
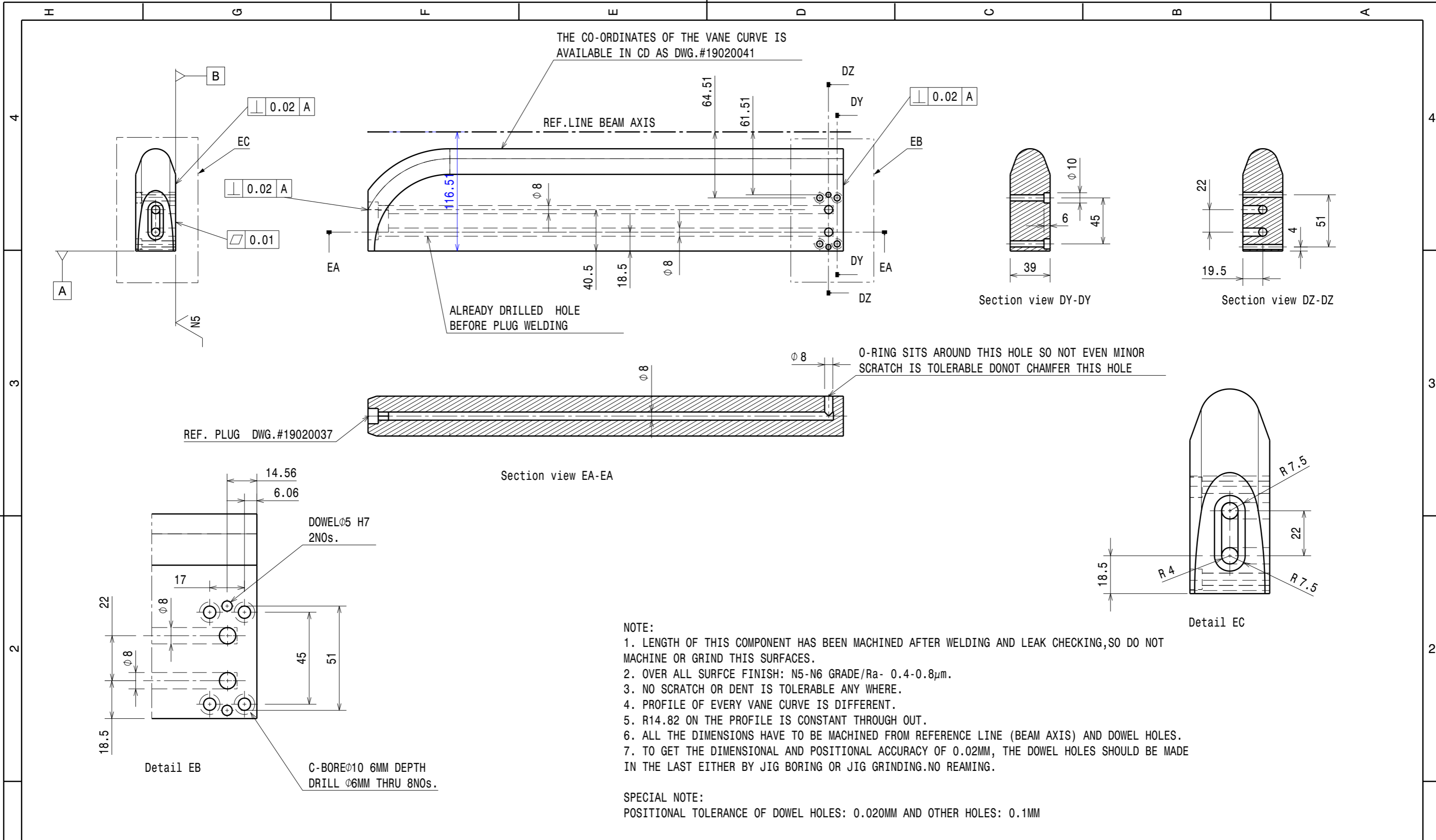


- NOTE:**
1. LENGTH OF THIS COMPONENT HAS BEEN MACHINED AFTER WELDING AND LEAK CHECKING,SO DO NOT MACHINE OR GRIND THIS SURFACES.
  2. OVER ALL SURFCE FINISH: N5-N6 GRADE/Ra- 0.4-0.8 $\mu$ m.
  3. NO SCRATCH OR DENT IS TOLERABLE ANY WHERE.
  4. PROFILE OF EVERY VANE CURVE IS DIFFERENT.
  5. R14.82 ON 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:		 <b>Institute for Plasma Research</b> 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.	05.01.18	V ROD LOWER SEGMENT -6	
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	PKC		REF DRG NO:	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/19020029	SHEET 1 OF 1

