

NOTES

1. GENERAL:

- 1.1. ALL PRODUCT SPECIFICATIONS AND THEIR RELATED DOCUMENTS USING THIS FEATURE MUST REFERENCE THIS DOCUMENT AS THE CONTROLLING SPECIFICATION AND USE THE SAME BALLOON NUMBERS.
- 1.2. COMPLIANCY TO THIS DOCUMENT:
  - a) COMPLIANCY MAY BE CLAIMED BY MEETING THE REQUIREMENTS IN THIS SPECIFICATION WITH THE DEVIATION IDENTIFIED AND MAY BE REFERENCED IN OTHER DOCUMENTS (DRAWINGS, DVP&R, ETC.) AS 'CONFORMS TO MOLEX 347350050 REV X.X'.
  - b) PRODUCTS DESIGNED AFTER THE DATE OF RELEASE OF THIS DOCUMENT SHALL BE COMPLIANT TO THE CURRENT REVISION OF THIS DOCUMENT.
  - c) PRODUCTS THAT HAVE MET PREVIOUS REVISION(S) OF THIS DOCUMENT SPECIFICATION SHALL STILL BE CONSIDERED 'MOLEX STANDARDS COMPLIANT' TO THOSE REVISIONS AND DO NOT NEED TO BE RE-VALIDATED.
- 1.3. DEVIATIONS TO THIS DOCUMENT ARE ALLOWABLE UNDER THE FOLLOWING CONDITIONS:
  - a) ALL DEVIATIONS SHALL SHOW EQUAL OR BETTER PERFORMANCE (ELECTRICAL/MECHANICAL) AS REQUIRED BY VALIDATION SPECIFICATION.
  - b) EXCEPTIONS ARE CLEARLY IDENTIFIED ON THE PRODUCT SPECIFICATION.
  - c) ALL DEVIATIONS ARE APPROVED BY THE FOLLOWING INDIVIDUALS:
    - PERSON WHO HAS INTERFACE RESPONSIBILITY
    - PERSON WITH DESIGN STANDARD APPROVER AUTHORITY
  - d) ALL RECORDS OF DEVIATION APPROVALS SHALL BE INCLUDED WITH CHANGE NOTICE DOCUMENTATION.

2. DESIGN - MATERIALS:

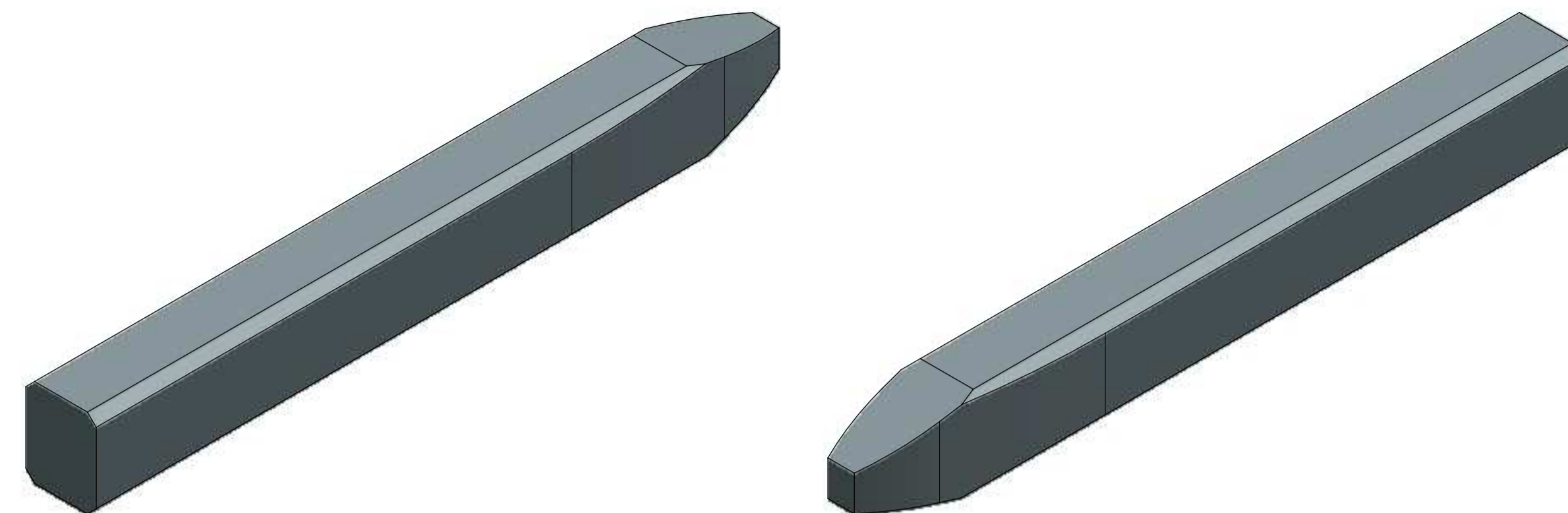
2.1. BASE MATERIAL TYPE : COPPER ALLOY

3. DESIGN - GEOMETRY:

- 3.1. THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND MASTER FOR THIS PART WITH EXCEPTION TO UNDERLINED DIMENSIONS. DIMENSIONAL INFORMATION NOT SHOWN ON THIS DRAWING IS DEFINED BY THE DATA FILE AT ITS LATEST REVISION.
- 3.2. PRODUCT DESIGN MODEL NUMBER(S): SEE BOM TABLE
- 3.3. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009
- 3.4. EDGES OF UNDEFINED SHAPE PER ISO 13715.
- 3.5. DIMENSIONS AND TOLERANCES APPLY BEFORE AND AFTER PLATING.
- 3.6. GENERAL TOLERANCES: SEE TITLE BLOCK

4. DESIGN - MANUFACTURING:

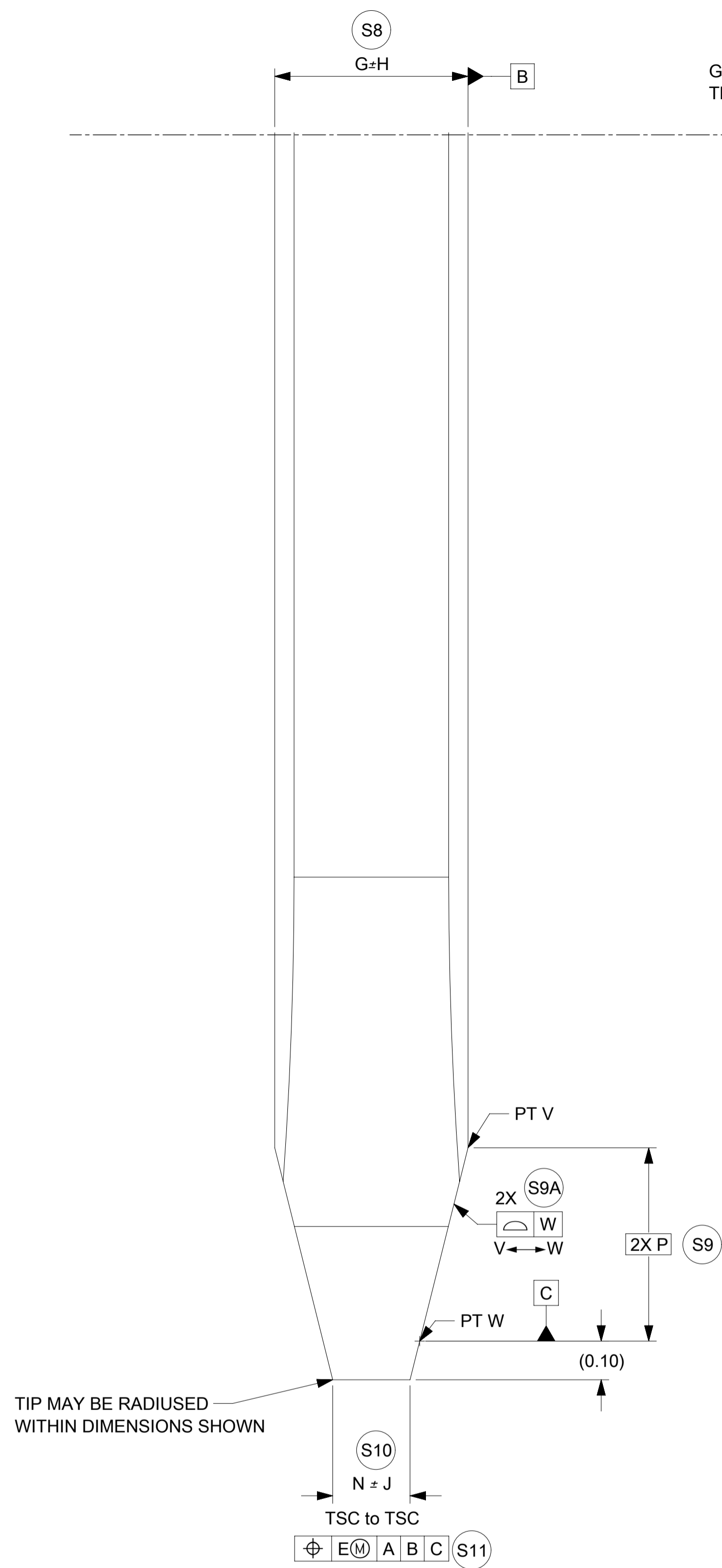
- 4.1. ANY REMAINING PROCESS LUBRICANT MUST NOT VARNISH OR DEGRADE ELECTRICAL PERFORMANCE. PROCESS LUBRICANTS SHOULD BE APPROVED BY THE RESPONSIBLE ENGINEER.
- 4.2. ALLOWABLE BURR: 0.03mm MAX UNLESS OTHERWISE SPECIFIED
- 4.3. FOR UNPLATES BLADES - TOOLING MARKS SPANNING ACROSS OR ALONG THE INTERFACING PROFILE OF THE BLADE SHOULD BE FURTHER INSPECTED. A TOOLING MARK DEEPER THAN 1 MICRON SHOULD NOT BE ACCEPTED.



