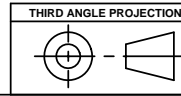


REVISIONS				
REV	SHEET/ZONE	DESCRIPTION	DATE	APPROVED
A	MULT	EXTENSIVELY REVISED DESIGN AND ASSEMBLY SEQUENCE	02/22/16	E. HANSEN
B	14/MULT	LOCAL NOTES 7 AND 21: TMT.OPT.TEC.16.001 WAS TMT.OPT.TEC.16.001.REL.01	02/24/16	E. HANSEN
C	1/A2	ADDED ITEM 2, PMA KIT, AND REORGANIZED PARTS LIST AS REQUIRED	10/01/18	E. HANSEN
	1/B7	ADDED ITEM 27		
	1/C3	DELETED ITEM 22, M4 LOCKWASHER. ITEM 18 QUANTITY WAS 29, ITEM 19 QUANTITY WAS 29.		
	2/A7	ADDED SURFACE PROFILE MEASUREMENT OF THE ACUTATOR CLAMP BLOCK INTERFACES		
	6/A3	LOCAL NOTE "A" WAS LOCAL NOTE "B." ADDED LOCAL NOTE 29.		
	6/D8	ADDED DATUM D		
	7/D7	DATUM D IN FEATURE CONTROL FRAME WAS DATUM B		
	11/A8	ADDED LOCAL NOTES 21 AND 22		
	12/D8	ADDED SHEET 12 AND LOCAL NOTE 28		
	MULT	DATUM J WAS TOWER INSERT FACE DATUM D. DATUM K WAS TOWER INSERT FLAT WIDTH DATUM E. MOVED BONDED MIRROR ASSEMBLY, RELATED PARTS LIST ITEMS AND NOTES TO SEPARATE M1S-001-04000 DRAWING. ADDED ITEMS 30 THROUGH 38. ADDED SHEET 12 AND LOCAL NOTES 28 AND 29.		

ITEM NO.	SHT	ZONE	A5	A4	A3	A2	A1	PART/DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL/NOTES
38	12	D8						AR 3M EC 2216, GRAY	EPOXY ADHESIVE	
37	9	D3						AR 3M P/N 966 OR EQUIVALENT	ADHESIVE TRANSFER TAPE, 0.050mm THICK	
36	11	A8						AR VISHAY P/N 450-20R OR EQUIVALENT	SOLDER, SOLID NO FLUX CORE	96.3% TIN, 3.7% SILVER
35	3	B4					1	SEE NOTE 25	SPRING LOCK WASHER, M4	A2 STAINLESS STEEL, DIN 127 B
34	3	B4					1	SEE NOTE 25	SOCKET HEAD CAP SCREW, M4X0.7, 12MM LONG	A2 STAINLESS STEEL, DIN 912
33	3	C4					1	PANDUIT P/N P22-8R-M OR EQUIVALENT	RING TONGUE TERMINAL, M4, #8, P SERIES, 22 AWG, UNINSULATED	TIN PLATED COPPER
32	3	C4					1	BELDEN P/N 8021 000100 OR EQUIVALENT	WIRE, BUS BAR, UNJACKETED, 22 AWG, 190mm LONG	TINNED COPPER
31	3	B1						AR 3M P/N TC2707 OR EQUIVALENT	ELECTRICALLY CONDUCTIVE ADHESIVE	
30	9	D3						AR SHIM STOCK, 0.050mm THICK		18-8 STAINLESS STEEL
29	9	A7					3	PARKER 2-003 OR EQUIVALENT	O-RING, 1.42 ID X 1.52 W	FLUOROELASTOMER (VITON), 60A DUROMETER
28	8	B4						AR LOCTITE 243	MEDIUM STRENGTH THREADLOCKER	
27	5	A3					27	SEE NOTE 25	HEX NUT WITH CONICAL SPRING WASHER (NON-SERRATED WASHER), M4	ZINC-PLATED STEEL
26	6	D6					1	SEE NOTE 25	SOCKET HEAD CAP SCREW, M3X0.5, 14MM LONG	A2 STAINLESS STEEL, DIN 912
25	7	D4					6	SEE NOTE 25	HEX NUT WITH CONICAL SPRING WASHER (NON-SERRATED WASHER), M5	ZINC PLATED STEEL
24	7	C1					15	SEE NOTE 25	SOCKET HEAD CAP SCREW, M6X1.0, 22MM LONG	A2 STAINLESS STEEL, DIN 912
23	7	C1					15	SEE NOTE 25	FLAT WASHER, M6	A2 STAINLESS STEEL, DIN 125-1A
22	7	C1					15	SEE NOTE 25	SPRING LOCK WASHER, M6	A2 STAINLESS STEEL, DIN 127 B

ITEM NO.	SHT	ZONE	A5	A4	A3	A2	A1	PART/DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL/NOTES
21	4	B2					6	SEE NOTE 25	SPRING LOCK WASHER, M5	A2 STAINLESS STEEL, DIN 127 B
20	4	B2					6	TBD	SOCKET HEAD CAP SCREW, CAPTIVE SCREW, M5X0.8, 22MM LONG	A2 STAINLESS STEEL
19	9	D1					29	SEE NOTE 25	HEX NUT, M4	ZINC-PLATED CLASS 8 STEEL, DIN 934
18	9	D1					29	SEE NOTE 25	FLAT WASHER, M4	A2 STAINLESS STEEL, DIN 125-1A
17	9	A1					29	SEE NOTE 25	HEX NUT, M3	ZINC-PLATED CLASS 8 STEEL, DIN 934
16	9	A1					30	SEE NOTE 25	FLAT WASHER, M3	A2 STAINLESS STEEL, DIN 125-1A
15	9	A1					29	SEE NOTE 25	SPRING LOCK WASHER, M3	A2 STAINLESS STEEL, DIN 127 B
14	2	B2					1	TBD	ELECTRONICS AND PURGE (SUPPLIED BY M1CS)	
13	8	B4					1	M1S-100-01267	CENTERING BOSS	STAINLESS STEEL
12	8	C4					1	M1S-100-01150	SSA MODULE WARPING HARNESS CABLE INSTALLATION	
11	8	B4					6	M1S-100-01122	CENTRAL DIAPHRAGM STUD	STAINLESS STEEL
10	4	D1					6	M1S-100-01115	SEGMENTATION COMPENSATION WBGHT ASSEMBLY	
9	9	B1					27	M1S-100-01111	MIRROR ROD FLEXURE	CRES
8	8	B4					1	M1S-100-00001	CENTRAL DIAPHRAGM SHIM	CRES
7	6	D7					1	M1S-100-00003	TANGENTIAL RESTRAINT CLAMP	ALUMINUM
6	6	A4					1	M1S-100-00002	TANGENTIAL RESTRAINT	ALUMINUM
5										
4	4	2/C1					1	M1S-100-05000 A3	INTERMEDIATE POLISHED MIRROR ASSEMBLY	
3	4	C8					1	M1S-100-05000 A2	SSA MODULE ASSEMBLY INTEGRATED WITH BONDED MIRROR ASSEMBLY	
2	NA	N/A					1	M1S-001-05000 A1	PMA KIT	
1	8	B3					1	M1S-001-04000 A1	BONDED MIRROR ASSEMBLY	

SEE SHEETS 11 AND 12 FOR NOTES.



