

8 7 6 5 4 3 2 1

D
C
B
A

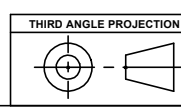
D
C
B
A

REVISIONS				
REV	SHEET/ZONE	DESCRIPTION	DATE	APPROVED
A	4/B5	.600 PROFILE TOLERANCE WAS .800	03/22/07	E. WILLIAMS
	5/D3	.200 POSITIONAL TOLERANCE WAS .300		
B	1/B1	CORRECTED SPELLING IN PARTS LIST	03/26/07	E. WILLIAMS
	5/MULT	DISPLAYED SEVERAL MOVING ASSEMBLY COMPONENTS PREVIOUSLY MISSING		
	MULT	UPDATED AND EXTENSIVELY REVISED ENTIRE DRAWING TO REFLECT CURRENT SSA DESIGN. ADDED SHEETS 3 AND 8, AND RENUMBERED OTHER SHEETS ACCORDINGLY		
	1/B3, C3	ADDED ITEMS 13 THROUGH 22. EXTENSIVELY REVISED PARTS LIST		
C	1/MULT	EXTENSIVELY REVISED NOTES. ADDED NOTES 16 THROUGH 21	01/14/09	J. HUNDHAUSEN
	10/C1, C2	REMOVED "M" FROM FEATURE CONTROL FRAME. PERPENDICULARITY WAS .150, ADDED PROJECTED TOLERANCE ZONE		
	10/C5	"S" CALLOUT IN FEATURE CONTROL FRAME WAS "TM"		
	10/D3	"0.250+/-0.050 EACH BOND PAD" WAS "0.250+/-0.100"		
	1/B2			
	MULT	X, Y AND Z PSA TEMP WERE X, Y AND Z PSA.		
D	1/B1, C1	CHANGED ITEMS 15 THROUGH 20 MATERIAL FROM STEEL TO 18-8 STAINLESS STEEL	07/26/10	
	1/B2	ITEM 15 WAS 3MM HEX NUT. ITEM 16 WAS 3MM FLAT WASHER, CASE HARDENED STEEL		
	3/C1	3X H LOCKED WAS 3X H TBD		
	8/C4, 13/D8	ADDED LOCAL NOTE 22		
	8/D2	3X 126.564 BASIC DIMENSION WAS 3X 123.564 BASIC		
	11/C4	TABLE B: ITEM 19 TORQUE SPEC WAS 14+/-0.5		
	11/D4	TABLE B: ITEM 15 TORQUE SPEC WAS 0.75+/-0.1. ITEM 17 TORQUE SPEC WAS 18+/-0.5		
	11/MULT	ADDED ITEM 23. VIEW R AND SECTION P-P		
	12,13/MULT	EXTENSIVELY REVISED NOTES 5 AND 13. STRUCK THROUGH NOTE 14.		

23	10	B3				12	280-TMT-01-11001	EDGE SENSOR PUCK	INVAR
22	5	B3			A/R		TBD	TBD LUBRICANT	
21	4	D5			A/R		LOCTITE 242	MEDIUM STRENGTH THREADLOCKER	
20	4	D5			3		MCMaster CARR P/N 92775A314 OR EQUIVALENT	SET SCREW, M8 X 16MM LONG, EXTENDED POINT	18-8 STAINLESS STEEL
19	8	C4			6		MCMaster CARR P/N 91292A135 OR EQUIVALENT	SOCKET HEAD CAP SCREW, M6X1.0, 16MM LONG	18-8 STAINLESS STEEL
18	8	C4			15	6	MCMaster CARR P/N 93475A250 OR EQUIVALENT	FLAT WASHER, M6, 12MM OD	18-8 STAINLESS STEEL
17	6	C2			15		MCMaster CARR P/N 91292A137 OR EQUIVALENT	SOCKET HEAD CAP SCREW, M6X1.0, 20MM LONG	18-8 STAINLESS STEEL
16	5	B3			54		MCMaster CARR P/N 93475A230 OR EQUIVALENT	FLAT WASHER, M4	18-8 STAINLESS STEEL
15	5	B3			54		MCMaster CARR P/N 91828A231 OR EQUIVALENT	HEX NUT, M4	18-8 STAINLESS STEEL
14	10	B1				A/R	DOW CORNING SILANE Z-6020	PRIMER	
13	10	B1				A/R	TBD ADHESIVE	ADHESIVE	
12	2	C4	1				TBD	TMT PMA OPTICAL TESTING FIXTURE	
11	2	C5		1			TBD	TMT PMA INSPECTION STAND	
10	4	D7			3		280-TMT-01-11400	LOCK ASSEMBLY	
9	4	D5			1		280-TMT-01-11300	TOWER ASSEMBLY	
8	8	D7			1		280-TMT-01-11200	MOVING ASSEMBLY	
7	4	B4			1		280-TMT-01-11122	CENTRAL DIAPHRAGM SHIM	
6	10	C4				1	280-TMT-01-11121	CENTRAL DIAPHRAGM	
5	2	D2	1	1			280-TMT-01-11000 A3	POLISHED MIRROR ASSEMBLY	
4	4	B3			1		280-TMT-01-11000 A2	MOVING ASSEMBLY AND BONDED MIRROR ASSEMBLY	
3	8	D8			1		280-TMT-01-11000 A1	BONDED MIRROR ASSEMBLY	
2	10	B1				27	280-TMT-01-11110	AXIAL FLEXURE ASSEMBLY	
1	10	B2				1	280-TMT-01-01000	M1 POLISHED MIRROR SEGMENT	

ITEM NO.	SHT	ZONE	A5	A4	A3	A2	A1	PART/DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION
PARTS LIST										
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-										
DECIMALS X = +/- 1.0 XX = +/- .30 XXX = +/- .100 ANGULAR = +/- .30° SURFACE FINISH = N/A										
CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE. DO NOT SCALE DRAWING										
TMT TMT Observatory Corporation www.tmt.org										
TMT POLISHED MIRROR ASSEMBLY										
FINISH N/A										
DWG. NO. 280-TMT-01-11000 D 1 of 14										
SCALE 1:4 SHEET SIZE D										

PRELIMINARY NOT FOR PRODUCTION



SEE SHEETS 13 AND 14 FOR NOTES.

