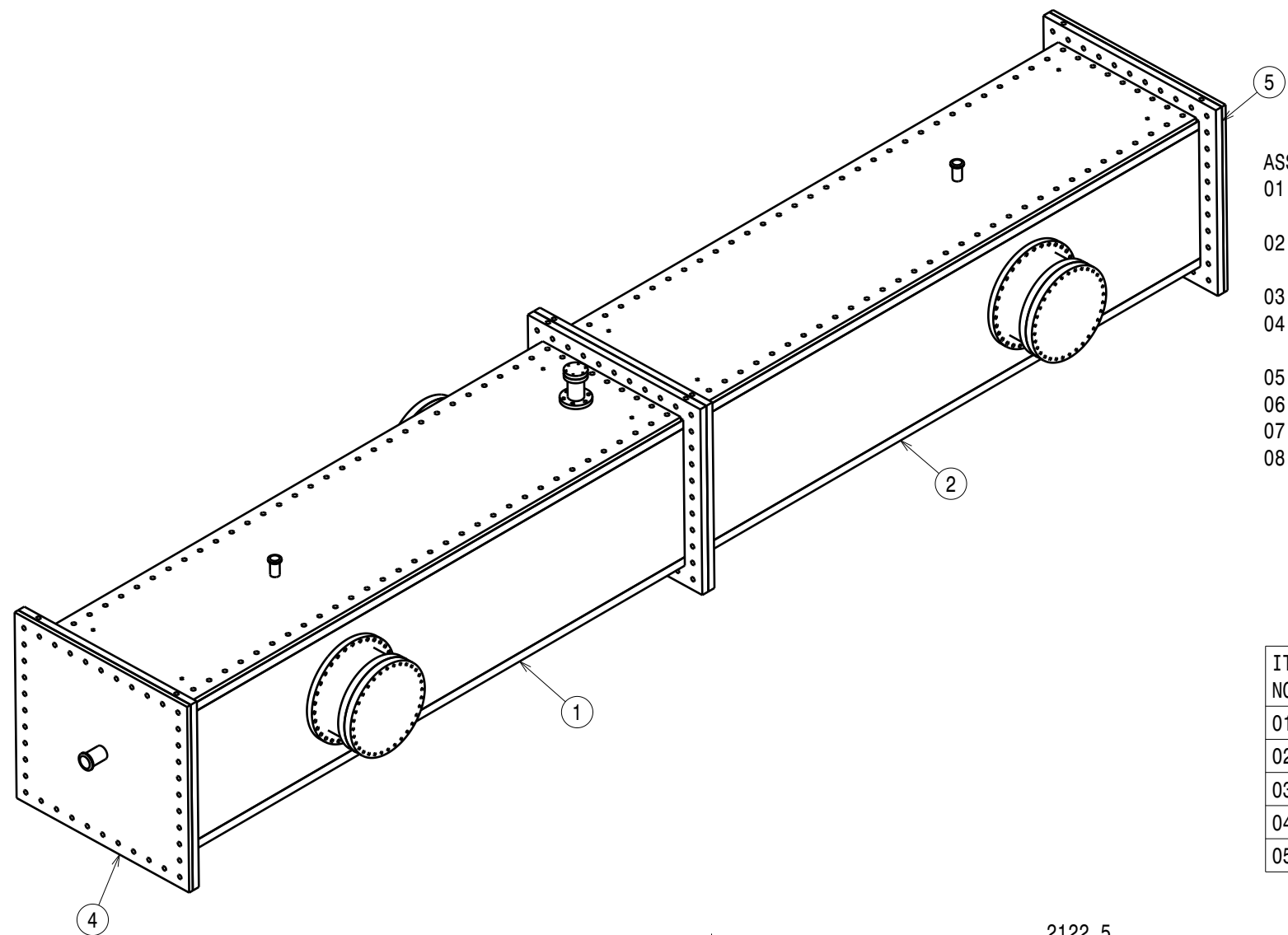


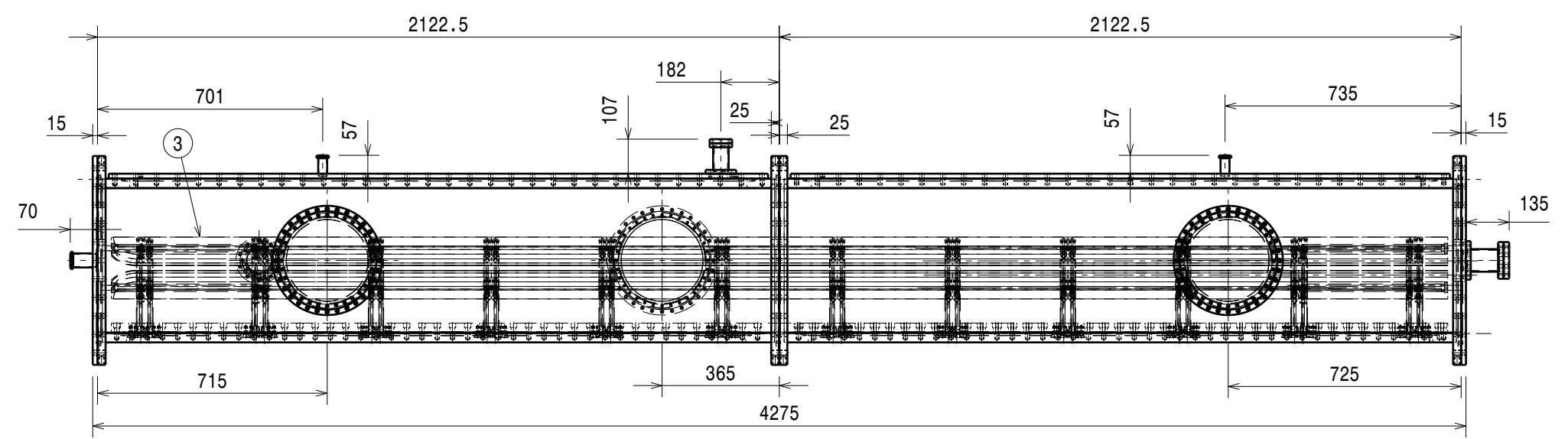
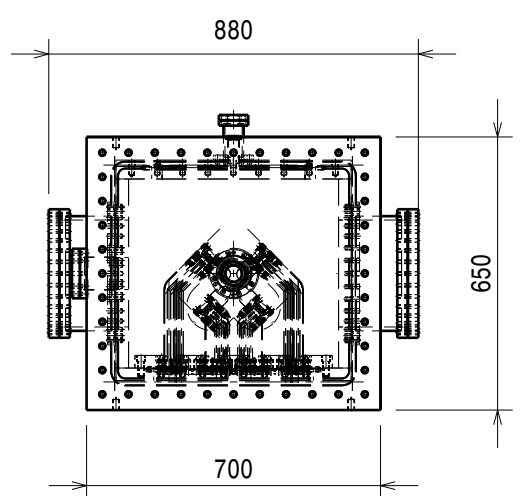
This file has been cleaned of potential threats.

To view the reconstructed contents, please SCROLL DOWN to next page.



- ASSEMBLY NOTES:-
- ENOUGH CARE SHALL BE TAKEN TO AVOID DAMAGE (DENT AND SCRATCHES) DURING HANDLING AND STORING OF RAW MATERIAL, SEMI FINISHED PRODUCT AND FINISHED PRODUCTS.
 - MATERIALS, WELDING PROCEDURES, QUALIFICATION REQUIREMENTS, TESTING AND EXAMINATION ETC., SHALL BE AS PER RELEVANT APPROVED SPECIFICATIONS.
 - ABRASIVE SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED.
 - AFTER SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED PROCEDURE. BE CARRIED AS PER APPROVED PROCEDURE.
 - ALL SHARP CORNER SHALL BE ROUNDED OFF.
 - USE FIXTURES DURING WELDING, MACHINING AND HEAT TREATMENT.
 - EDGE PREPARATION OF WELD JOINT BETWEEN END FLANGE AND SIDE PLATE, TOP PLATE, BOTTOM PLATE.
 - AFTER SUCCESSFUL TRAIL ASSEMBLY, ACCEPTANCE TEST AND BEFORE REMOVAL OF ASSEMBLY, THE REFERENCE POINT, CO-ORDINATES, MATCH MARKING BETWEEN ROD, STEM, BASE PLATE AND VACUUM VESSEL SHALL BE DONE AS REFERENCE FOR SITE ASSEMBLY.

ITEM NO.	PART NAME	MATERIAL	DESCRIPTION	QTY
01	VACUUM VESSEL -1	AS PER DRAWING	DRG.#19030002	01
02	VACUUM VESSEL -2	AS PER DRAWING	DRG.#19030003	01
03	ROD STEM AND BASE PLATE ASSEMBLY	AS PER DRAWING	DRG.#19020001	01
04	END FLANGE COVER-1	AS PER DRAWING	DRG.#19030007	01
05	END FLANGE COVER-2	AS PER DRAWING	DRG.#19030008	01