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-

DECIMALS: X = +/- 1.0, XX = +/- .30, XXX = +/- .100

ANGULAR = +/- .30', SURFACE FINISH = N/A

FINISH: N/A

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

DESIGNER: Alan Tubb, DATE: 10/18/2013

DRAWN: Alan Tubb, DATE: 10/18/2013

CHECKED: Eric Williams, DATE: 10/18/2013

ENGINEER: Eric Williams, DATE: 10/18/2013

APPROVED: Eric Williams, DATE: 10/18/2013

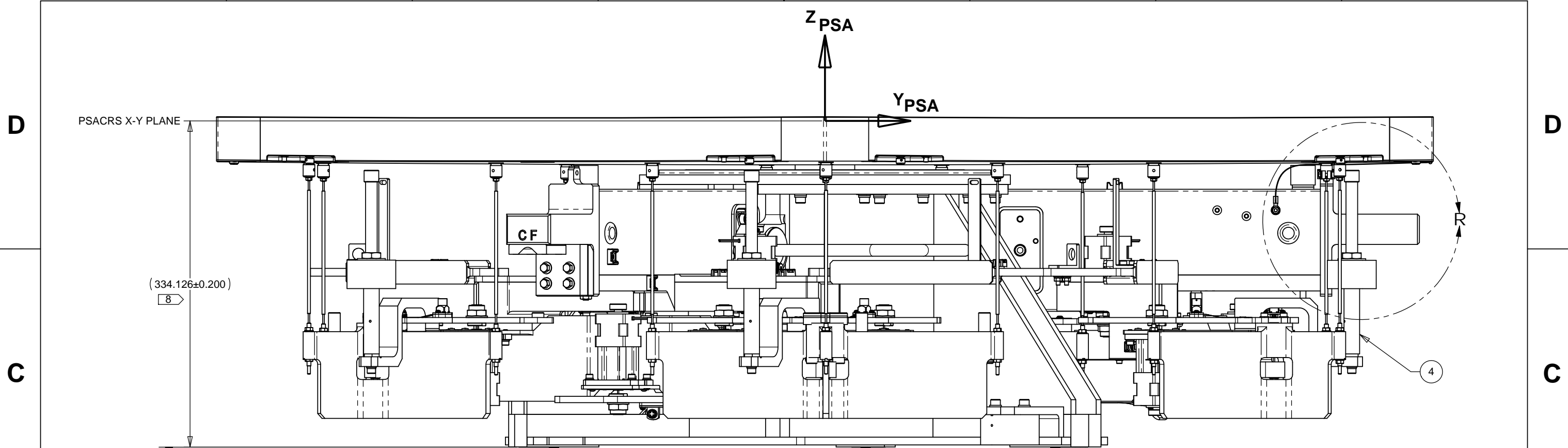
TMT Observatory Corporation www.tmt.org

TITLE: TMT M1 INTERMEDIATE POLISHED MIRROR ASSEMBLY

DWG. NO.: M1S-001-05000, REV: C, SHEET NO.: 1 of 12

SCALE: 1:4, SHEET SIZE: D

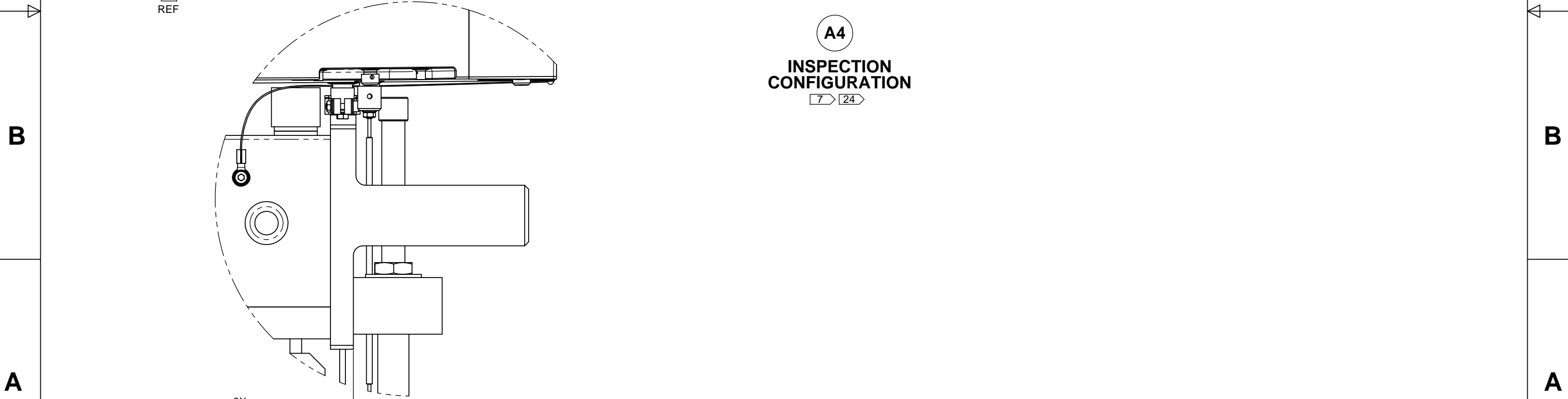
8 7 6 5 4 3 2 1



J REF

(334.126±0.200)
8

A4
INSPECTION
CONFIGURATION
7 24



3X
MEASURED J K
23

DETAIL R
SCALE 1:1
COMPENSATION MASS
REMOVED FOR CLARITY

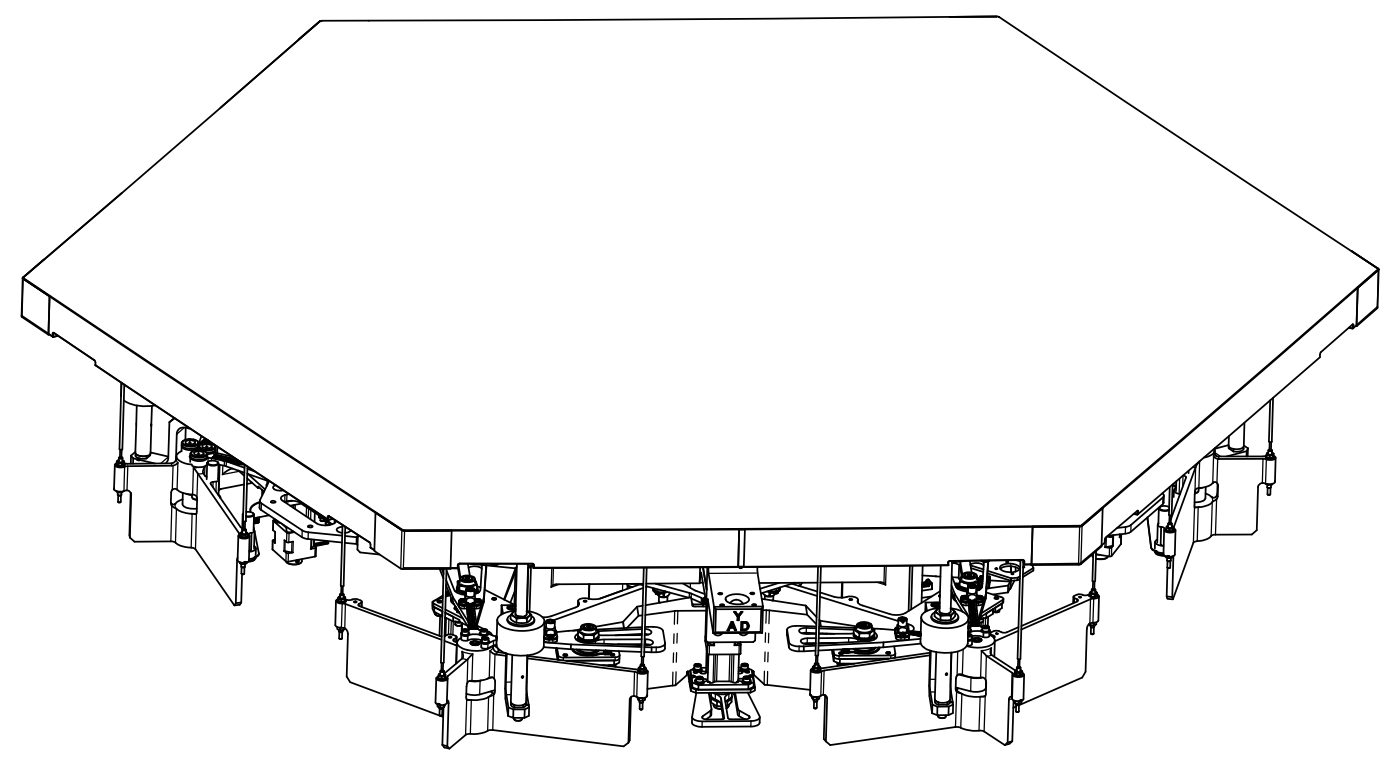
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SCALE 1:2	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D



A3

TOP ISOMETRIC VIEW
(INSPECTION STAND NOT SHOWN)