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D

C

C

B

B

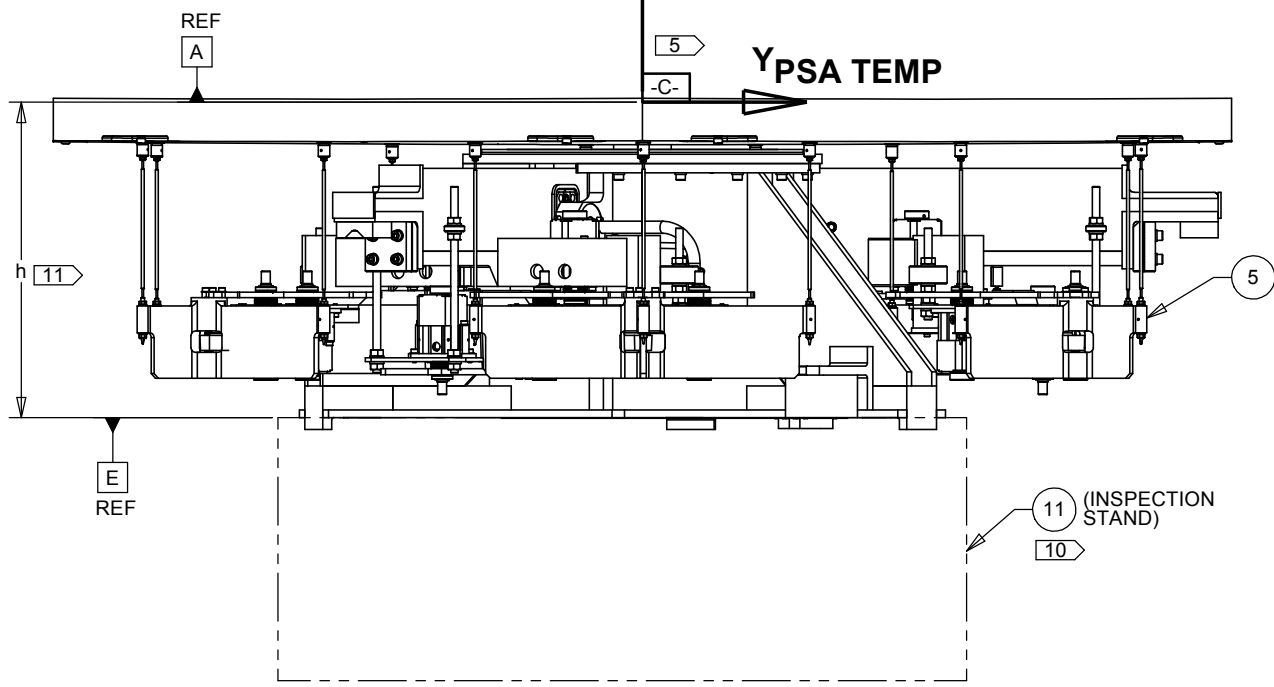
A

A

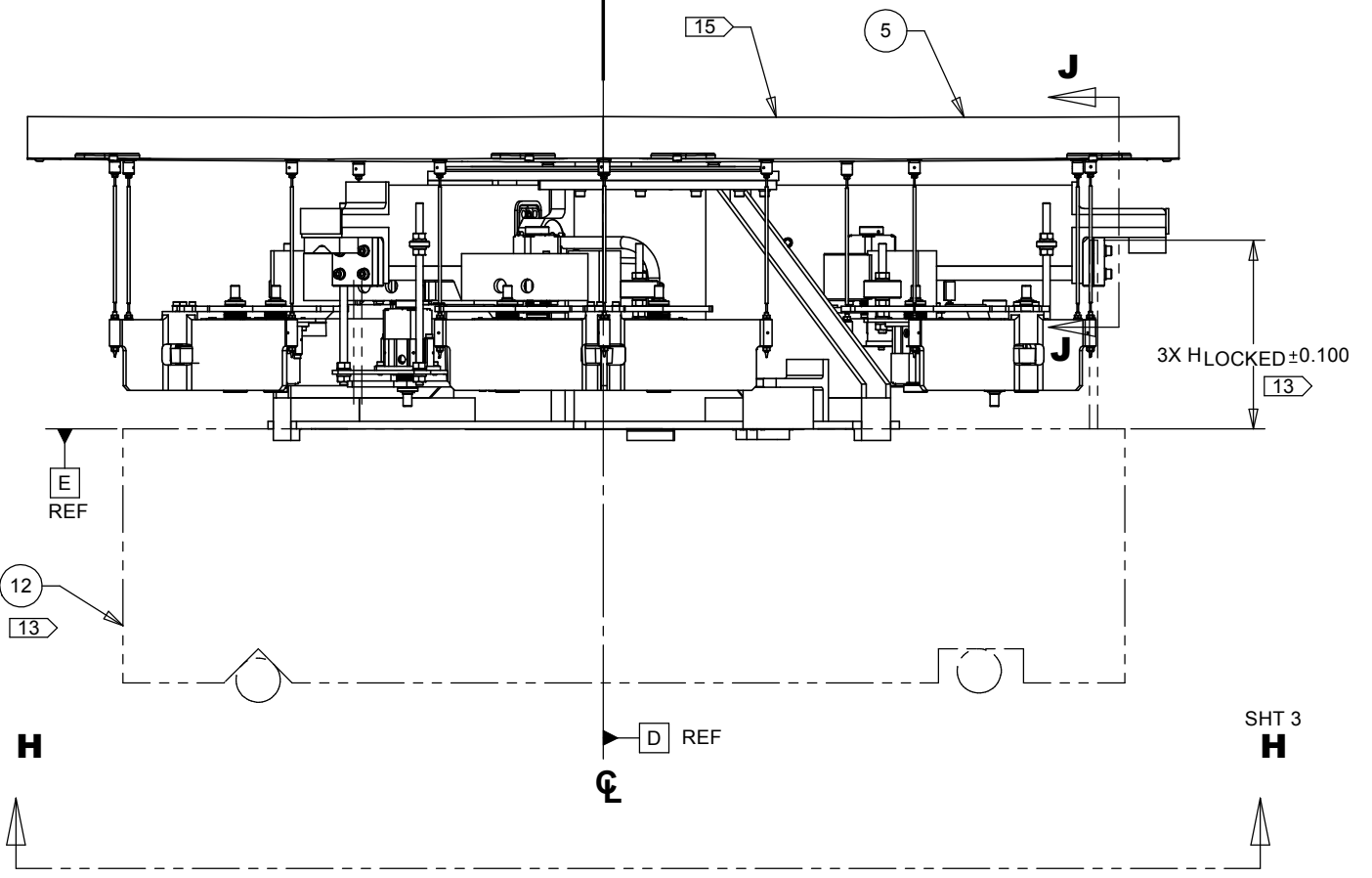
Z PSA TEMP

Y PSA TEMP

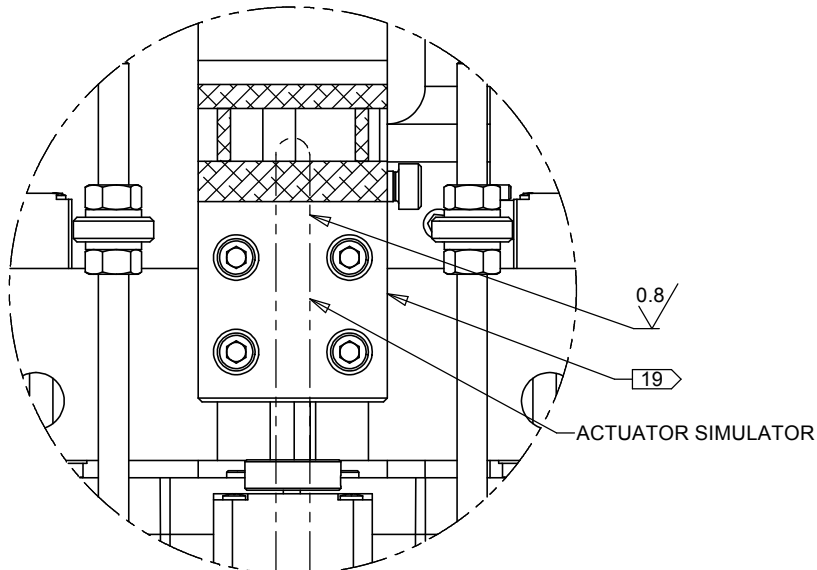
Z PSA FINAL



A4
INSPECTION
CONFIGURATION



A5
ACCEPTANCE OPTICAL TESTING
CONFIGURATION



SECTION J-J
SCALE 1:1

**PRELIMINARY
NOT FOR
PRODUCTION**

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 2 of 14
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

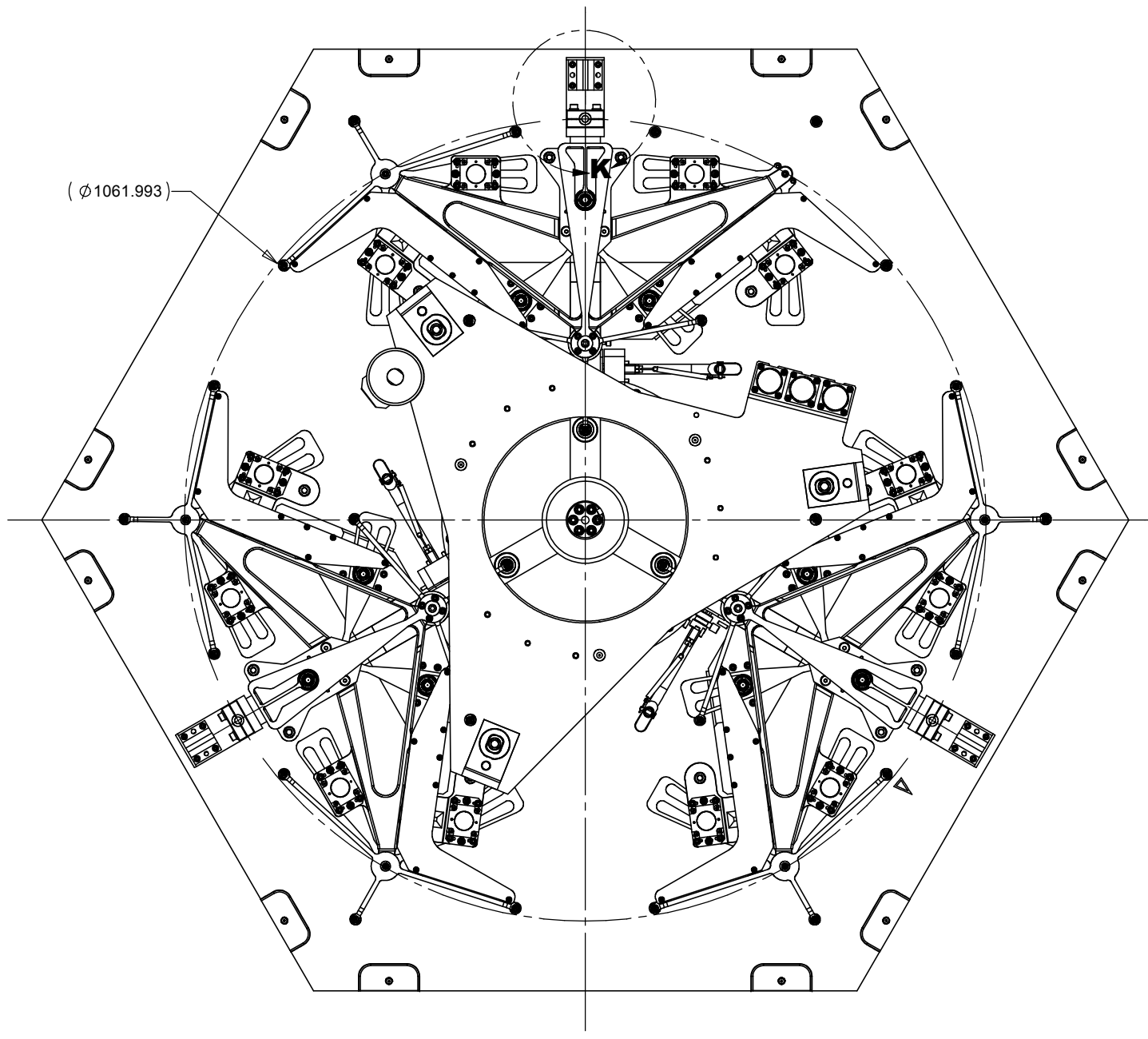
C

B

B

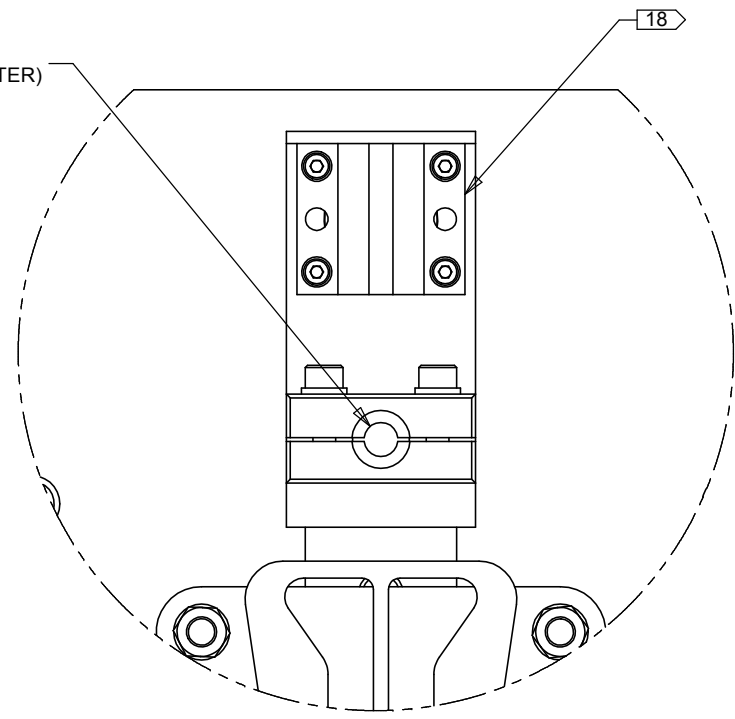
A

A



VIEW H-H
SHEET 2, ZONE B1

Ø9.000
(ACTUATOR FLEXURE DIAMETER)



