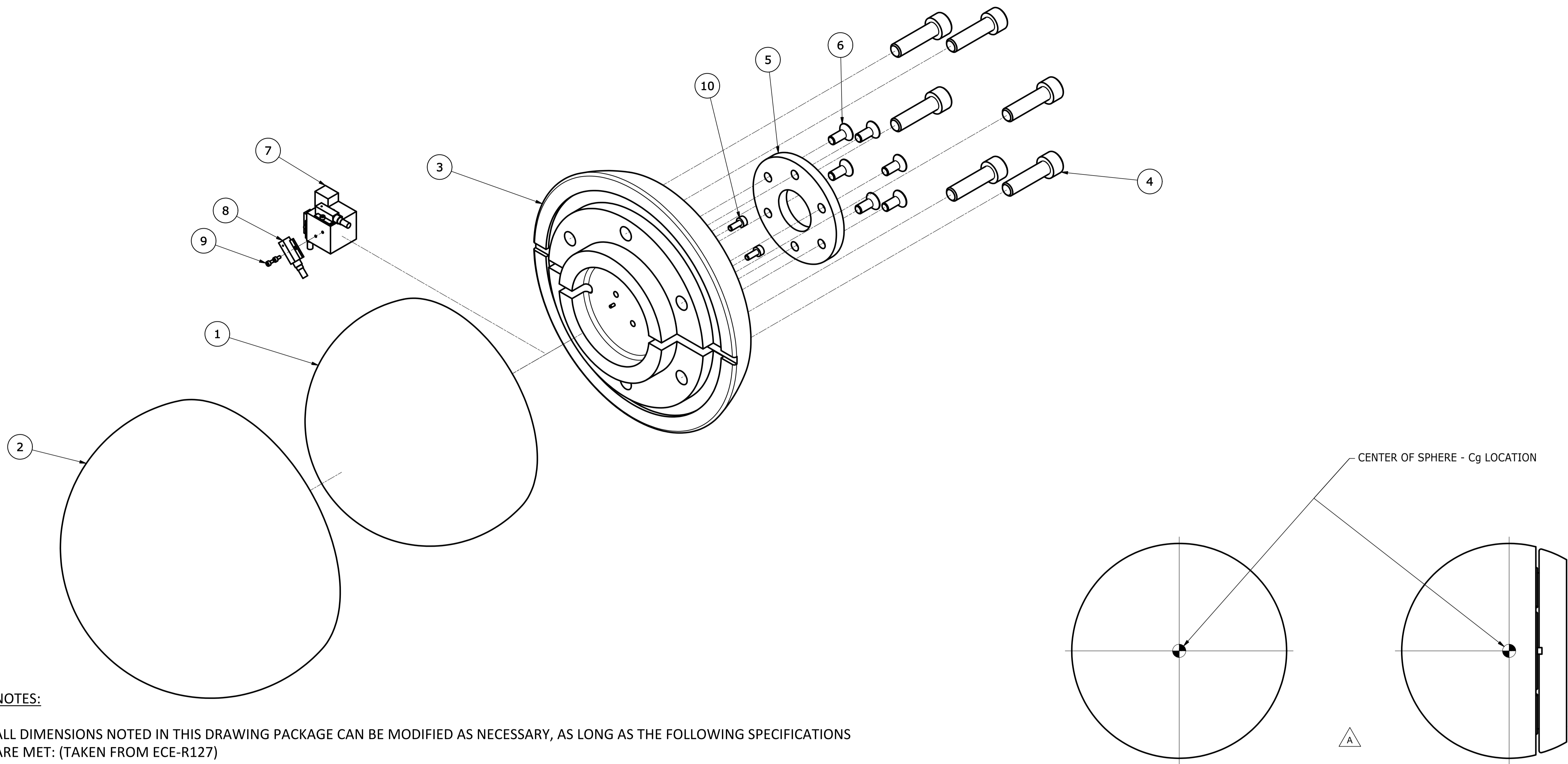


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE 10, ADDED SIDE AND FRONT VIEW	11/30/2016	JHC



NOTES:

