUGH 7

7

	1	2	3	4	5	6	7
Type 01	45.172	45.177	45.175	45.168	45.175	45.177	45.000
Type 02	45.175	45.178	45.176	45.171	45.176	45.178	45.000
Type 03	45.159	45.170	45.167	45.152	45.167	45.170	45.000
Type 04	45.164	45.173	45.170	45.158	45.170	45.173	45.000
Type 05	45.164	45.173	45.170	45.158	45.170	45.173	45.000
Type 06	45.140	45.161	45.156	45.131	45.156	45.161	45.000
Type 07	45.148	45.165	45.161	45.140	45.161	45.165	45.000
Type 08	45.151	45.166	45.162	45.143	45.162	45.166	45.000
Type 09	45.148	45.165	45.161	45.140	45.161	45.165	45.000
Type 10	45.115	45.148	45.143	45.104	45.143	45.148	45.000
Type 11	45.126	45.154	45.149	45.116	45.149	45.154	45.000
Type 12	45.131	45.156	45.152	45.122	45.152	45.156	45.000
Type 13	45.131	45.156	45.152	45.122	45.152	45.156	45.000
Type 14	45.126	45.154	45.149	45.116	45.149	45.154	45.000
Type 15	45.085	45.133	45.126	45.072	45.126	45.133	45.000
Type 16	45.098	45.140	45.134	45.086	45.134	45.140	45.000
Type 17	45.107	45.144	45.138	45.095	45.138	45.144	45.000
Type 18	45.109	45.145	45.140	45.098	45.140	45.145	45.000
Type 19	45.107	45.144	45.138	45.095	45.138	45.144	45.000
Type 20	45.098	45.140	45.134	45.086	45.134	45.140	45.000
Type 21	45.050	45.115	45.108	45.034	45.108	45.115	45.000
Type 22	45.066	45.123	45.116	45.051	45.116	45.123	45.000
Type 23	45.077	45.129	45.122	45.063	45.122	45.129	45.000
Type 24	45.082	45.132	45.125	45.069	45.125	45.132	45.000
Type 25	45.082	45.132	45.125	45.069	45.125	45.132	45.000
Type 26	45.077	45.129	45.122	45.063	45.122	45.129	45.000
Type 27	45.066	45.123	45.116	45.051	45.116	45.123	45.000
Type 28	45.010	45.095	45.086	44.993	45.086	45.095	45.000
Type 29	45.028	45.104	45.096	45.012	45.096	45.104	45.000
Type 30	45.041	45.111	45.103	45.026	45.103	45.111	45.000
Type 31	45.050	45.115	45.108	45.034	45.108	45.115	45.000
Type 32	45.052	45.117	45.109	45.037	45.109	45.117	45.000
Type 33	45.050	45.115	45.108	45.034	45.108	45.115	45.000
Type 34	45.041	45.111	45.103	45.026	45.103	45.111	45.000
Type 35	45.028	45.104	45.096	45.012	45.096	45.104	45.000
Type 36	44.965	45.072	45.063	44.946	45.063	45.072	45.000
Type 37	44.986	45.083	45.074	44.968	45.074	45.083	45.000
Type 38	45.002	45.091	45.082	44.984	45.082	45.091	45.000
Type 39	45.012	45.096	45.088	44.995	45.088	45.096	45.000
Type 40	45.017	45.099	45.091	45.001	45.091	45.099	45.000
Type 41	45.017	45.099	45.091	45.001	45.091	45.099	45.000
Type 42	45.012	45.096	45.088	44.995	45.088	45.096	45.000
Type 43	45.002	45.091	45.082	44.984	45.082	45.091	45.000
Type 44	44.986	45.083	45.074	44.968	45.074	45.083	45.000
Type 45	44.916	45.048	45.037	44.896	45.037	45.048	45.000
Type 46	44.939	45.059	45.049	44.920	45.049	45.059	45.000
Type 47	44.957	45.068	45.059	44.938	45.059	45.068	45.000
Type 48	44.970	45.075	45.066	44.952	45.066	45.075	45.000
Type 49	44.978	45.079	45.070	44.960	45.070	45.079	45.000
Type 50	44.981	45.080	45.071	44.962	45.071	45.080	45.000
Type 51	44.978	45.079	45.070	44.960	45.070	45.079	45.000
Type 52	44.970	45.075	45.066	44.952	45.066	45.075	45.000
Type 53	44.957	45.068	45.059	44.938	45.059	45.068	45.000
Type 54	44.939	45.059	45.049	44.920	45.049	45.059	45.000
Type 55	44.863	45.021	45.009	44.842	45.009	45.021	45.000
Type 56	44.888	45.033	45.023	44.867	45.023	45.033	45.000
Type 57	44.908	45.044	45.033	44.888	45.033	45.044	45.000
Type 58	44.924	45.051	45.041	44.904	45.041	45.051	45.000
Type 59	44.934	45.057	45.047	44.914	45.047	45.057	45.000
Type 60	44.939	45.059	45.049	44.920	45.049	45.059	45.000
Type 61	44.939	45.059	45.049	44.920	45.049	45.059	45.000
Type 62	44.934	45.057	45.047	44.914	45.047	45.057	45.000
Type 63	44.924	45.051	45.041	44.904	45.041	45.051	45.000
Type 64	44.908	45.044	45.033	44.888	45.033	45.044	45.000
Type 65	44.888	45.033	45.023	44.867	45.023	45.033	45.000
Type 66	44.834	45.006	44.994	44.812	44.994	45.006	45.000
Type 67	44.856	45.017	45.006	44.834	45.006	45.017	45.000
Type 68	44.873	45.026	45.015	44.852	45.015	45.026	45.000
Type 69	44.886	45.032	45.021	44.865	45.021	45.032	45.000
Type 70	44.893	45.036	45.025	44.872	45.025	45.036	45.000
Type 71	44.896	45.037	45.027	44.875	45.027	45.037	45.000
Type 72	44.893	45.036	45.025	44.873	45.025	45.036	45.000
Type 73	44.886	45.032	45.021	44.865	45.021	45.032	45.000
Type 74	44.873	45.026	45.015	44.852	45.015	45.026	45.000
Type 75	44.856	45.017	45.006	44.834	45.006	45.017	45.000
Type 76	44.834	45.006	44.994	44.812	44.994	45.006	45.000
Type 77	44.834	45.006	44.994	44.812	44.994	45.006	45.000
Type 78	44.844	45.011	44.999	44.822	44.999	45.011	45.000
Type 79	44.849	45.013	45.002	44.827	45.002	45.013	45.000
Type 80	44.849	45.013	45.002	44.827	45.002	45.013	45.000
Type 81	44.844	45.011	44.999	44.822	44.999	45.011	45.000
Type 82	44.834	45.006	44.994	44.812	44.994	45.006	45.000