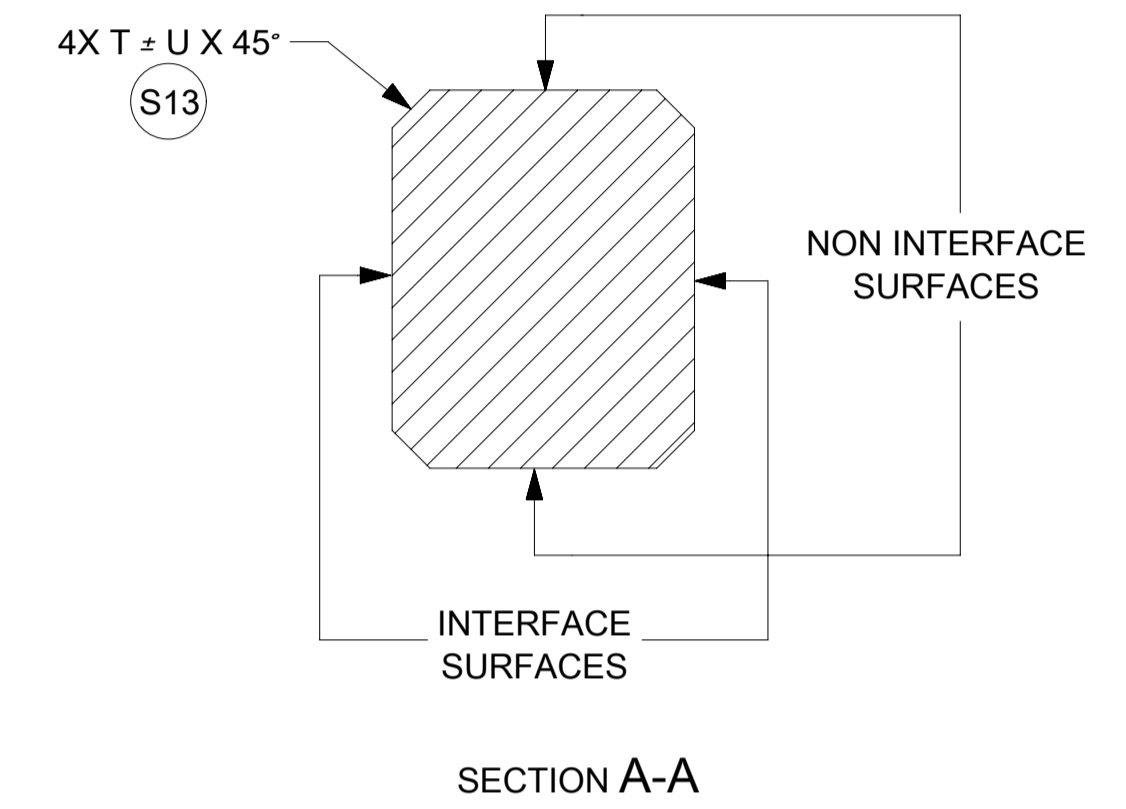
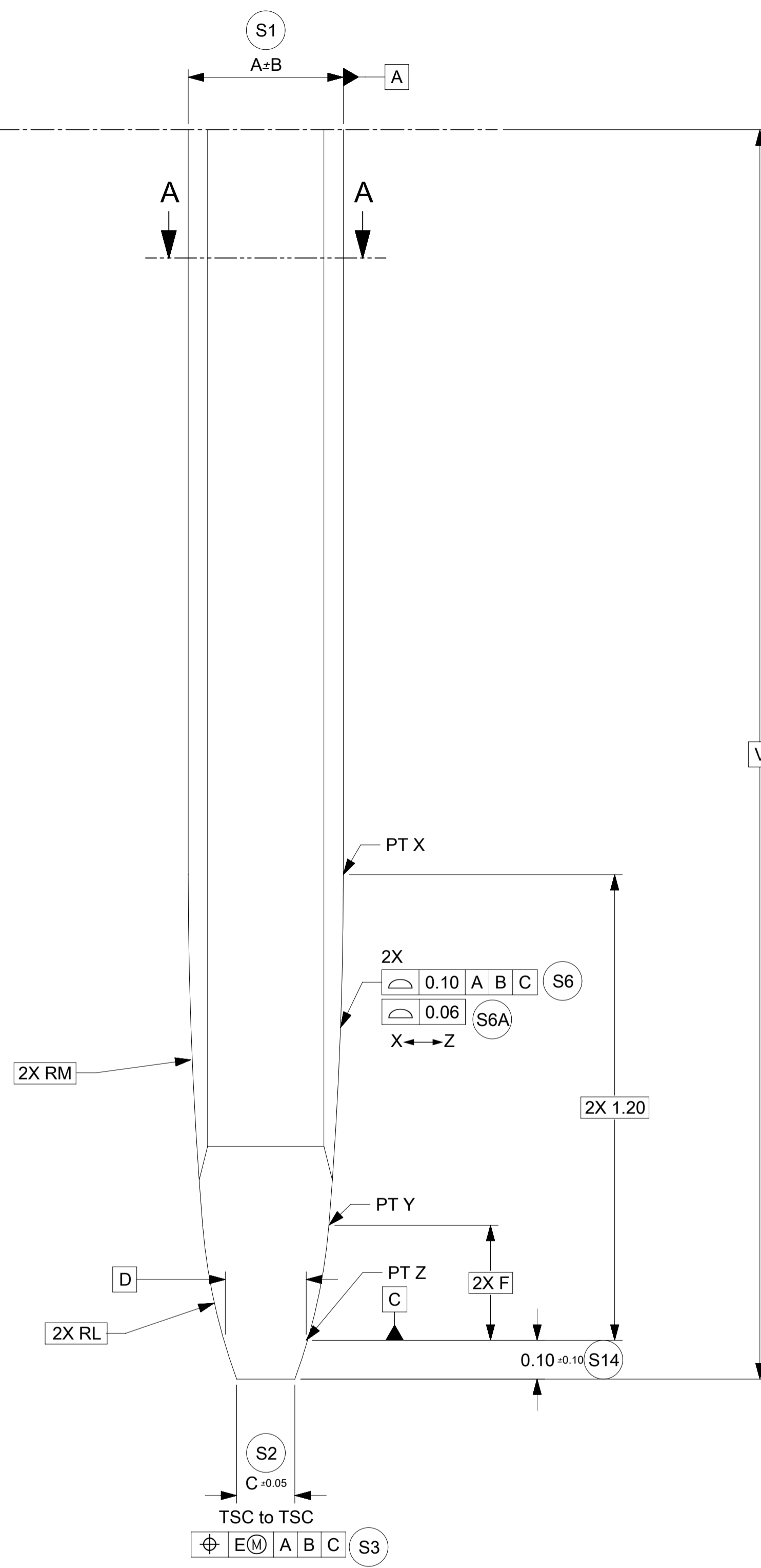
SCALE 50:1

0.5 MM PIN VIEW SHOWN FOR REPRESENTATION PURPOSES ONLY

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
QUALITY SYMBOLS	EC NO: 638183 DRWN: SIAZRAWI CHKD: YLEPOTTIER REV: APPR: YLEPOTTIER	2020/05/20 2020/05/23 2020/05/23		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS mm		SCALE 50:1			
		ANGULAR TOL ± °		DRWN BY SIAZRAWI		DATE 2016/08/16					
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	4 PLACES ±		CHK'D BY SIAZRAWI		DATE 2016/09/27		DESIGN STANDARD HEADER PIN & BLADE TIP GEOMETRY FOR MATING TO HARNESS TERMINALS		PRODUCT CUSTOMER DRAWING	
▽ = 0		3 PLACES ± 0.015		APPR BY YLEPOTTIER		DATE 2016/09/27					
▽ = 0		2 PLACES ± 0.05		DRWING SIZE A1		THIRD ANGLE PROJECTION		SERIES 34735		MATERIAL NUMBER 347350050	
▽ = 0		1 PLACE ± 0.1		CUSTOMER		DOC TYPE PSD		DOC PART 000		SHEET NUMBER 1 OF 2	
▽ = 0		0 PLACES ±		DOCUMENT NUMBER 347350050		DOC TYPE PSD		DOC PART 000		SHEET NUMBER 1 OF 2	
▽ = 0		RELEASE STATUS P1		RELEASE DATE 2020/05/23 03:21:07							



GEOMETRY & PLATING ABOVE THE LINE IS NOT CONTROLLED BY THIS DOCUMENT



SCALE 100:1

TABLE 1		DRAWING DIMENSIONS																	
Model NO.	Description	A	B	C	D	E	F	G	H	J	L	M	N	P	T	U	V	W	
34735-0004	0.50mm BLADE	0.40	0.015	0.15	0.216	0.05	0.296	0.50	0.03	0.05	1.5	11	0.20	0.50	0.05	0.03	4.0 MIN	0.08	
34735-0001	0.64mm BLADE - NORMAL THICKNESS	0.64	0.03	0.25	0.356	0.10	0.285	0.64	0.03	0.05	1	7	0.25	0.55	0.05	0.03	5.5 MIN	0.08	
34735-0002	0.64mm BLADE - REDUCED THICKNESS	0.625	0.015	0.234	0.341	0.10	0.285	0.64	0.03	0.05	1	7	0.25	0.55	0.05	0.03	5.5 MIN	0.08	
34735-0006	1.20mm BLADE - HEADER	0.60	0.015	0.21	0.316	0.10	0.285	1.00	0.05	0.05	1	7	0.59	0.55	0.05	0.03	5.5 MIN	0.13	
34735-0006	1.20mm BLADE - INLINE	0.60	0.015	0.21	0.316	0.10	0.285	1.20	0.05	0.05	1	7	0.59	0.55	0.05	0.03	5.5 MIN	0.13	
34735-0003	1.50mm BLADE	0.80	0.03	0.25	0.321	0.10	1.10	1.50	0.05	0.10	4.775	1.083	0.5	1.68	0.05	0.03	5.0 MIN	0.13	
34735-0010	2.8mm BLADE - HEADER	0.80	0.025	0.20	0.345	0.10	0.314	2.50	0.10	0.10	1	4	1.80	1.10	0.05	0.03	9.5 MIN	0.25	
34735-0011	6.3mm BLADE - HEADER	0.80	0.025	0.20	0.345	0.10	0.314	6.0	0.25	0.20	1	4	3.90	1.10	0.05	0.03	10.5 MIN	0.13	