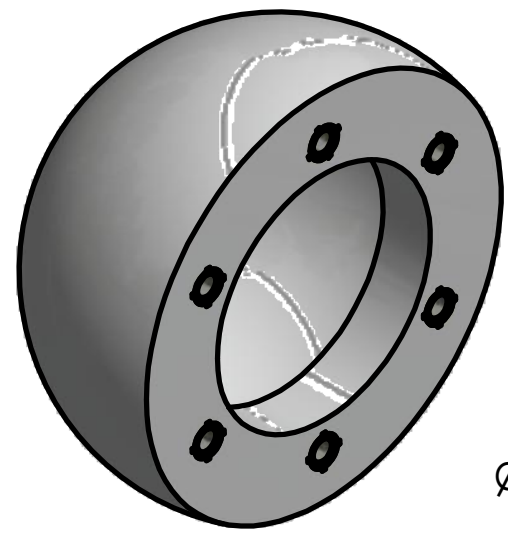
ALL DIMENSIONS NOTED IN THIS DRAWING PACKAGE CAN BE MODIFIED AS NECESSARY, AS LONG AS THE FOLLOWING SPECIFICATIONS ARE MET: (TAKEN FROM ECE-R127)

1. IMPACTOR SHALL BE A RIGID SPHERE MADE OF ALUMINUM, WITH A SYNTHETIC SKIN
2. MASS = 3.5 ± 0.07 KG
3. DIAMETER = 165 ± 1 MM
4. SPHERE SHALL BE COVERED WITH A 14 ± 0.5 MM THICK SYNTHETIC SKIN, WHICH SHALL COVER AT LEAST HALF OF THE SPHERE
5. THE CENTER OF GRAVITY OF THE IMPACTOR, INCLUDING INSTRUMENTATION, SHALL BE LOCATED IN THE CENTER OF THE SPHERE WITH A TOLERANCE OF ± 2 MM
6. THE MOMENT OF INERTIA ABOUT AN AXIS THROUGH THE CENTER OF GRAVITY AND PERPENDICULAR TO THE DIRECTION OF IMPACT SHALL BE IN THE RANGE OF 0.008 - 0.012 KG-M²
7. A RECESS IN THE SPHERE SHALL ALLOW FOR MOUNTING OF THREE UNIAXIAL ACCELEROMETERS OR ONE TRIAXIAL ACCELEROMETER (NOT SHOWN). THE SEISMIC MASS OF THE ACCELEROMETER SHOULD BE WITHIN ± 10 MM FROM THE CENTER OF THE SPHERE IN THE MEASUREMENT AXIS, AND WITHIN ± 1 MM FROM THE CENTER OF THE SPHERE FOR THE PERPENDICULAR DIRECTION TO THE MEASUREMENT AXIS.
8. ANY DAMPED UNIAXIAL OR TRIAXIAL ACCELEROMETER CAN BE USED AS LONG AS: DAMPING COEFFICIENT MATCHES (0.7), THE OVERALL MASS OF THE ASSEMBLY REMAINS WITHIN SPECIFICATION, AND THE ACCELEROMETER(S) CAN BE MOUNTED TO MEASURE AT THE HEAD CG.
9. THE HEADFORM MEETS THE IMPACT RESPONSE SPECIFICATIONS IN THE APPLICABLE DYNAMIC QUALIFICATION TEST
10. THE FIRST NATURAL FREQUENCY OF THE CHILD HEADFORM SHALL BE OVER 5000 Hz

ITEM	QTY	PART NUMBER	DESCRIPTION
10	2	5000388	SCREW, SHCS M3-0.5 x 8 LG.
9	6	9010407	SCREW, SHCS M1.4 x 0.3 x 3 LG.
8	3	SA572-S5	DAMPED UNIAXIAL ACCELEROMETER
7	1	CHI-0550	TRIAXIAL ACCEL. MOUNT BLOCK
6	6	5000096	SCREW, FHCS M5x0.8 x 12
5	1	CHI-0120	BACK PLATE INSERT DISC
4	6	5000372	SCREW, SHCS M8x1.25 x 30
3	1	CHI-0100	BACK PLATE ASSEMBLY
2	1	CHI-0300	HEADFORM FLESH
1	1	CHI-0200	SKULL CASTING ASSEMBLY

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: X .5 X.X ±.2 X.XX ±.1	MACHINED ±.05 ±.02 ±.01	ANGLES ±.5°	APPROVALS	DATE	HEADFORM ASSEMBLY CHILD PEDESTRIAN HEADFORM
ASME Y14.5M - 1994 DO NOT SCALE DRAWING		DRAWN Dave Walker	7/27/2016		
MATERIAL	HEAT TREAT	ENG	CHECKED	APPROVED	
THIRD ANGLE PROJECTION			SIZE A1	SCALE .875	DRAWING NUMBER CHI-0000
			SHEET	1	OF 1