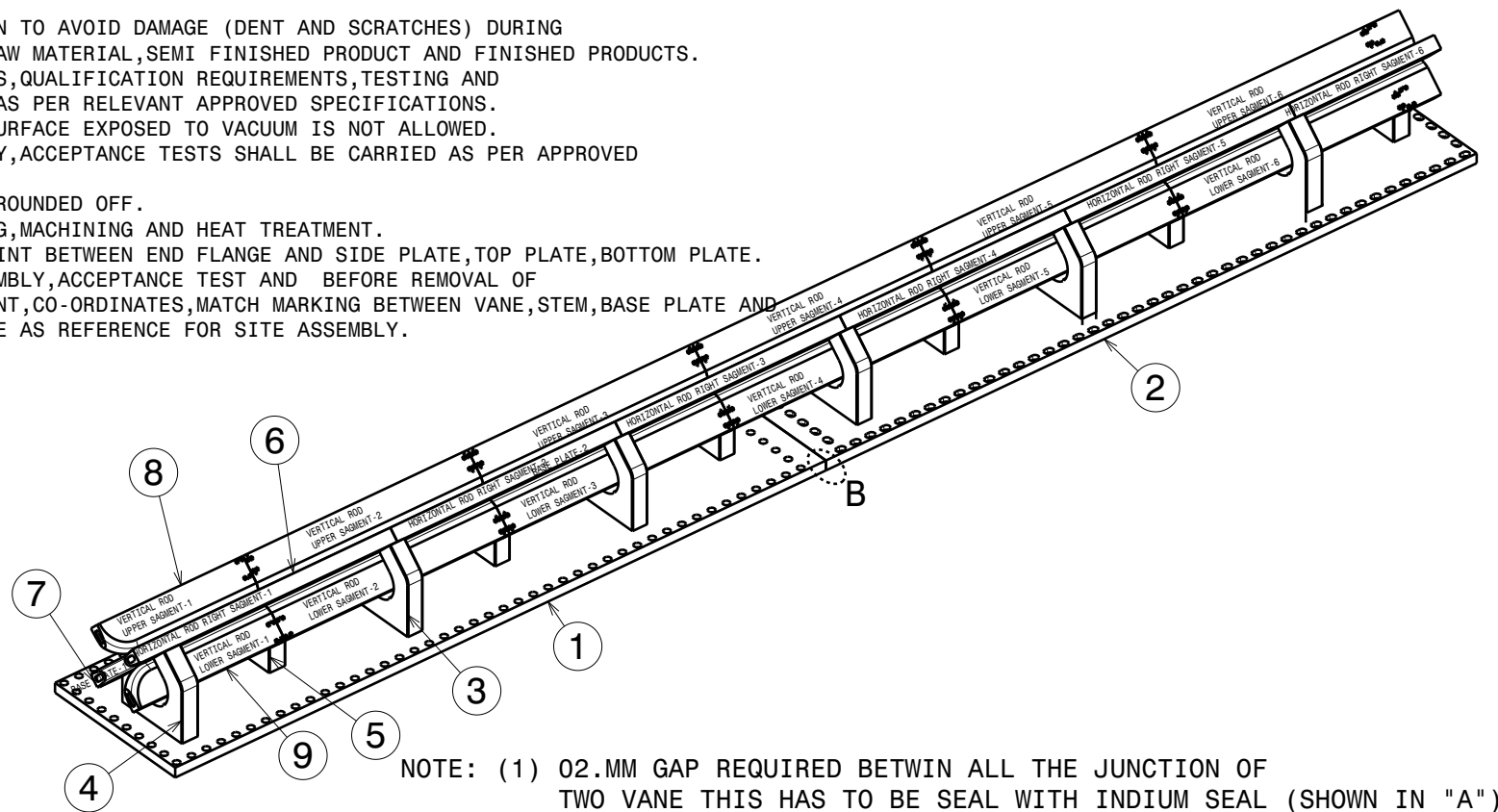
DRG.NO				REVISION COLUMN				RFQ GROUP:										
▽ 8-25				▽▽ 1.6-8				▽▽▽ 0.025-1.6				▽▽▽▽ < 0.025				ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED		
CO-ORDINATED BY				REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	SCALE	1:1	DATE	TITLE					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										DRAWN	K.R.R.	01/08/17	RFQ ASSEMBLY					
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH	UPTO 6	6-30	30-120	120-315		CHECKED	PKC		REF DRG NO:					
UPTO 10	10-50	50-120	OVER 120-400	OR DIA	+0.1	+0.2	+0.3	+0.5	APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19010001		REV 0			
+1°	+0°-30'	+0°-20'	+0°-10'										SHEET 1 OF 1					



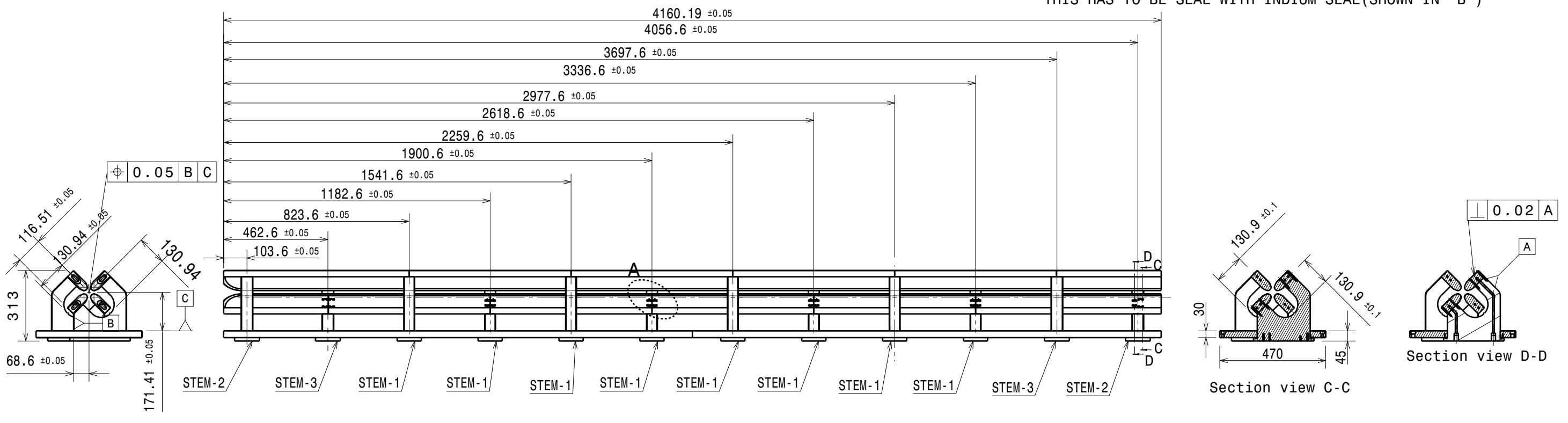
ITEM NO.	PART NAME	MATERIAL	DESCRIPTION	QTY
01	BASE PLATE-1	AS PER DRG.	DRG.#.19020004	01
02	BASE PLATE-2	AS PER DRG.	DRG.#.19020003	01
03	STEM-1	AS PER DRG.	DRG.#.19020007	08
04	STEM-2	AS PER DRG.	DRG.#.19020008	02
05	STEM-3	AS PER DRG.	DRG.#.19020009	02
06	HORIZONTAL ROD RIGHT(1 TO 6)	AS PER DRG.	DRG.#.19020017 TO 19020022	06
07	HORIZONTAL ROD LEFT(1 TO 6)	AS PER DRG.	DRG.#.19020011 TO 19020016	06
08	VERTICAL ROD UPPER(1 TO 6)	AS PER DRG.	DRG.#.19020030 TO 19020036	06
09	VERTICAL ROD LOWER(1 TO 6)	AS PER DRG.	DRG.#.19020023 TO 19020029	06
10	1/8"-28 BSPx25L ALLEN BOLTS WITH WASHER	SS304	BASE PLATE TO STEM	160
11	M5x35L BOLTS WITH WASHERS	SS304	STEM TO BASE PLATE,VANE TO STEM	100
12	Ø5 DOWEL PIN	SS304	STEM TO BASE PLATE	30
13	Ø5 DOWEL PIN	SS304	ROD TO STEM	55
14	DOUBTY SEAL	VITON WITH SS RING	STEM TO VANE	50

ASSEMBLY NOTES:-

- ENOUGH CARE SHALL BE TAKEN TO AVOID DAMAGE (DENT AND SCRATCHES) DURING HANDLING AND STORING OF RAW MATERIAL, SEMI FINISHED PRODUCT AND FINISHED PRODUCTS.
- MATERIALS, WELDING PROCEDURES, QUALIFICATION REQUIREMENTS, TESTING AND EXAMINATION ETC., SHALL BE AS PER RELEVANT APPROVED SPECIFICATIONS.
- ABRASIVE CLEANING OF THE SURFACE EXPOSED TO VACUUM IS NOT ALLOWED.
- AFTER SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED PROCEDURE.
- ALL SHARP CORNER SHALL BE ROUNDED OFF.
- USE FIXTURES DURING WELDING, MACHINING AND HEAT TREATMENT.
- EDGE PREPARATION OF WELD JOINT BETWEEN END FLANGE AND SIDE PLATE, TOP PLATE, BOTTOM PLATE.
- AFTER SUCCESSFUL TRAIL ASSEMBLY, ACCEPTANCE TEST AND BEFORE REMOVAL OF ASSEMBLY, THE REFERENCE POINT, CO-ORDINATES, MATCH MARKING BETWEEN VANE, STEM, BASE PLATE AND VACUUM VESSEL SHALL BE DONE AS REFERENCE FOR SITE ASSEMBLY.

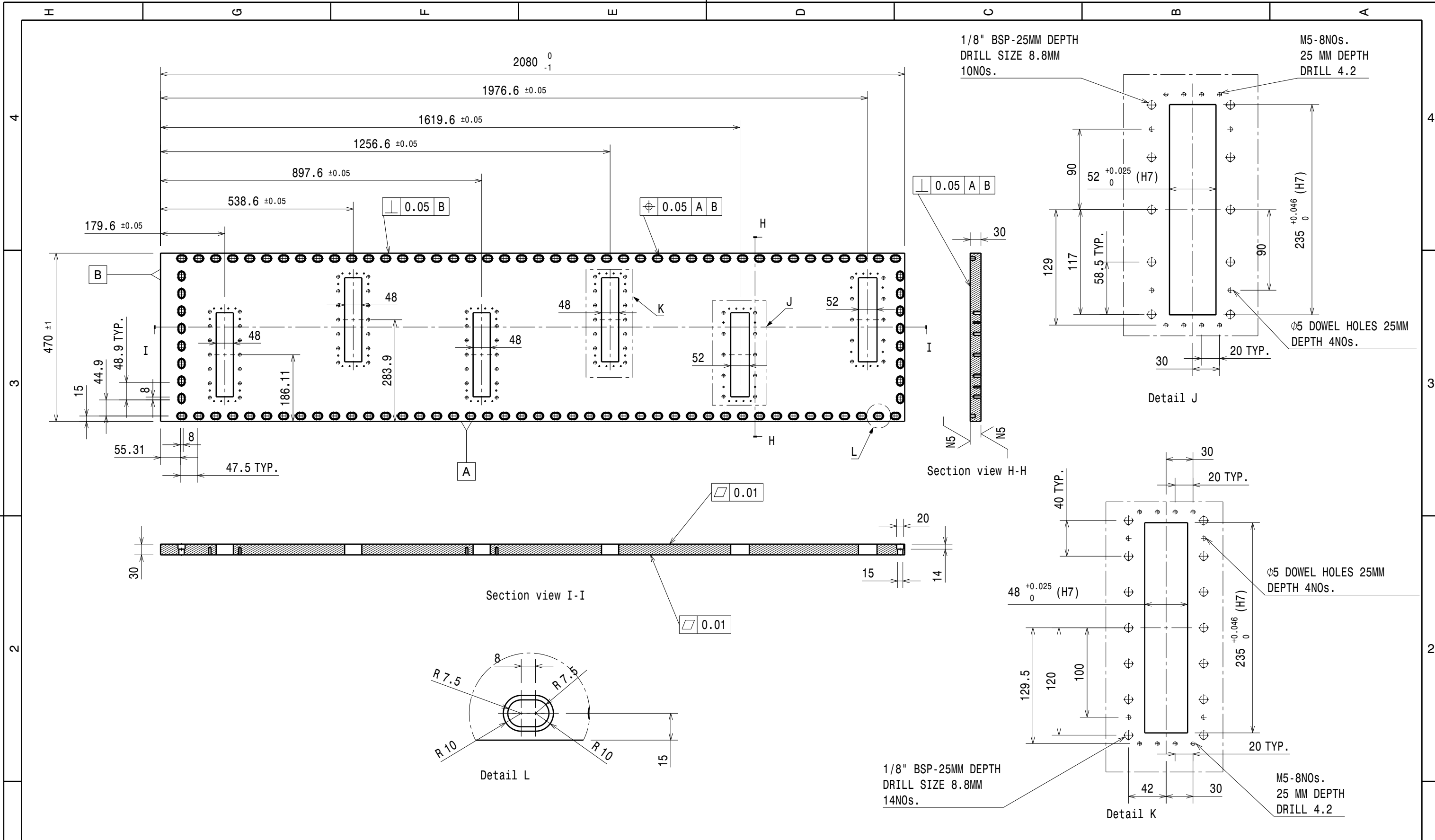


NOTE: (1) 02.MM GAP REQUIRED BETWEEN ALL THE JUNCTION OF TWO VANE THIS HAS TO BE SEAL WITH INDIUM SEAL (SHOWN IN "A")
(2) 2MM GAP REQUIRED BETWEEN TWO BASE PLATE THIS HAS TO BE SEAL WITH INDIUM SEAL (SHOWN IN "B")