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<b>QUALITY SYMBOLS</b> F = 0 F = 0 F = 0 T = 0 C = 0 X = 0 = 0 = 0	EC NO: 638183 DRWN: SJAZRAWI CHKD: YLEPOTTIER APPR: YLEPOTTIER	2020/05/20 2020/05/23 2020/05/23	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± ° 4 PLACES ± 3 PLACES ± 0.015 2 PLACES ± 0.05 1 PLACE ± 0.1 0 PLACES ±	DIMENSION UNITS: mm SCALE: 100:1 DRWN BY: SJAZRAWI DATE: 2016/08/16 CHK'D BY: YLEPOTTIER DATE: 2016/09/27 APPR BY: YLEPOTTIER DATE: 2016/09/27	<b>molex</b> DESIGN STANDARD HEADER PIN & BLADE TIP GEOMETRY FOR MATING TO HARNESS TERMINALS PRODUCT CUSTOMER DRAWING
	A19	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWING SIZE: A1 THIRD ANGLE PROJECTION	SERIES: 34735 MATERIAL NUMBER: 347350050 CUSTOMER:	DOCUMENT NUMBER: 347350050 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 2 OF 2

TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	INTERFACE NOTES AND BOM
2	INTERFACE KEY CONFIGURATIONS
3	INTERFACE DEFINITION
4	INTERFACE DATUM TARGETS

MATING INTERFACE CHART			
DESCRIPTION	COLOR	MODEL NUMBER	KEY
1X10, KEY A, BLACK	BLACK	349681801	A
1X10, KEY B, LIGHT GRAY	LIGHT GRAY	349681802	B
1X10, KEY C, DARK GRAY	DARK GRAY	349681803	C
1X10, KEY D, STONE GRAY	STONE GRAY	349681804	D

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:

REFER TO "SAE/USCAR 12 CONNECTOR GUIDELINES" AND "SAE/USCAR 2 PERFORMANCE SPECIFICATION FOR AUTOMOTIVE ELECTRICAL CONNECTOR SYSTEMS" FOR ADDITIONAL REQUIREMENTS.

2. DESIGN - MATERIALS:

- a. HOUSING: SPS/NYLON 20% GLASS FILLED OR EQUIVALENT  
FLAMMABILITY REQUIREMENT: PER ISO3795 OR GM3191
  - 1. BURN RATE 100mm/MIN MAXIMUM
  - 2. MATERIAL MUST BE SELF EXTINGUISHING
- b. BLADE TERMINAL: SEE MOLEX SALES DRAWING 347350050. FOR MATERIAL, DIMENSIONAL, PLATING AND COATING REQUIREMENTS AND ANY BLADE TERMINAL DESIGN INFORMATION NOT SHOWN ON REFERENCED OR THIS DRAWING SEE EWCAP DWG NO. EWCAP-001.
  - 1. TIN PLATING: 2.5-4.0 MICROMETERS MATTE TIN OVER 1.25-2.25 MICROMETERS DUCTILE SULFAMATE NICKEL
  - 2. SILVER PLATING: 1.9-3.3 MICROMETERS SILVER OVER 1.0-1.8 MICROMETERS DUCTILE SULFAMATE NICKEL.  
ANTI-TARNISH: SYNTHETIC HYDROCARBON CONTACT SURFACE FINISH OR EQUIVALENT APPLIED WITHOUT VOID TO CONTACT AREA

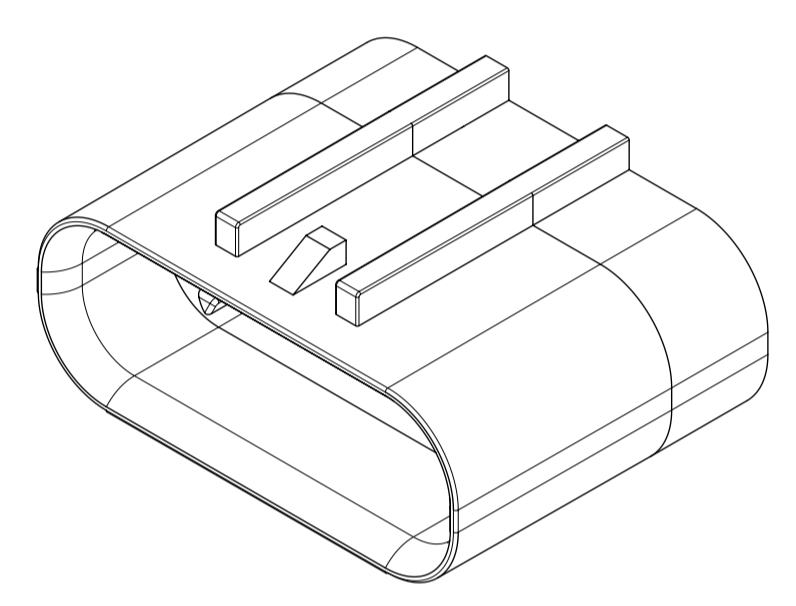
c. STANDARD COLORS FOR KEYING (SEE CHART). DEVATION REQUIRES APPROVAL OF AUTHORIZED PERSON.

3. DESIGN - GEOMETRY:

- a. THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND THE MASTER FOR THIS PART WITH THE EXCEPTION OF UNDERLINED DIMENSIONS. DIMENSIONAL INFORMATION NOT SHOWN IN THIS DRAWING IS DEFINED BY THE DATA FILE AT ITS LATEST REVISION.
- b. PRODUCT DESIGN MODEL NUMBER(S): SEE MATING INTERFACE CHART
- c. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 2009
- d. GENERAL TOLERANCES: SEE TITLE BLOCK
- e. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
- f. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
- g. LETTERING SHALL BE 0.15 MAX RAISED IN 0.25 MAX RECESS PAD.  
THIS INCLUDES RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.  
(FOR SMALL PARTS: LETTERING SHALL BE 0.10 MAX RAISED IN 0.15 MAX RECESS PAD)

4. DESIGN - MANUFACTURING:

- a. ALLOWABLE FLASH MAX 0.20 HIGH BY MAX 0.13 THICK.
- b. ALLOWABLE SPLIT/PARTING LINE MISMATCH 0.2 MAX.
- c. EJECTOR PIN MARKS TO BE FLUSH TO 0.25 MAX DEPRESSED. LOCATION MUST BE APPROVED BY PRODUCT ENGINEERING. EJECTOR PIN MARKS NOT PERMISSIBLE ON OR NEAR DATUM TARGET AREA.
- d. ALLOWABLE GATE VESTIGE FLUSH TO 0.25 MAX RECESS. LOCATION MUST BE APPROVED BY PRODUCT ENGINEERING.
- e. NO EXTERNAL MOLD RELEASE AGENT ALLOWED DURING MANUFACTURING.
- f. NO PARTING LINES, MISMATCHES OR EJECTOR MARKS PERMISSIBLE WITHIN THE INDICATED SURFACE. TOOLING FOR INDICATED SURFACE MUST BE PROCESSED TO A SURFACE FINISH OF NTMA #70 (400 PAPER)
- g. BLADE TERMINAL ENVIRONMENTAL BARRIER (USED WITH SILVER PLATED TERMINALS) SHALL NOT BE PRESENT ON ANY SURFACE OTHER THAN THE BLADE TERMINALS
- h. NO PARTING LINES, FLASH, MISMATCHES OR EJECTOR MARKS PERMISSIBLE ON THE INDICATED NOSE SURFACE OR TRANSITION TO INTERNAL SHROUD SURFACE.