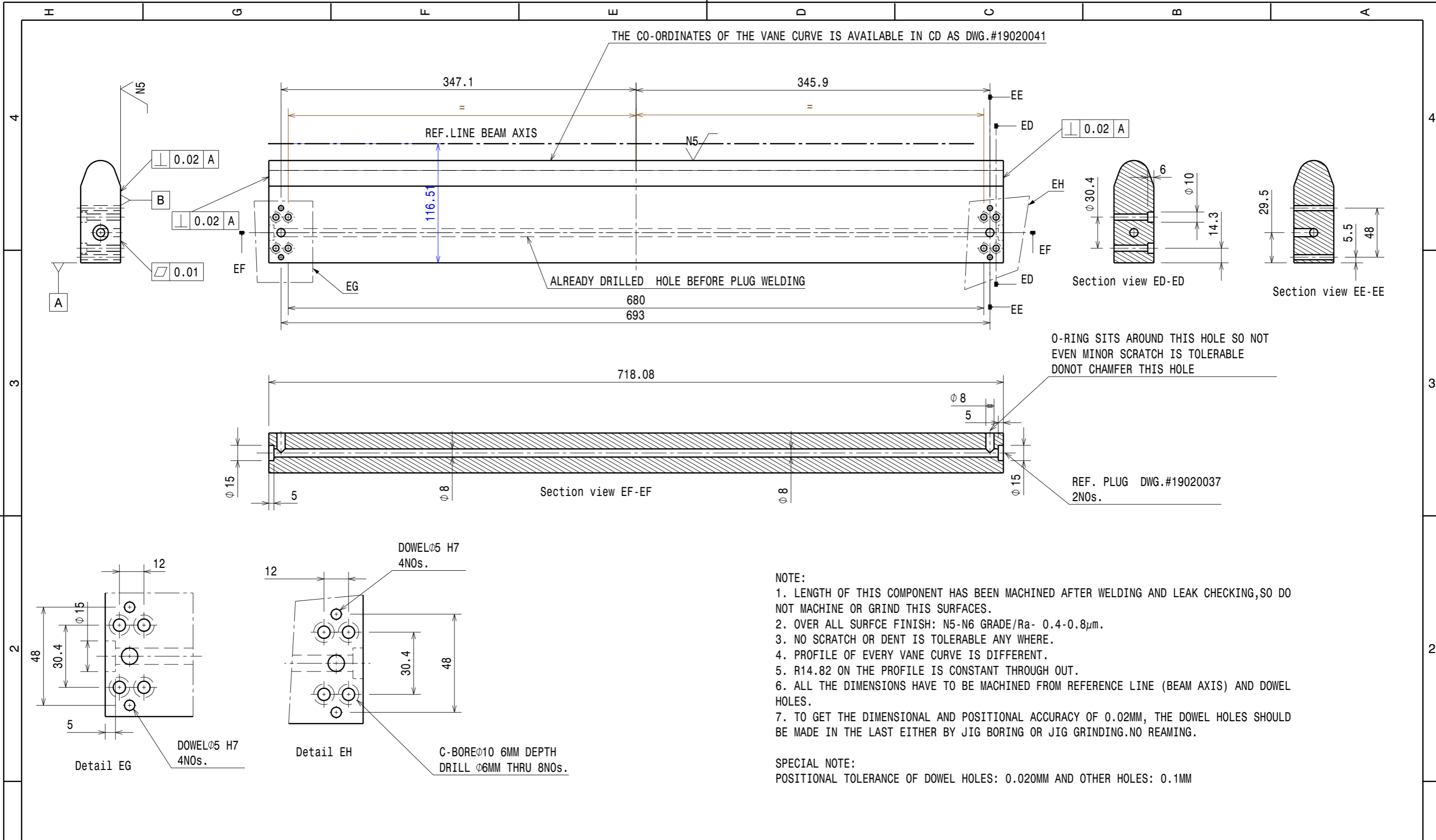



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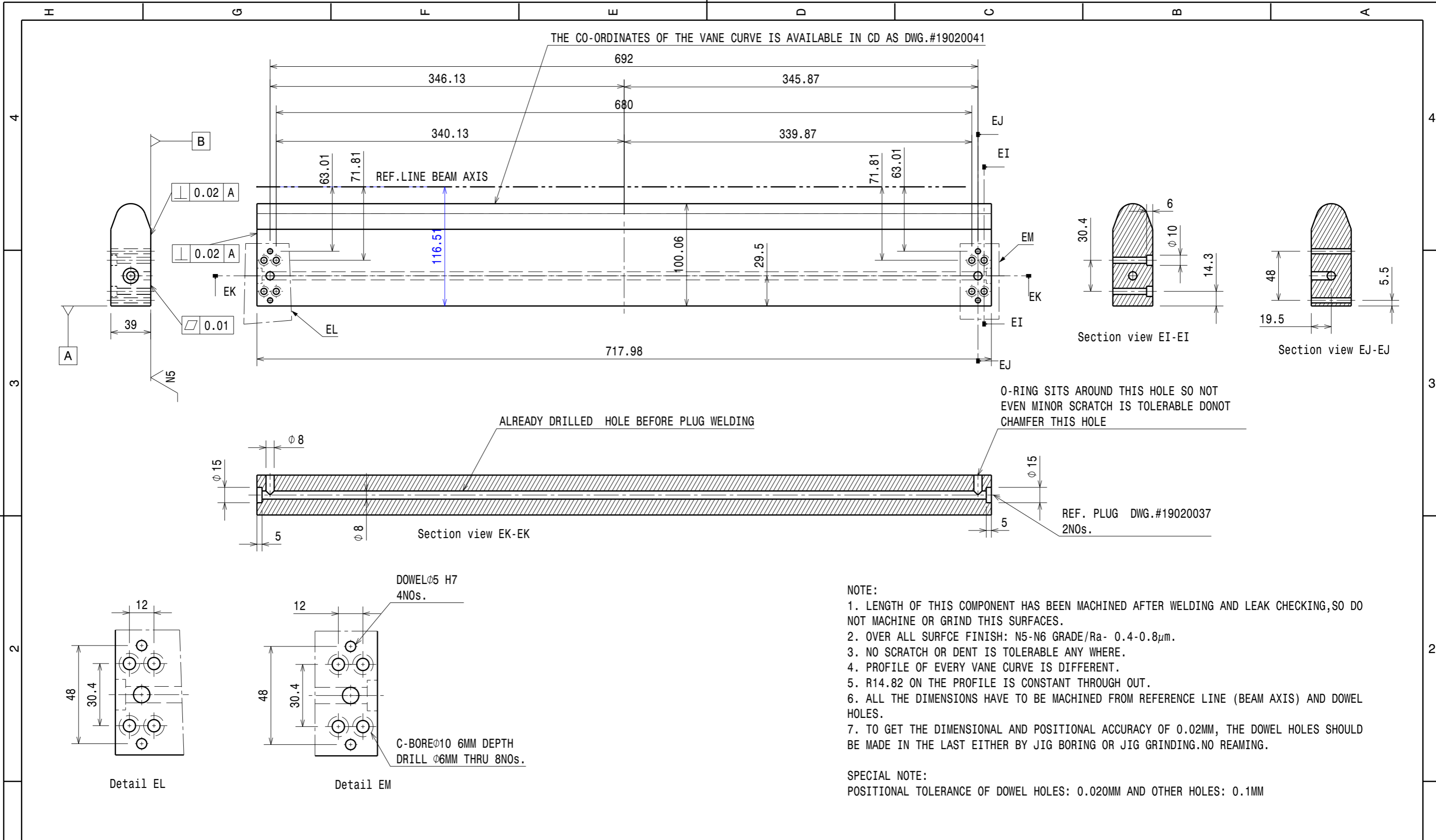
1. LENGTH OF THIS COMPONENT HAS BEEN MACHINED AFTER WELDING AND LEAK CHECKING,SO DO NOT MACHINE OR GRIND THIS SURFACES.
2. OVER ALL SURFCE FINISH: N5-N6 GRADE/Ra- 0.4-0.8 $\mu$ m.
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SPECIAL NOTE:  
POSITIONAL TOLERANCE OF DOWEL HOLES: 0.020MM AND OTHER HOLES: 0.1MM

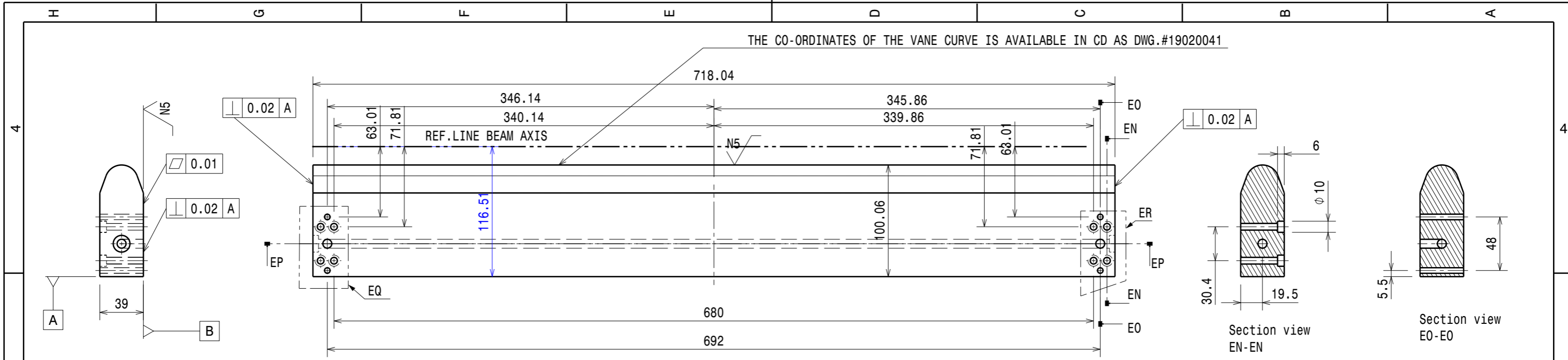
DRG.NO	$\nabla$ 8-25	$\nabla$ 1.6-8	$\nabla$ 0.025-1.6	$\nabla$ < 0.025	REVISION COLUMN						RFQ GROUP:			 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)	
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS 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.	05.01.18	V ROD UPPER SEGMENT - 1	
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	PKC		REF DRG NO:	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/19020030	SHEET 1 OF 1



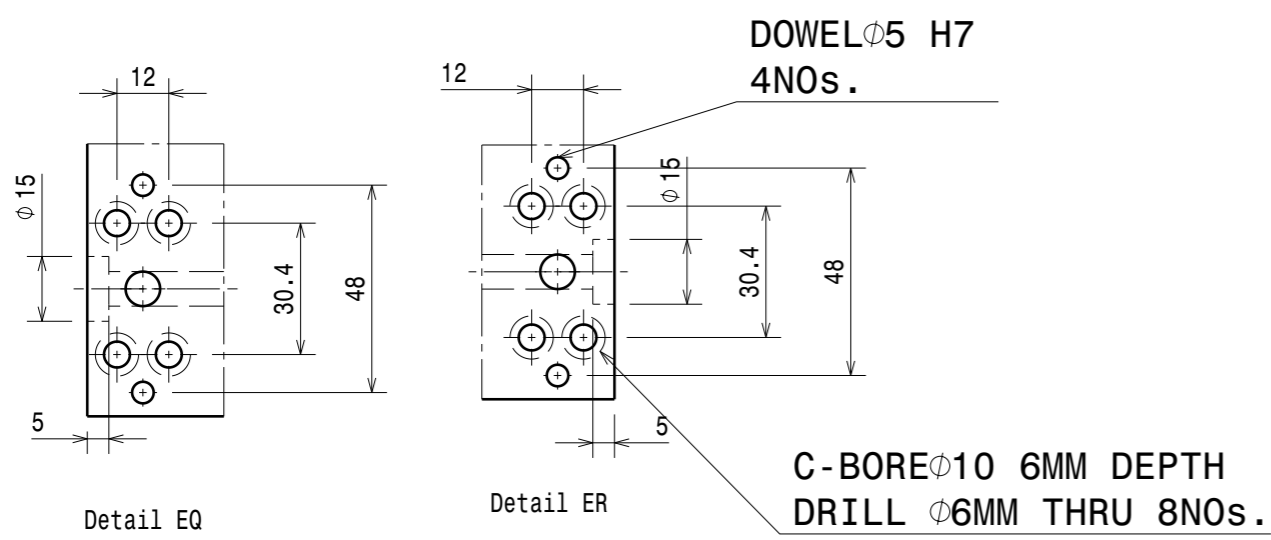
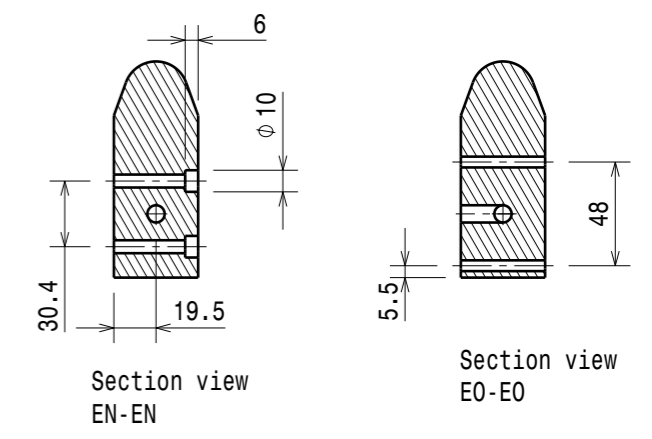
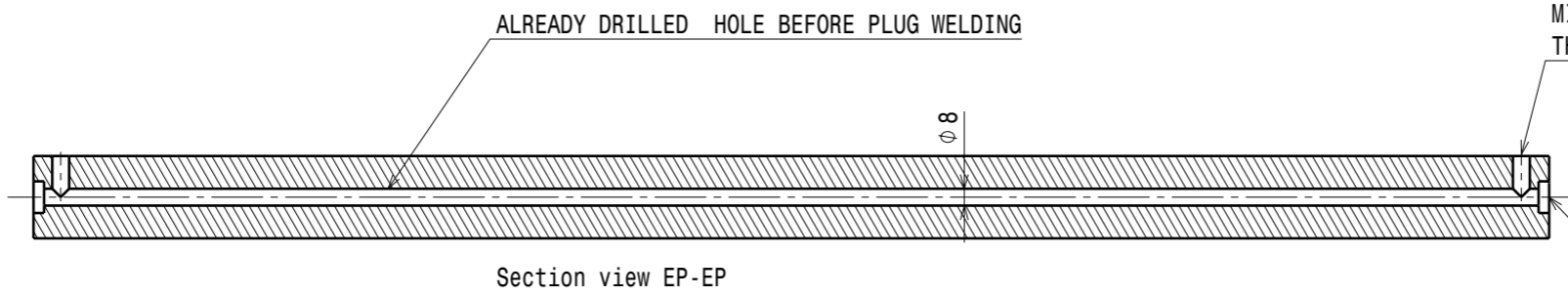
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:		 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' 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.	05.01.18	V ROD UPPER SEGMENT -2	
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	PKC		REF DRG NO:	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/19020031	SHEET 1 OF 1



DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:		 <b>Institute for Plasma Research</b> 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.	05.01.18	V ROD UPPER SEGMENT-3	
UPTO 10	10-50	50-120	OVER 120-400		UPTO 6	6-30	30-120	120-315				CHECKED	PKC		REF DRG NO:	
+1°	+0°-30'	+0°-20'	+0°-10'		+0.1	+0.2	+0.3	+0.5			APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020032	REV 0
														SHEET 1 OF 1		




THE CO-ORDINATES OF THE VANE CURVE IS AVAILABLE IN CD AS DWG.#19020041

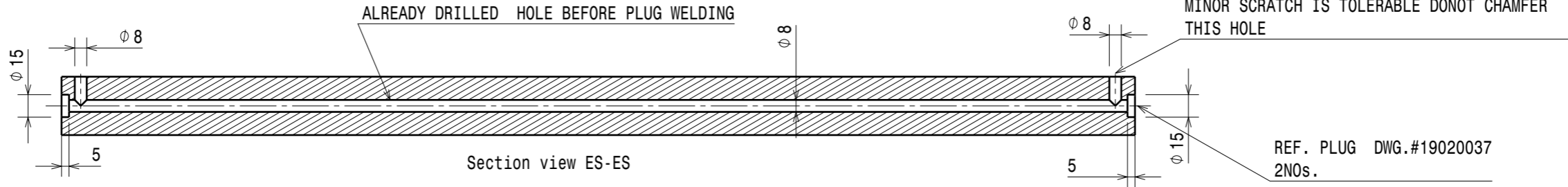
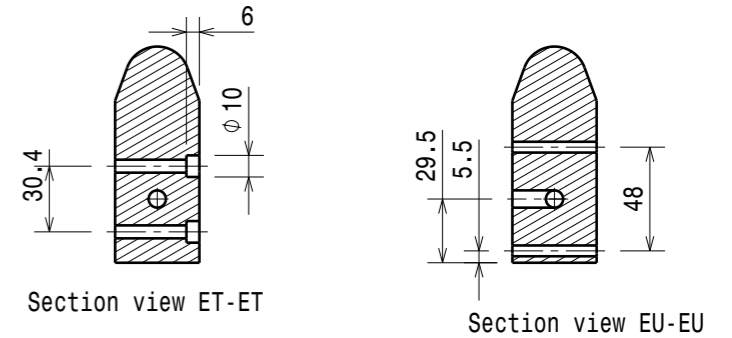
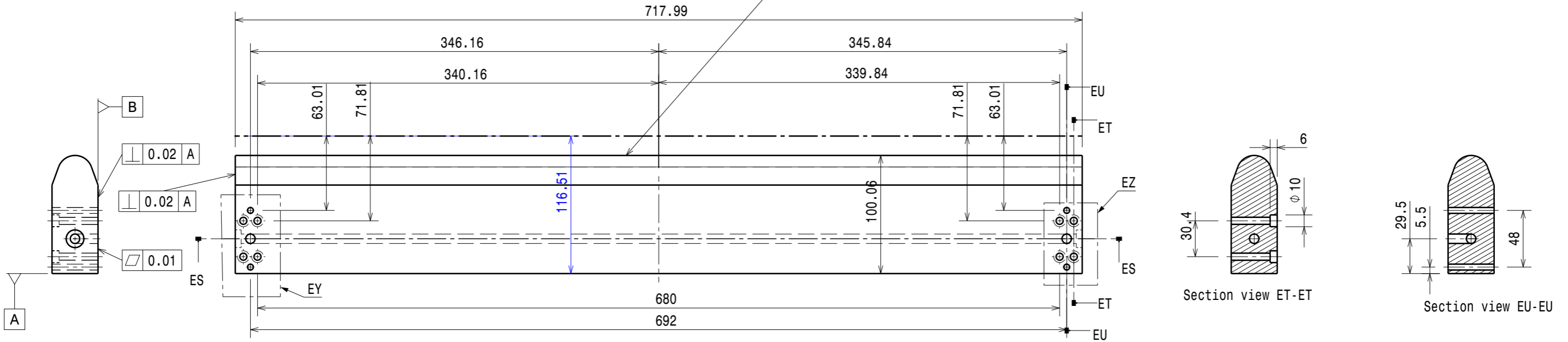


- NOTE:
1. LENGTH OF THIS COMPONENT HAS BEEN MACHINED AFTER WELDING AND LEAK CHECKING, SO DO NOT MACHINE OR GRIND THIS SURFACES.
  2. OVER ALL SURFACE FINISH: N5-N6 GRADE/Ra- 0.4-0.8μm.
  3. NO SCRATCH OR DENT IS TOLERABLE ANY WHERE.
  4. PROFILE OF EVERY VANE CURVE IS DIFFERENT.
  5. R14.82 ON THE PROFILE 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

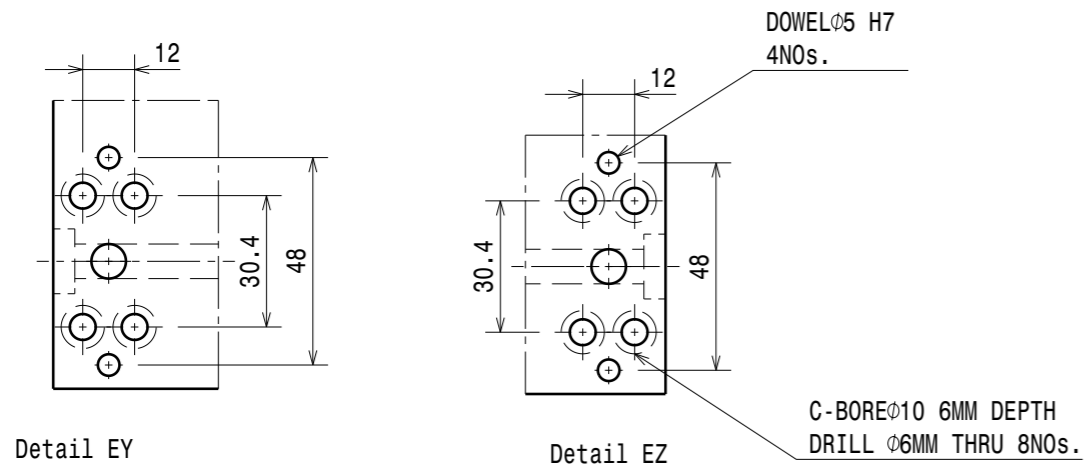
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			TITLE		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	V ROD UPPER SEGMENT - 4		
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	05.01.18	REF DRG NO:	
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC		REV 0	
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020033	SHEET 1 OF 1