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN						RFQ. GROUP:			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	K.R.R.	26.12.17	ROD STEM BASE PLATE ASSEMBLY
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	PKC		REF DRG NO:
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	JMK		REV 0
											DRG.NO	IPR/17/A3/RFQ/19020001	SHEET 1 OF 1	

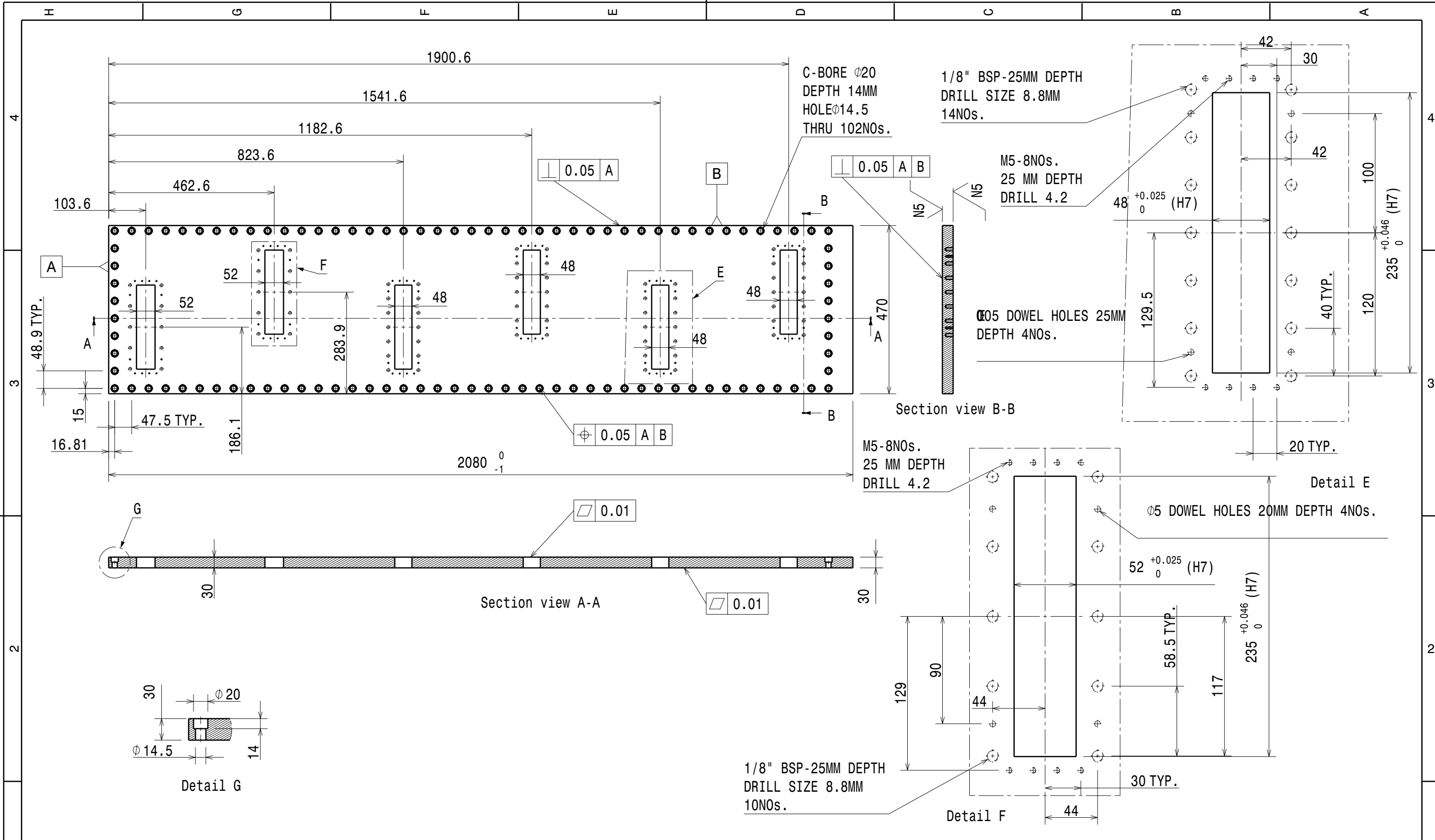
Institute for Plasma Research
प्लाज्मा अनुसंधान संस्थान
Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS				
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH
UPTO 10	10-50	50-120	OVER 120-400	UPTO 6
+1°	+0°-30'	+0°-20'	+0°-10'	OR DIA
				+0.1
				+0.2
				+0.3
				+0.5

REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED

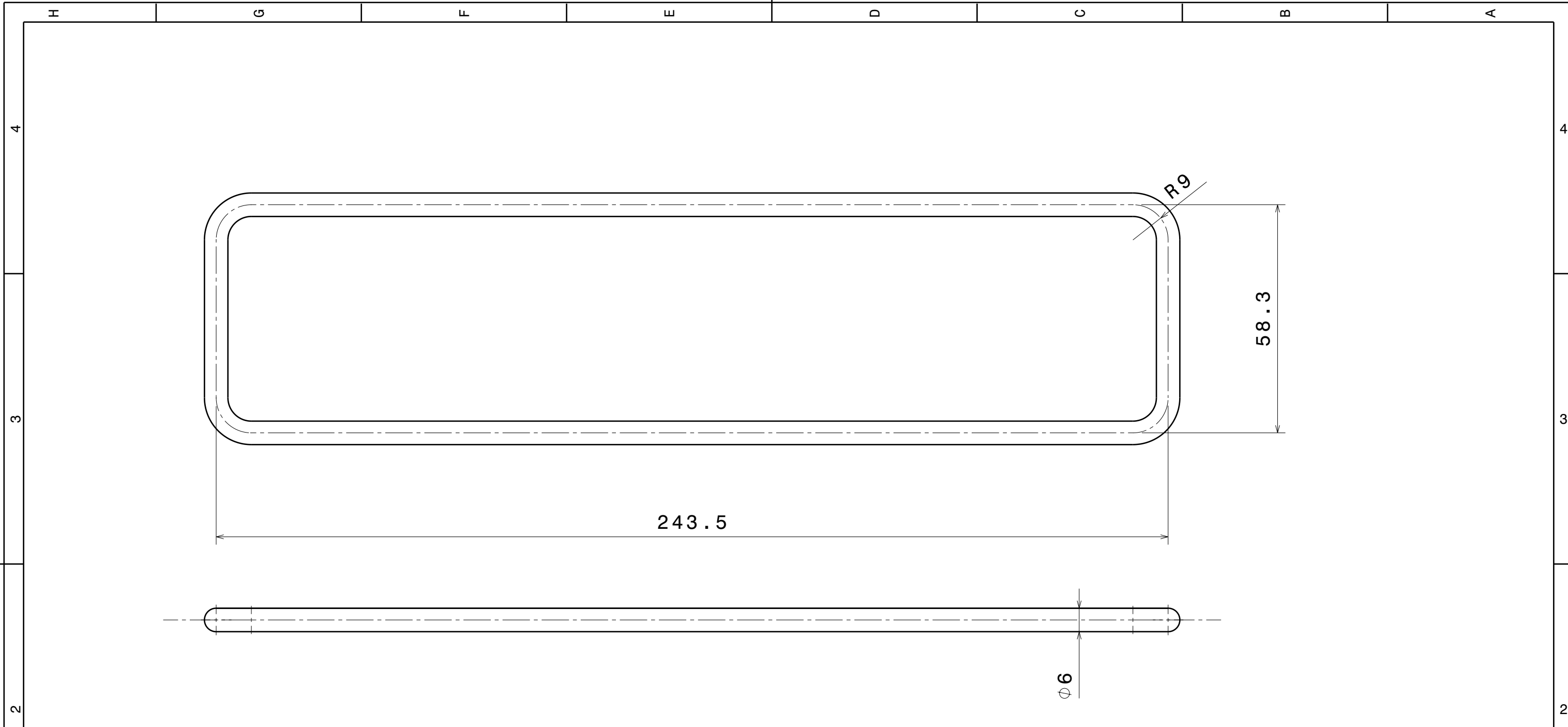
RFQ GROUP:			Institute for Plasma Research પ્લાઝ્મા અનુસંધાન સંસ્થાન Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)		
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			TITLE BASE PLATE - 2		
SCALE	1:1	DATE	REF DRG NO:		
DRAWN	K.R.R.	26.12.17	REV 0		
CHECKED	PKC		DRG.NO IPR/17/A3/RFQ/19020003		
APPROVED	JMK		SHEET 1 OF 1		




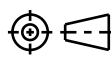
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS				
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH
UPTO 10	10-50	50-120	OVER 120-400	UPTO 6
+1°	+0°-30'	+0°-20'	+0°-10'	OR DIA
				+0.1
				+0.2
				+0.3
				+0.5