DETAIL K
SCALE 1:1

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 3 of 14
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

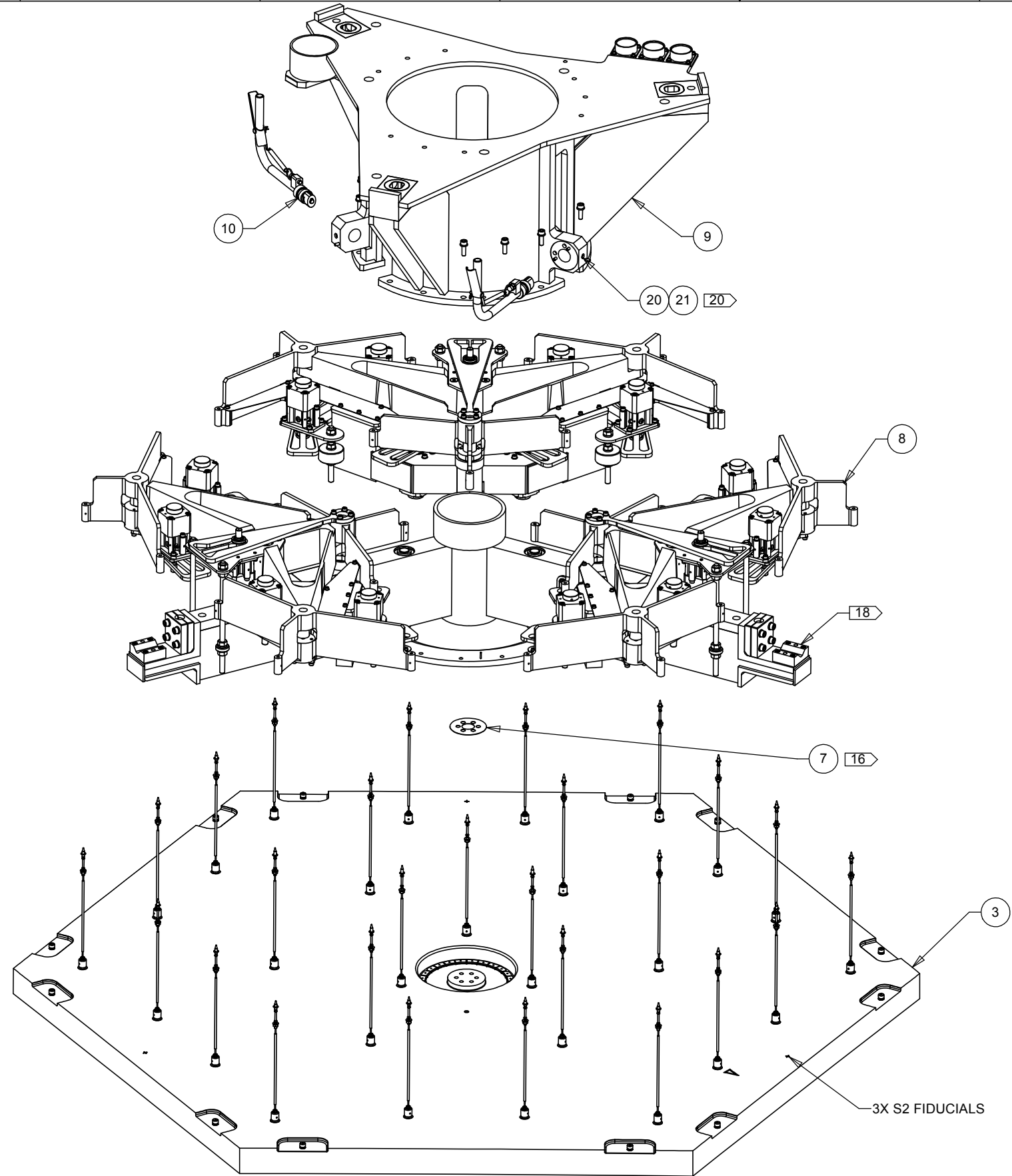
C

B

B

A

A



A3
ISOMETRIC VIEW
(EXPLODED)

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 4 of 14
SCALE 1:4	SHEET SIZE D	

8

7

6

5

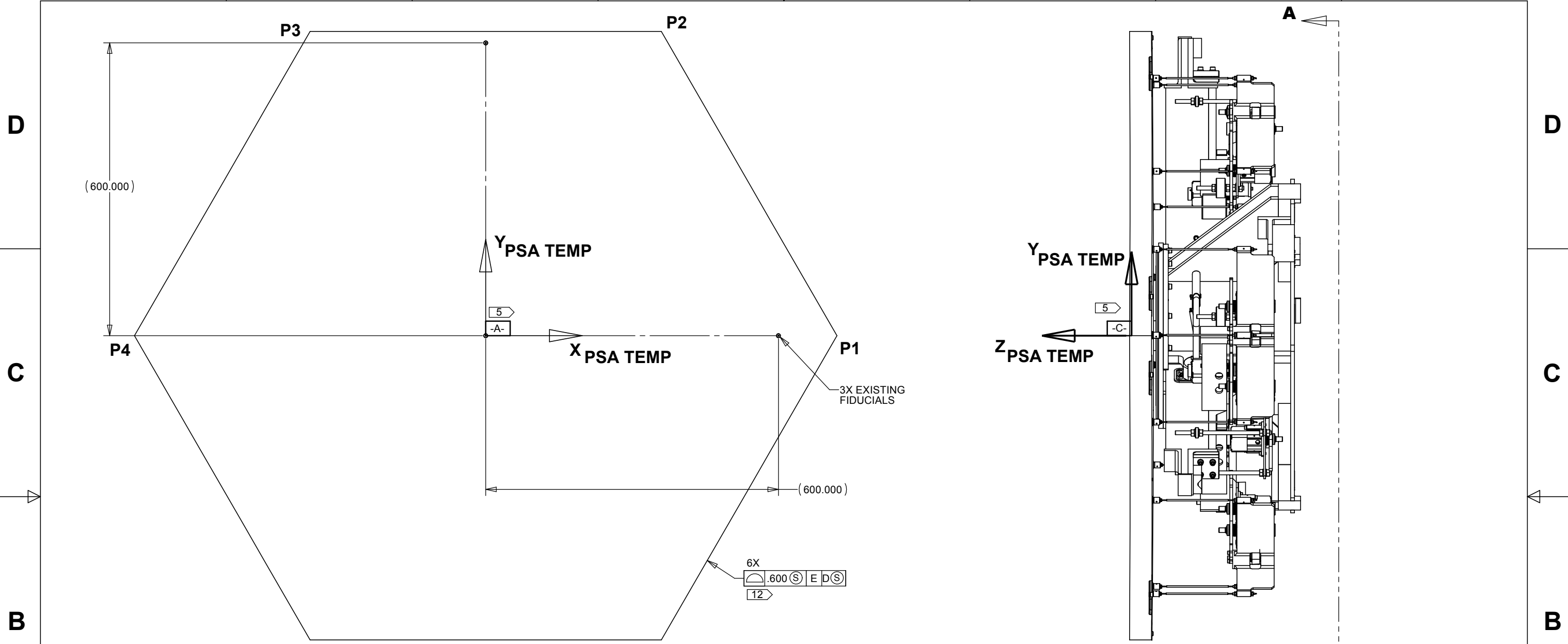
4

3

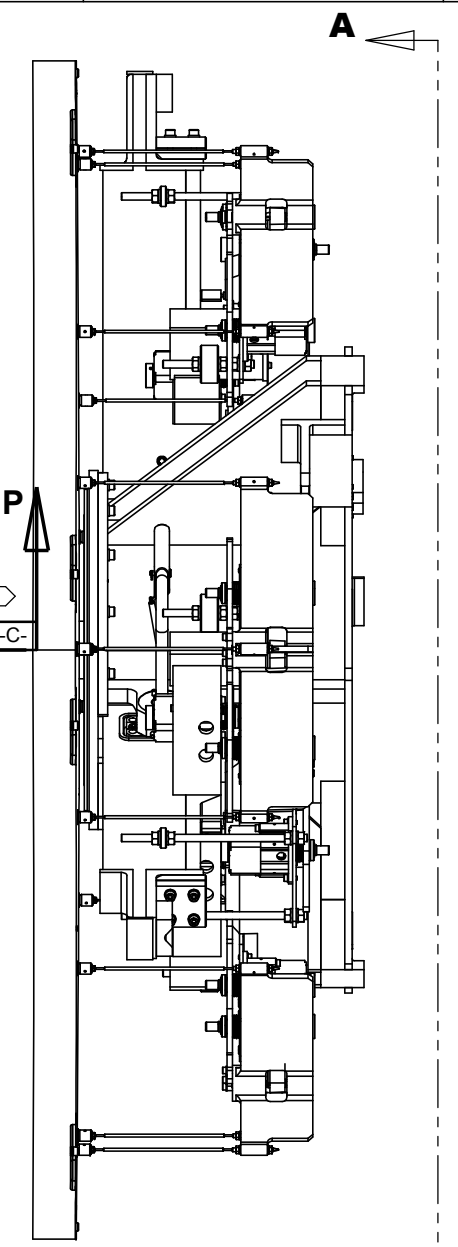
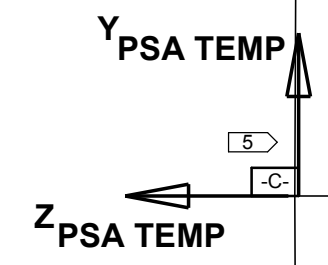
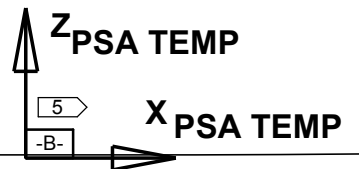
2