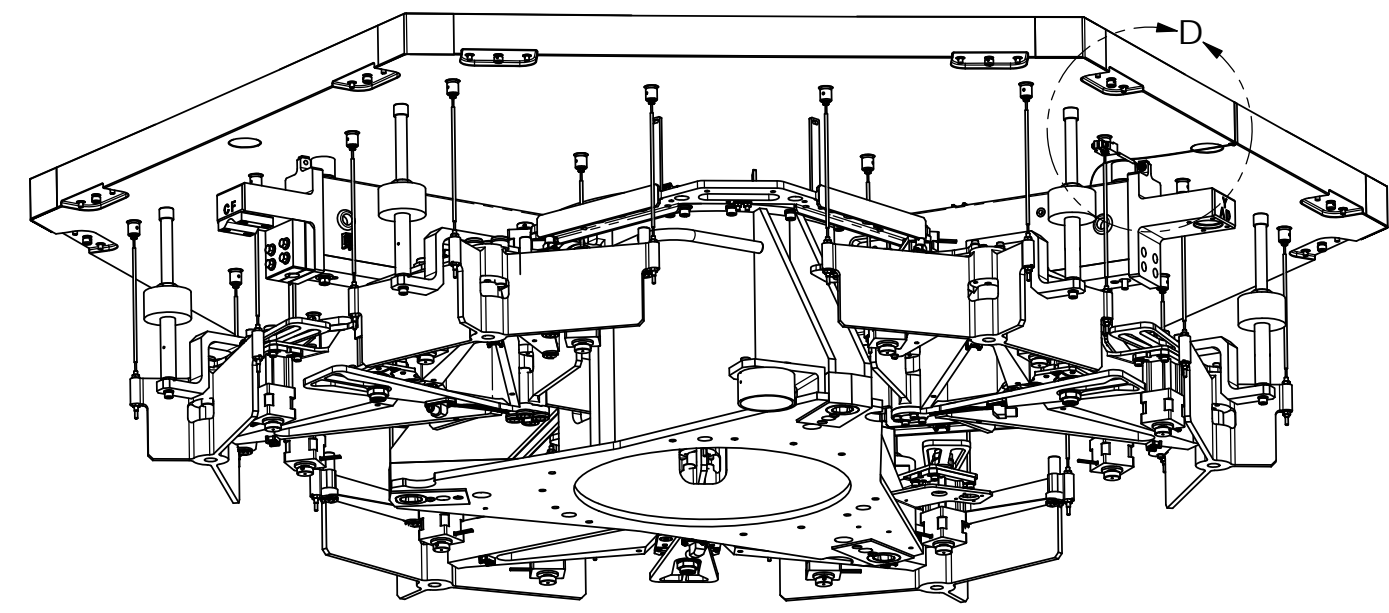
C

C



B

B

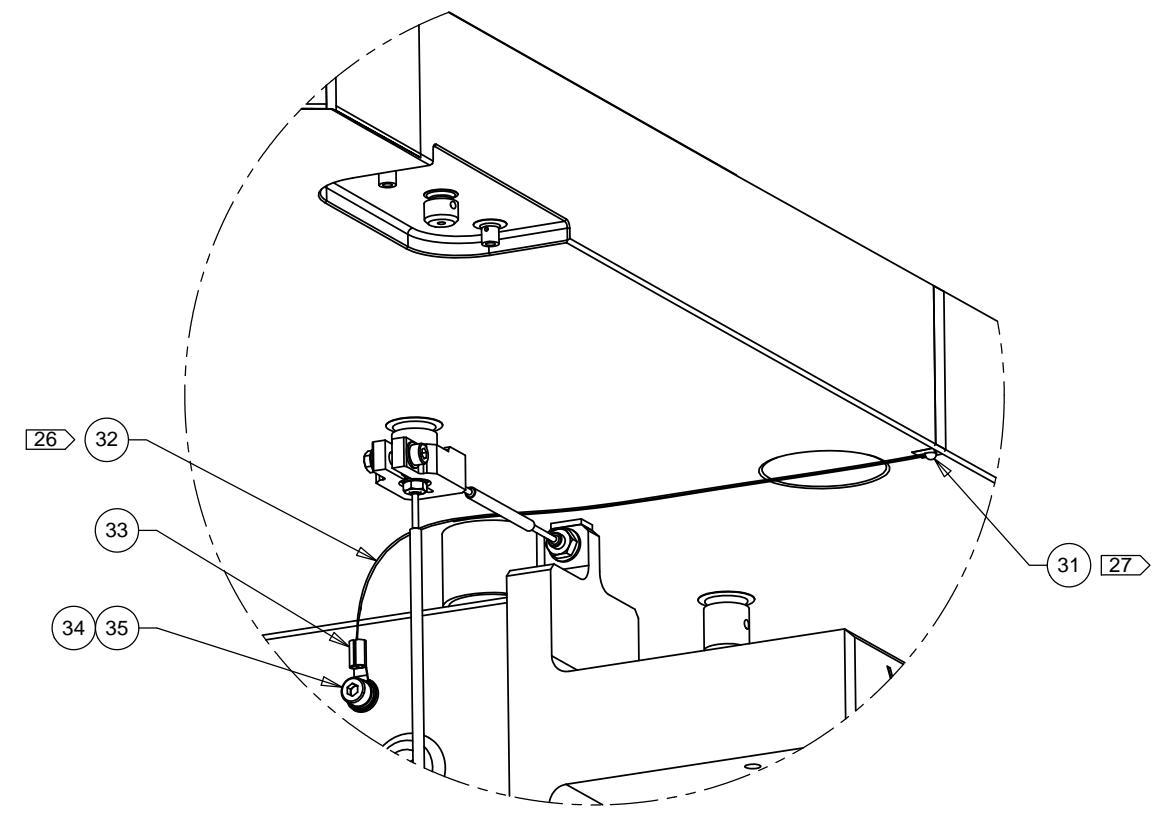


A3

BOTTOM ISOMETRIC VIEW
(INSPECTION STAND NOT SHOWN)

A

A



DETAIL D
SCALE 1 : 1
COMPENSATION MASS
REMOVED FOR CLARITY

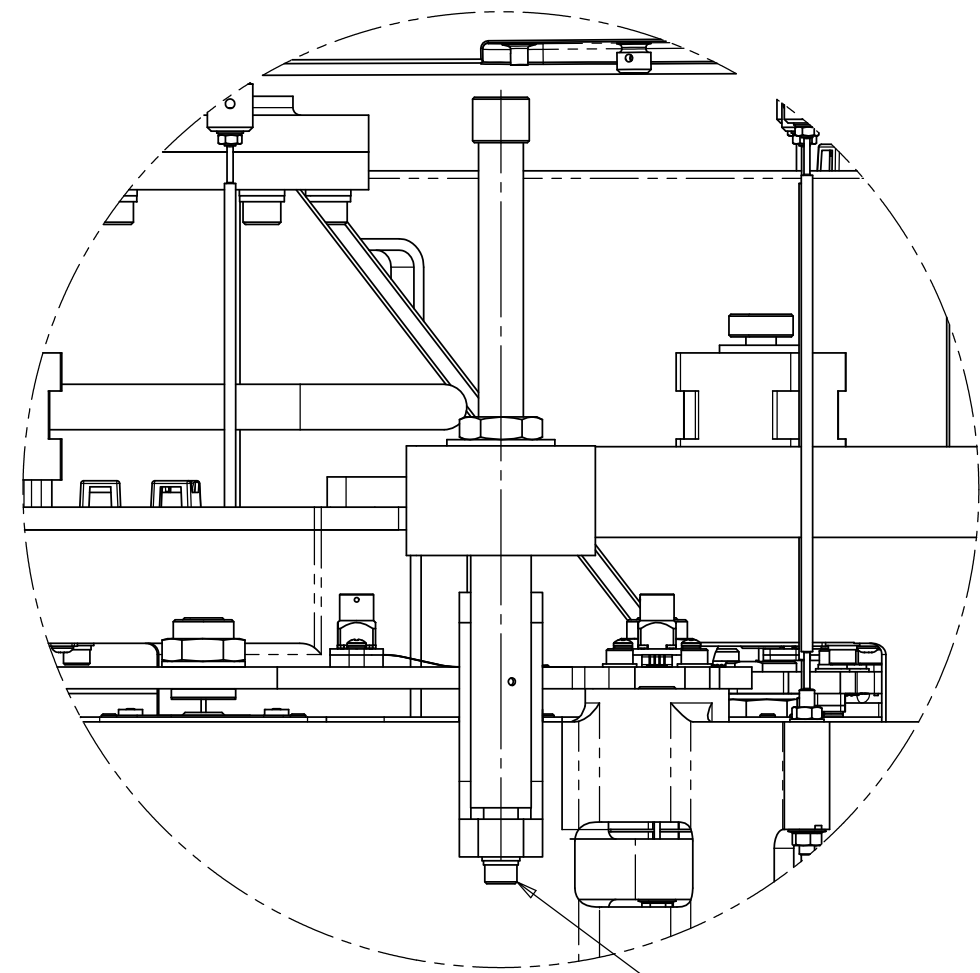
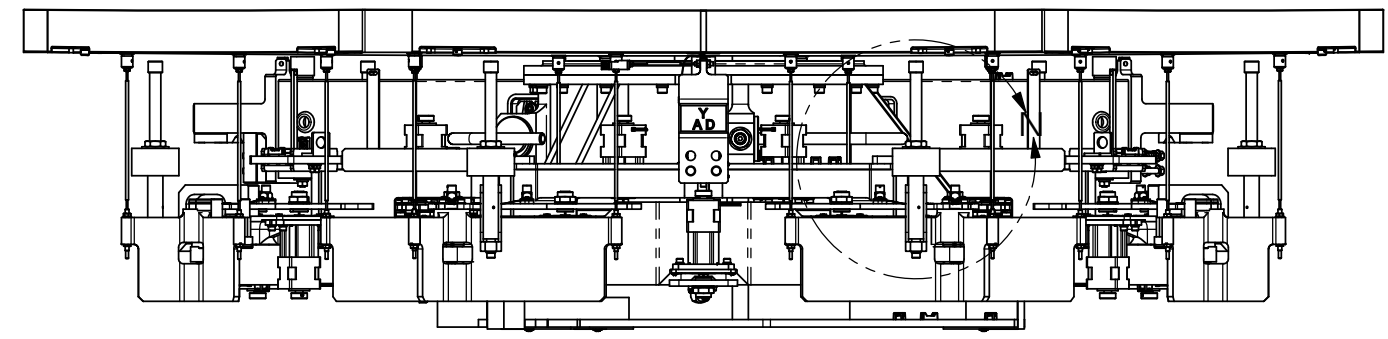
8 7 6 5 4 3 2 1

DWG. NO. M1S-001-05000	REV C	SHEET NO. 3 of 12
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

D

D



C

C

Y
PSA

W1A

W1B

10

10

3

B

B

X
PSA

MIRROR CORNER
MAY NOT BE
COINCIDENT
WITH X-PSA (REF)

W3B

W2A

10

10

W3A

W2B

10

10

A

A

A3

BACK VIEW
(BACK SURFACE)

DETAIL N
SCALE 1:1

20 21 C

8 7 6 5 4 3 2 1

DWG. NO. M1S-001-05000	REV C	SHEET NO. 4 of 12
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