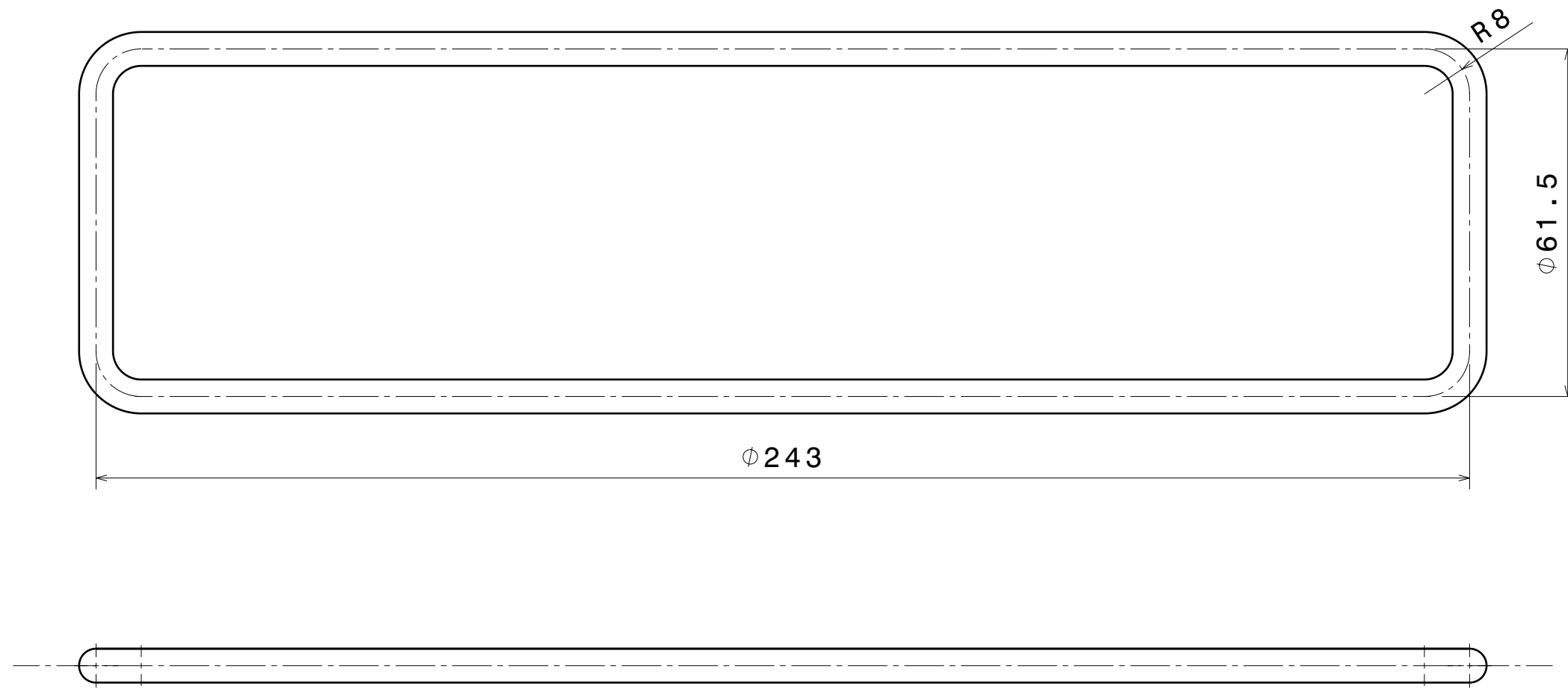
REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED

RFQ GROUP:			Institute for Plasma Research		
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			प्लाज्मा अनुसंधान संस्थान		
SCALE 1:1			Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)		
DATE 26.12.17			TITLE		
DRAWN K.R.R.			BASE PLATE - 1		
CHECKED PKC			REF DRG NO:		REV 0
APPROVED JMK			DRG.NO		SHEET 1 OF 1
			IPR/17/A3/RFQ/19020004		




NOTE: "O" RING SHOULD MATCH WITH GROOVE.
DRAWING IS FOR REFERENCE ONLY

DRG.NO		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED		ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:1	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	01.01.18	 O-RING 5 FOR STEM-1	
UPTO 10	10-50	50-120	OVER 120-400									CHECKED	PKC			REF DRG NO:
+1°	+0°-30'	+0°-20'	+0°-10'		+0.1	+0.2	+0.3	+0.5				APPROVED	JMK		REV 0	
DRG.NO		IPR/17/A3/RFQ/19020005			SHEET 1 OF 1											

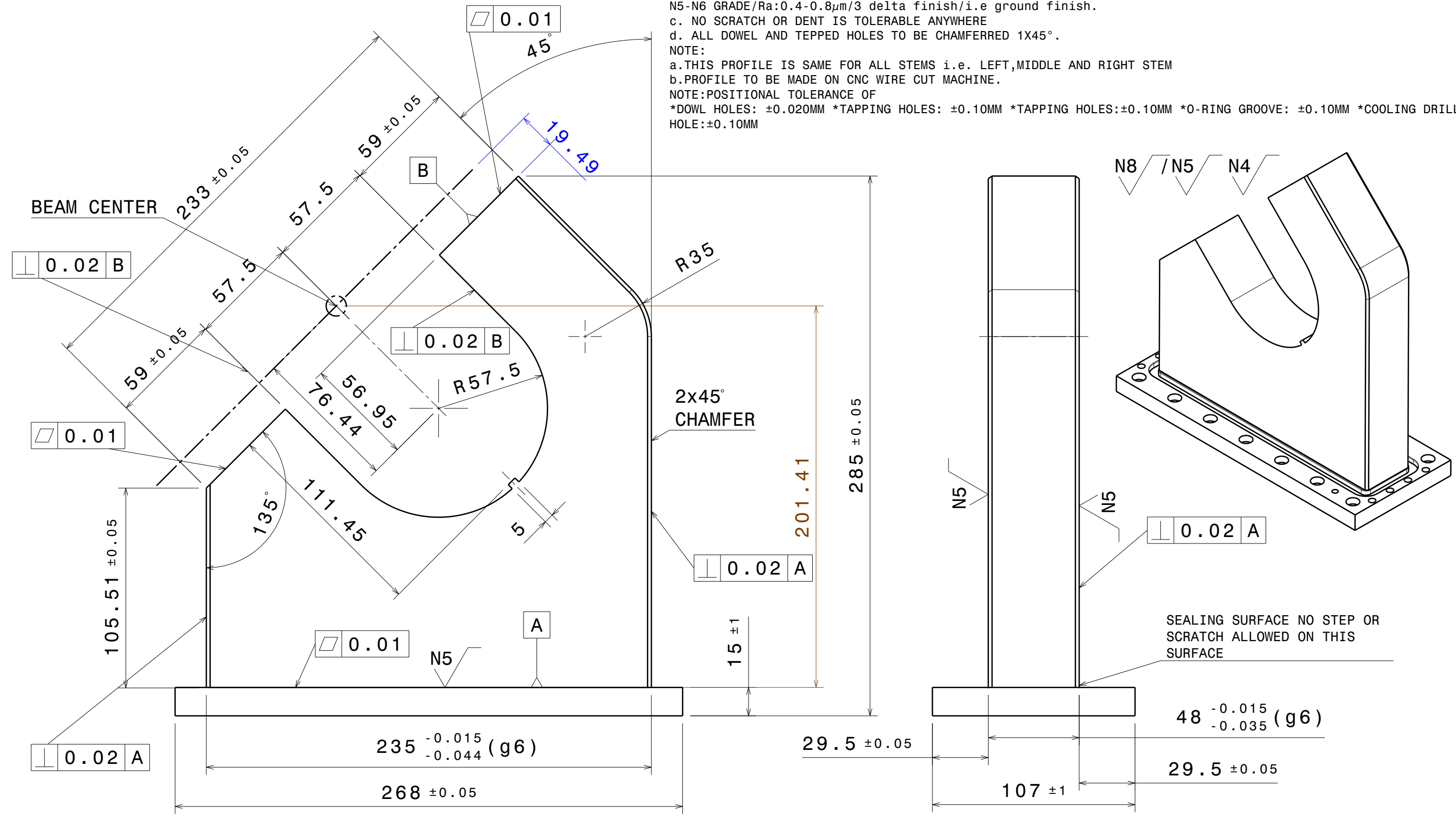



NOTE: "O" RING SHOULD MATCH WITH GROOVE.
DRAWING IS FOR REFERENCE ONLY

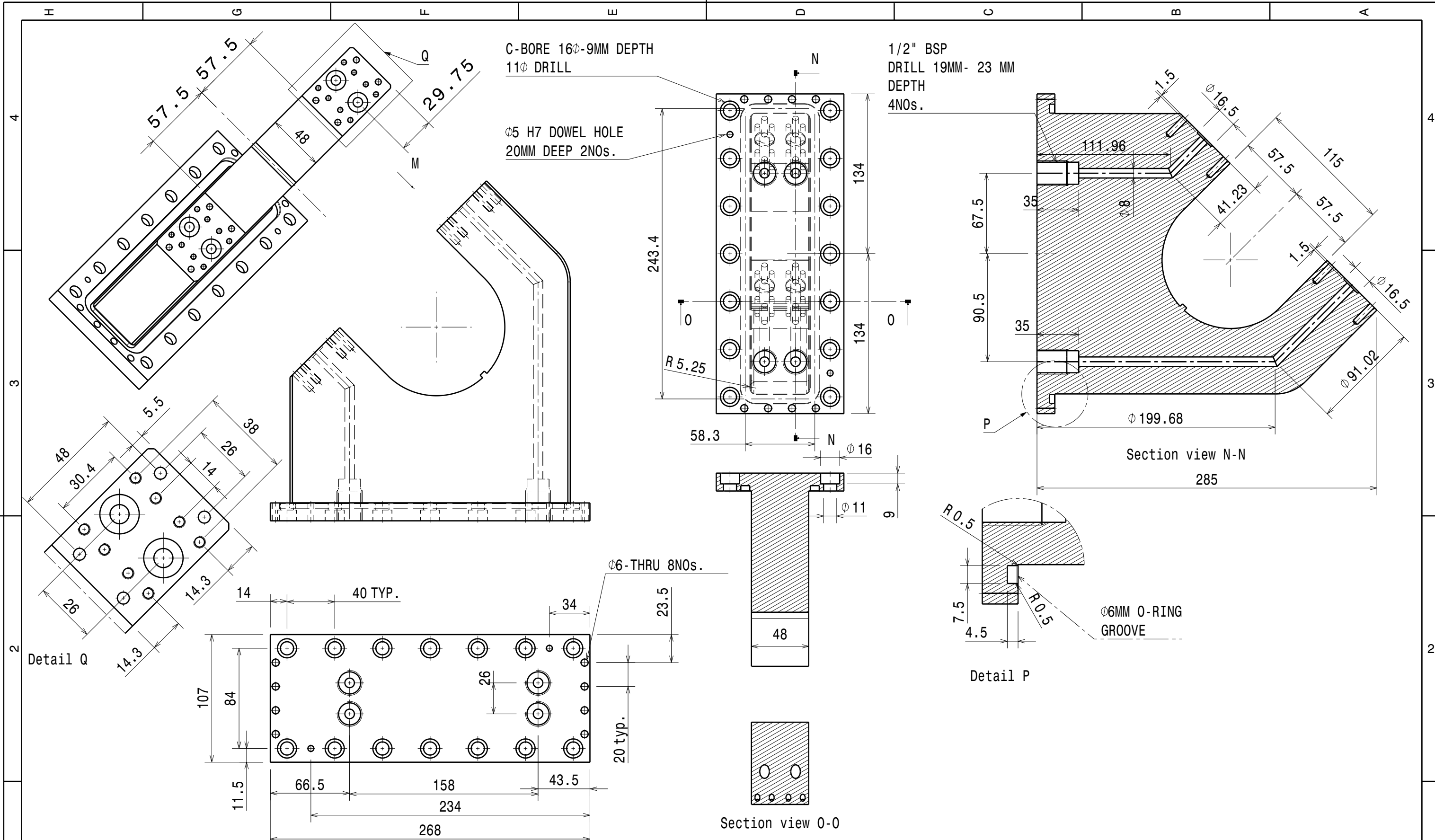
DRG.NO		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED			ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:1	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	01.01.18	O-RING 6 FOR STEM-2 AND STEM-3	
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC			REF DRG NO:
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020006	SHEET 1 OF 1