1

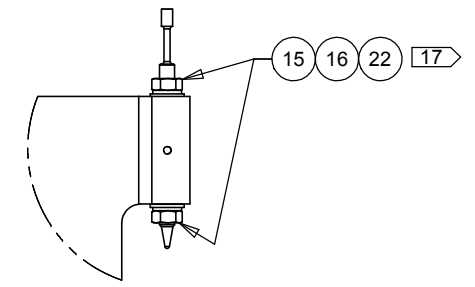
8 7 6 5 4 3 2 1



A3
FRONT VIEW
(OPTICAL SURFACE)

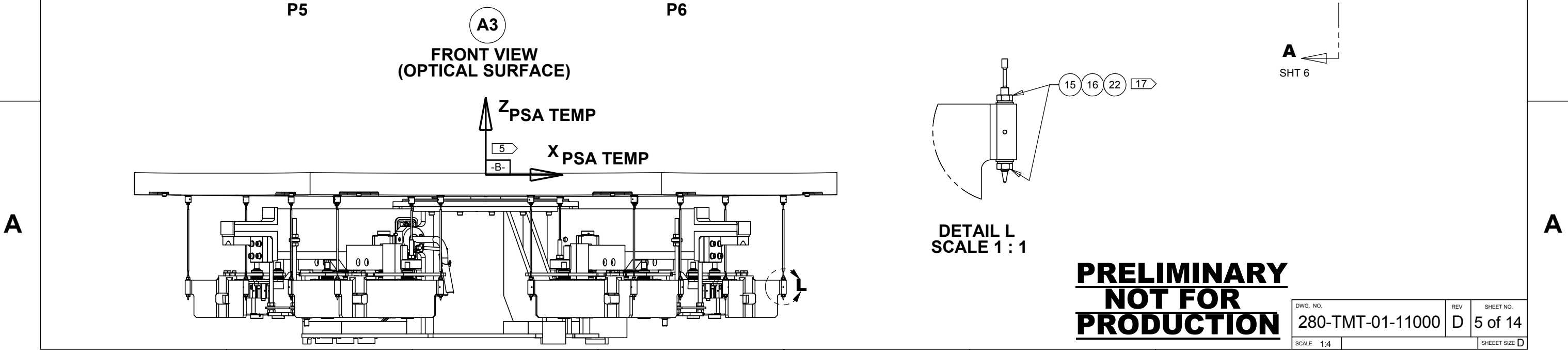


A
 SHT 6



DETAIL L
SCALE 1 : 1

PRELIMINARY
NOT FOR
PRODUCTION



8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A

DWG. NO.	REV	SHEET NO.
280-TMT-01-11000	D	5 of 14
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

D

D

C

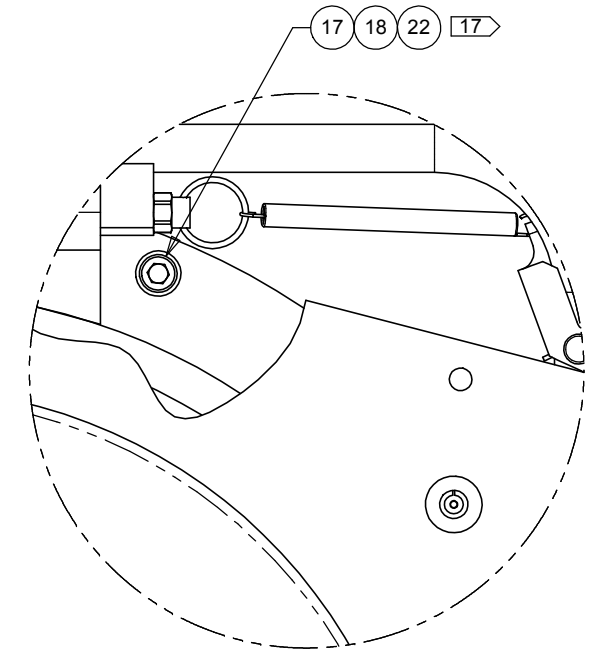
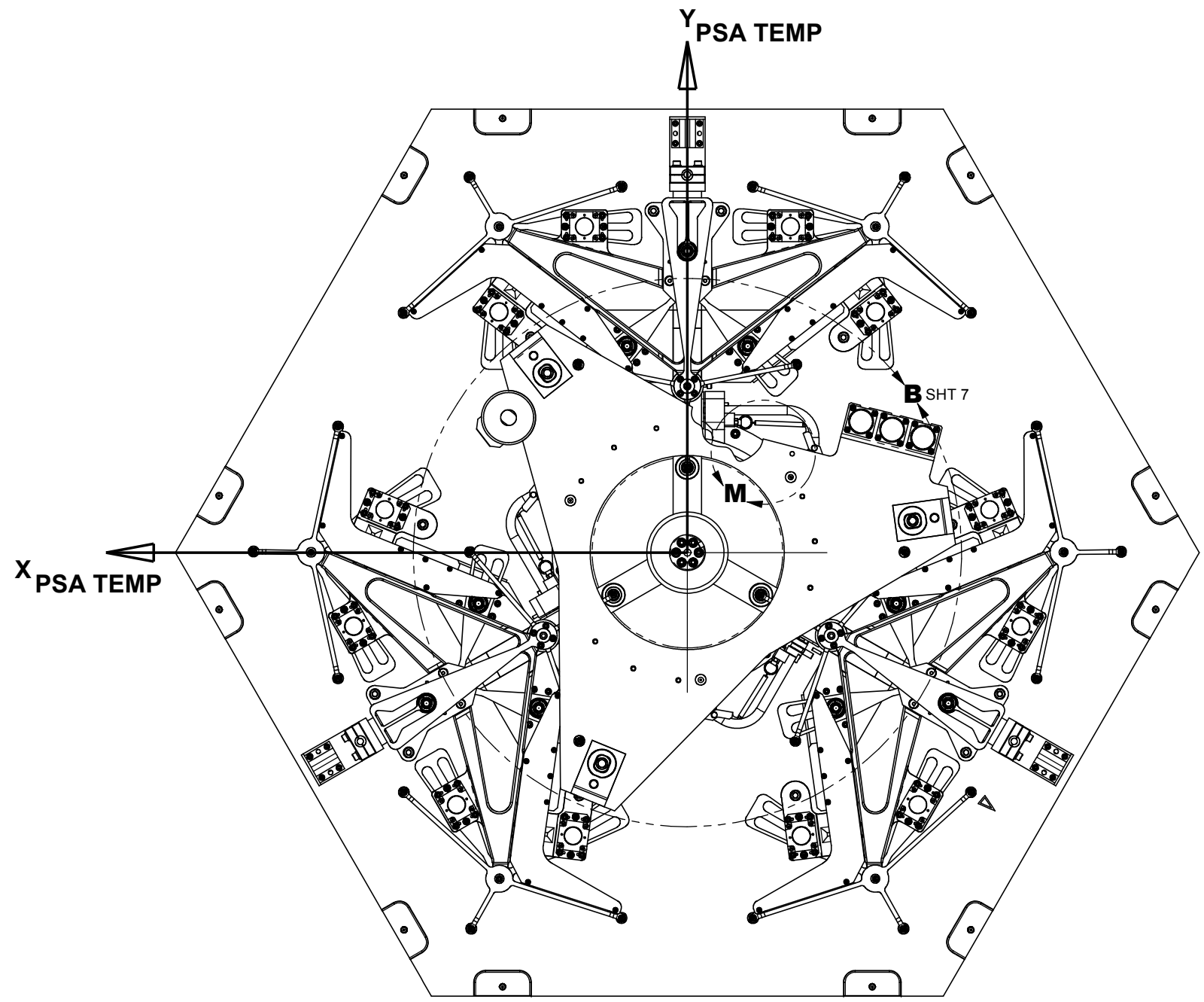
C

B

B

A

A



DETAIL M
SCALE 1 : 1

VIEW A-A
(BACK SURFACE)
SHEET 5, ZONE B2

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 6 of 14
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A

Y PSA TEMP

X PSA TEMP

SURFACE OF BUSHING

E2

3X 120°

∅ 640.000

(3X 20.050±0.010 TO THEORETICAL SHARP CORNER)

⊕ .200 A B C 5

D

8°

REF

B

E1

SURFACE OF BUSHING

E3

SURFACE OF BUSHING

C REF

DETAIL B
SCALE 1 : 2
SHEET 6, ZONE C5

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO.	REV	SHEET NO.
280-TMT-01-11000	D	7 of 14
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