D

D

C

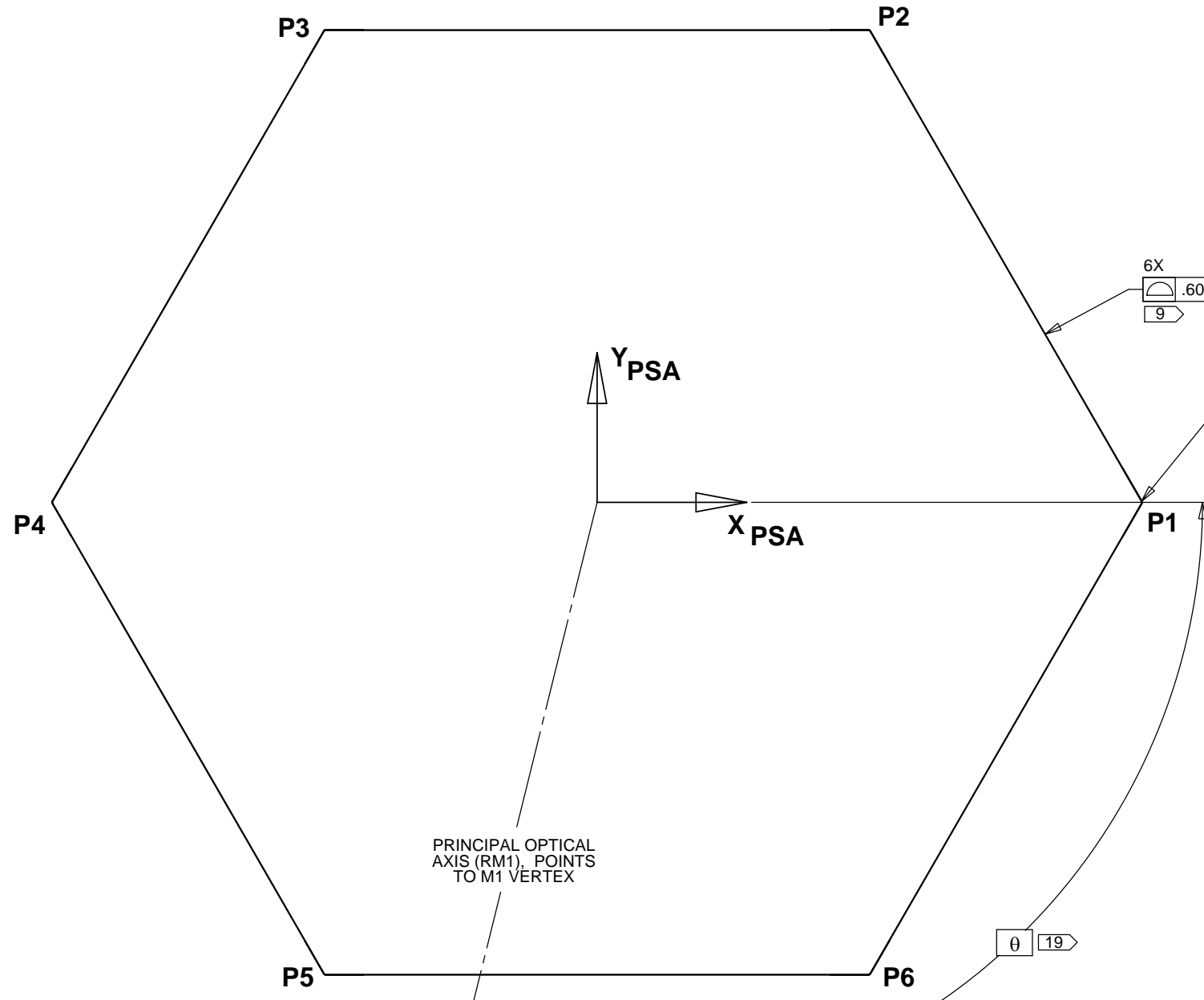
C

B

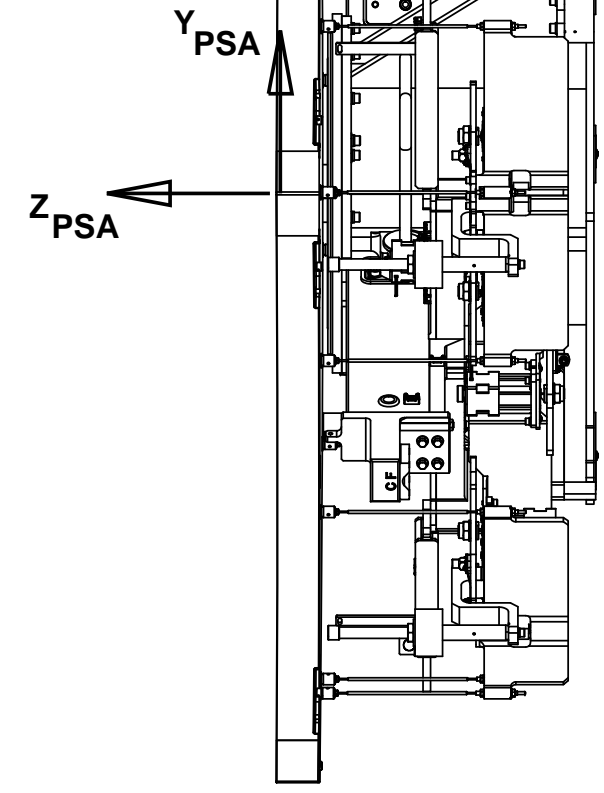
B

A

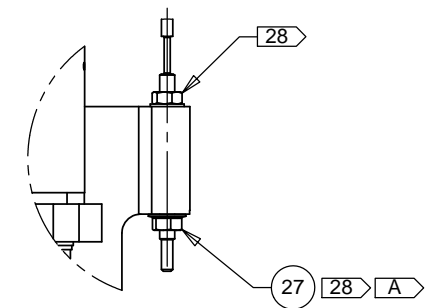
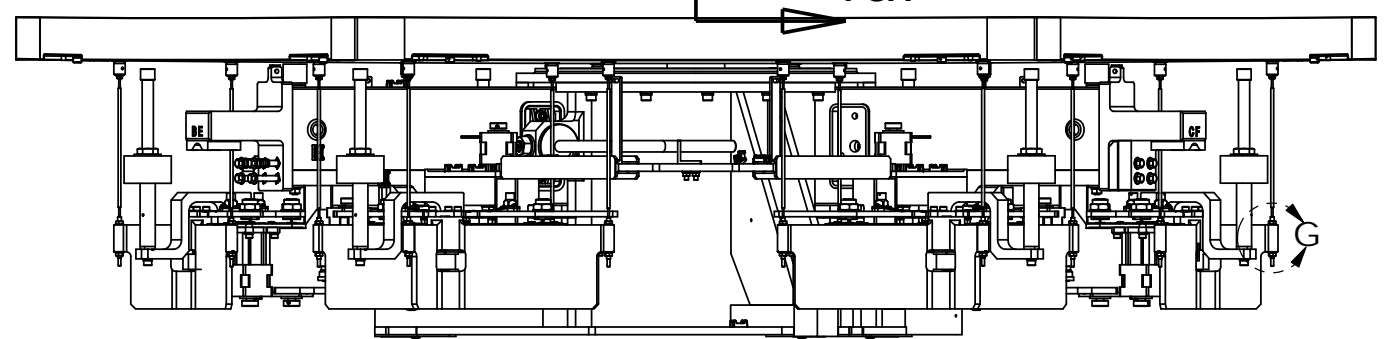
A



TOP VIEW (OPTICAL SURFACE)