ALL DIMENSIONS ARE IN MM

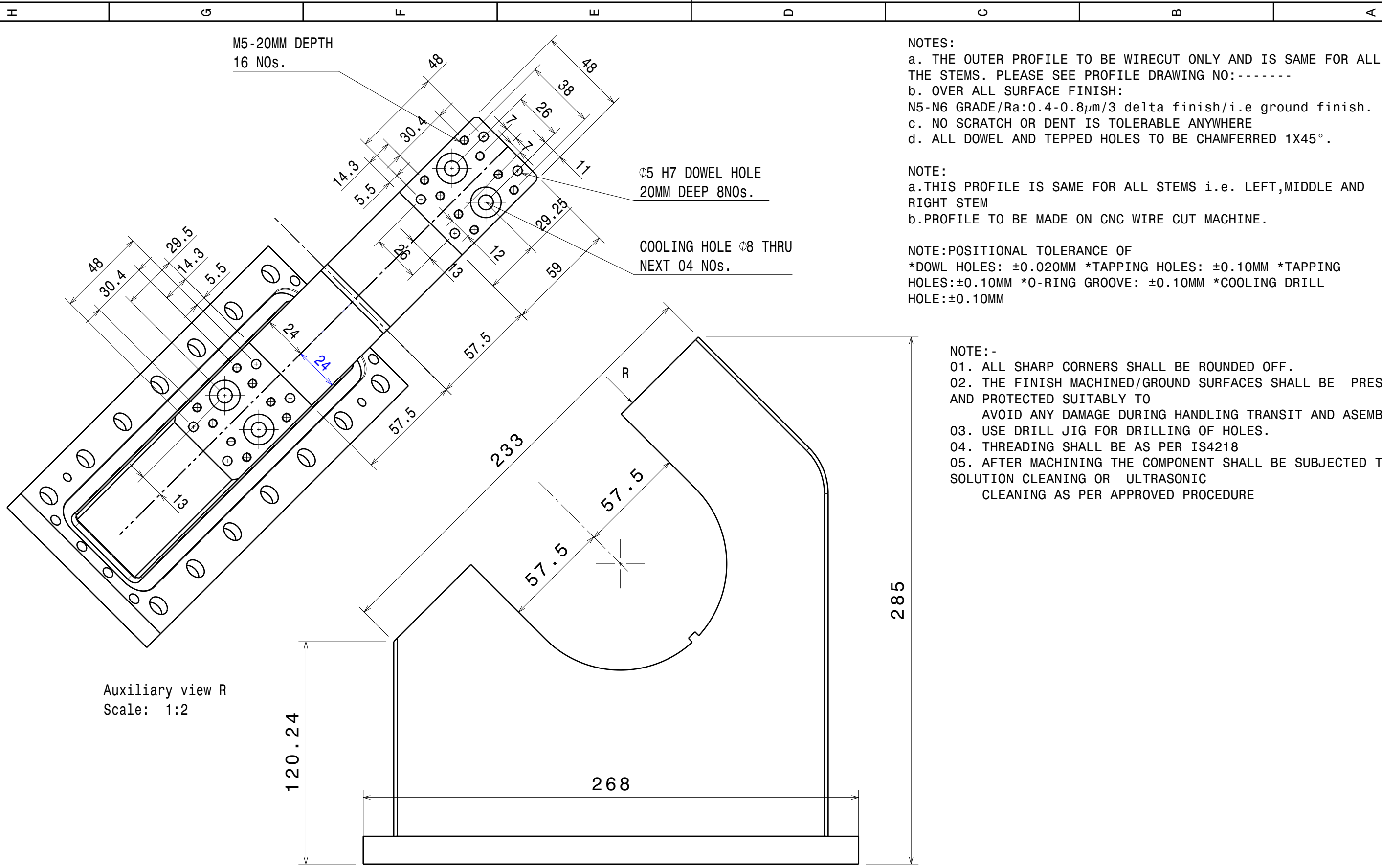
NOTES:
 a. THE OUTER PROFILE TO BE WIRECUT ONLY AND IS SAME FOR ALL THE STEMS. PLEASE SEE PROFILE DRAWING NO:-----
 b. OVER ALL SURFACE FINISH:
 N5-N6 GRADE/Ra:0.4-0.8µm/3 delta finish/i.e ground finish.
 c. NO SCRATCH OR DENT IS TOLERABLE ANYWHERE
 d. ALL DOWEL AND TEPPED HOLES TO BE CHAMFERED 1X45°.
 NOTE:
 a. THIS PROFILE IS SAME FOR ALL STEMS i.e. LEFT, MIDDLE AND RIGHT STEM
 b. PROFILE TO BE MADE ON CNC WIRE CUT MACHINE.
 NOTE: POSITIONAL TOLERANCE OF
 *DOWL HOLES: ±0.020MM *TAPPING HOLES: ±0.10MM *TAPPING HOLES: ±0.10MM *O-RING GROOVE: ±0.10MM *COOLING DRILL HOLE: ±0.10MM



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED		ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	K.R.R.	26.12.17	STEM -1 MACHINING DETAILS
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	PKC		REF DRG NO:
+1°	+0°-30'	+0°-20'	+0°-10'		+0.1	+0.2	+0.3	+0.5			APPROVED	JMK		REV 0
													DRG.NO	IPR/17/A3/RFQ/19020007
														SHEET 1 OF 3



DRG.NO	∇ 8-25	$\nabla\nabla$ 1.6-8	$\nabla\nabla\nabla$ 0.025-1.6	$\nabla\nabla\nabla\nabla$ < 0.025	REVISION COLUMN					RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)	
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED		TITLE
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	DATE	 STEM -1 MACHINING DETAILS
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH	UPTO 6	6-30	30-120	120-315			DRAWN	DATE	
UPTO 10	10-50	50-120	OVER 120-400	OR DIA	+0.1	+0.2	+0.3	+0.5			CHECKED	DATE	
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	DATE	
											REF DRG NO:	REV 0	
											DRG.NO	IPR/17/A3/RFQ/19020007	SHEET 2 OF 3




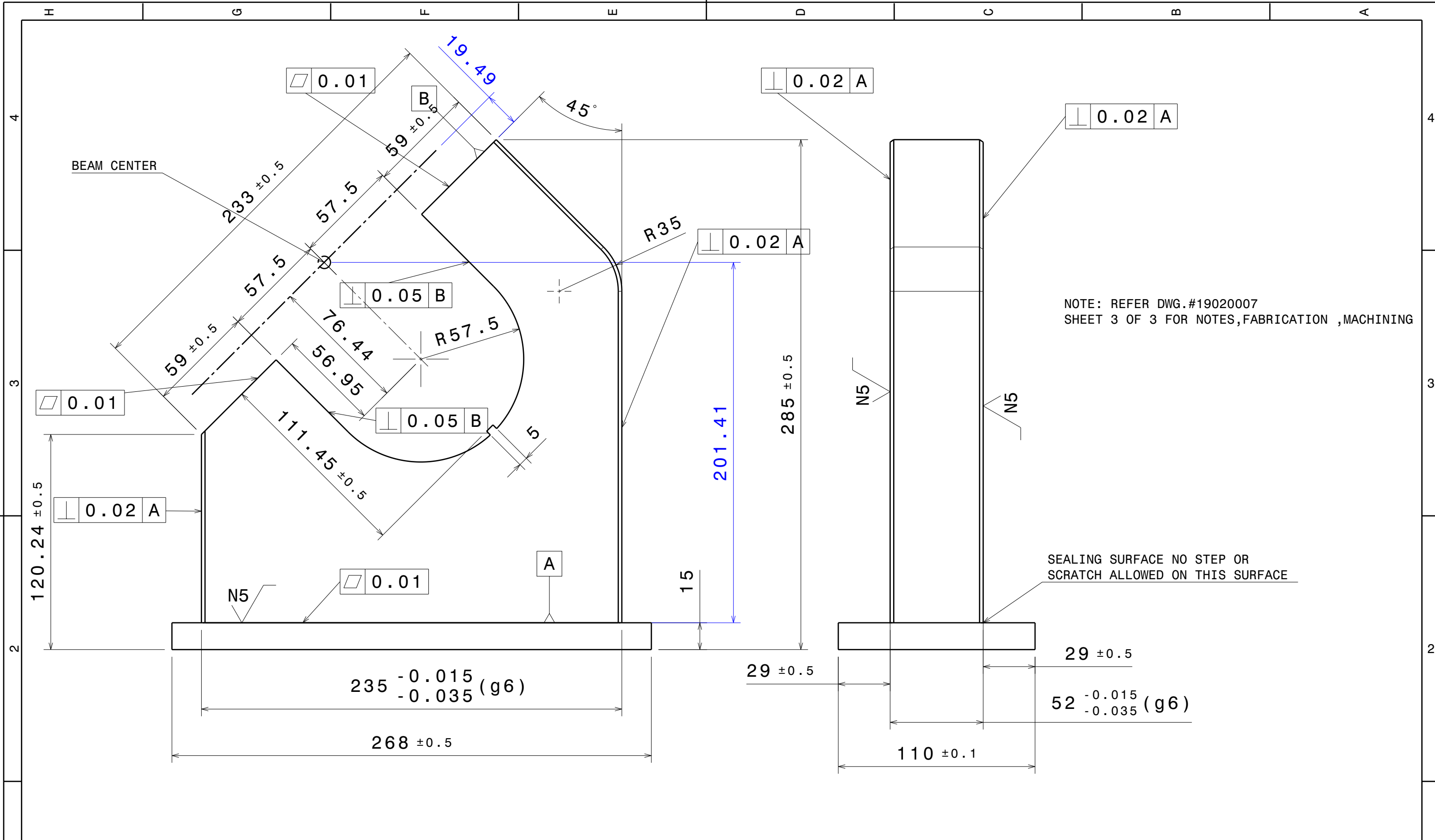
NOTES:
a. THE OUTER PROFILE TO BE WIRECUT ONLY AND IS SAME FOR ALL THE STEMS. PLEASE SEE PROFILE DRAWING NO:-----
b. OVER ALL SURFACE FINISH:
N5-N6 GRADE/Ra:0.4-0.8µm/3 delta finish/i.e ground finish.
c. NO SCRATCH OR DENT IS TOLERABLE ANYWHERE
d. ALL DOWEL AND TAPPED HOLES TO BE CHAMFERRED 1X45°.