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DCC #: TMT.OPT.DWG.15.008.REL06

DWG. NO. M1S-001-01001	REV F	SHEET NO. 4 of 5
SCALE 1:6	SHEET SIZE D	

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NOTES: UNLESS OTHERWISE SPECIFIED

- 1. ALL DIMENSIONS IN MILLIMETERS.
- 2. DIMENSIONS AND TOLERANCING PER ASME Y14.5 - 2009.
- 3 THIS DRAWING IS USED IN CONJUNCTION WITH THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002) AND THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044).

4 DATUM -A- IS THE CONCAVE OPTICAL SURFACE.

5 THE THEORETICAL OPTICAL PRESCRIPTION IS CENTERED ON BEST FIT CENTER OF SIX FIDUCIALS FORMING DATUM C . OPTICAL FIGURE ERRORS ARE MEASURED RELATIVE TO THE THEORETICAL SURFACE.

6 OPTICAL PRESCRIPTION MAY HAVE A CLOCKING OFFSET WITH RESPECT TO THE DATUM C FIDUCIALS (SCRIBE COORDINATE SYSTEM); HOWEVER, THE DIRECTION (SIGN) AND ANGLE (θ) OF THE CLOCKING SHALL BE SPECIFIED IN THE DELIVERED DATA PACKAGE WITH A TOLERANCE OF $\pm 130 \mu\text{Rad}$.

7 MEASURE, RECORD AND REPORT THICKNESS AT THE CENTER OF THE MIRROR AND AT 6 EQUALLY SPACED LOCATIONS INDICATED, 25mm IN FROM THE EDGE AND WITHIN A $\phi 10.00$ ZONE. MEASUREMENT LOCATIONS (1-6) SHALL BE CLOCKED SO THEY ARE ALIGNED WITH THE PRINCIPAL OPTICAL AXIS AS SHOWN. THE THICKNESS AT EACH POINT (1-7) SHALL BE WITHIN $+0.500/-0.250\text{mm}$ OF THE NOMINAL VALUE SHOWN IN TABLE A. P-V OF THE DIFFERENCE FROM T_{nom} MUST BE LESS THAN 0.125 ON THE SIX POINTS USED TO DETERMINE T_{nom} , EXCLUDING THE CENTER POINT.