H
SHT 6

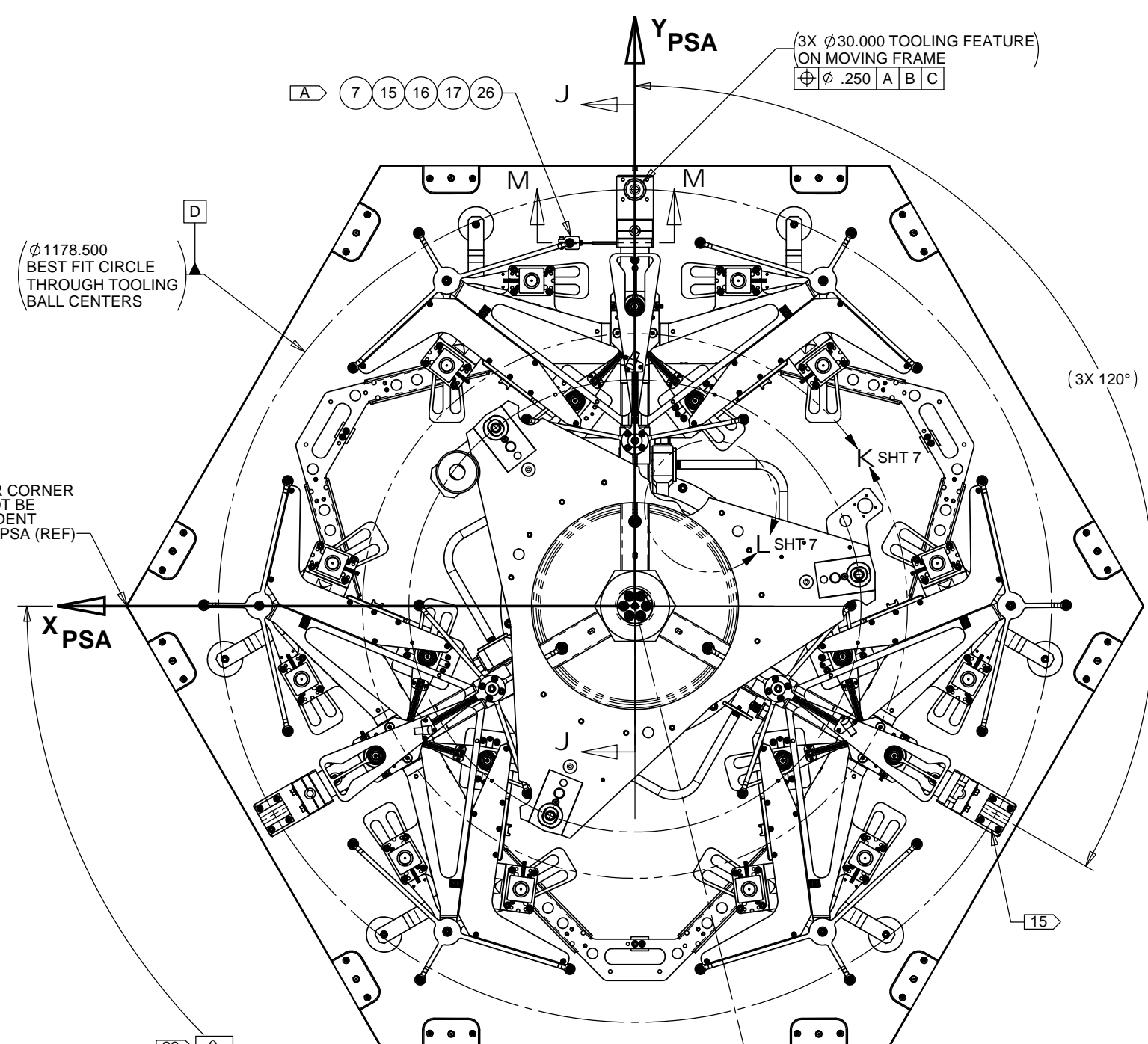


**DETAIL G
SCALE 1:1**

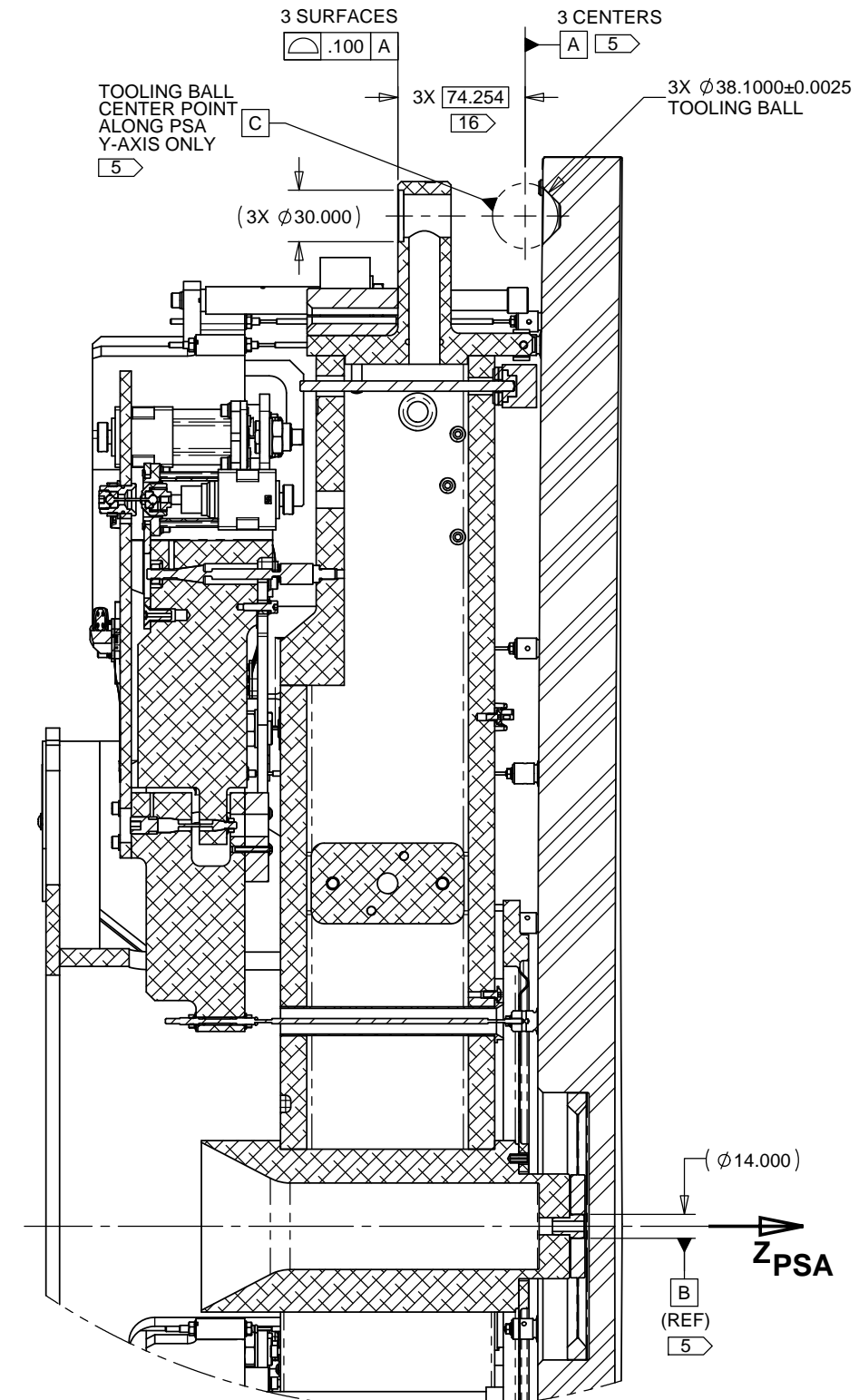
8 7 6 5 4 3 2 1

DWG. NO. M1S-001-05000	REV C	SHEET NO. 5 of 12
SCALE 1:4	SHEET SIZE D	

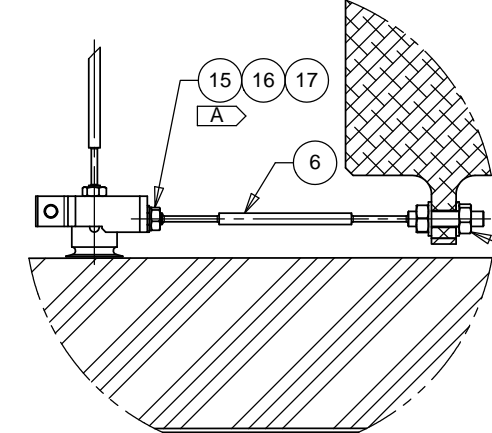
8 7 6 5 4 3 2 1



VIEW H-H
SHEET 5, ZONE B2



SECTION J-J
SCALE 1 : 2



SECTION M-M
SCALE 1 : 1

DWG. NO.	REV	SHEET NO.
M1S-001-05000	C	6 of 12
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D

C

C

B

B

A

A

YPSA

XPSA

(3X 20.070±0.010
TO THEORETICAL
SHARP CORNER)
⊕ .200 A D C 5

K

38°

(3X 120°)

25

21 C

SURFACE OF
BUSHING

J1

(Ø640.000)

22 23 24 (REF) D

J3

SURFACE OF
BUSHING

J2

SURFACE OF
BUSHING

DETAIL K
SCALE 1 : 2
SHEET 6, ZONE C5

DETAIL L
SCALE 1 : 1
SHEET 6, ZONE C5

DWG. NO. M1S-001-05000	REV C	SHEET NO. 7 of 12
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D