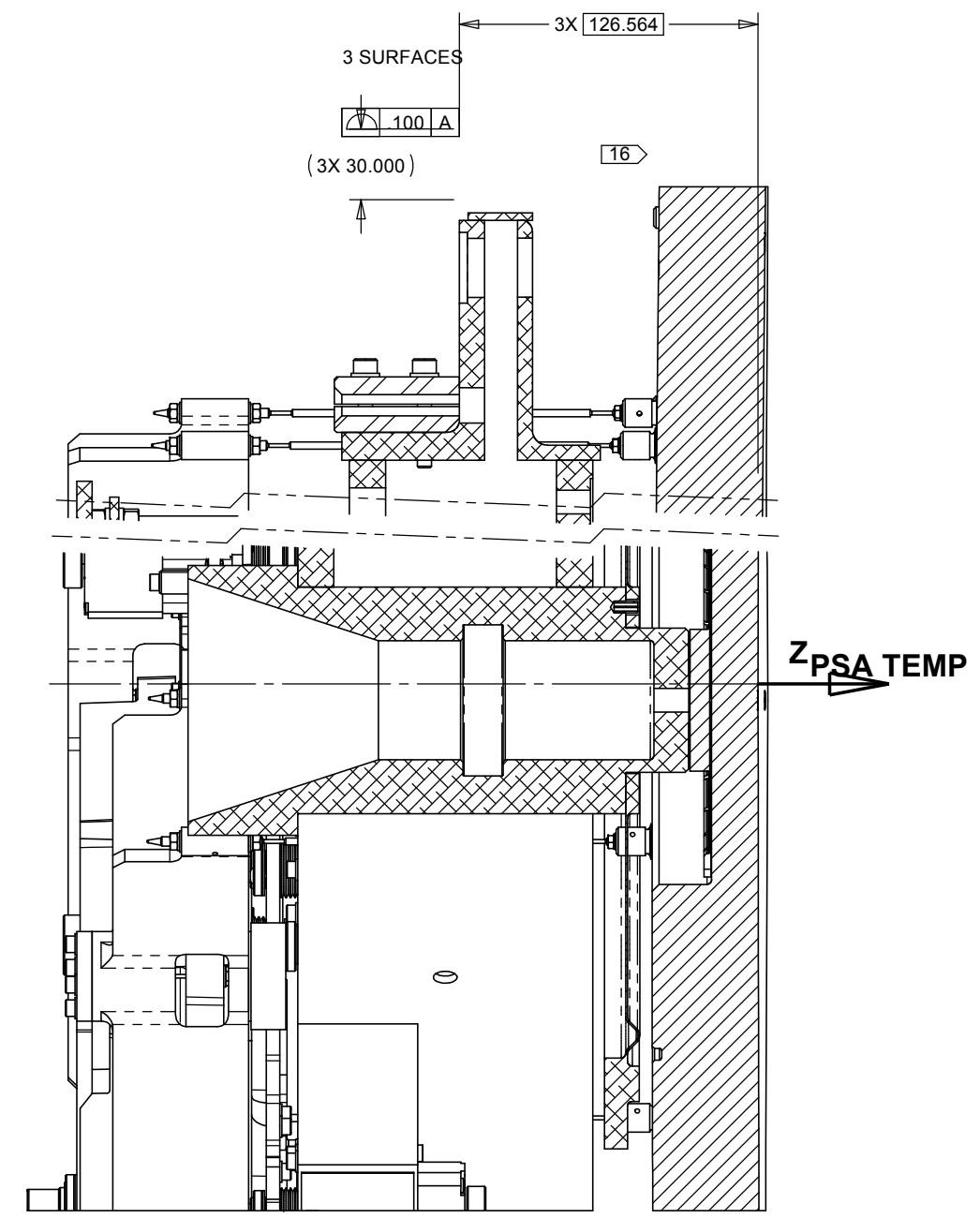
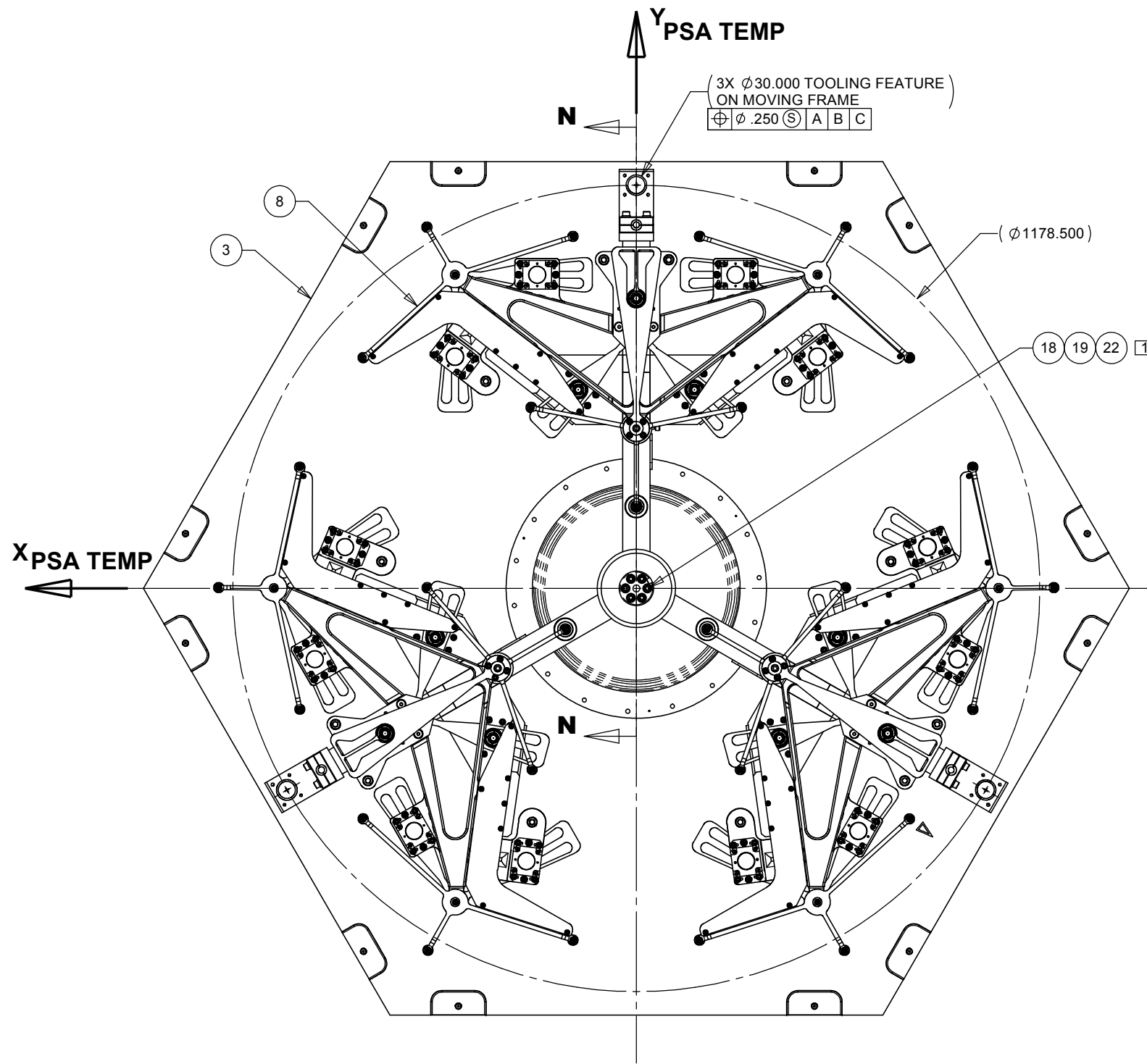
C

B

B

A

A



A2
 BACK VIEW
 (BACK SURFACE)