NOTE:
a. THIS PROFILE IS SAME FOR ALL STEMS i.e. LEFT, MIDDLE AND RIGHT STEM
b. PROFILE TO BE MADE ON CNC WIRE CUT MACHINE.

NOTE: POSITIONAL TOLERANCE OF
*DOWL HOLES: ±0.020MM *TAPPING HOLES: ±0.10MM *TAPPING HOLES: ±0.10MM *O-RING GROOVE: ±0.10MM *COOLING DRILL HOLE: ±0.10MM

NOTE:-
01. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
02. THE FINISH MACHINED/GROUND SURFACES SHALL BE PRESERVED AND PROTECTED SUITABLY TO AVOID ANY DAMAGE DURING HANDLING TRANSIT AND ASSEMBLY
03. USE DRILL JIG FOR DRILLING OF HOLES.
04. THREADING SHALL BE AS PER IS4218
05. AFTER MACHINING THE COMPONENT SHALL BE SUBJECTED TO SOLUTION CLEANING OR ULTRASONIC CLEANING AS PER APPROVED PROCEDURE

DRG.NO		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED			ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:1	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	26.12.17	STEM -1 MACHINING DETAILS		
UPTO 10	10-50	50-120	OVER 120-400									CHECKED	PKC			REF DRG NO: 19020007	REV 0
+1°	+0°-30'	+0°-20'	+0°-10'		+0.1	+0.2	+0.3	+0.5				APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020007	SHEET 3 OF 3




DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
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CO-ORDINATED BY	
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MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS				
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA
UPTO 10	10-50	50-120	OVER 120-400	
+1°	+0°-30'	+0°-20'	+0°-10'	UPTO 6 +0.1
				6-30 +0.2
				30-120 +0.3
				120-315 +0.5

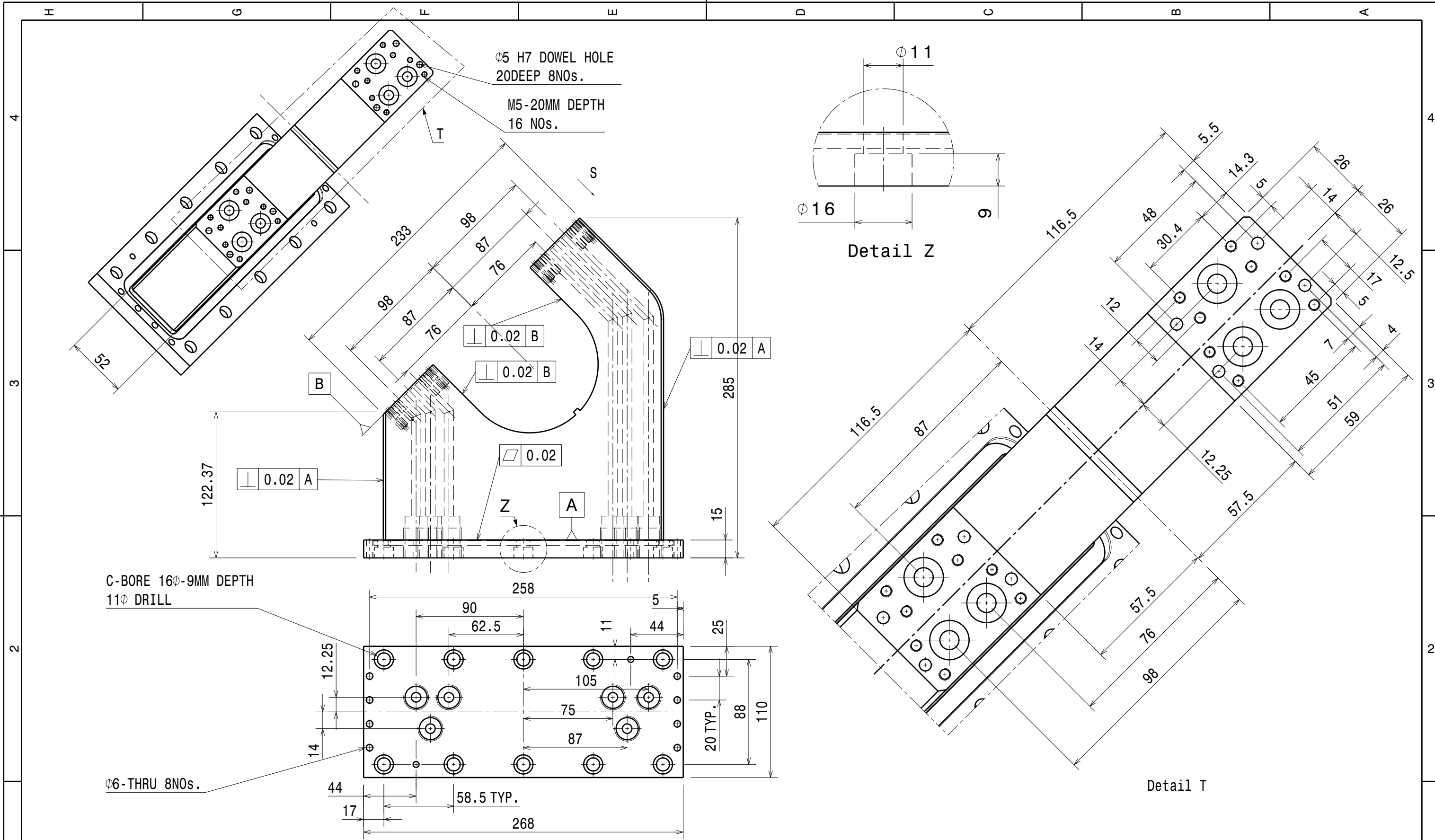
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REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED


RFQ GROUP:		
SCALE	1:1	DATE
DRAWN	K.R.R.	26.12.17
CHECKED	PKC	
APPROVED	JMK	

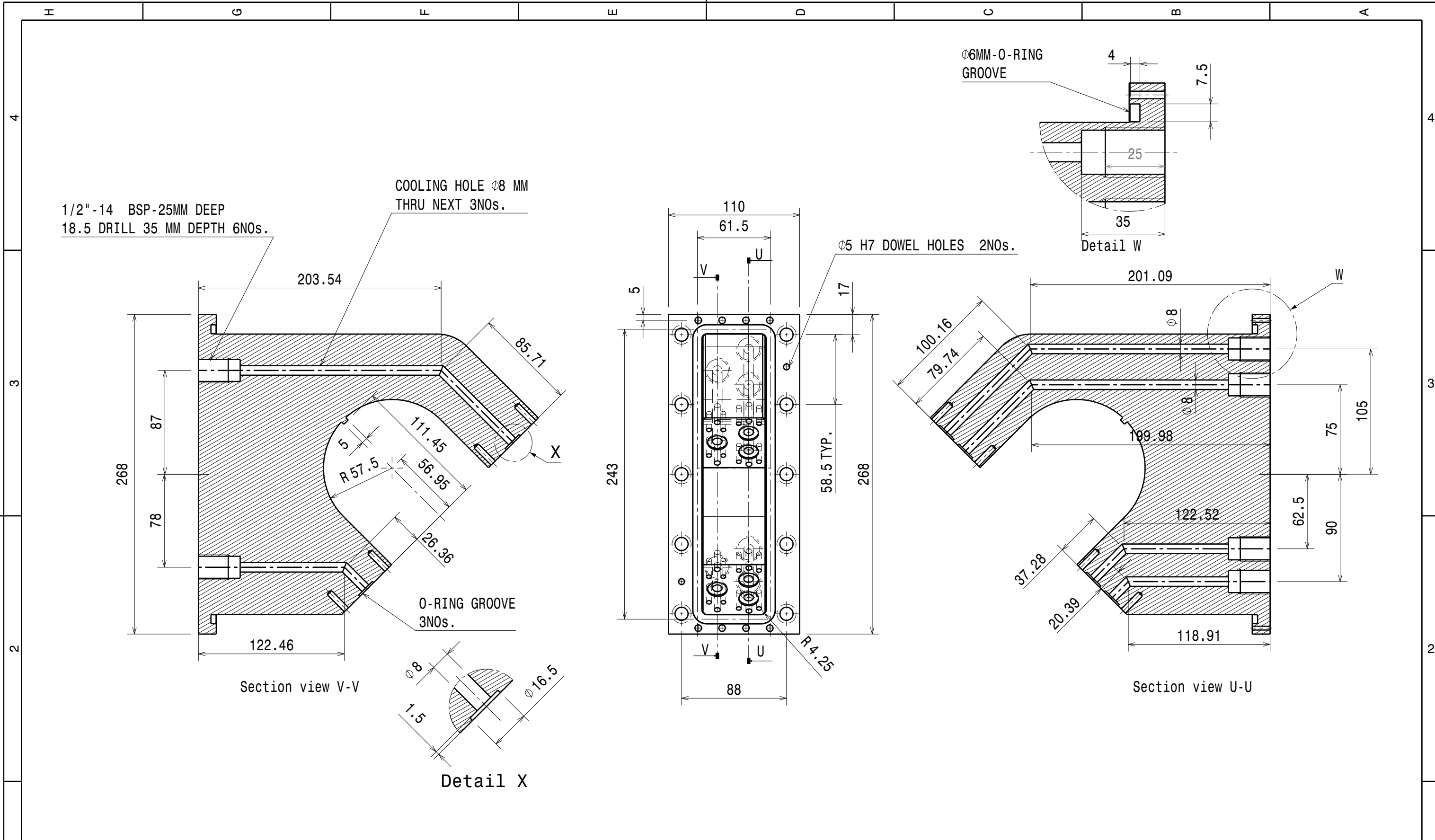


Institute for Plasma Research
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 Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)

TITLE		
STEM-2 MACHINING DETAILS		
REF DRG NO:	REV	0
DRG.NO	IPR/17/A3/RFQ/19020008	
		SHEET 1 OF 3



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:			 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	K.R.R.	26.12.17	STEM -2 MACHINING DETAILS	
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			CHECKED	PKC		REF DRG NO:	
+1°	+0°-30'	+0°-20'	+0°-10'							APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020008	REV 0
														SHEET 2 OF 3	




DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
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CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315		
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5		
+1°	+0°-30'	+0°-20'	+0°-10'							

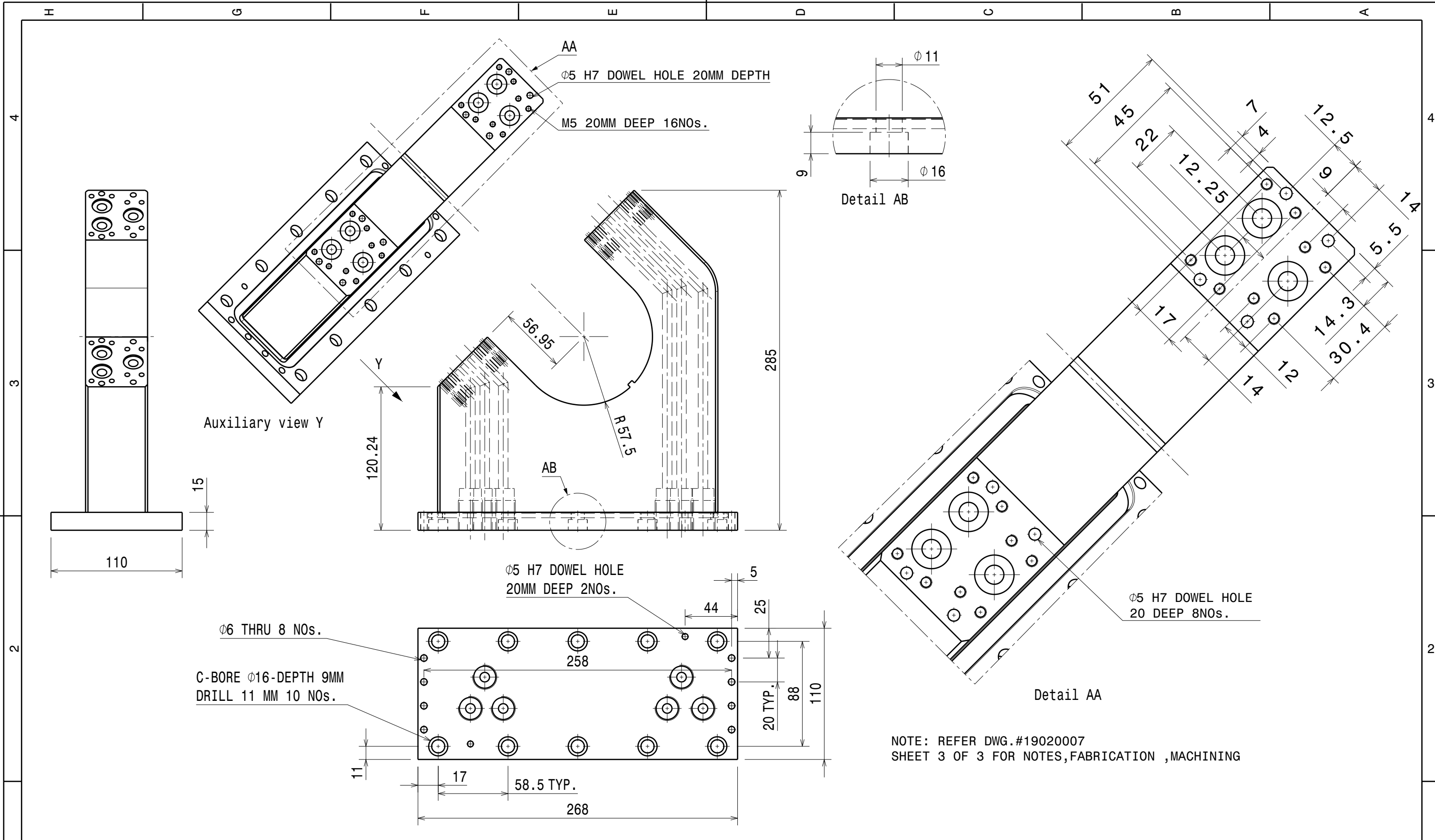
REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED

RFQ GROUP:		
SCALE	1:1	DATE
DRAWN	K.R.R.	26.12.17
CHECKED	PKC	
APPROVED	JMK	




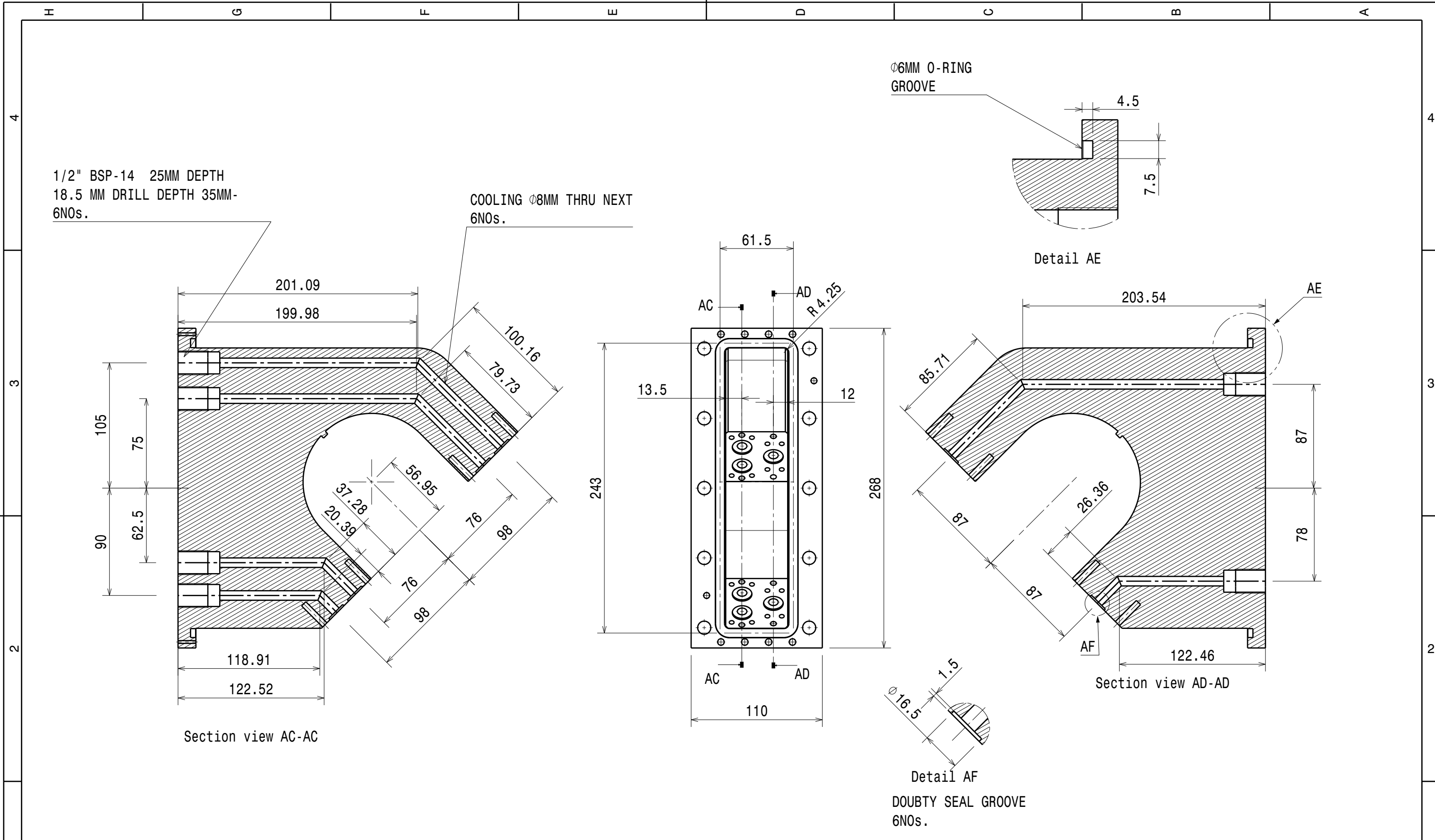
Institute for Plasma Research
 प्लाज्मा अनुसंधान संस्थान
 Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)

TITLE		REF DRG NO:	REV 0
STEM-2 MACHINING DETAILS			
DRG.NO	IPR/17/A3/RFQ/19020008	SHEET 3 OF 3	




NOTE: REFER DWG.#19020007
SHEET 3 OF 3 FOR NOTES,FABRICATION ,MACHINING

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			TITLE		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	STEM-3 MACHINING DETAILS		
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	26.12.17	REF DRG NO: 19020008	REV 0
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC		DRG.NO	IPR/17/A3/RFQ/19020009
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	JMK				



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS				
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA
UPTO 10	10-50	50-120	OVER 120-400	
+1°	+0°-30'	+0°-20'	+0°-10'	

REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED

RFQ GROUP:			 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			
SCALE	1:1	DATE	TITLE
DRAWN	K.R.R.	26.12.17	STEM-3 MACHINING DETAILS
CHECKED	PKC		REF DRG NO: 19020008
APPROVED	JMK		DRG.NO IPR/17/A3/RFQ/19020009
			REV 0
			SHEET 2 OF 2