C

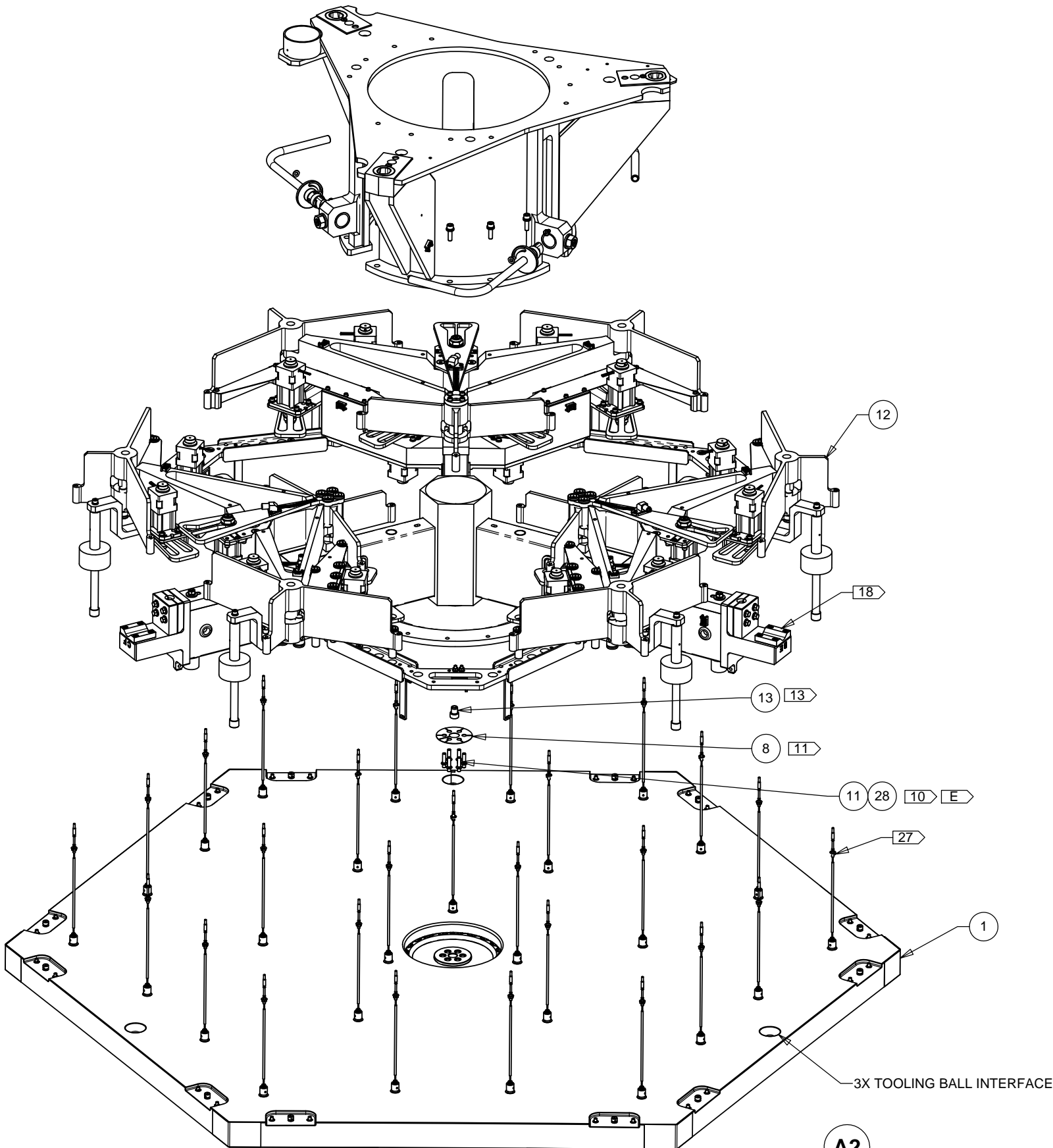
C

B

B

A

A

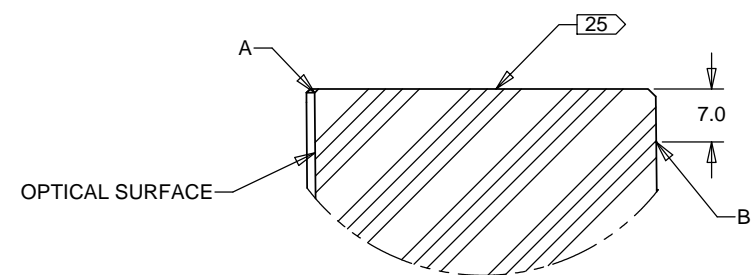


**ASSEMBLY STEP 2
ISOMETRIC VIEW
(EXPLODED)**

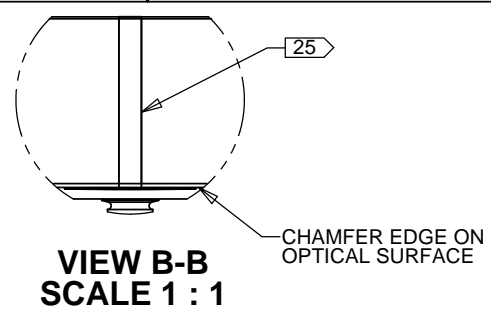
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SCALE 1:4	SHEET SIZE D	

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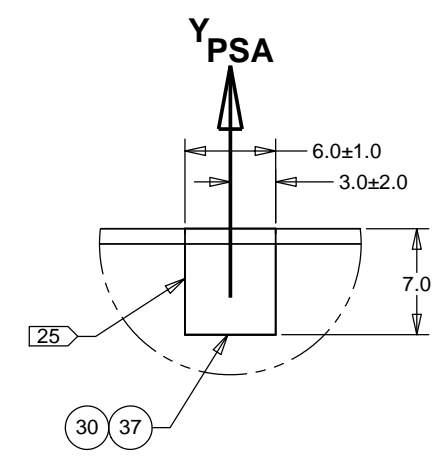
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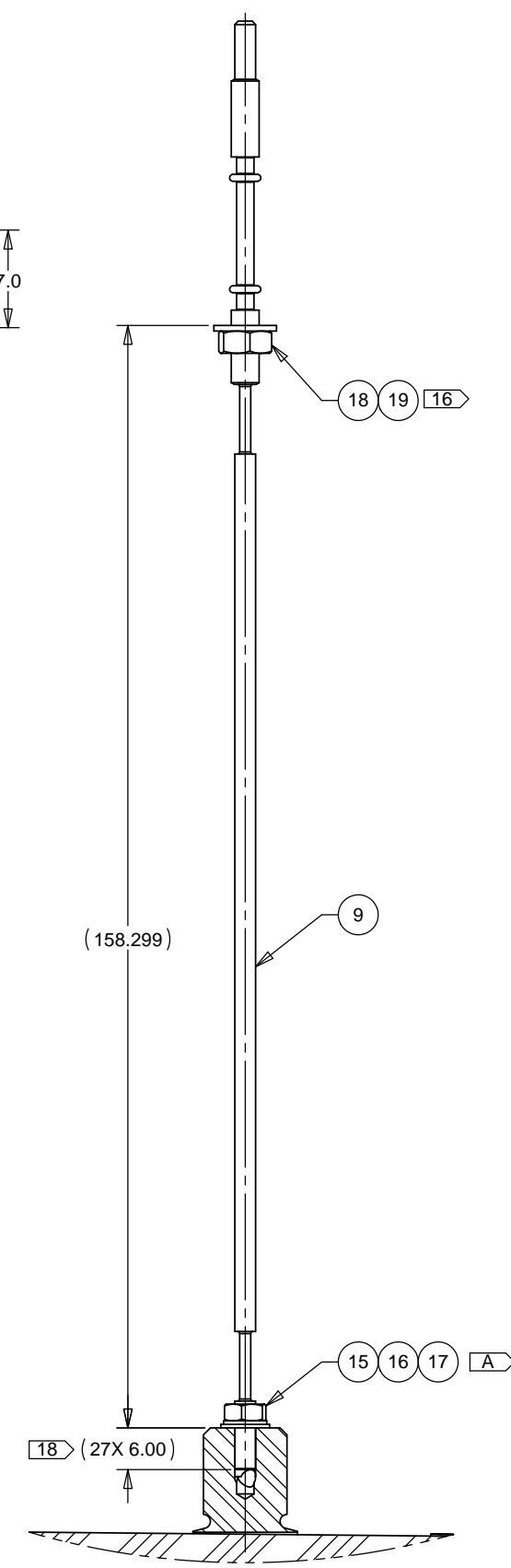
SECTION C-C
SCALE 2 : 1