THE CO-ORDINATES OF THE VANE CURVE IS AVAILABLE IN CD AS DWG.#19020041




O-RING SITS AROUND THIS HOLE SO NOT EVEN MINOR SCRATCH IS TOLERABLE DONOT CHAMFER THIS HOLE

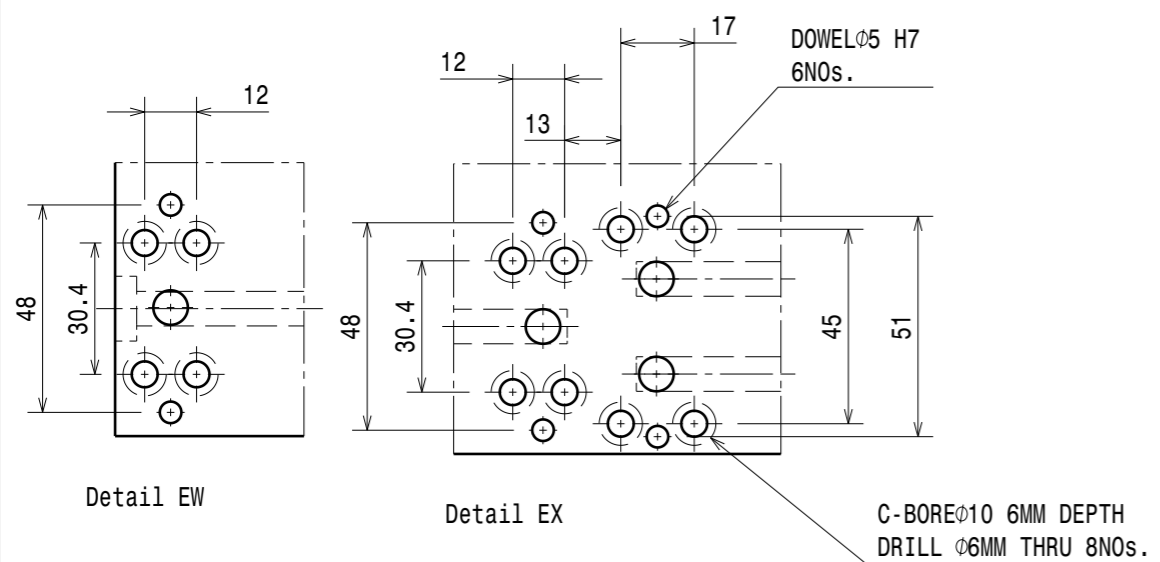
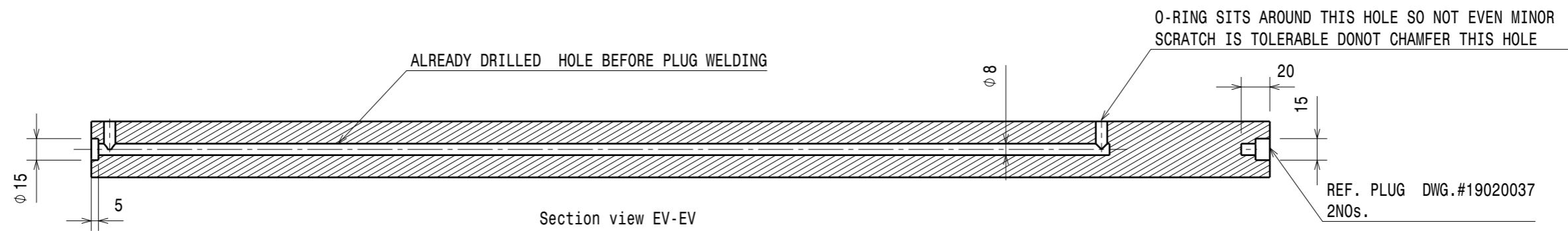
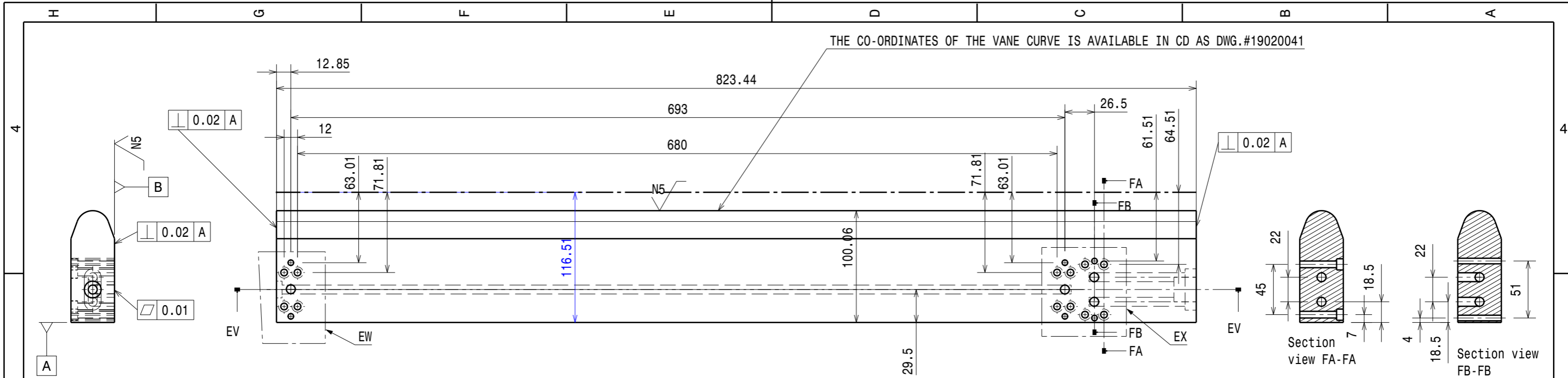
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2NOs.



- 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 $\mu$ m.
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  4. PROFILE OF EVERY VANE CURVE IS DIFFERENT.
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  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

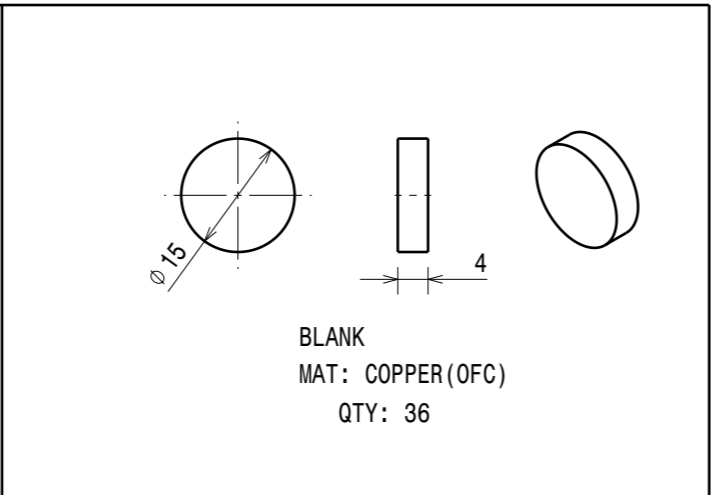
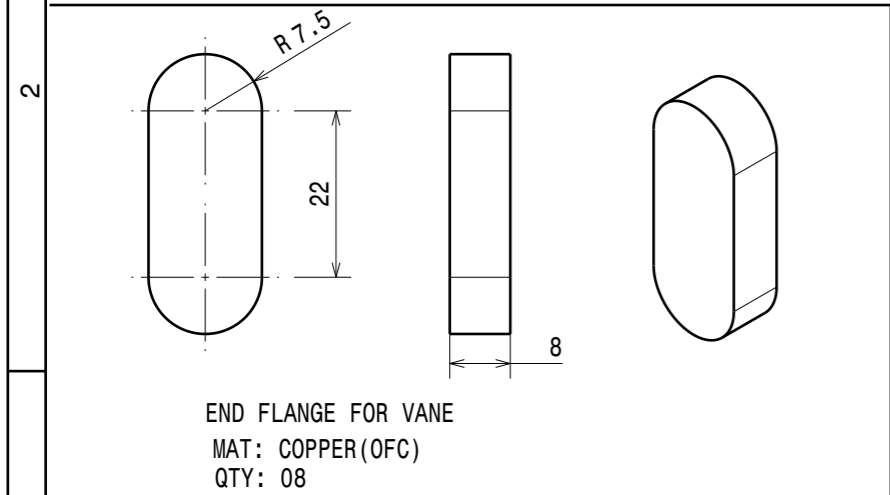
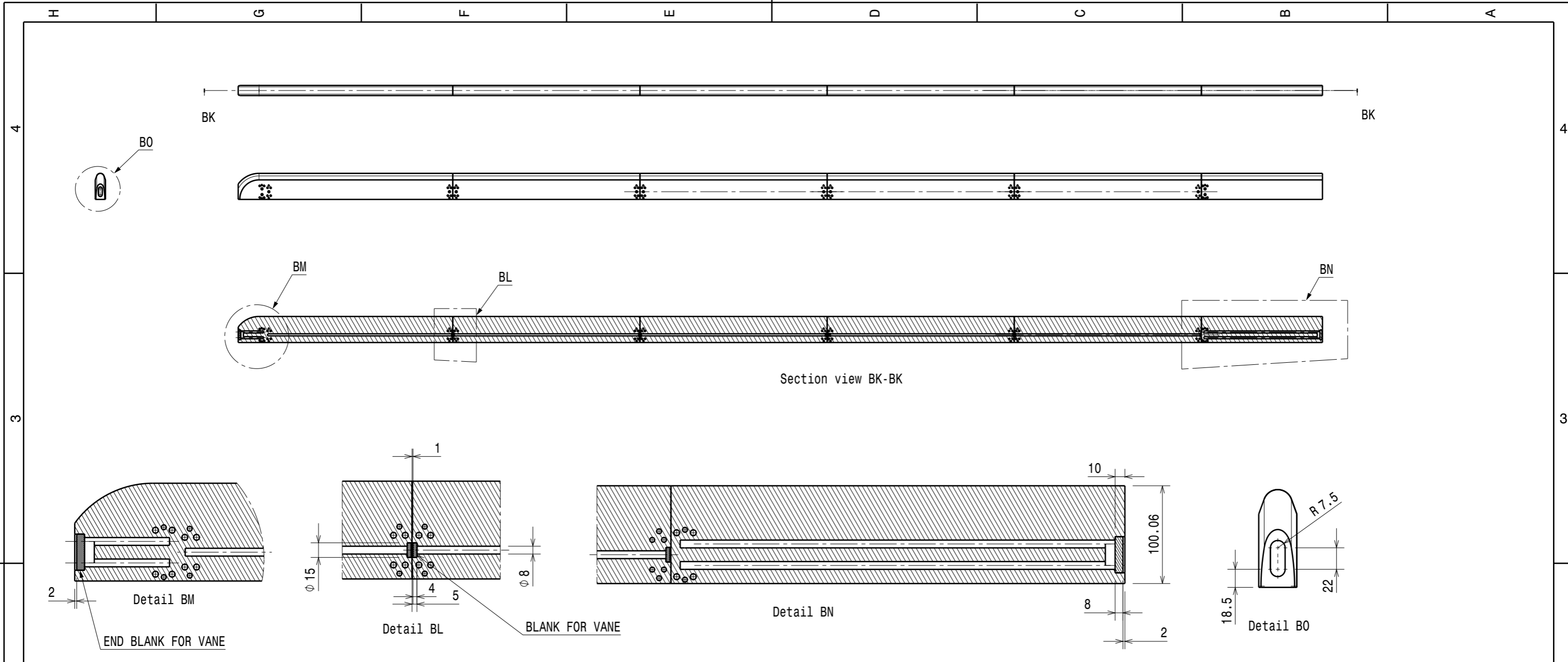
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)	
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED		ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED SCALE: 1:1 DATE: 05.01.18 DRAWN: K.R.R. CHECKED: PKC APPROVED: JMK
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											REF DRG NO:	REV 0
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315					DRG.NO	SHEET 1 OF 1
UPTO 10	10-50		50-120	OVER 120-400	+0.1	+0.2	+0.3	+0.5			IPR/17/A3/RFQ/19020034	