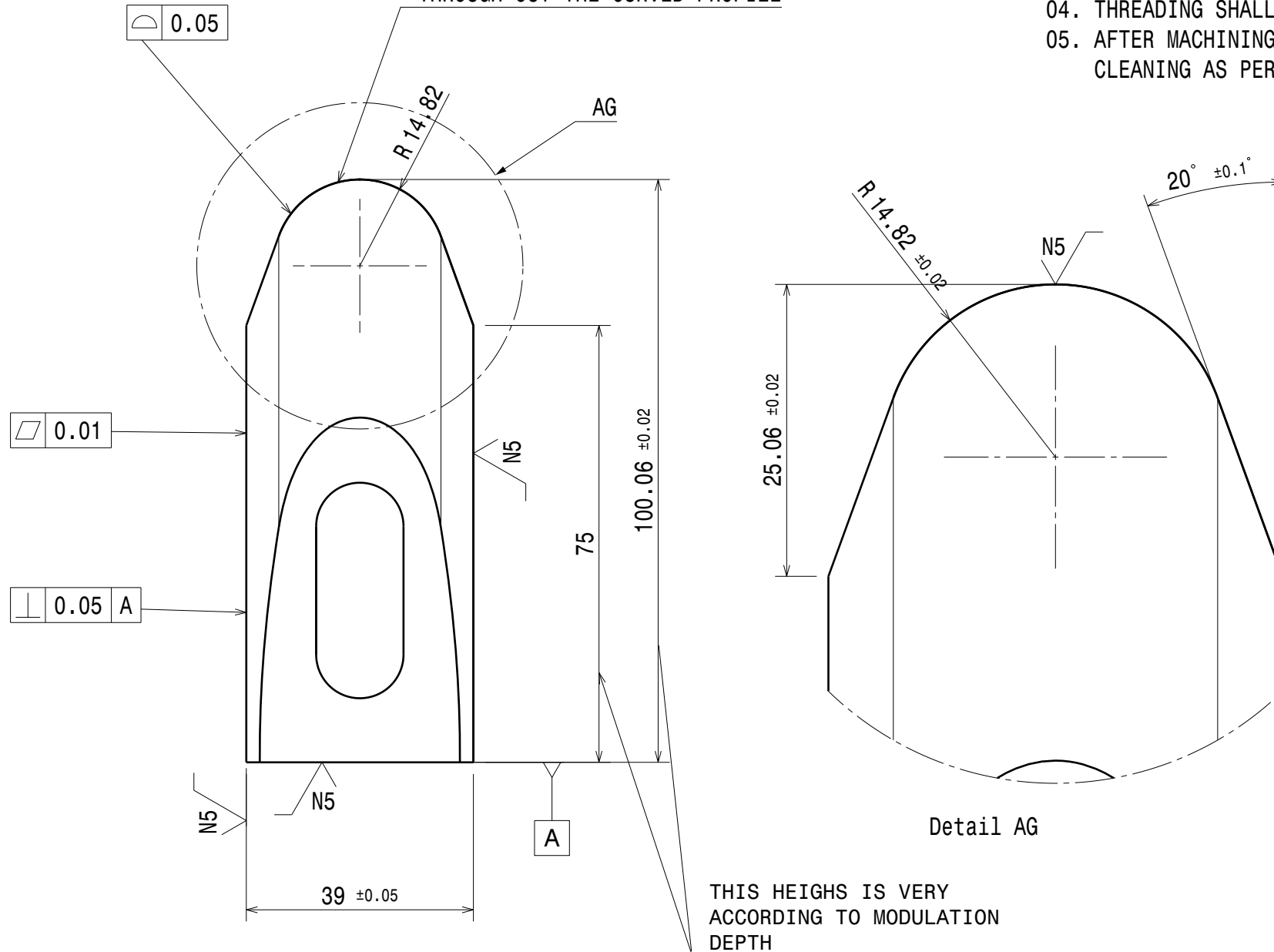
ALL DIMENSIONS ARE IN MM

N5 N6

NOTE:-

01. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
02. THE FINISH MACHINED/GROUND SURFACES SHALL BE PRESERVED AND PROTECTED SUITABLY TO AVOID ANY DAMAGE DURING HANDLING TRANSIT AND ASEMBLY
03. USE DRILL JIG FOR DRILLING OF HOLES.
04. THREADING SHALL BE AS PER IS4218
05. AFTER MACHINING THE COMPONENT SHALL BE SUBJECTED TO SOLUTION CLEANING OR ULTRASONIC CLEANING AS PER APPROVED PROCEDURE

THIS RADIUS IS CONSTANT THROUGH OUT THE CURVED PROFILE

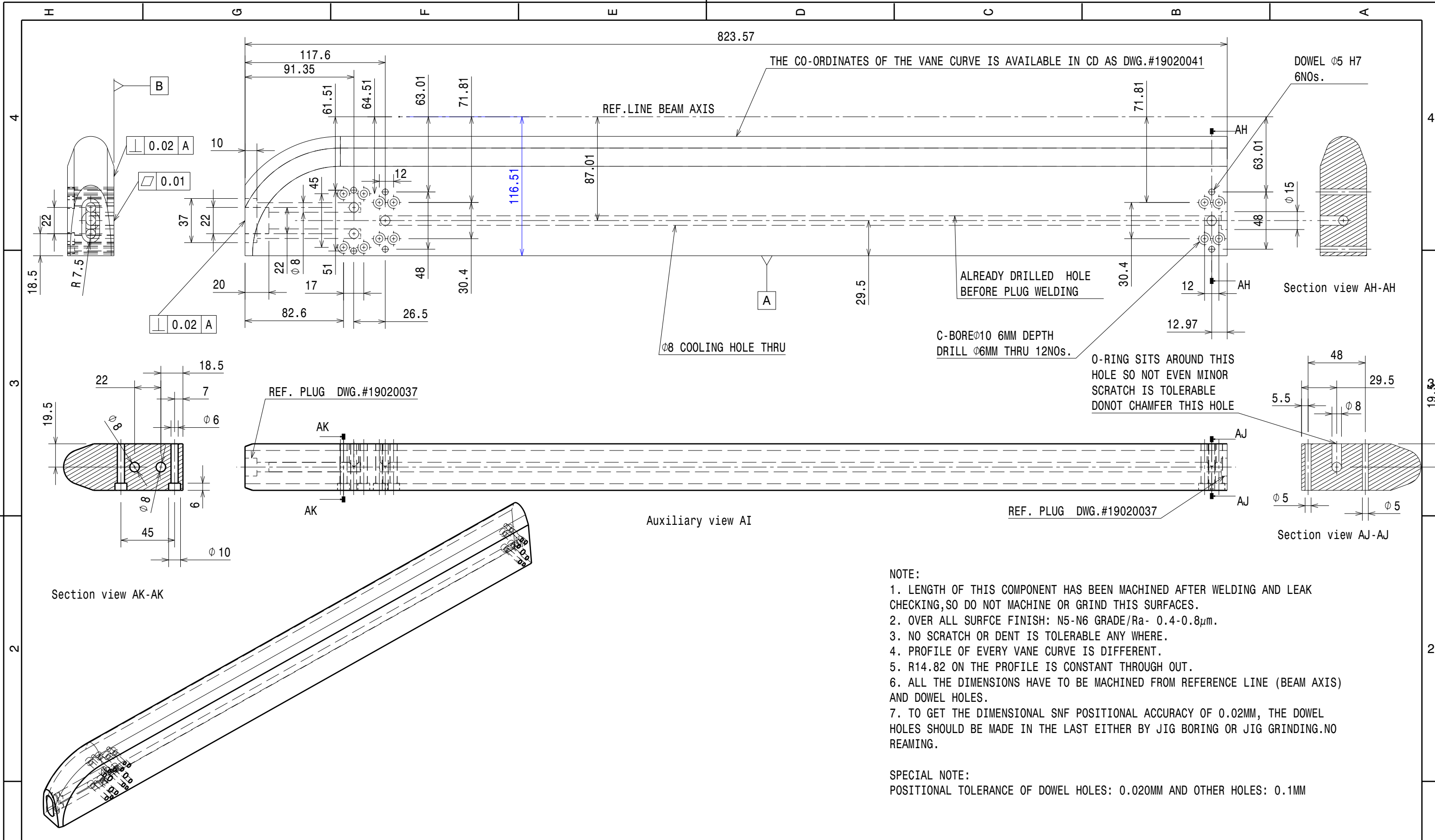


VANE TYPE	SEGMENT No.	MODULATION START & END POINTS IN MM	LENGTH IN MM
HORIZONTAL	SEGMENT-1 (LEFT & RIGHT)	-0.00147 TO 823.57161	823.57308
	SEGMENT-2 (LEFT & RIGHT)	823.57161 TO 1541.56737	717.99576
	SEGMENT-3 (LEFT & RIGHT)	1541.56737 TO 2259.53126	717.96389
	SEGMENT-4 (LEFT & RIGHT)	2259.53126 TO 2977.53049	717.99923
	SEGMENT-5 (LEFT & RIGHT)	2977.53049 TO 3695.67418	718.14369
	SEGMENT-6 (LEFT & RIGHT)	3695.67418 TO 4160.19331	464.51913
VERTICAL	SEGMENT-1 (UPPER & LOWER)	-0.00147 TO 464.65976	464.66123
	SEGMENT-2 (UPPER & LOWER)	464.65976 TO 1182.74243	718.08267
	SEGMENT-3 (UPPER & LOWER)	1182.74243 TO 1900.71880	717.97637
	SEGMENT-4 (UPPER & LOWER)	1900.71880 TO 2618.76139	718.04259
	SEGMENT-5 (UPPER & LOWER)	2618.76139 TO 3336.75233	717.99094
	SEGMENT-6 (UPPER & LOWER)	3336.75233 TO 4160.19329	823.44096
(PROTOTYPE)	SEGMENT-5 (UPPER & LOWER) (PROTOTYPE)	2977.59 TO 3336.75233	359.15866

Detail AG


THIS HEIGHTS IS VERY ACCORDING TO MODULATION DEPTH

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN						RFQ GROUP:			Institute for Plasma Research						
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			प्लाज्मा अनुसंधान संस्थान						
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)						
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315							DRAWN	K.R.R.	01.01.18	TITLE	VANE CROSS SECTION	
UPTO 10	10-50	50-120	OVER 120-400		UPTO 6	6-30	30-120	120-315							CHECKED	PKC		REF DRG NO:	REV 0	
+1°	+0°-30'	+0°-20'	+0°-10'	OR DIA	+0.1	+0.2	+0.3	+0.5							APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020010	SHEET 1 OF 1
H	G	F	E	D	C	B	A													



- NOTE:
1. LENGTH OF THIS COMPONENT HAS BEEN MACHINED AFTER WELDING AND LEAK CHECKING,SO DO NOT MACHINE OR GRIND THIS SURFACES.
 2. OVER ALL SURFACE FINISH: N5-N6 GRADE/Ra- 0.4-0.8 μ m.
 3. NO SCRATCH OR DENT IS TOLERABLE ANY WHERE.
 4. PROFILE OF EVERY VANE CURVE IS DIFFERENT.
 5. R14.82 ON THE PROFILE IS CONSTANT THROUGH OUT.
 6. ALL THE DIMENSIONS HAVE TO BE MACHINED FROM REFERENCE LINE (BEAM AXIS) AND DOWEL HOLES.
 7. TO GET THE DIMENSIONAL AND POSITIONAL ACCURACY OF 0.02MM, THE DOWEL HOLES SHOULD BE MADE IN THE LAST EITHER BY JIG BORING OR JIG GRINDING.NO REAMING.

SPECIAL NOTE:
 POSITIONAL TOLERANCE OF DOWEL HOLES: 0.020MM AND OTHER HOLES: 0.1MM

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 Institute for Plasma Research प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED		ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	K.R.R.	01.01.18	H ROD LEFT SEGMENT - 1
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			CHECKED	PKC		REF DRG NO:
+1°	+0°-30'	+0°-20'	+0°-10'							APPROVED	JMK		DRG.NO	SHEET 1 OF 1
													IPR/17/A3/RFQ/19020011	