SECTION N-N
 SCALE 1 : 1.5

**PRELIMINARY
 NOT FOR
 PRODUCTION**

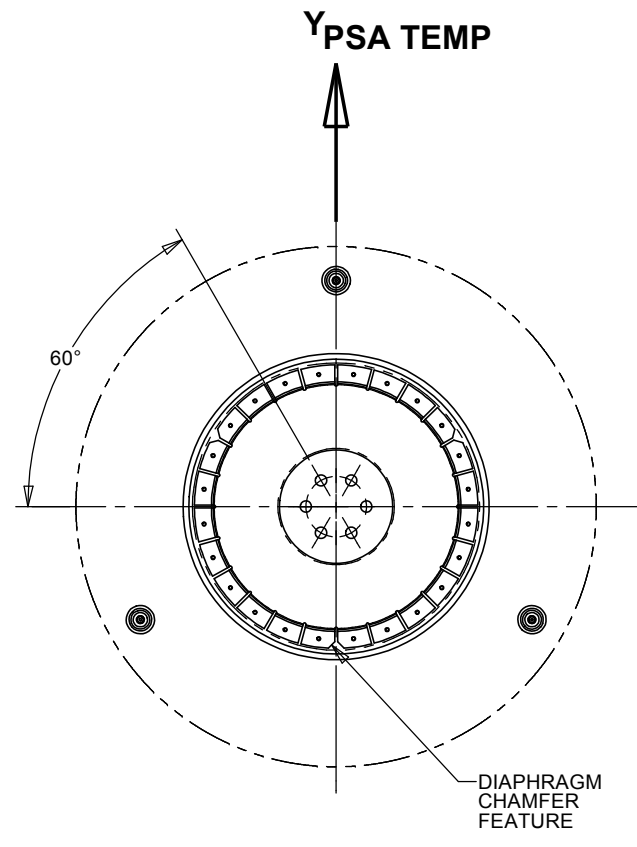
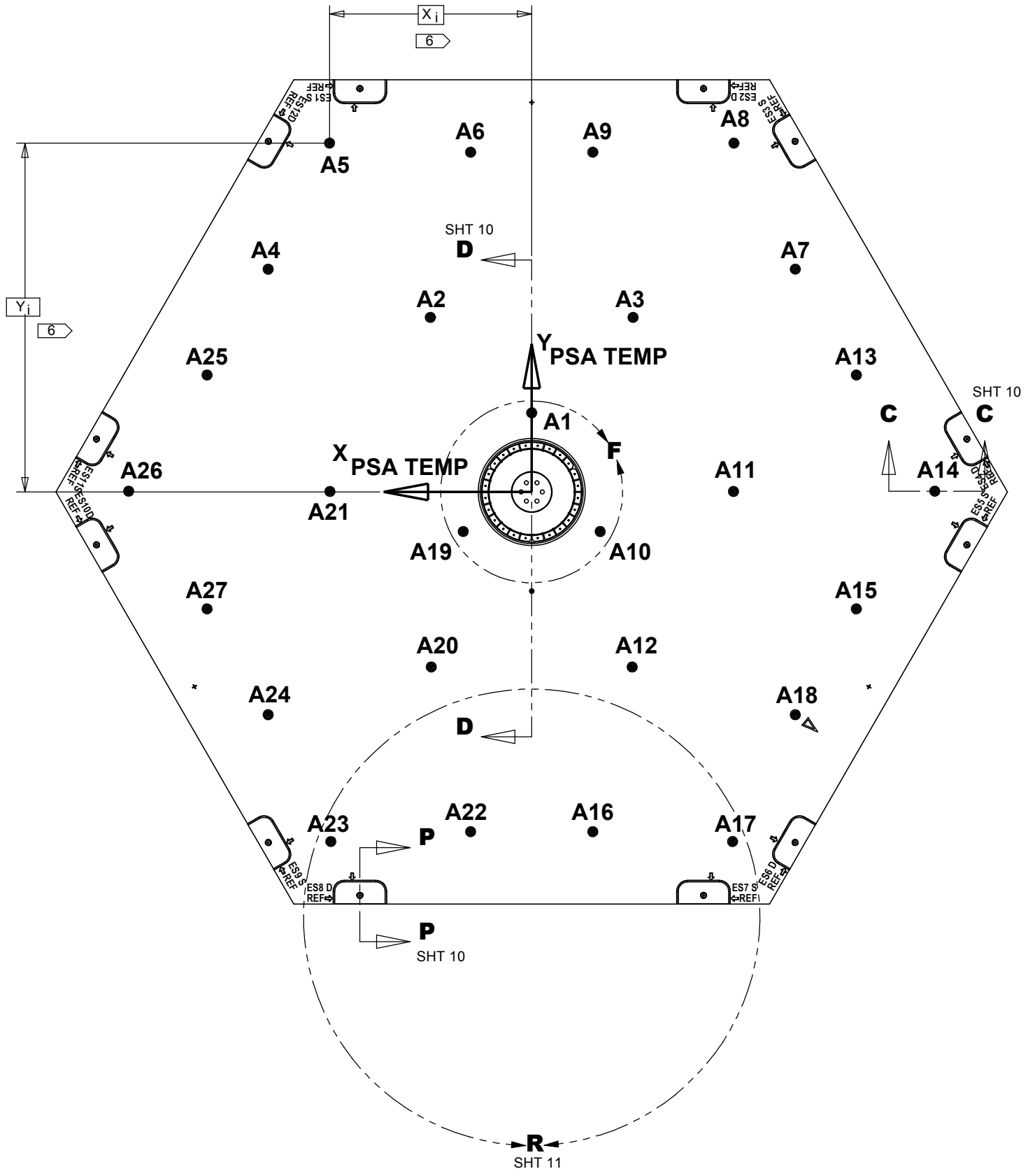
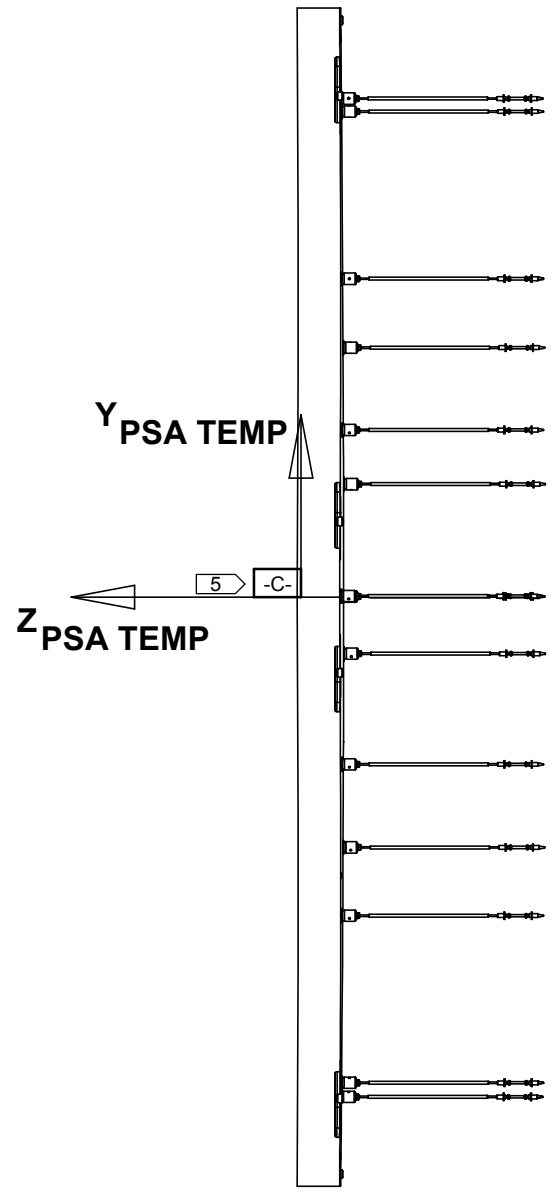
DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 8 of 14
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A



DETAIL F
SCALE 1 : 2

A1
BACK VIEW
(BACK SURFACE)

**PRELIMINARY
NOT FOR
PRODUCTION**

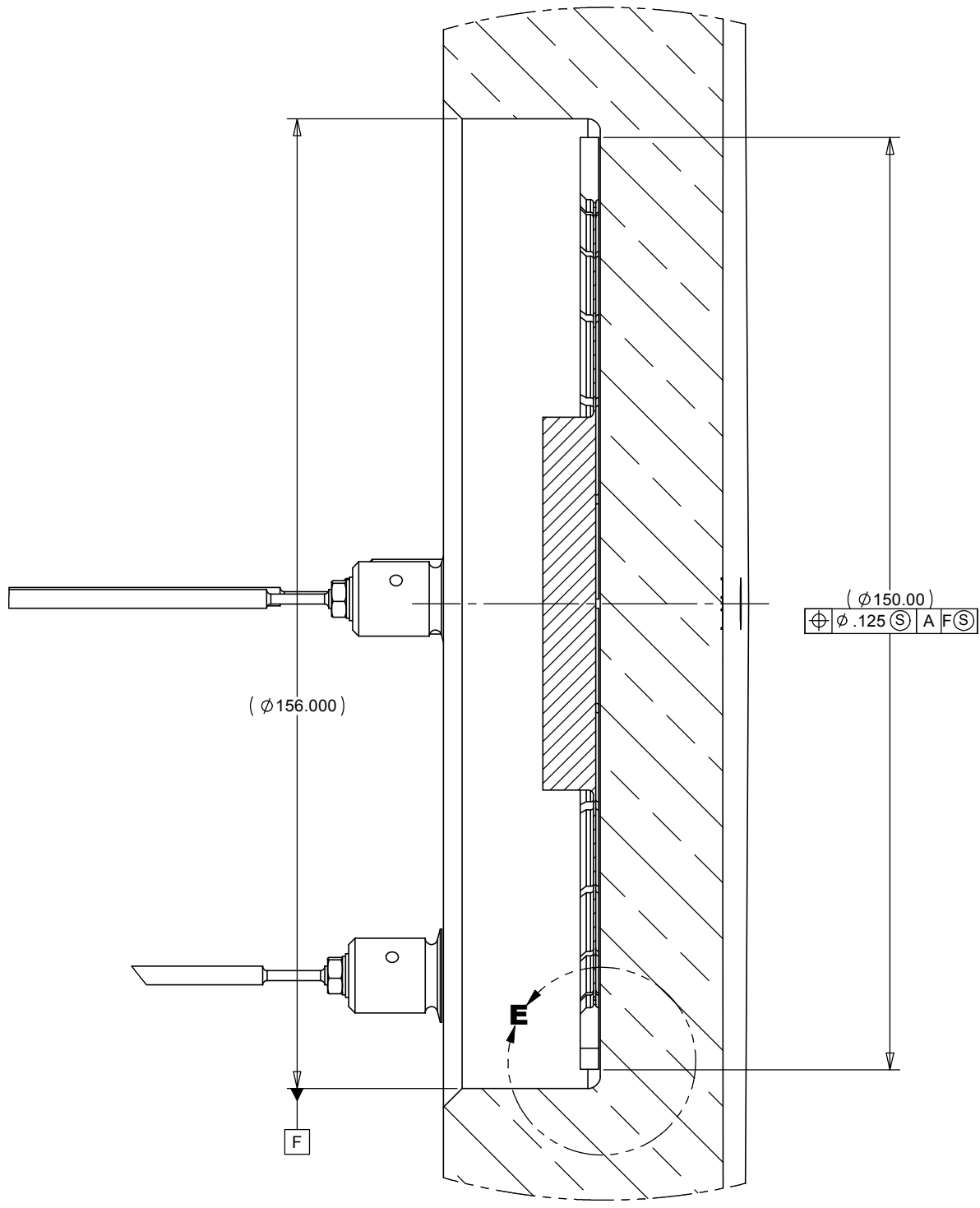
DWG. NO.	REV	SHEET NO.
280-TMT-01-11000	D	9 of 14
SCALE 1:4	SHEET SIZE D	