1X10

NOTICE:  
PRODUCT IN DEVELOPMENT & SUBJECT  
TO CHANGE WITHOUT NOTIFICATION

INSPECTION NUMBER LOG	
LAST NUMBER: ICD-31	
ADDED: ICD-21A, ICD-21B	
REMOVED: ICD-20,23,24,25, 29, 31	

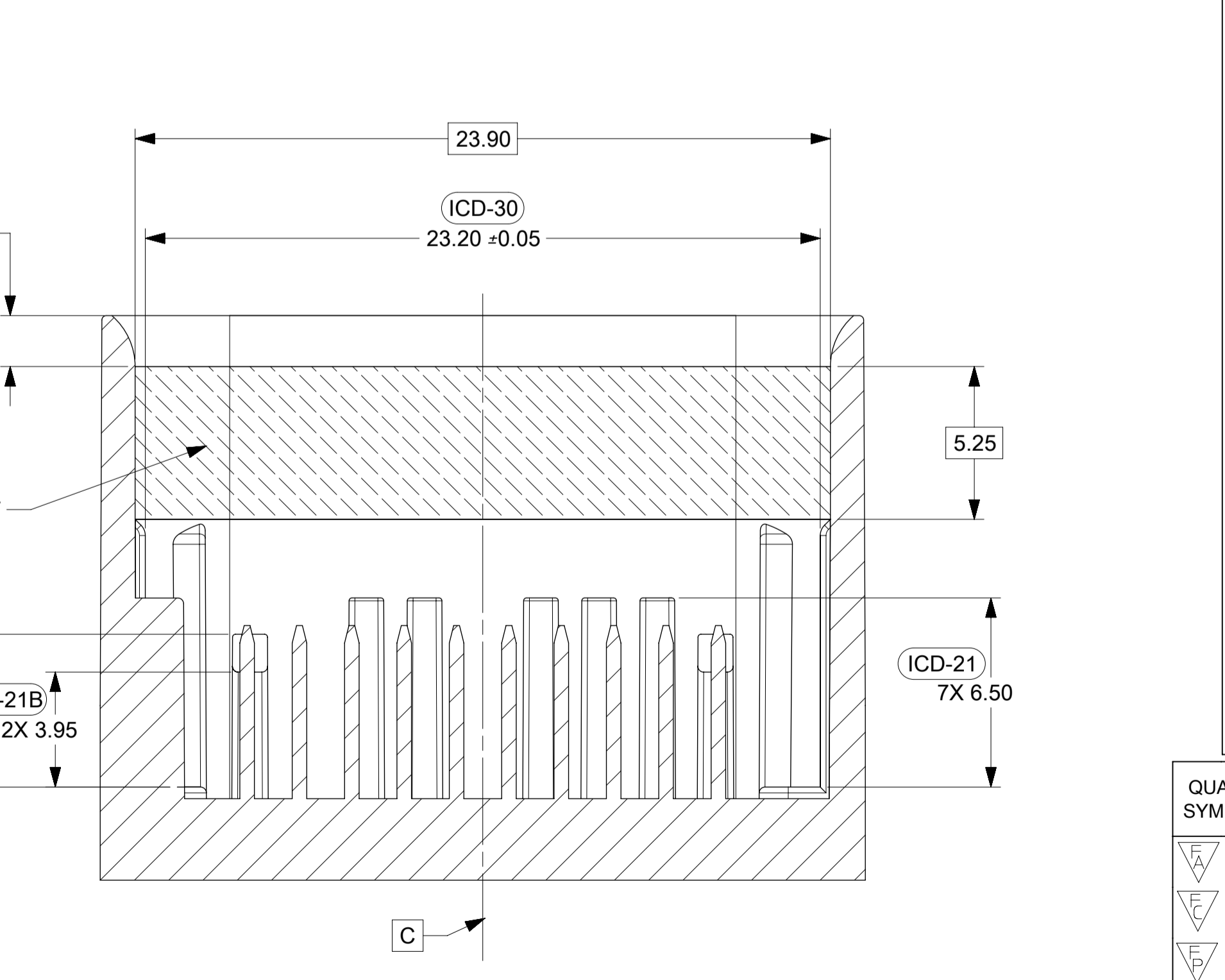
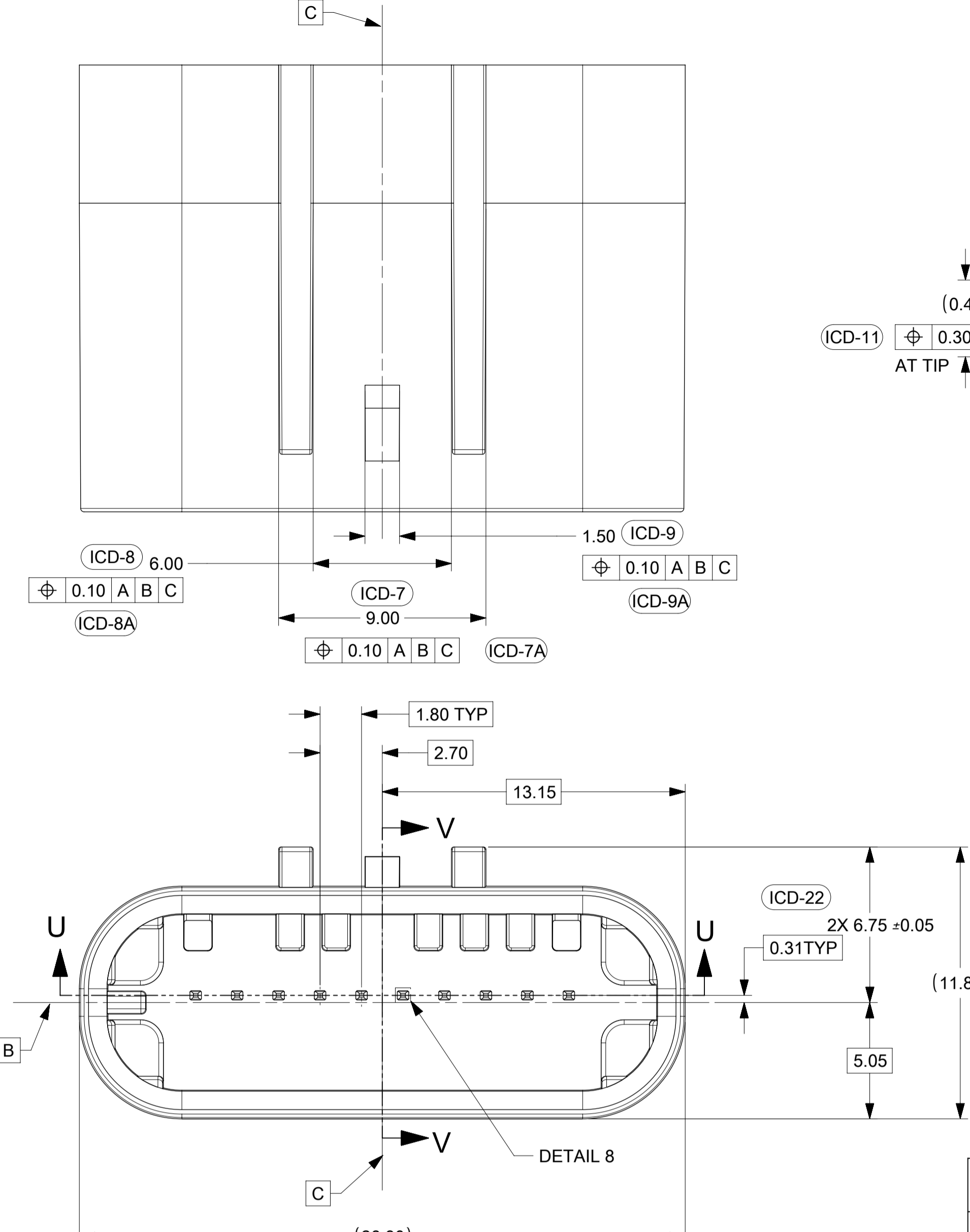