VIEW B-B
SCALE 1 : 1



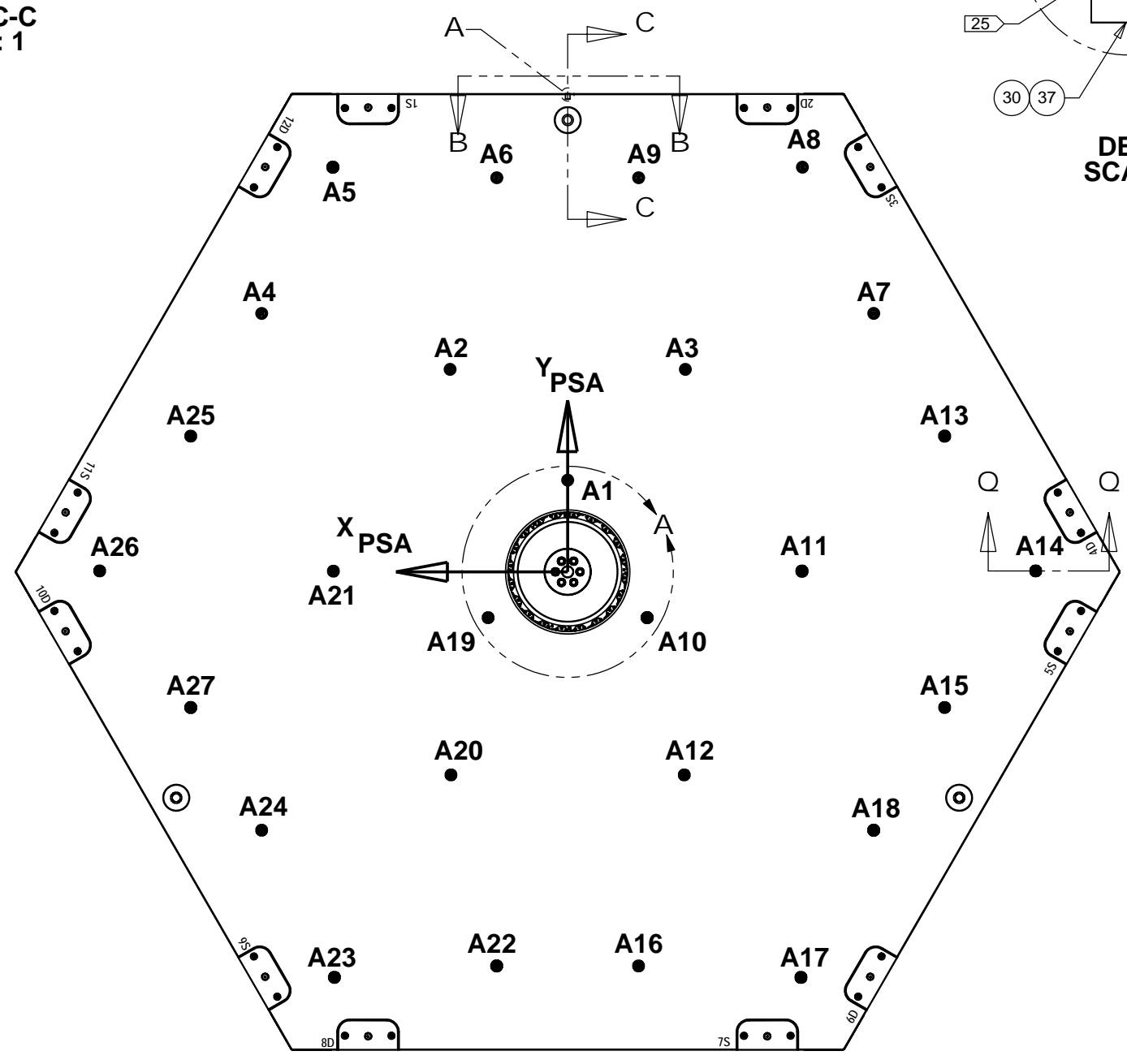
DETAIL A
SCALE 4 : 1



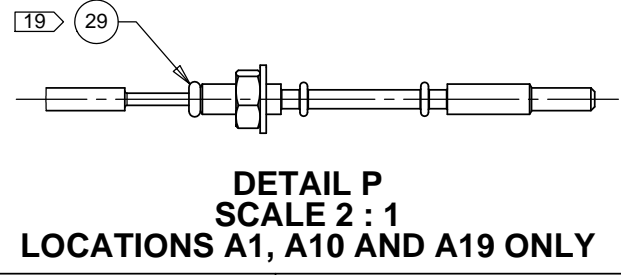
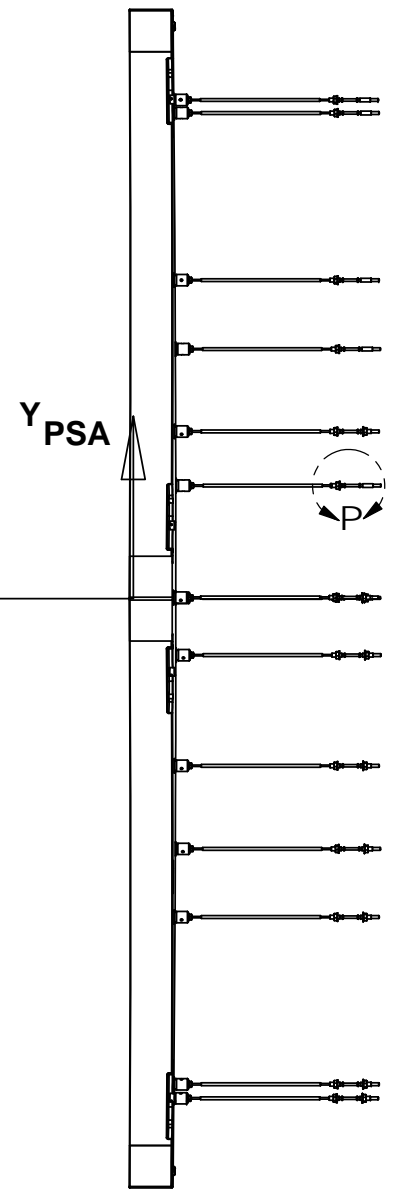
SECTION Q-Q
SCALE 2 : 1

D
C
B
A

D
C
B
A



ASSEMBLY STEP 1
BACK VIEW
(BACK SURFACE)



DETAIL P
SCALE 2 : 1
LOCATIONS A1, A10 AND A19 ONLY

8 7 6 5 4 3 2 1

DWG. NO. M1S-001-05000	REV C	SHEET NO. 9 of 12
SCALE 1:4	SHEET SIZE D	

8

7

6

5

4

3

2

1

D

D

6
TABLE A
 (FOR REFERENCE ONLY)
MIRROR ROD FLEXURE PUCK COORDINATES

Axial Flexure Location	X _{PSA} Coord (mm)	Y _{PSA} Coord (mm)
A1	0.000	119.642
A2	153.344	264.069
A3	-153.344	264.069
A4	398.879	337.036
A5	305.978	527.705
A6	92.442	513.957
A7	-398.879	337.036
A8	-305.978	527.705
A9	-92.442	513.957
A10	-103.613	-59.821
A11	-305.363	0.765
A12	-152.019	-264.835
A13	-491.321	176.921
A14	-609.995	1.132
A15	-491.321	-176.921
A16	-92.442	-513.957
A17	-304.017	-528.837
A18	-398.879	-337.036
A19	103.613	-59.821
A20	152.019	-264.835
A21	305.363	0.765
A22	92.442	-513.957
A23	304.017	-528.837
A24	398.879	-337.036
A25	491.321	176.921
A26	609.995	1.132
A27	491.321	-176.921

TABLE B
INSTALLATION TORQUES

ITEM OR NOTE	TORQUE (N-m)	NOTES
A	1.0+/-0.1	M3 FASTENERS (AND M4 ON TANGENTIAL RESTRAINT AND MIRROR ROD FLEXURES)
B	2.3±0.1	M4 FASTENERS
C	4.7±0.5	M5 FASTENERS
D	8.5±0.5	M6 FASTENERS
E	0.75±0.05	M2.5 FASTENERS

C

C

B

B

A

A

8

7

6

5

4

3

2

1

8

7

6

5

4

3

2

1

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 SPECIFICATION FOR POLISHED AND MOUNTED SEGMENTS (TMT.OPT.SPE.11.001) AND THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044).
- 4. THE SEGMENT SUPPORT WILL BE TUNED FOR A SPECIFIC SEGMENT TYPE (1 THROUGH 82) BY INSTALLING THE SPECIFIC SEGMENTATION COMPENSATION WEIGHT ASSEMBLIES (ITEM 10).

D

- 5) EACH UNMOUNTED SEGMENT SHALL HAVE A PSA COORDINATE SYSTEM DEFINED AS FOLLOWS:
 THE ORIGIN OF PSA IS A POINT ON THE OPTICAL SURFACE. AFTER THE INITIAL PROCESSING OF THE SEGMENT, IN-PROCESS METROLOGY SHALL REPORT THE LOCATION OF THIS POINT RELATIVE TO FIDUCIALS ON THE SEGMENT.
 THE Z-PSA AXIS IS THE NORMAL TO THE OPTICAL SURFACE AT THE ORIGIN
 X-PSA AXIS SHALL BE DEFINED (i.e. CLOCKED) RELATIVE TO THE ASPHERIC SURFACE SHAPE AS DEFINED IN THE SEGMENTATION DATABASE
 THE DATUMS OF THE POLISHED MIRROR ASSEMBLY ARE DEFINED AS FOLLOWS:
 DATUM -A- SHALL BE THE PLANE THROUGH THE CENTERS OF THE THREE 1.500" DIAMETER TOOLING BALLS
 DATUM -B- SHALL BE THE AXIS OF THE CENTER HOLE THROUGH THE CENTRAL DIAPHRAGM
 DATUM -C- SHALL BE THE CENTER POINT OF THE 1.500" DIAMETER TOOLING BALL POSITIONED ALONG THE PSA Y-AXIS.
 DATUM -D- SHALL BE THE BEST FIT CIRCLE THROUGH THE CENTERS OF THE THREE 1.500" DIAMETER TOOLING BALLS

D

- 6) MIRROR ROD FLEXURE PUCK LOCATIONS SPECIFIED IN TABLE A.
- 7) INSPECTION STAND DUPLICATES FIXED FRAME KINEMATIC INTERFACE ON TELESCOPE. INSPECTION STAND TO BE INSTALLED AT COORDINATE MEASURING MACHINE (CMM) OR SIMILAR INSPECTION STATION PERMITTING MEASUREMENT OF INDICATED FEATURES AS DESCRIBED IN NOTES 11 AND 12.
- 8) AFTER ASSEMBLY, VERIFY OVERALL HEIGHT FROM BASE OF TOWER TO MIRROR SURFACE AT $X_{PSA} - Y_{PSA}$ ORIGIN IS 334.126+/- 0.200 mm. MEASUREMENT SHALL BE MADE WITH SSA LOCKED, MOUNTED TO THE INSPECTION STAND DESCRIBED IN NOTE 10.