8 7 6 5 4 3 2 1

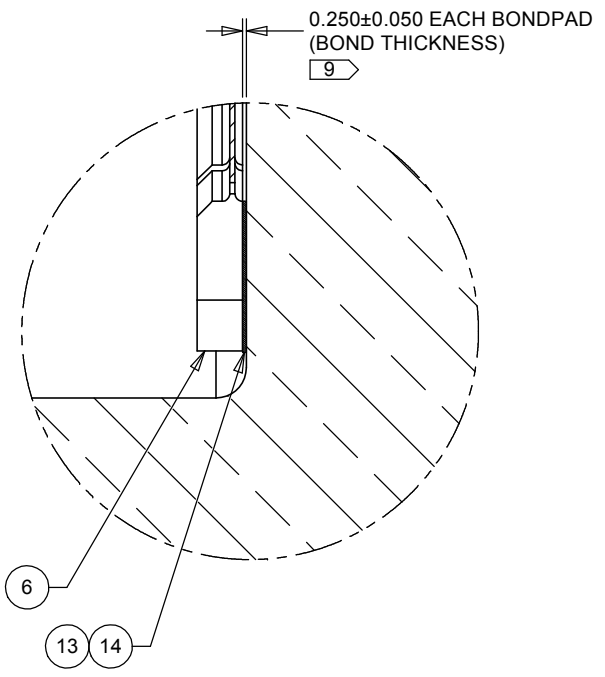
8 7 6 5 4 3 2 1

D
C
B
A

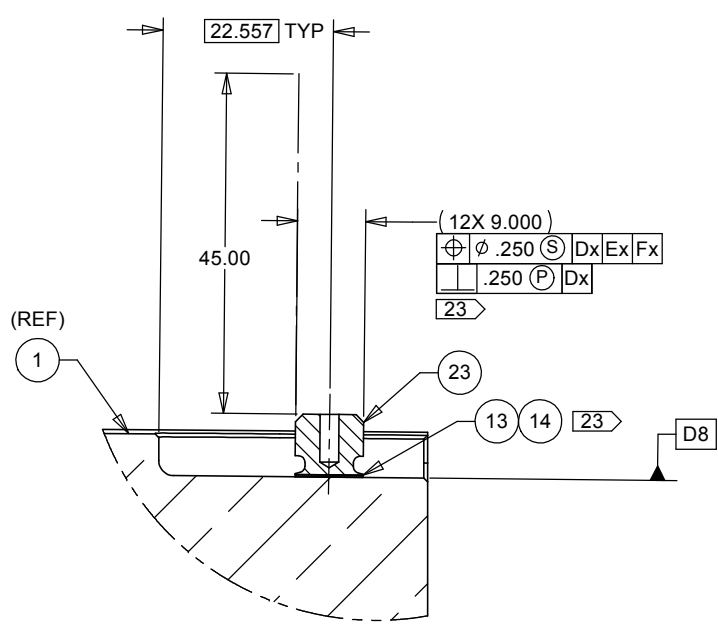
D
C
B
A



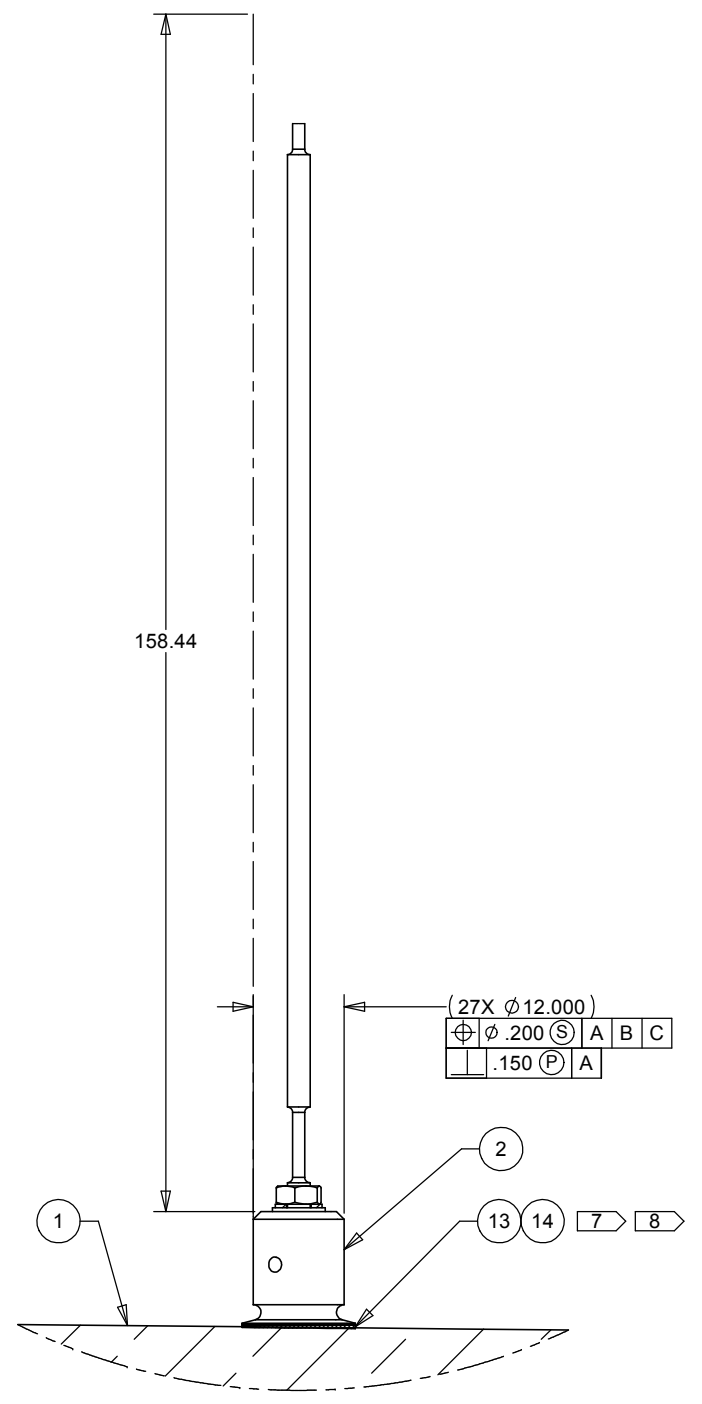
SECTION D-D
SHEET 9, ZONE C5



DETAIL E
SCALE 4:1



SECTION P-P
SHEET 9, ZONE B5
SHOWN ROTATED 90° CCW



SECTION C-C
SHEET 9, ZONE C3
TYP

**PRELIMINARY
NOT FOR
PRODUCTION**

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 10 of 14
SCALE 2:1	SHEET SIZE D	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D

C

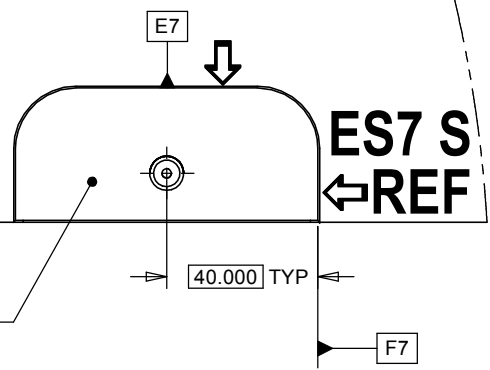
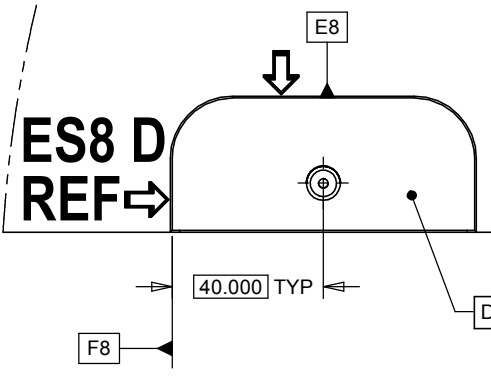
C

B

B

A

A



DETAIL R
SHEET 9, ZONE A4

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 11 of 14
SCALE 1:1	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

6
TABLE A
AXIAL FLEXURE 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
15	1.0+/-0.1	LUBRICATE MALE THREADS WITH ITEM 22
17	8.5+/-0.5	LUBRICATE MALE THREADS WITH ITEM 22
19	8.5+/-0.5	LUBRICATE MALE THREADS WITH ITEM 22
18	5.5+/-0.25	
19	15.3+/-0.5	

PRELIMINARY
NOT FOR
PRODUCTION

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 12 of 14
SCALE 2:1	SHEET SIZE D	

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 ANSI Y14.5M-1994
- 3. THIS DRAWING IS COMPLETE ONLY WHEN USED IN CONJUNCTION WITH THE POLISHED SEGMENT SPECIFICATION (TMT.OPT.SPE.07.002) AND THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044).
- 4. AS AN INPUT TO THE ASSEMBLY DESCRIBED BY THIS DRAWING, A SEGMENT SUPPORT KIT CONTAINING ITEMS 8 AND 9 (MOVING ASSEMBLY AND TOWER ASSEMBLY) SHALL BE SUPPLIED. THE SEGMENT SUPPORT WILL BE TUNED FOR A SPECIFIC SEGMENT TYPE (1 THROUGH 82). A SEGMENT OF A GIVEN TYPE MUST BE ASSEMBLED TO THE SEGMENT SUPPORT OF THE SAME TYPE.

D

D

5 THE DATUMS OF THE POLISHED MIRROR ASSEMBLY ARE DEFINED AS FOLLOWS:

DATUMS -A-, -B-, AND -C- REPRESENT THE OPTICAL SURFACE OF THE SEGMENT PRIOR TO MOUNTING ON AN SSA.

EACH UNMOUNTED SEGMENT SHALL HAVE A TEMPORARY COORDINATE SYSTEM PSAtemp DEFINED AS FOLLOWS:

THE ORIGIN OF PSAtemp 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-PSAtemp AXIS IS THE NORMAL TO THE OPTICAL SURFACE AT THE ORIGIN

X-PSAtemp AXIS SHALL BE DEFINED (i.e. CLOCKED) RELATIVE TO THE ASPHERIC SURFACE SHAPE AS DEFINED IN THE SEGMENTATION DATABASE

DATUM -A- SHALL BE THE X-PSAtemp - Y-PSAtemp PLANE

DATUM -B- SHALL BE THE X-PSAtemp - Z-PSAtemp PLANE

DATUM -C- SHALL BE THE Y-PSAtemp - Z-PSAtemp PLANE

S2 FIDUCIALS MAY BE USED TO CONSTRUCT DATUM SIMULATORS FOR DATUMS -A-, -B- AND -C-.

NOTE THAT DURING POST-MOUNTING FINAL FIGURING, THE OPTICAL SURFACE IS MODIFIED. AS SUCH, DATUMS -A-, -B- AND -C- APPLY ONLY DURING PMA ASSEMBLY AND DIMENSIONAL INSPECTION STEPS. AFTER FINAL FIGURING, OPTICAL SURFACE REQUIREMENTS APPLY RELATIVE TO THE TOWER DATUMS -D- AND -E-.