- 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 SURFCE FINISH: N5-N6 GRADE/Ra- 0.4-0.8 $\mu$ m.
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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:		 <b>Institute for Plasma Research</b> 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 SCALE 1:1 DATE 05.01.18 DRAWN K.R.R. CHECKED PKC APPROVED JMK
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											REF DRG NO:	REV 0
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRG.NO	SHEET 1 OF 1
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			IPR/17/A3/RFQ/19020036	
+1°	+0°-30'	+0°-20'	+0°-10'									

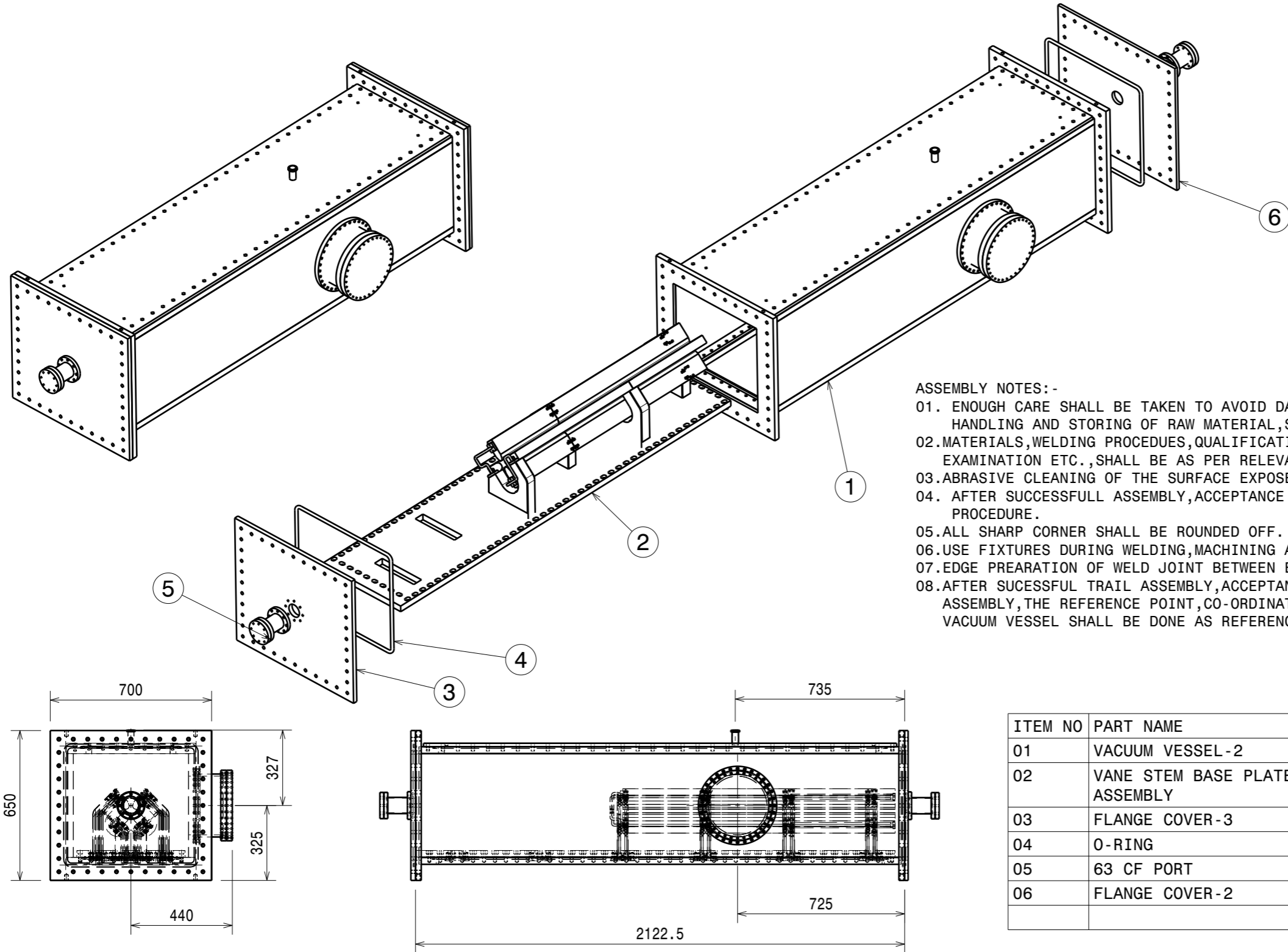


DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:			 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' 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.	10.01.18	DETAILS OF BLANK WELDING FOR VANES	
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/19020037	REV 0
												DRG.NO	IPR/17/A3/RFQ/19020037	SHEET 1 OF 1	



# CD


DRG.NO		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ. GROUP:		 <b>Institute for Plasma Research</b> 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	 <b>CD FOR VANE PROFILE</b>		
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC			REF DRG NO:	REV 0
+1°	+0°-30'	+0°-20'	+0°-10'									APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020041	SHEET 1 OF 1

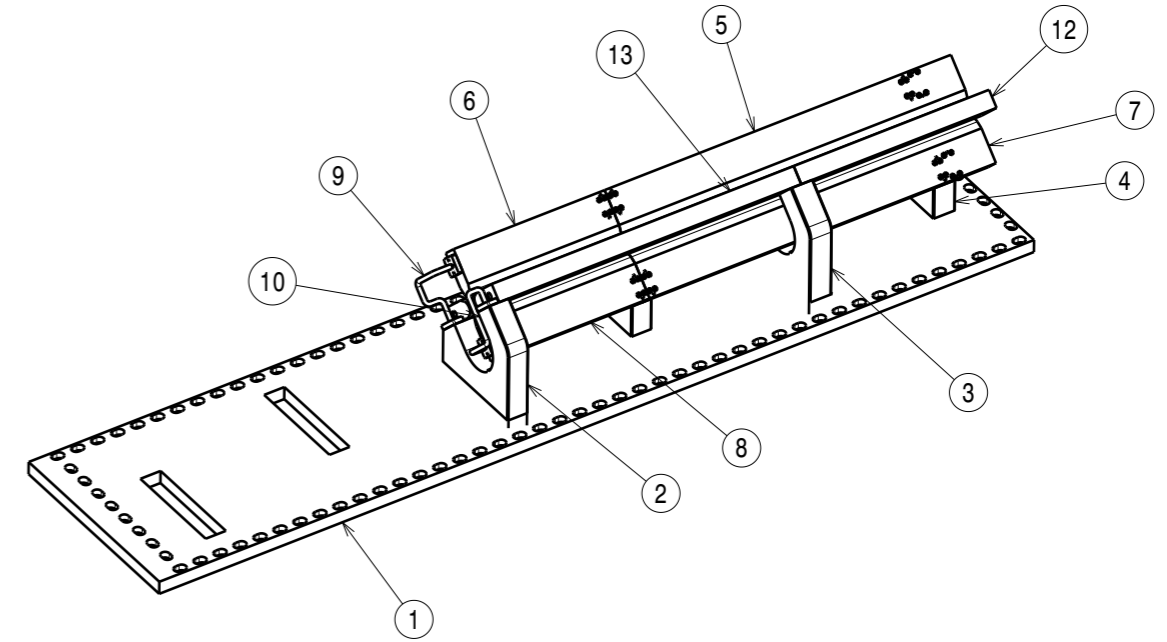
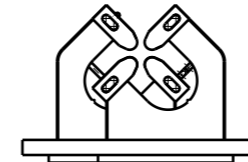
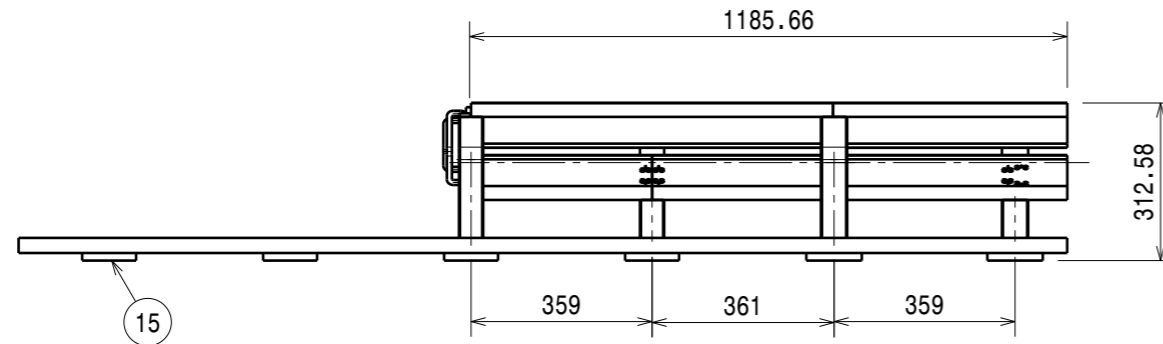
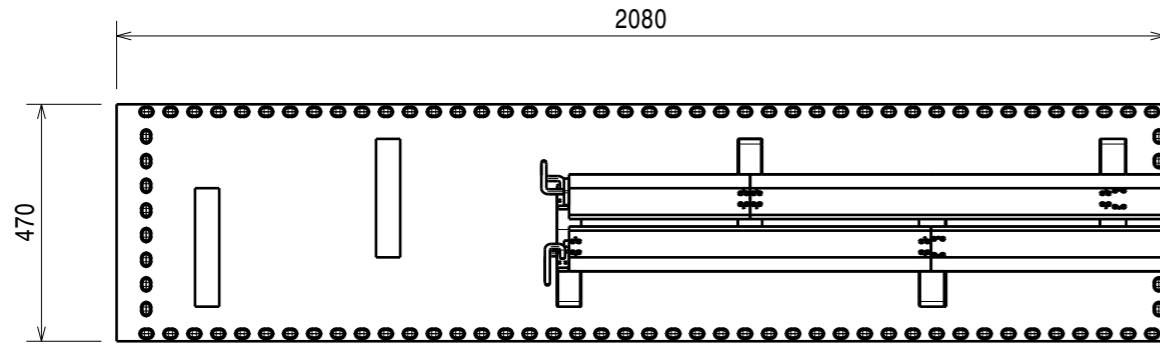