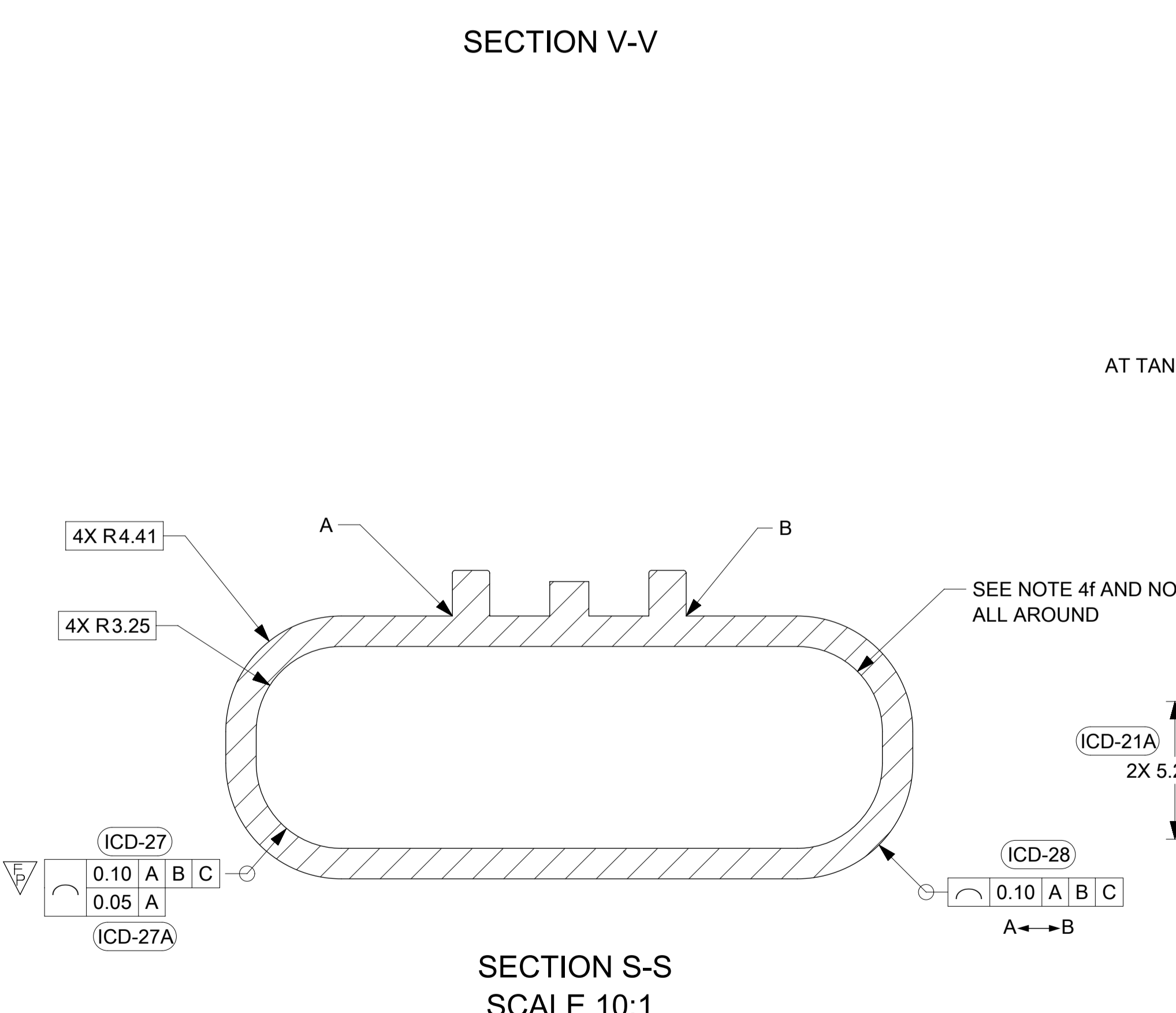
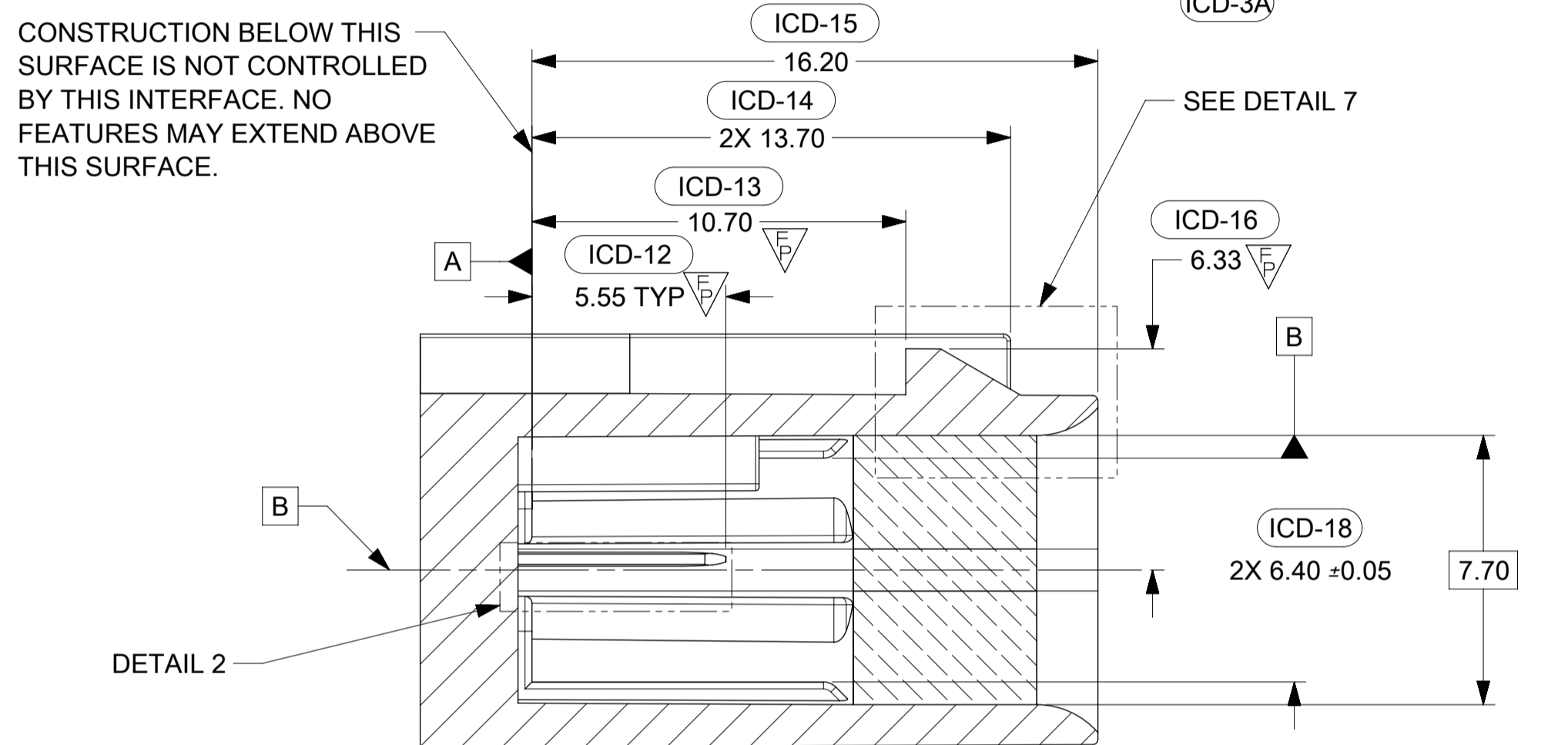
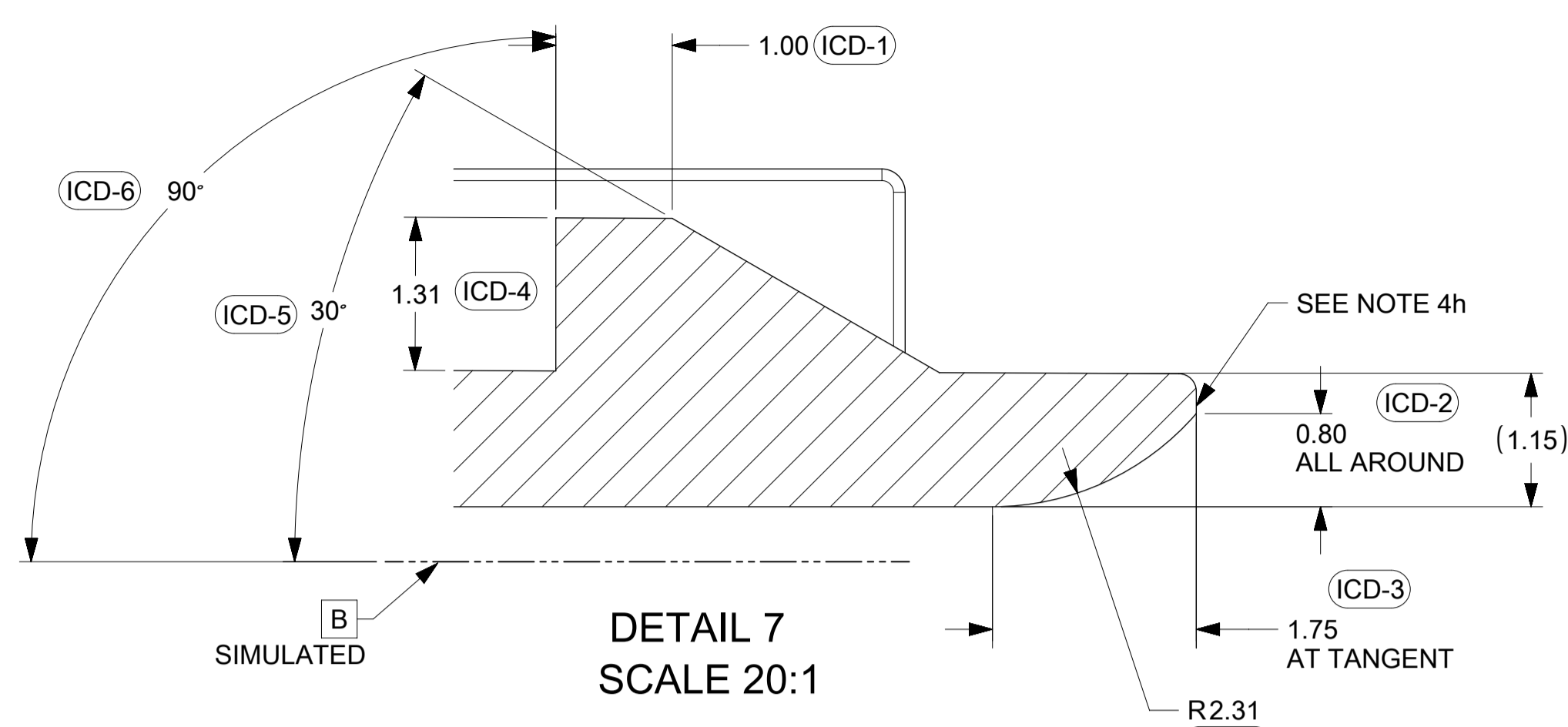
D	CHANGED RIB REMOVAL FOR KEYING: SEE VIEWS SHEET 2. ADDED SEE NOTE 2 TO PIN DETAIL SHEET 3. REVISED NOTE 4f.
C1	REVISED NOTES AND DIMENSIONS
C	RELEASE
REV	REV DESCRIPTION