DATUM -E- SHALL BE DEFINED BY THE FLAT SURFACES OF THE THREE REGISTRATION BUSHINGS ON THE TOWER, AS IS SHOWN ON SH7.

C

C

DATUM -D- SHALL BE DEFINED BY THE FOLLOWING GEOMETRIC CONSTRUCTION:

- FOR EACH OF THE THREE REGISTRATION BUSHINGS, PROBE A LINE OF POINTS ON EACH SIDE OF THE V-GROOVE AT Z-PSA=+5MM RELATIVE TO THE PLANE OF DATUM E.
- FOR EACH OF THE THREE REGISTRATION BUSHINGS, PROJECT THE TWO PROBED LINES ONTO THE PLANE OF DATUM E.
- BISECT THE TWO PROJECTED LINES. THIS GEOMETRIC CONSTRUCTION REPRESENTS THE "MIDDLE" OF THE V-GROOVE.
- CONSTRUCT A CIRCLE OF BASIC DIMENSION 640MM (REF), WITH THREE POINTS SEPARATED BY A BASIC DIMENSION OF 120° (REF), AS SHOWN ON SH7.
- POSITION THE THREE "PERFECT" GEOMETRICALLY CONSTRUCTED POINTS SUCH THAT THEY LIE ON THE V-GROOVE BISECTING LINES
- CONSTRUCT A LINE NORMAL TO DATUM -E-, AND PASSING THROUGH THE CENTER POINT OF THE 640MM CIRCLE. THIS IS DATUM -D-.

6 AXIAL FLEXURE LOCATIONS SPECIFIED IN TABLE-A.

7 PREPARE THE BONDING SURFACES OF THE POLISHED MIRROR SEGMENT (ITEM 1) FOR BONDING, AND APPLY PRIMER (ITEM 14). BOND AXIAL FLEXURE ASSEMBLIES (ITEM 2) TO M1 POLISHED MIRROR SEGMENT (ITEM 1) CONVEX SURFACE USING ADHESIVE (ITEM 13) PER PROCEDURE TBD. AXIAL FLEXURES SHALL BE FIXTURED RELATIVE TO SEGMENT TO ACHIEVE THE TOLERANCES SHOWN.

8 AXIAL FLEXURE BONDLINE THICKNESS WILL VARY OVER BONDLINE DUE TO CURVATURE OF MIRROR BACK SURFACE. NOMINAL BONDLINE AT CENTERLINE OF FLEXURE SHALL BE 0.300+/-0.050mm.

9 PREPARE THE BONDING SURFACES OF THE POLISHED MIRROR SEGMENT (ITEM 1) FOR BONDING, AND APPLY PRIMER (ITEM 14). BOND CENTRAL DIAPHRAGM ASSEMBLY (ITEM 6) TO M1 POLISHED MIRROR SEGMENT (ITEM 1) USING ADHESIVE (ITEM 13) PER PROCEDURE TBD. USE BONDING FIXTURE TO CONTROL THE DIAPHRAGM AND BONDLINE TO THE TOLERANCES SHOWN.

10 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.

B

B

11 AFTER ASSEMBLY, VERIFY OVERALL HEIGHT FROM BASE OF TOWER TO MIRROR SURFACE AT X_{PSA}-Y_{PSA} ORIGIN. MEASUREMENT SHALL BE MADE WITH SSA LOCKED, MOUNTED TO THE INSPECTION STAND DESCRIBED IN NOTE 10. DIMENSION "h" SHALL BE 334.125+/- 0.200 mm.

12 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 10. POSITION OF THEORETICAL VERTICES IS GIVEN IN THE SEGMENTATION DATABASE (TMT.OPT.TEC.07.044). EDGES SHALL FALL WITHIN THE PROFILE TOLERANCE SPECIFIED.

13 THE PMA SHALL BE OPTICALLY TESTED USING AN OPTICAL TESTING FIXTURE. THIS FIXTURE SHALL INTERFACE TO THE PMA IN THE SAME MANNER AS THE ON-TELESCOPE INTERFACES. THAT IS, THE PMA SHALL BE LOCATED USING THE KINEMATIC REGISTRATION FEATURES ON THE TOWER, THE LOCKS SHALL BE UNLOCKED, AND THE PMA SHALL BE SUPPORTED IN TIP/TILT/PISTON BY ACTUATOR SIMULATORS.

THE FINAL ACCEPTANCE OF THE OPTICAL SURFACE SHALL BE PERFORMED WITH THE OPTIC LOCATED BY FEATURES ON THE TOWER. THAT IS, THE TOWER SHALL BE HELD ON A "STRONGBACK" WITH A KNOWN, STABLE LOCATION RELATIVE TO THE OPTICAL TEST SET. THE OPTIC SHALL BE TIPPED/TILTED SUCH THAT AT THE POINT WHERE DATUM -D- PIERCES THE OPTICAL SURFACE, THE OPTICAL SURFACE IS NORMAL TO DATUM -D-. IN AN ACCEPTED SEGMENT, THIS POINT BECOMES THE FINAL ORIGIN OF THE PSA COORDINATE SYSTEM. Z-PSAFINAL IS THEN, BY DEFINITION, COINCIDENT WITH DATUM -D-.

WITH THE PMA LOCKS LOCKED, THE DISTANCE FROM DATUM -E- TO A GIVEN ARM OF THE MOVING FRAME IS GIVEN BY H_{LOCKED}. NOTE THAT H_{LOCKED} MAY ASSUME A DIFFERENT VALUE FOR EACH ARM OF THE MOVING FRAME. IN THE ACCEPTANCE OPTICAL TEST, TIP/TILT ADJUSTMENTS OF EACH ACTUATOR SIMULATOR SHALL BE LIMITED, RELATIVE TO H_{LOCKED}, AS IS SHOWN IN SH2/ZONE C1.

BECAUSE THE SEGMENT ROTATION POINT IS BELOW THE OPTICAL SURFACE, TIP/TILT ADJUSTMENTS WILL RESULT IN DECENTERS. FINAL FIGURING WILL BE REQUIRED TO CORRECT THE SMALL OPTICAL CONSEQUENCES OF THIS DECENTRATION.

14 INTENTIONALLY LEFT BLANK.

15 FINISHED OPTICAL SURFACE SHAPE AND MEASUREMENT REQUIREMENTS ARE SPECIFIED IN THE SEGMENT SPECIFICATION (TMT.OPT.SPE.07.002).

A

A

16 WITH MOVING ASSEMBLY (ITEM 8) FIXTURED IN THE CORRECT AXIAL POSITION RELATIVE TO THE POLISHED MIRROR SEGMENT (ITEM 1), MEASURE THE GAP BETWEEN THE MOVING ASSEMBLY AND THE CENTRAL DIAPHRAGM (ITEM 6). INSTALL A CENTRAL DIAPHRAGM SHIM (ITEM 7) WITH A THICKNESS WITHIN +/-0.025mm OF THE MEASURED GAP.

**PRELIMINARY
NOT FOR
PRODUCTION**

DWG. NO.	REV	SHEET NO.
280-TMT-01-11000	D	13 of 14
SCALE 1:4	SHEET SIZE D	

8

7

6

5

4

3

2

1

8

7

6

5

4

3

2

1

NOTES UNLESS OTHERWISE SPECIFIED (CONTINUED)

- [17] LUBRICATE AND TORQUE FASTENERS PER TABLE B.
- [18] INDICATED PIECE PART MAY BE REMOVED TO ACCESS TOOLING FEATURES IN THE MOVING FRAME. IF REQUIRED, TORQUE FASTENERS PER TABLE B.
- [19] INDICATED PART MAY BE LOOSENED OR REMOVED TO INSTALL THE ACTUATOR SIMULATOR. IF REQUIRED, TORQUE FASTENERS PER TABLE B.
- [20] LUBRICATE BEARING SURFACES OF LOCK (ITEM 10) WITH LUBRICANT (ITEM 22). INSERT LOCK INTO ITS DESIGNATED HOLE IN THE TOWER. APPLY LOCTITE (ITEM 21) TO THREADS OF SET SCREW (ITEM 20) AND TIGHTEN SET SCREW UNTIL IT IS SNUG AGAINST THE LOCK. BACK THE SET SCREW OUT 1/8 TURN.
- 21. THE TEMPERATURE OF THE ADHESIVES USED TO BOND THE SEGMENT (ITEM 1) SHALL NOT EXCEED 80°C (TBR) AT ANY TIME.
- [22] VERIFY LENGTH OF DIAPHRAGM FASTENERS PRIOR TO INSTALLATION. FASTENER LENGTH SHALL NOT EXCEED 16.89mm. IMPROPER THREAD LENGTH MAY RESULT IN FASTENER-GLASS CONTACT.
- [23] PREPARE THE BONDING SURFACES OF THE POLISHED MIRROR SEGMENT (ITEM 1) FOR BONDING, AND APPLY PRIMER (ITEM 14). BOND EDGE SENSOR PUCKS (ITEM 23) TO M1 POLISHED MIRROR SEGMENT (ITEM 1) EDGE SENSOR POCKETS USING ADHESIVE (ITEM 13) PER PROCEDURE TBD. EDGE SENSOR PUCKS SHALL BE FIXTURED RELATIVE TO EDGE SENSOR DATUM FACES Dx, Ex AND Fx (WHERE "x" IS THE EDGE SENSOR NUMBER, AND Fx IS THE FACE NEAREST THE MIRROR VERTEX), TO ACHIEVE THE TOLERANCES SHOWN. EACH EDGE SENSOR POCKET HAS UNIQUE Dx, Ex AND Fx DATUM FACES. BONDLINER THICKNESS SHALL BE 0.300+/-0.050mm.

D

D

C

C

B

B

A

A

**PRELIMINARY
NOT FOR
PRODUCTION**

DWG. NO. 280-TMT-01-11000	REV D	SHEET NO. 14 of 14
SCALE 1:4	SHEET SIZE D	

8

7

6

5

4

3

2

1