ASSEMBLY NOTES:-

01. ENOUGH CARE SHALL BE TAKEN TO AVOID DAMAGE (DENT AND SCRATCHES) DURING HANDLING AND STORING OF RAW MATERIAL, SEMI FINISHED PRODUCT AND FINISHED PRODUCTS.
02. MATERIALS, WELDING PROCEDURES, QUALIFICATION REQUIREMENTS, TESTING AND EXAMINATION ETC., SHALL BE AS PER RELEVANT APPROVED SPECIFICATIONS.
03. ABRASIVE CLEANING OF THE SURFACE EXPOSED TO VACUUM IS NOT ALLOWED.
04. AFTER SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED PROCEDURE.
05. ALL SHARP CORNER SHALL BE ROUNDED OFF.
06. USE FIXTURES DURING WELDING, MACHINING AND HEAT TREATMENT.
07. EDGE PREPARATION OF WELD JOINT BETWEEN END FLANGE AND SIDE PLATE, TOP PLATE, BOTTOM PLATE.
08. 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.

ITEM NO	PART NAME	MATERIAL	DESCRIPTION	QTY
01	VACUUM VESSEL -2	AS PER DRAWING	DWG.#19030003	01
02	VANE STEM BASE PLATE ASSEMBLY	AS PER DRAWING	DWG.#19020002	01
03	FLANGE COVER-3	AL6061-T6	DWG.#19030014	01
04	O-RING	AS PER DRAWING	DWG.#19030009	01
05	63 CF PORT	AS PER DRAWING	DWG.#19030030	02
06	FLANGE COVER-2	AL6061-T6	DWG.#19030008	01


DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			 <b>Institute for Plasma Research</b> 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.	19.01.18	RFQ ASSEMBLY PROTOTYPE		
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC		REF DRG NO:		REV 0
+1°	+0°-30'	+0°-20'	+0°-10'								APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19010002	SHEET 1 OF 1	



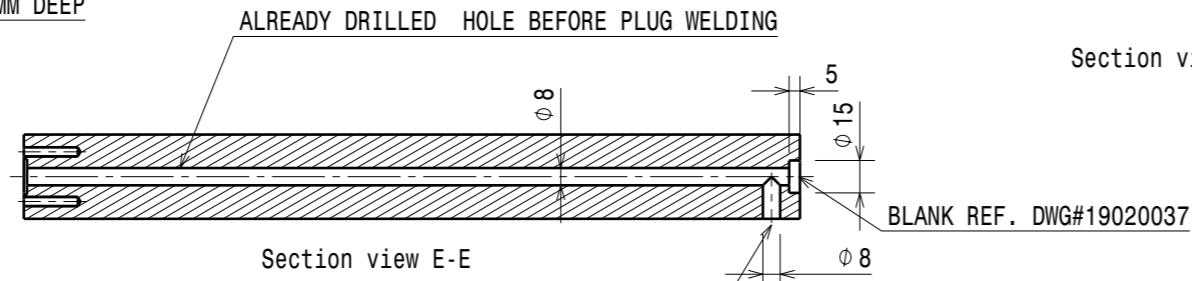
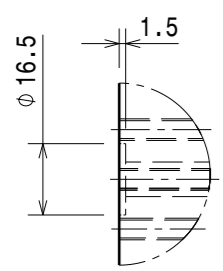
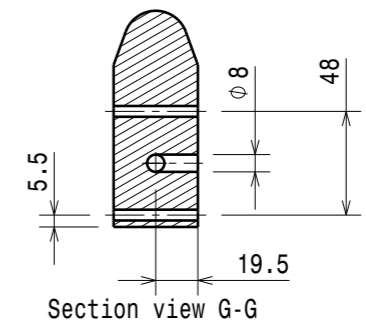
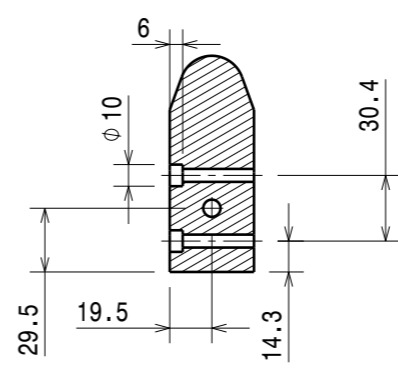
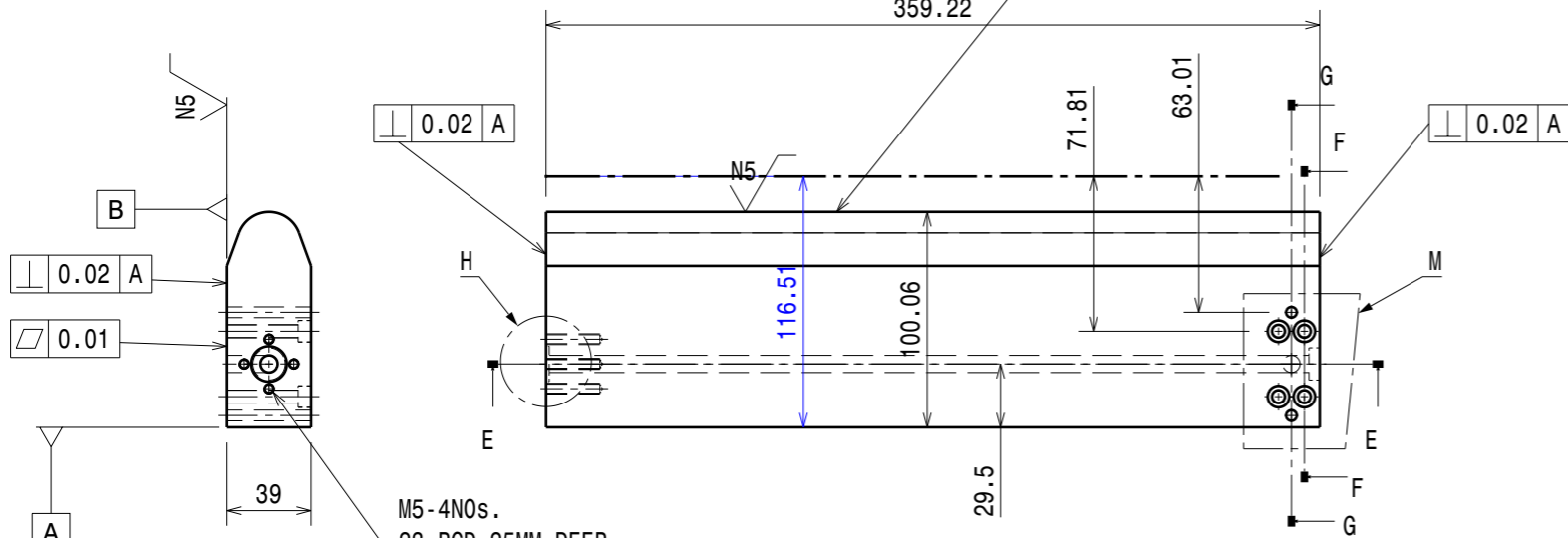
**ASSEMBLY NOTES:-**

- 01. ENOUGH CARE SHALL BE TAKEN TO AVOID DAMAGE (DENT AND SCRATCHES) DURING HANDLING AND STORING OF RAW MATERIAL, SEMI FINISHED PRODUCT AND FINISHED PRODUCTS.
- 02. MATERIALS, WELDING PROCEDURES, QUALIFICATION REQUIREMENTS, TESTING AND EXAMINATION ETC., SHALL BE AS PER RELEVANT APPROVED SPECIFICATIONS.
- 03. ABRASIVE SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED.
- 04. AFTER SUCCESSFUL ASSEMBLY, ACCEPTANCE TESTS SHALL BE CARRIED AS PER APPROVED PROCEDURE. BE CARRIED AS PER APPROVED PROCEDURE.
- 05. ALL SHARP CORNER SHALL BE ROUNDED OFF.
- 06. USE FIXTURES DURING WELDING, MACHINING AND HEAT TREATMENT.
- 07. EDGE PREPARATION OF WELD JOINT BETWEEN END FLANGE AND SIDE PLATE, TOP PLATE, BOTTOM PLATE.
- 08. 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
1	BASE PLATE-1	AS PER DWG.	DWG.#19020003	01
2	STEM-1	AS PER DWG.	DWG.#19020007	02
3	STEM-3	AS PER DWG.	DWG.#19020009	01
4	STEM-2	AS PER DWG.	DWG.#19020008	01
5	VANE VERTICAL UPPER -5	AS PER DWG.	DWG.#19020036	01
6	VANE VERTICAL UPPER-5	AS PER DWG.	DWG.#19020035	01
7	VANE VERTICAL LOWER-6	AS PER DWG.	DWG.#19020029	01
8	VANE VERTICAL LOWER-5	AS PER DWG.	DWG.#19020028	01
9	VANE COLING ARRANGEMENT-1	ETP COPPER	DWG.#19020039	01
10	VANE COOLING ARRANMENT-2	ETP COPPER	DWG.#19020038	01
11	VANE HORIZONTAL RIGHT-6	AS PER DWG.	DWG.#19020022	01
12	VANE HORIZONTAL RIGHT-5	AS PER DWG.	DWG.#19020021	01
13	VANE HORIZONTAL LEFT-6	AS PER DWG.	DWG.#19020016	01
14	VANE HORIZONTAL LEFT-5	AS PER DWG.	DWG.#19020015	01
15	STEM SLOT COVER	AL6061-T6	DWG.#19020040	02