QUALITY SYMBOLS FA = 0 FE = 0 FE = 0 ▼ = 0 C = 0 ☒ = 0 ■ = 0 ∇ = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
	EC NO: 121633	DRWN: JURUTTER	CHKD: JCONDON	REV APPR: JCONDON
	2017/04/03	2017/09/15	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION UNITS: mm SCALE: 1:1
	ANGULAR TOL ± 3.0 ° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.1 1 PLACE ± 0.2 0 PLACES ±		DRWN BY: MNS02 DATE: 2016/04/21 CHK'D BY: DATE: APPR BY: KDEKOSKI DATE: 2016/05/04 DRAWING SIZE: A1 THIRD ANGLE PROJECTION	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DATED: 2016/05/04 DRAWING SIZE: A1 THIRD ANGLE PROJECTION		
PRODUCT CUSTOMER DRAWING		SERIES: 34968 MATERIAL NUMBER: SEE CHART CUSTOMER:		
DOCUMENT NUMBER: 349681800 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 1 OF 4		MOLEX® MINI50 SEALED 1X10 INTERFACE		

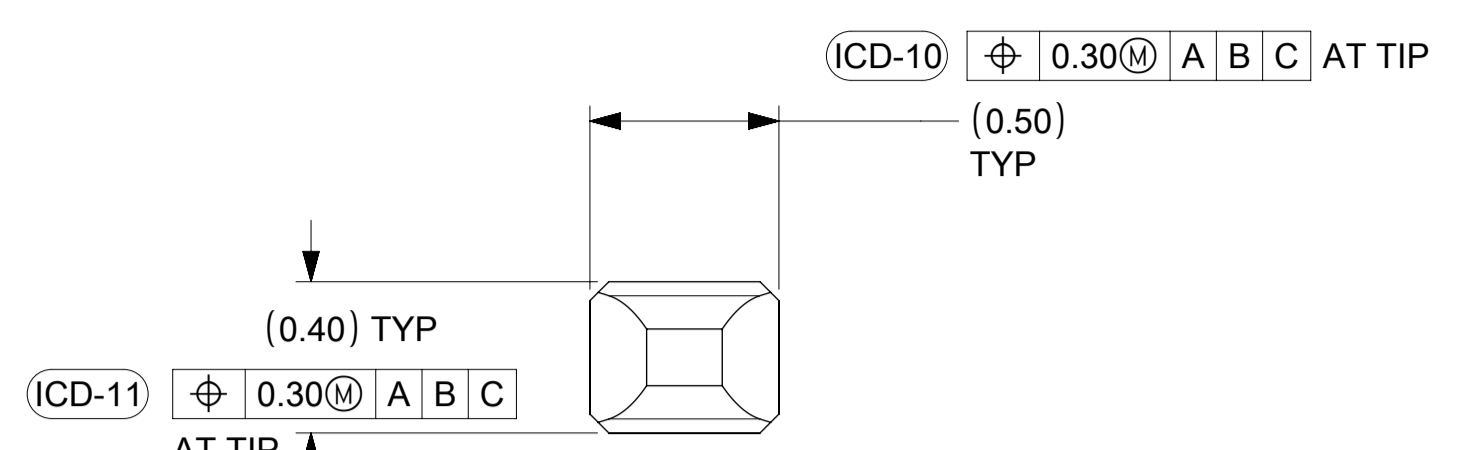




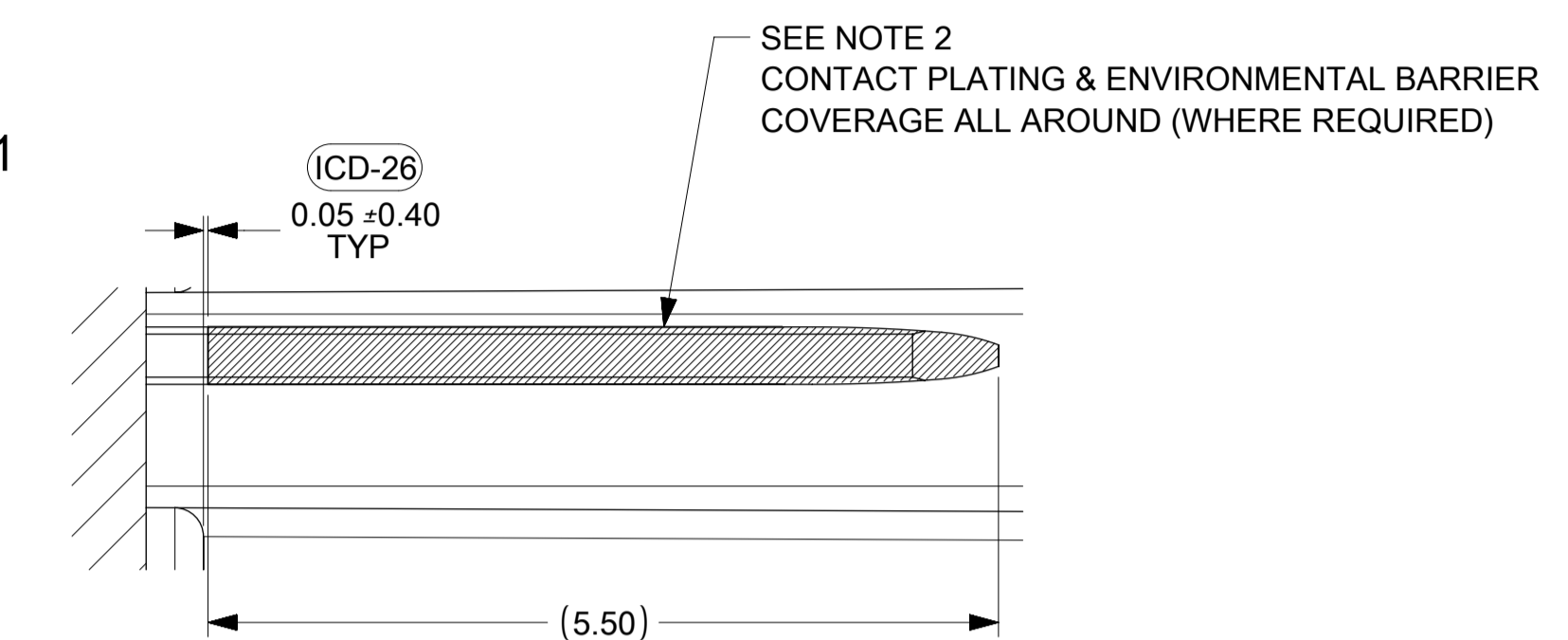
**SHEET DESCRIPTION**  
CONNECTOR INTERFACE DEFINITION



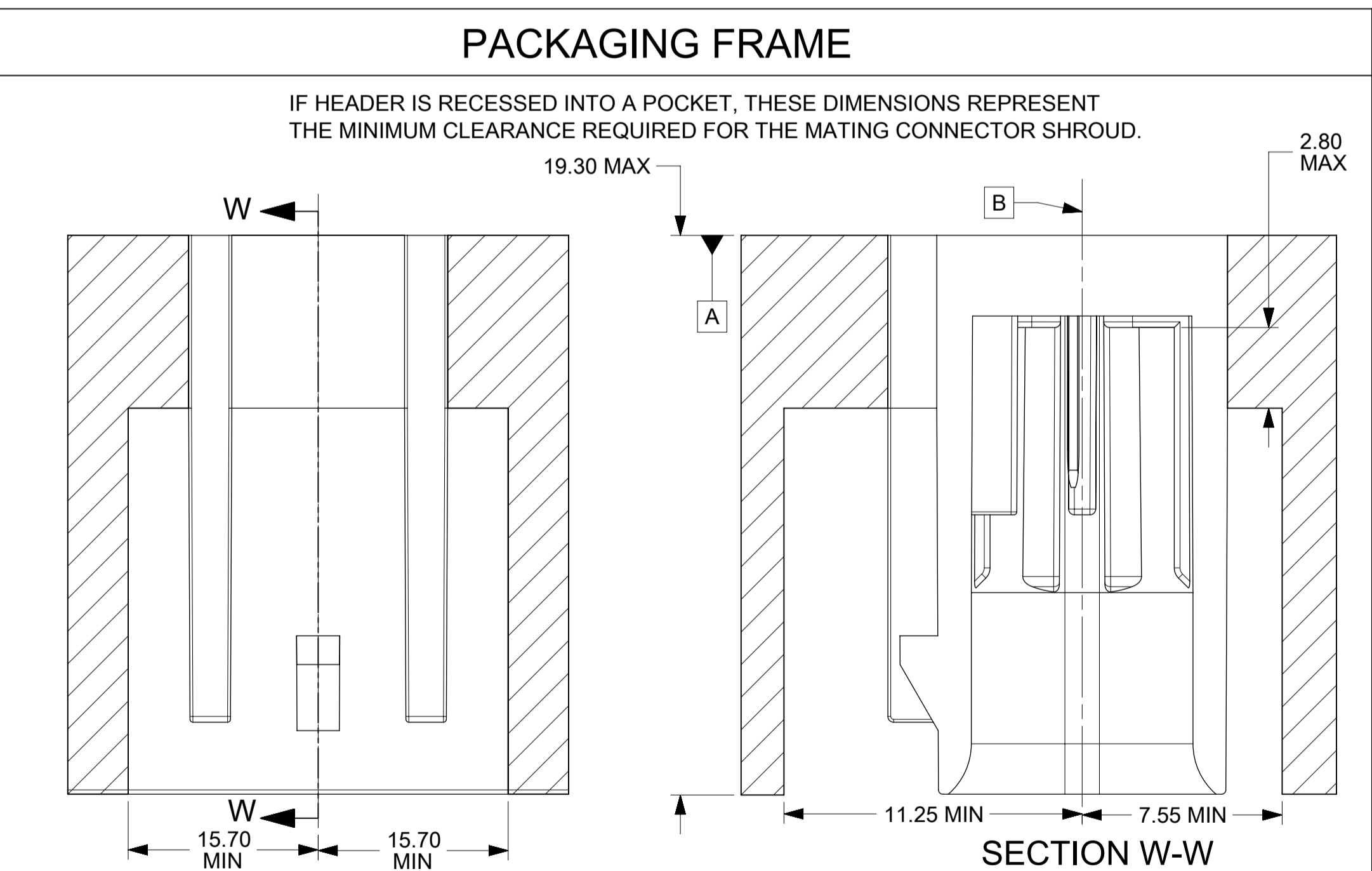
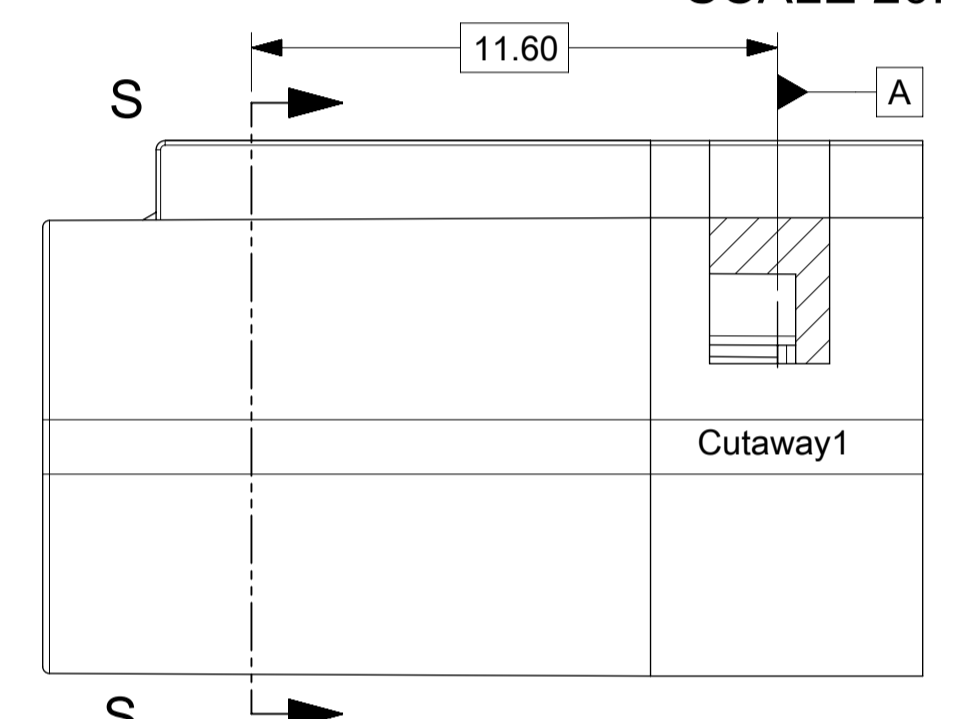
SEE NOTE 2  
REFER TO MOLEX SALES DWG 347350050  
AND EWCAP DWG. NO. EWCAP-001 REV. P 050-T001  
0.50 TERMINAL BLADE CONFIGURATION