8. INFORMATION ONLY: INCOMING BLANK SPHERICAL RADIUS IS 62526.1 NOMINALLY. FINISHED S2 SHALL HAVE SPHERICAL RADIUS SHOWN (0.150mm MATERIAL REMOVED)

9. INTENTIONALLY LEFT BLANK.

10 PART NUMBER MARKING SHALL BE LOCATED ON THE CONVEX SURFACE WITHIN THE INDICATED ZONE, CENTERED ON THE PRINCIPAL OPTICAL AXIS WITHIN $\pm 3\text{mm}$ AND PERPENDICULAR TO THE PRINCIPAL OPTICAL AXIS WITHIN $\pm 3\text{mm}$.

11. ORIGINAL BLANK EDGE MARKINGS SHALL BE PRESERVED.

12 ENGRAVE USING FIXED ABRASIVE OR GRIT BLAST IN ZONE DESCRIBED IN NOTE 10 WITH 20-30mm HIGH CHARACTERS "XXX" (WHERE "XXX" IS THE UNIQUE THREE DIGIT SERIAL NUMBER TRANSFERRED FROM SEGMENT BLANK, M1S-001-01002). PART MARKING SHALL BE LOCATED AND ORIENTED AS SHOWN, CENTERED ACROSS AND PERPENDICULAR TO THE VENDOR APPLIED POLISHER CLOCKING MARK. ENGRAVING METHOD SHALL BE PERMANENT. METHOD SHALL NOT RESULT IN SIGNIFICANT SUBSURFACE DAMAGE NOR LEAVE SHARP EDGES. CORNER RADIUS OF FIXED ABRASIVE TOOL, IF USED, SHALL BE 0.25mm OR LARGER. THESE, OR ALTERNATE METHODS, SHALL BE APPROVED BY TMT.

13. MAKE FROM CIRCULAR MENISCUS MIRROR BLANK PER SPECIFICATION FOR PRIMARY SEGMENT BLANKS (TMT.OPT.SPE.07.001). BLANK SHALL BE INSPECTED PRIOR TO ANY POLISHING OR MACHINING OPERATIONS. FOR REFERENCE ONLY, BLANK THICKNESS IS 46.1mm.

14 OPTICAL SURFACE (S1) CLEAR APERTURE AND ENTIRE BACK SURFACE (S2) SHALL BE GROUND AND POLISHED TO REMOVE ALL SUBSURFACE DAMAGE. PROCESS SHALL BE QUALIFIED PRIOR TO PRODUCTION AND SUBMITTED TO TMT FOR APPROVAL. PROCESS SHALL BE CONTROLLED DURING PRODUCTION AND VERIFIED USING REGULAR IN-PROCESS TESTING TO ASSURE COMPLIANCE. PROCESS CONTROL AND VERIFICATION PLAN SUBJECT TO APPROVAL BY TMT.

15. S1 POLISHED OPTICAL SURFACE SHAPE AND MEASUREMENT REQUIREMENTS ARE SPECIFIED IN THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002).

16. S1 AND S2 SURFACE ROUGHNESS SHALL BE AS SPECIFIED IN THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002).

17. S1 AND S2 SURFACE SCRATCH-DIG SHALL BE AS SPECIFIED IN THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002).

18. INTENTIONALLY LEFT BLANK.

19. INTENTIONALLY LEFT BLANK.

20 POLISH ENTIRE CIRCULAR CLEAR APERTURE TO REMOVE A MINIMUM OF 25 MICRONS AND UNTIL THE ENTIRE SURFACE IS GRAY-FREE WHEN INSPECTED USING A 120W HIGH-INTENSITY FOCUSED FIBER OPTIC LIGHT SOURCE AND A 7X LOUPE. CIRCULAR CLEAR APERTURE PER THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002). SUPPLIER MAY PROPOSE ALTERNATE PROCESS. PROCESS SHALL BE APPROVED BY TMT.

21 POLISHER SHALL ENGRAVE A CLOCKING MARK ON THE CYLINDRICAL SURFACE, USING FIXED ABRASIVE OR GRIT BLAST. CLOCKING MARK SHALL BE 1.0 TO 2.0mm WIDE. THE CENTERLINE OF THE CLOCKING MARK SHALL BE USED AS THE CLOCKING REFERENCE. A LETTER "P", 10 - 20mm HIGH, SHALL ALSO BE MARKED NEXT TO THIS CLOCKING MARK TO IDENTIFY IT AS A POLISHING REFERENCE AND TO DIFFERENTIATE IT FROM THE EXISTING BIREFRINGENCE MARK. THE LETTER "P" CAN BE MADE WITH PERMANENT INK OR BY USING FIXED ABRASIVE OR GRIT BLASTING. AFTER S2 IS FULLY POLISHED AND PRIOR TO POLISHING S1, APPLY PERMANENT FIDUCIAL MARKING USING FIXED ABRASIVE. GRIT BLASTING OR ALTERNATE METHOD. FIXED ABRASIVE GRAIN SIZE SHALL BE $15\mu\text{m}$ AVERAGE. TOOL CORNER RADII SHALL BE 0.25mm OR LARGER. PROCESS SHALL BE APPROVED BY TMT.