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 <b>Institute for Plasma Research</b> 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.	15.01.18	<b>VANE STEM BASE PLATE ASSEMBLY</b> <b>PROTOTYPE</b>		
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'		+0.1	+0.2	+0.3	+0.5			APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020002	SHEET 1 OF 1

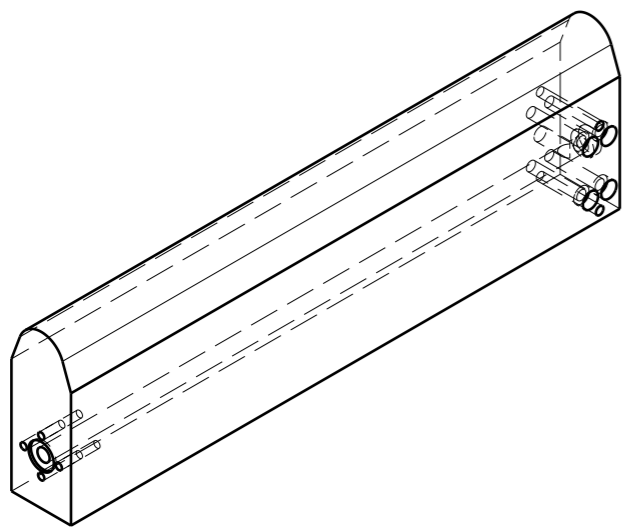
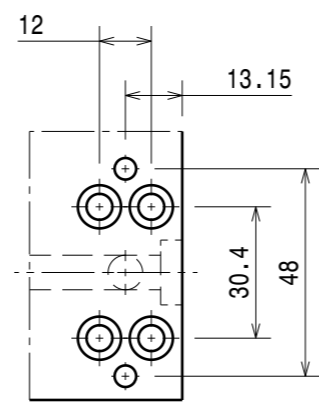
THE CO-ORDINATES OF THE VANE CURVE IS AVAILABLE IN CD AS DWG.#19020041



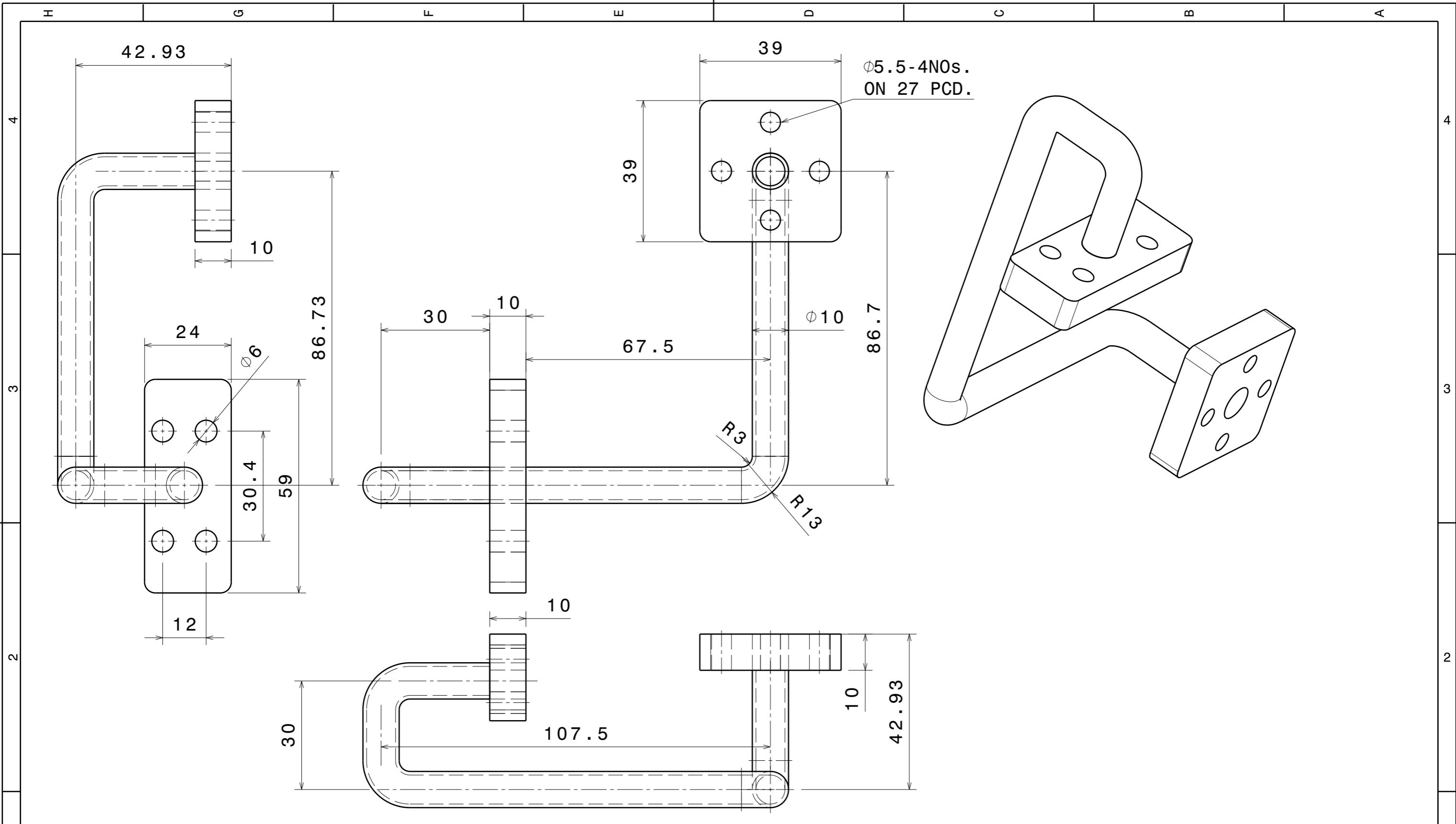
O-RING SITS AROUND THIS HOLE SO NOT EVEN MINOR SCRATCH IS TOLERABLE DONOT CHAMFER THIS HOLE

- 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 SURFCE FINISH: N5-N6 GRADE/Ra- 0.4-0.8 $\mu$ 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.

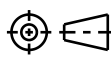
SPECIAL NOTE:  
POSITIONAL TOLERANCE OF DOWEL HOLES: 0.020MM AND OTHER HOLES: 0.1MM




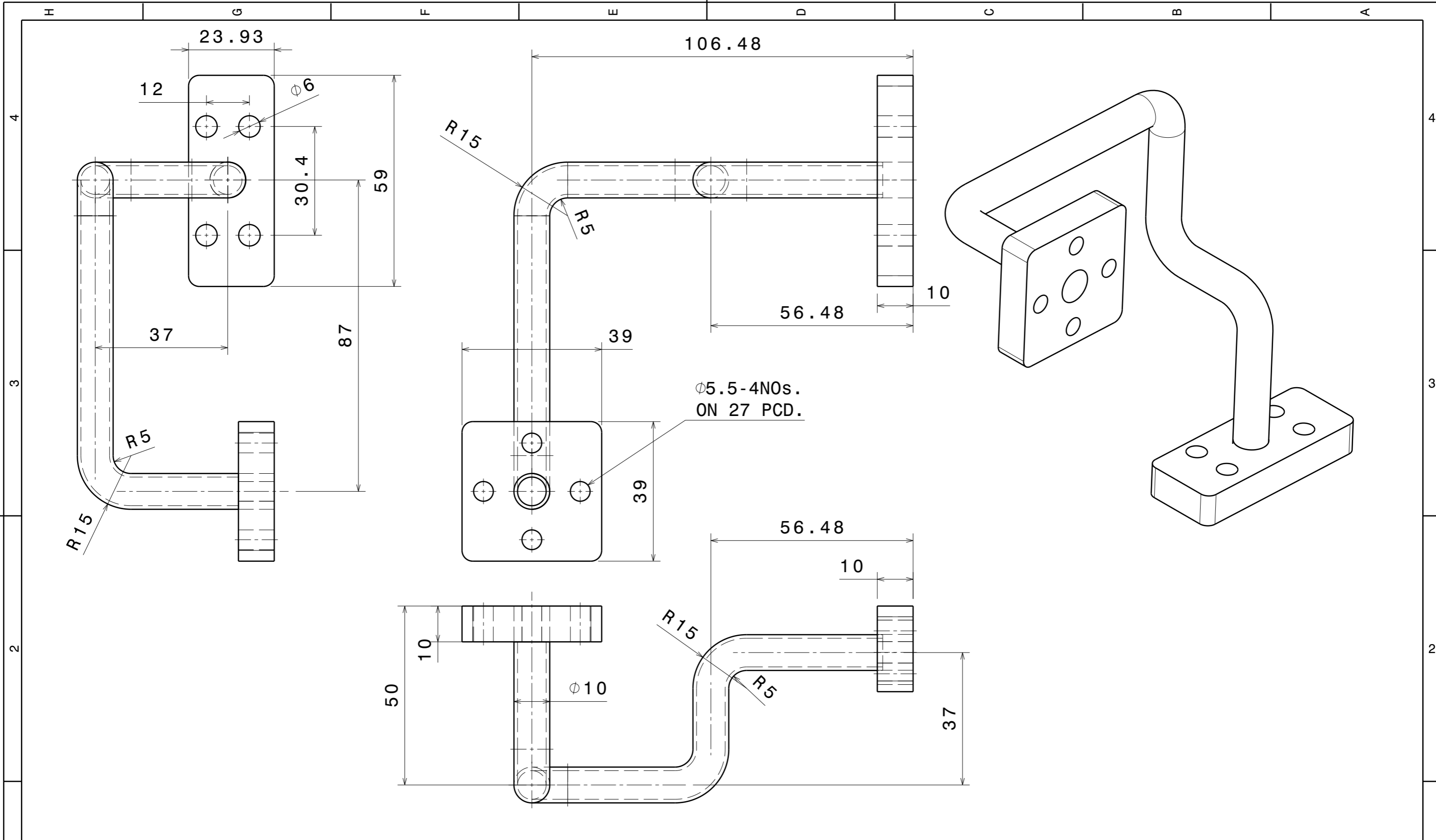
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			Institute for Plasma Research		
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			प्लाज्मा अनुसंधान संस्थान	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											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.	01/08/17	TITLE	
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			CHECKED	PKC		VER. ROD LOWER SEGMENT 5-PROTOTYPE	
+1°	+0°-30'	+0°-20'	+0°-10'							APPROVED	JMK		REF DRG NO:	REV 0	
													DRG.NO	IPR/17/A3/RFQ/19020028	SHEET 1 OF 1