**DETAIL 8**  
SCALE 50:1

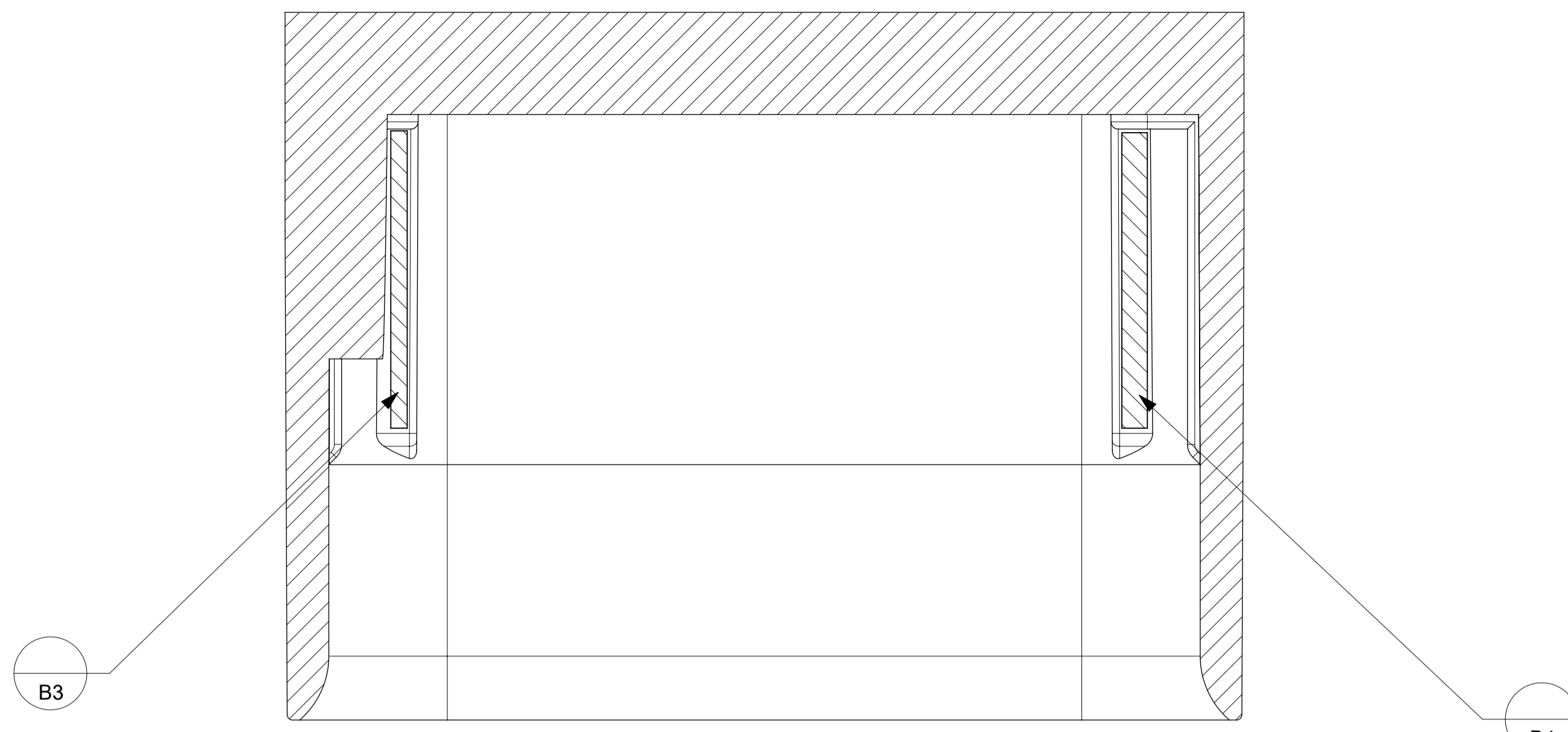


**DETAIL 2**  
SCALE 20:1

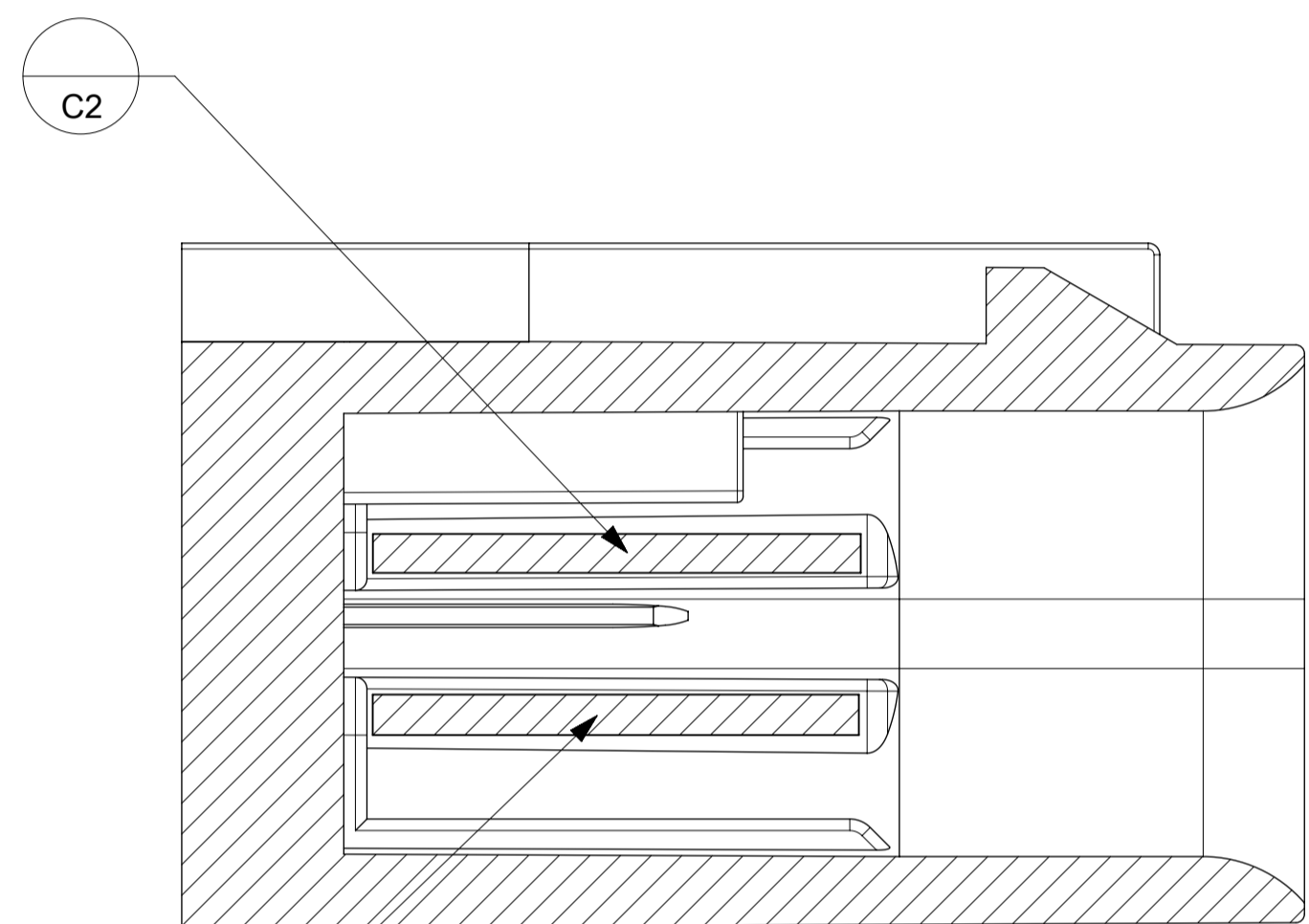


<p>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</p>		<p>QUALITY SYMBOLS</p> <ul style="list-style-type: none"> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> <li>▽ = 0</li> </ul>		<p>GENERAL TOLERANCES (UNLESS SPECIFIED)</p> <p>ANGULAR TOL ± 3.0 °</p> <p>4 PLACES ±</p> <p>3 PLACES ±</p> <p>2 PLACES ± 0.1</p> <p>1 PLACE ± 0.2</p> <p>0 PLACES ±</p> <p>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</p>		<p>DIMENSION UNITS</p> <p>mm</p> <p>SCALE</p> <p>1:1</p>		<p>DRWN BY</p> <p>DATE</p> <p>2017/04/03</p> <p>2017/09/15</p> <p>MNS02</p> <p>2016/04/21</p>		<p>CHK'D BY</p> <p>DATE</p> <p>APPR BY</p> <p>DATE</p> <p>JCONDON</p> <p>2016/05/04</p>		<p>PRODUCT CUSTOMER DRAWING</p> <p>MINI50 SEALED 1X10 INTERFACE</p>	
<p>EC NO: 121633</p> <p>DRWN: JURUTTER</p> <p>CHK'D:</p> <p>REV APPR:</p>		<p>DRAWING SIZE</p> <p>THIRD ANGLE PROJECTION</p> <p>A1</p>		<p>SERIES</p> <p>MATERIAL NUMBER</p> <p>CUSTOMER</p> <p>34968</p> <p>SEE CHART</p>		<p>DOCUMENT NUMBER</p> <p>DOC TYPE</p> <p>DOC PART</p> <p>SHEET NUMBER</p> <p>349681800</p> <p>PSD</p> <p>000</p> <p>3 OF 4</p>							