C

- 9) AFTER ASSEMBLY, VERIFY USING A CMM OR SIMILAR, THE POSITION OF THE SEGMENT EDGES. MEASUREMENT SHALL BE MADE WITH SSA LOCKED, MOUNTED TO THE INSPECTION STAND DESCRIBED IN NOTE 7. POSITION OF THEORETICAL VERTICES IS GIVEN IN THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044). EDGES SHALL FALL WITHIN THE PROFILE TOLERANCE SPECIFIED.
- 10) APPLY THREAD LOCKER (ITEM 28) TO THE THE SHORT THREADED PORTION OF THE DIAPHRAGM STUD (ITEM 11), AND INSTALL IN THE CENTRAL DIAPHRAGM. TORQUE TO SPECIFIED TORQUE.
- 11) WITH SSA MODULE ASSEMBLY (ITEM 12) FIXTURED IN THE CORRECT AXIAL POSITION RELATIVE TO THE BONDED MIRROR ASSEMBLY (ITEM 1), AND PRIOR TO INSTALLATION OF THE MIRROR ROD FLEXURES (ITEM 9), DETERMINE THE CENTRAL DIAPHRAGM SHIM THICKNESS PER THE "DETERMINING DIAPHRAGM SHIM THICKNESS" DOCUMENT (TMT.OPT.TEC.14.023).

C

- 12) TANGENTIAL RESTRAINT (ITEM6) INSTALLATION SHALL BE AS FOLLOWS:
 1) SLIDE M4 FLAT WASHER AND M4 HEX NUT (ITEMS 18 AND 19) OVER M3 END OF THE TANGENTIAL RESTRAINT AND PUSH TOWARD THE M4 THREADED END, ALLOWING THEM TO FLOAT FREELY.
 2) THREAD M3 HEX NUT (ITEM 17) ONTO THE END OF THE M3 THREAD AND PLACE M3 LOCK WASHER AND FLAT WASHER (ITEMS 15 AND 16) OVER THE M3 THREADED END.
 3) SLIDE M4 THREADED END OF THE TANGENTIAL RESTRAINT THROUGH HOLE IN MOVING FRAME, THREAD THE M3 END OF THE TANGENTIAL RESTRAINT INTO THE CLAMP (ITEM 7) AND TORQUE M3 NUT TO THE SPECIFIED TORQUE.
 4) THREAD M4 NUT BY HAND FINGER TIGHT, SNUG AGAINST THE MOVING FRAME. DO NOT TORQUE.
 5) INSTALL M4 NUT WITH CONICAL LOCKWASHER (ITEM 27) ONTO M4 THREADED END OF THE TANGENTIAL RESTRAINT AND TIGHTEN TO SPECIFIED TORQUE WHILE RESTRAINING THE M4 NUT ON THE OPPOSITE SIDE OF THE FLANGE FROM ROTATING BY USING APPROPRIATE TOOLING (DO NOT TORQUE THE M4 HEX NUT, ITEM 19).

B

- 13) AFTER MEASURING SHIM THICKNESS, PRESS CENTERING BOSS (ITEM 13) INTO THE CENTRAL HOLE IN THE MOVING FRAME USING TWO FLAT WASHERS, AN M6 X 40mm LONG SOCKET HEAD CAP SCREW, AND AN M6 NUT TO DRAW THE CENTERING BOSS INTO THE HOLE UNTIL FULLY SEATED.

B

- 14. TORQUE FASTENERS PER TABLE B.
- 15) INDICATED PIECE PART MAY BE REMOVED TO ACCESS TOOLING FEATURES IN THE MOVING FRAME. IF REQUIRED, TORQUE FASTENERS PER TABLE B.

B

- 16) INSTALL NUT AND WASHER (ITEMS 18 AND 19) ONTO THE MIRROR ROD FLEXURE (ITEM 9) PRIOR TO INSTALLING THE ROD FLEXURE INTO THE MIRROR PUCK. ON THE THREE INNER MIRROR ROD FLEXURES (LOCATIONS A1, A10 AND A9) ONLY, INSTALL O-RING (ITEM 29) FLUSH AGAINST THE M4 THREAD AS SHOWN AFTER INSTALLING THE NUT AND WASHER (ITEMS 18 AND 19).

B

- 17. TO MAINTAIN BOND STRENGTH, THE TEMPERATURE OF THE BONDED MIRROR ASSEMBLY (ITEM 1) SHALL NOT EXCEED 80°C AT ANY TIME.

- 18) THE BOTTOM FACE OF THE MIRROR ROD FLEXURE (ITEM 9) SHALL BE TANGENT WITH THE HOLE IN THE MIRROR ROD FLEXURE PUCK AS SHOWN. INSERT A 2mm DIAMETER X 25mm LONG ROD THROUGH BOTH HOLES AND THREAD THE FLEXURE INTO THE PUCK UNTIL IT BOTTOMS OUT ON THE ROD. NEXT, SECURE THE FLEXURE IN PLACE USING THE LOCK WASHER (ITEM 15), FLAT WASHER (ITEM 16) AND NUT (ITEM 17).

- 19) BASIC ANGLE DIMENSION THETA (θ) IS DEFINED FOR EACH SEGMENT TYPE IN THE SEGMENTATION DATABASE, SECTION 5: SEGMENT ORIENTATON MARKINGS. DIMENSION THETA ON THE DRAWING IS THE ABSOLUTE VALUE OF THE ANGLE DEFINED IN THE SEGMENTATION DATABASE.

- 20. ALL PURCHASED PARTS SHALL MEET SPECIFICATION SHOWN. PURCHASED PART SUPPLIERS SHALL BE APPROVED BY TMT PROJECT OFFICE PRIOR TO PURCHASE AND ASSEMBLY.

- 21) PRIOR TO INSTALLING THE SSA MODULE (ITEM 12) ON THE BONDED MIRROR ASSEMBLY WITH MIRROR ROD FLEXURES INSTALLED, SCREW THE PRE-INSTALLED MIRROR ROD FLEXURE NUTS AND WASHERS TO THE LOWER (TOWARD THE MIRROR) M4 THREADED PORTION OF THE ROD TO ALLOW THE WHIFFLETREE TRIANGLES TO BE INSTALLED IN THEIR BALANCED CONDITION.

- 22) PRIOR TO SPINNING THE NUTS AND WASHERS UP (AWAY FROM THE MIRROR) BY HAND UNTIL LIGHTLY SNUG AGAINST THE WHIFFLETREE TRIANGLES, APPLY A DROP OF LOCTITE (ITEM 28) TO THE ROD FLEXURE M4 THREAD NEAR THE WHIFFLETREE TRIANGLES.

- 23) MEASURE, RECORD AND REPORT SURFACE PROFILE OF THE THREE ACTUATOR CLAMP BLOCK INTERFACE SURFACES ON THE MOVING FRAME ARMS WITH RESPECT TO DATUMS J AND K AFTER FINAL POSITIONING AND INSTALLATION OF THE TOWER. TEMPORARILY REMOVE ACTUATOR CLAMP BLOCKS PRIOR TO MEASURING.

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- 24) WEIGH, RECORD AND REPORT MASS OF A4 ASSEMBLY TO THE NEAREST 1 KG.

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- 25) APPLY A 6mm WIDE STRIP OF TRANSFER TAPE (ITEM 37) FROM THE CHAMFER EDGE ON THE OPTICAL SURFACE (POINT "A") TO 7mm OVERLAP ON THE BACK S2 SURFACE (POINT "B") AS SHOWN. APPLY A 6mm WIDE STRIP OF SHIM STOCK (ITEM 30) OVER THE TRANSFER TAPE, FROM THE CHAMFER EDGE ON THE OPTICAL SURFACE (POINT "A") TO 7mm OVERLAP ON THE BACK S2 SURFACE (POINT "B") AS SHOWN. ENSURE SHIM STOCK IS SECURELY BONDED IN PLACE ALONG ITS ENTIRE LENGTH.

- 26) PRIOR TO ASSEMBLY, SOLDER THE WIRE (ITEM 32) TO THE TERMINAL (ITEM 33) USING SOLDER (ITEM 36). SOLDER SHALL BE RoHS COMPLIANT.

- 27) BOND END OF WIRE (ITEM 32) TO THE SHIM STOCK (ITEM 30) IN THE LOCATION SHOWN ON THE BACK FACE OF THE MIRROR USING CONDUCTIVE ADHESIVE (ITEM 31). NO PORTION OF THE WIRE SHALL EXTEND BEYOND THE INNER EDGE OF THE BACK FACE CHAMFER.

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M1S-001-05000	C	11 of 12
SCALE 1:4	SHEET SIZE D	

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NOTES UNLESS OTHERWISE SPECIFIED

28 > STAKE THE M4 NUTS (ITEMS 19 AND 27) TO THE MIRROR ROD FLEXURE (ITEM 9) AFTER ASSEMBLY USING EPOXY (ITEM 38).

29 > APPLY LOCTITE (ITEM 28) TO THE M4 THREAD OF TANGENTIAL RESTRAINT (ITEM 6) PRIOR TO INSTALLATION AND TORQUING OF NUTS (ITEM 19).

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