22 SIX 3mm DIAMETER FIDUCIALS, AND THE POLISHER CLOCKING MARK DEFINE THE SCRIBE COORDINATE SYSTEM (SCS) FOR THE MIRROR SEGMENTS. THE SCS WILL BE THE INTERIM COORDINATE SYSTEM USED DURING POLISHING; HOWEVER, THE FINAL PSACRS SHALL BE DETERMINED AFTER THE FINAL POLISHED SURFACE FIGURE HAS BEEN COMPLETED. THE SCS IS CONSTRUCTED AS FOLLOWS:

THE VECTOR FROM THE BEST FIT CENTER OF THE SIX DATUM C FIDUCIALS, THROUGH THE POLISHER CLOCKING MARK AND POINTING AWAY FROM THE VERTEX OF THE M-1 PARENT, SHALL BE 7.5° CW FROM THE EXISTING BIREFRINGENCE SCRIBE MARK AS VIEWED FROM S1 AND DEFINES SCS +X. NOTE THAT THE ORIENTATION OF THE FIDUCIALS AS VIEWED FROM S2 WOULD BE DIFFERENT, WITH THE FIDUCIAL NUMBERING INCREASING AS ONE MOVES CW, AS OPPOSED TO THE FIDUCIAL NUMBERING INCREASING AS ONE MOVES CCW AROUND THE SURFACE, IN THE VIEW FROM S1. THE FIDUCIALS ARE APPLIED TO S2 OF THE ROUNDEL WITH A FIDUCIALIZING FIXTURE.

THE ACTUAL LOCATION OF THE AS BUILT FIDUCIAL MARKS, RELATIVE TO THE POLISHER CLOCKING MARK, IS MEASURED BY CMM ON THE FIDUCIALIZING FIXTURE AND ON A FIDUCIALIZED MIRROR SUBSTRATE.

IN THE SCRIBE COORDINATE SYSTEM, 0,0 IS DEFINED AS THE LEAST SQUARES BEST FIT CENTER OF THE SIX ACTUAL MEASURED FIDUCIAL LOCATIONS. IT IS NOT DEFINED RELATIVE TO THE ACTUAL ROUNDEL CYLINDER. THE ACTUAL MEASURED LOCATIONS OF THE SIX FIDUCIALS SHALL BE REPORTED TO TMT FOR USE IN THE HEXING PROCESS. THE BEST FIT SURFACE ERROR OF THE ASPHERE WITH RESPECT TO THE IDEAL PRESCRIPTION IS ALSO REPORTED IN THE SCS COORDINATE SYSTEM.

THE PSACRS IS DEFINED WITH RESPECT TO THE SCS BY THE TMT SEGMENTATION DATABASE (TMT.OPT.TEC.07.044).

23 HEXAGONAL OUTER SHAPE PER THE TMT ROUNDEL POLISHING SPECIFICATION (TMT.OPT.SPE.15.002) AND THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044, SECTIONS 4A1 AND 4A2).

24 ANGLE ALPHA (α) DEFINES THE ANGLE BETWEEN THE PSACRS X AXIS AND THE PRINCIPAL OPTICAL AXIS (RM1) FOR EACH SEGMENT TYPE.

25 THE PSACRS ORIGIN IS DEFINED BY THE BEST FIT CENTER OF THE 6 DATUM C FIDUCIALS. THE PSACRS +X AXIS IS DEFINED AS THE VECTOR ORIGINATING FROM THE PSACRS ORIGIN, AT A COUNTERCLOCKWISE ANGLE (AS VIEWED FROM S1) EQUAL TO THE CUMULATIVE SUM OF θ PLUS α FROM THE POLISHER CLOCKING MARK. ON CYLINDRICAL SURFACE, MARK A LINE USING PERMANENT INK IN LOCATION OF PSACRS +X AXIS. MARK "+X" IN PERMANENT INK BESIDE THE LINE IN 10-20mm HIGH CHARACTERS.

DCC #: TMT.OPT.DWG.15.008.REL06

DWG. NO.	REV	SHEET NO.
M1S-001-01001	F	5 of 5
SCALE 1:1	SHEET SIZE D	

8

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6

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4

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2

1