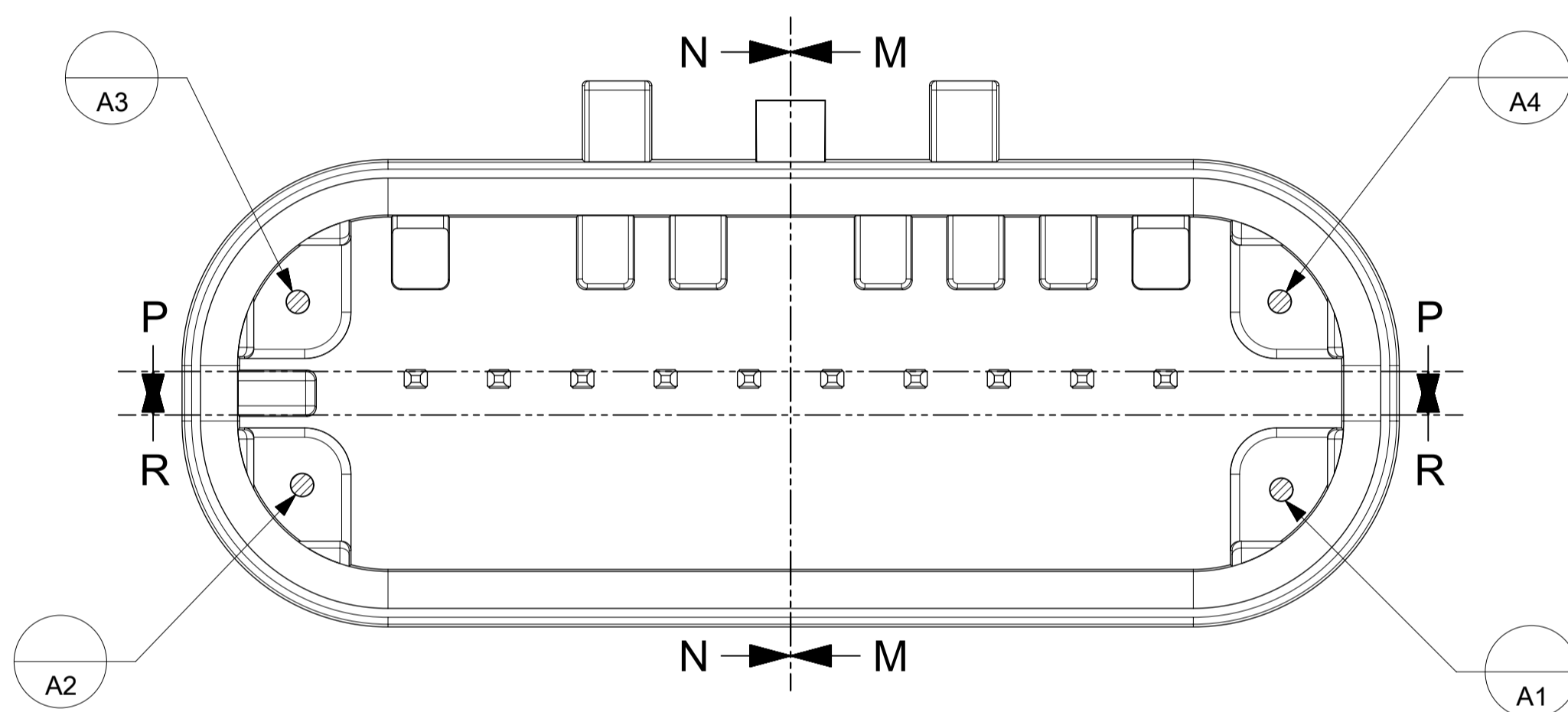
SHEET DESCRIPTION  
DATUM TARGETS



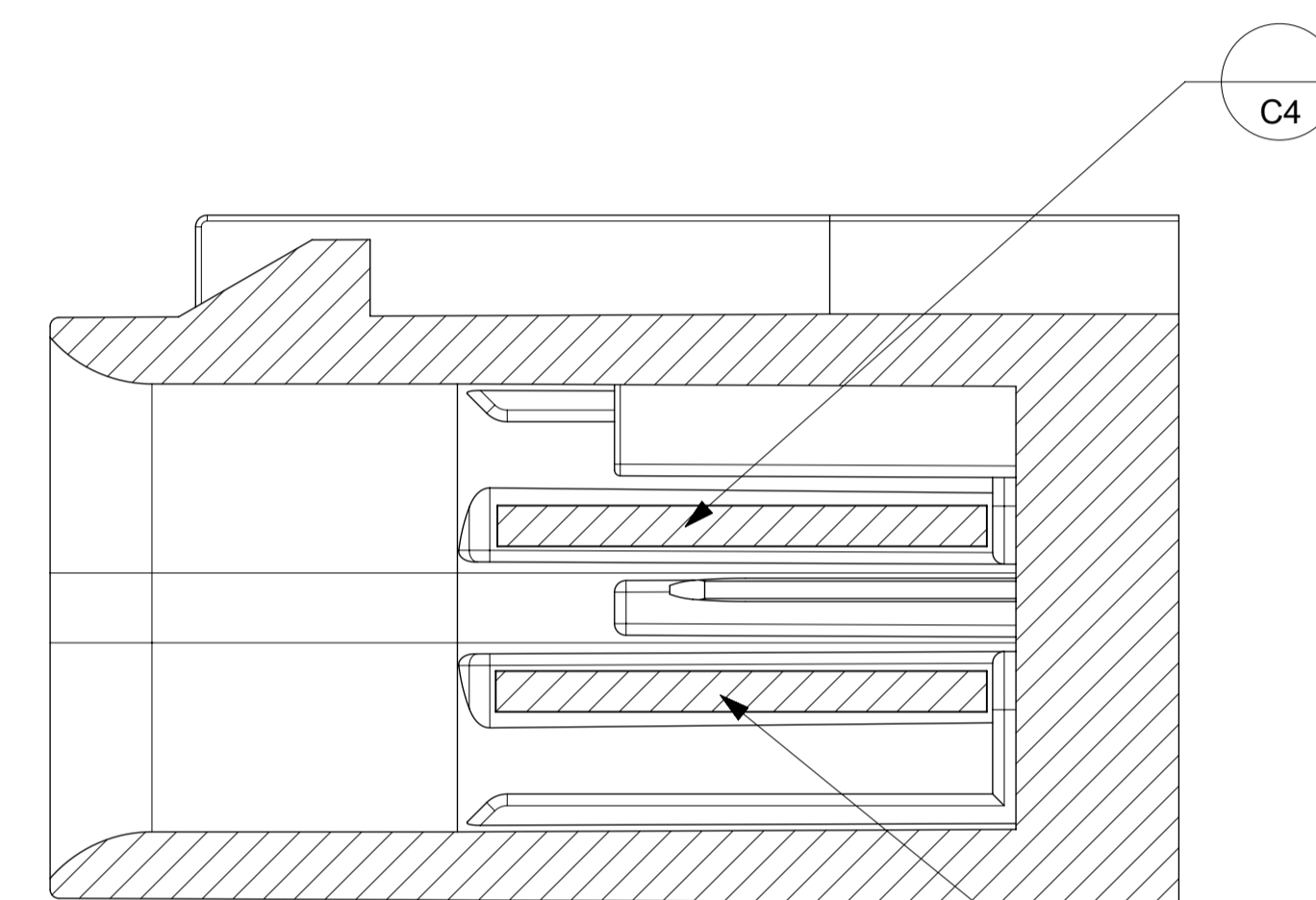
SECTION P-P



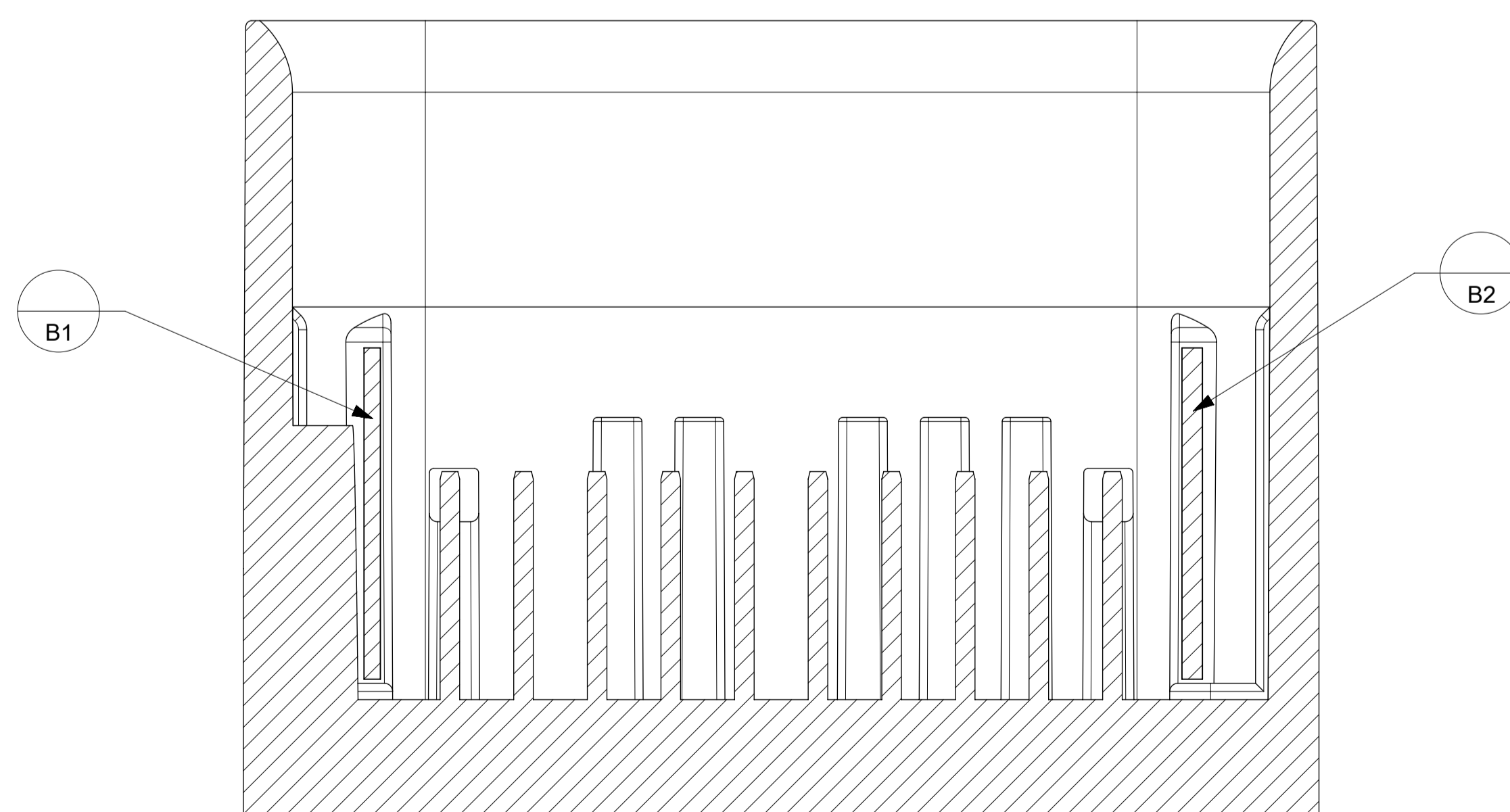
SECTION N-N



SECTION R-R



SECTION M-M



SECTION R-R

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<b>QUALITY SYMBOLS</b> 	EC NO: 121633 DRWN: JRUTTER CHKD: APPR: JCONDON	2017/04/03		2017/09/15		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS		SCALE			
		mm		8:1		ANGULAR TOL ± 3.0 °		DRWN BY		DATE			
		MNS02		2016/04/21		4 PLACES ±		CHK'D BY		DATE			
		3 PLACES ±		2 PLACES ± 0.1		APPR BY		DATE		SERIES		MATERIAL NUMBER	
		1 PLACE ± 0.2		0 PLACES ±		KDEKOSKI		2016/05/04		34968		SEE CHART	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		A1		DRAWING SIZE		THIRD ANGLE PROJECTION		DOCUMENT NUMBER		DOC TYPE	
								349681800		PSD			
								000		4 OF 4			

**molex**

MINI50 SEALED 1X10 INTERFACE

PRODUCT CUSTOMER DRAWING