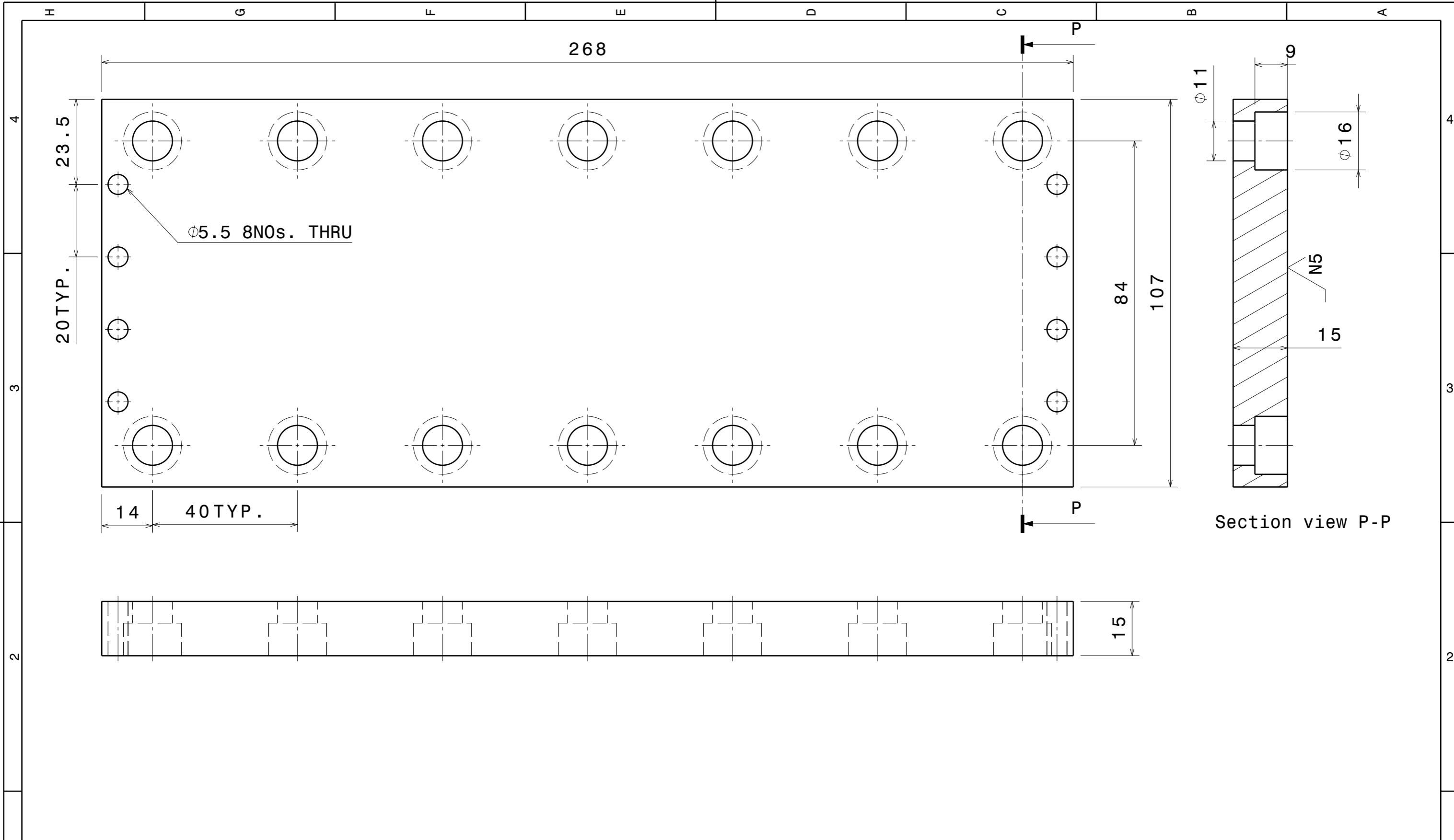
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
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CO-ORDINATED BY					REVISION COLUMN				RFQ GROUP:								
					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED						
MACHINING DEVIATIONS FOR NON-TOLERANCED 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.	11.01.18	 <b>COOLING ARRANGEMENT - 1</b>		
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5				CHECKED	PKC			REF DRG NO:	REV 0
+1°	+0°-30'	+0°-20'	+0°-10'									APPROVED	JMC		DRG.NO	IPR/17/A3/RFQ/19020038	SHEET 1 OF 1



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

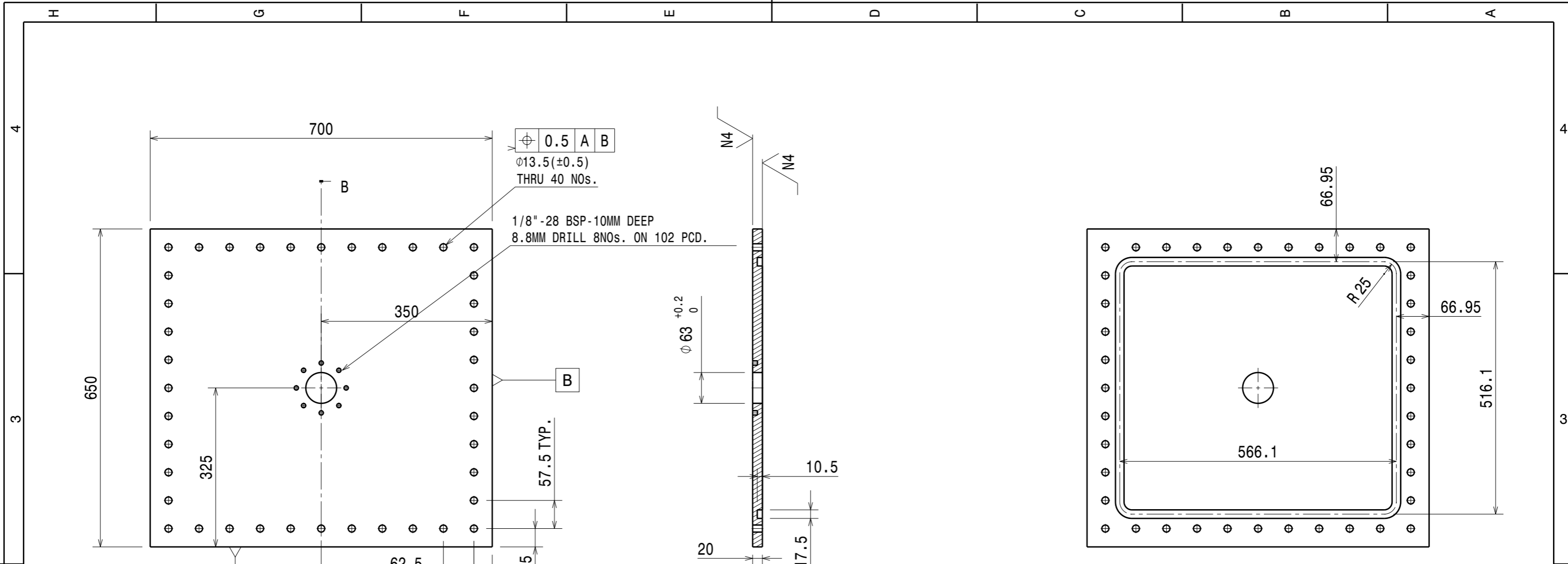


DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			 <b>Institute for Plasma Research</b> प्लाज्मा अनुसंधान संस्थान Bhat, Near Indira Bridge, Gandhinagar 382428, Gujarat (India)			
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			TITLE		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:1	DATE	11.01.18		
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.		COOLING ARRANGEMENT - 2	
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		DRG.NO	IPR/17/A3/RFQ/19020039	REV 0
													SHEET 1 OF 1			



Section view P-P


DRG.NO		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				RFQ GROUP:		 <b>Institute for Plasma Research</b> 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			
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	K.R.R.	11.01.18	TITLE		
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'	UPTO 6	+0.1	+0.2	+0.3	+0.5				APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19020040	SHEET 1 OF 1



Section view B-B

- 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

N8 / N5 / N4

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					RFQ GROUP:			 <b>Institute for Plasma Research</b> 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	END FLANGE COVER FOR PROTOTYPE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	K.R.R.	10.01.18	REF DRG NO:	
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			CHECKED	PKC		REV 0	
+1°	+0°-30'	+0°-20'	+0°-10'							APPROVED	JMK		DRG.NO	IPR/17/A3/RFQ/19030014	SHEET 1 OF 1