$\phi 79.7 \pm .10$

2

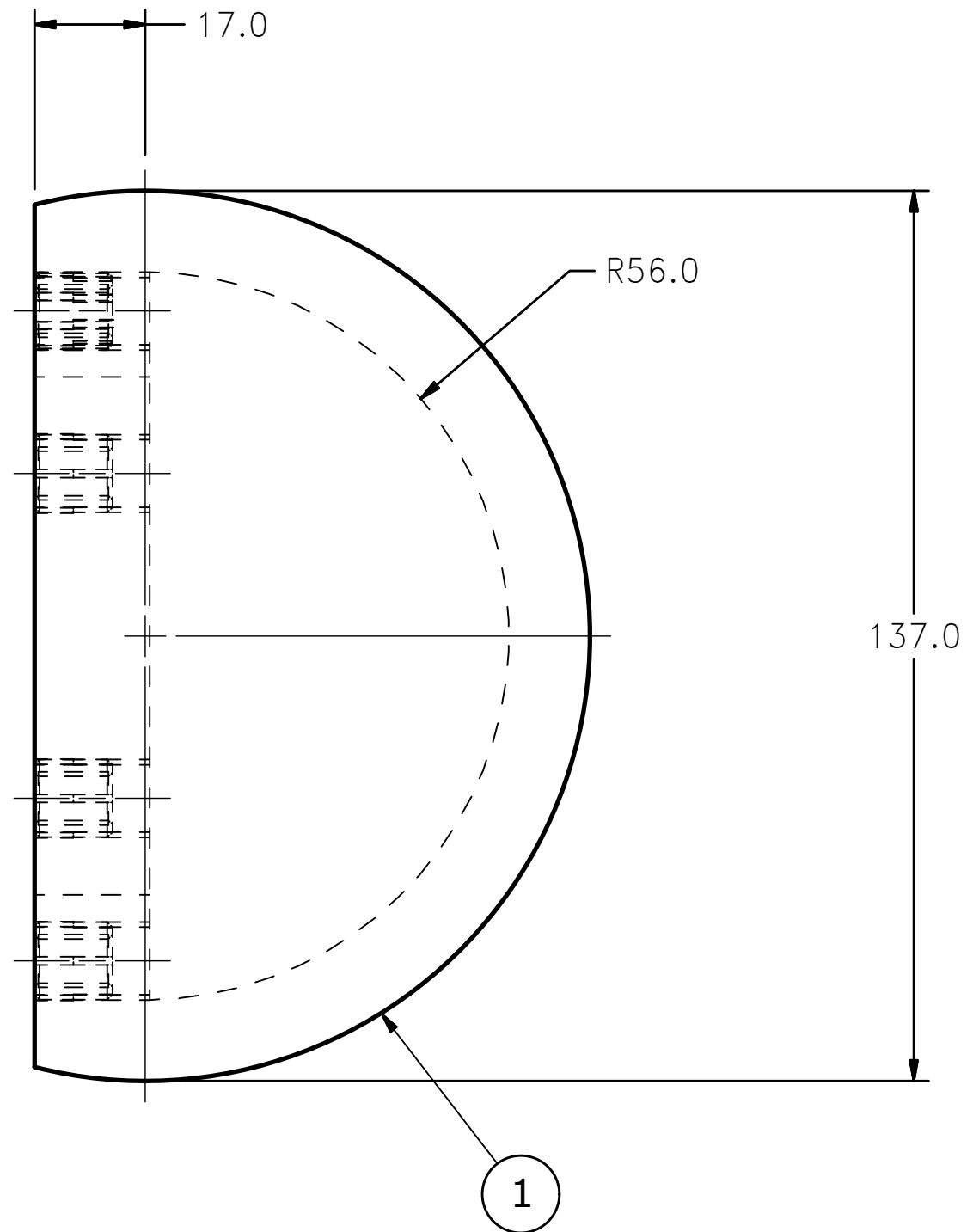
M8 x 1.25 HELI-COIL TAP x 27 DEEP
6 PLACES ON 100.0 B.C.

A

A

17.7

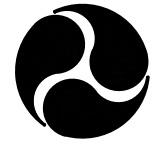
SECTION A-A

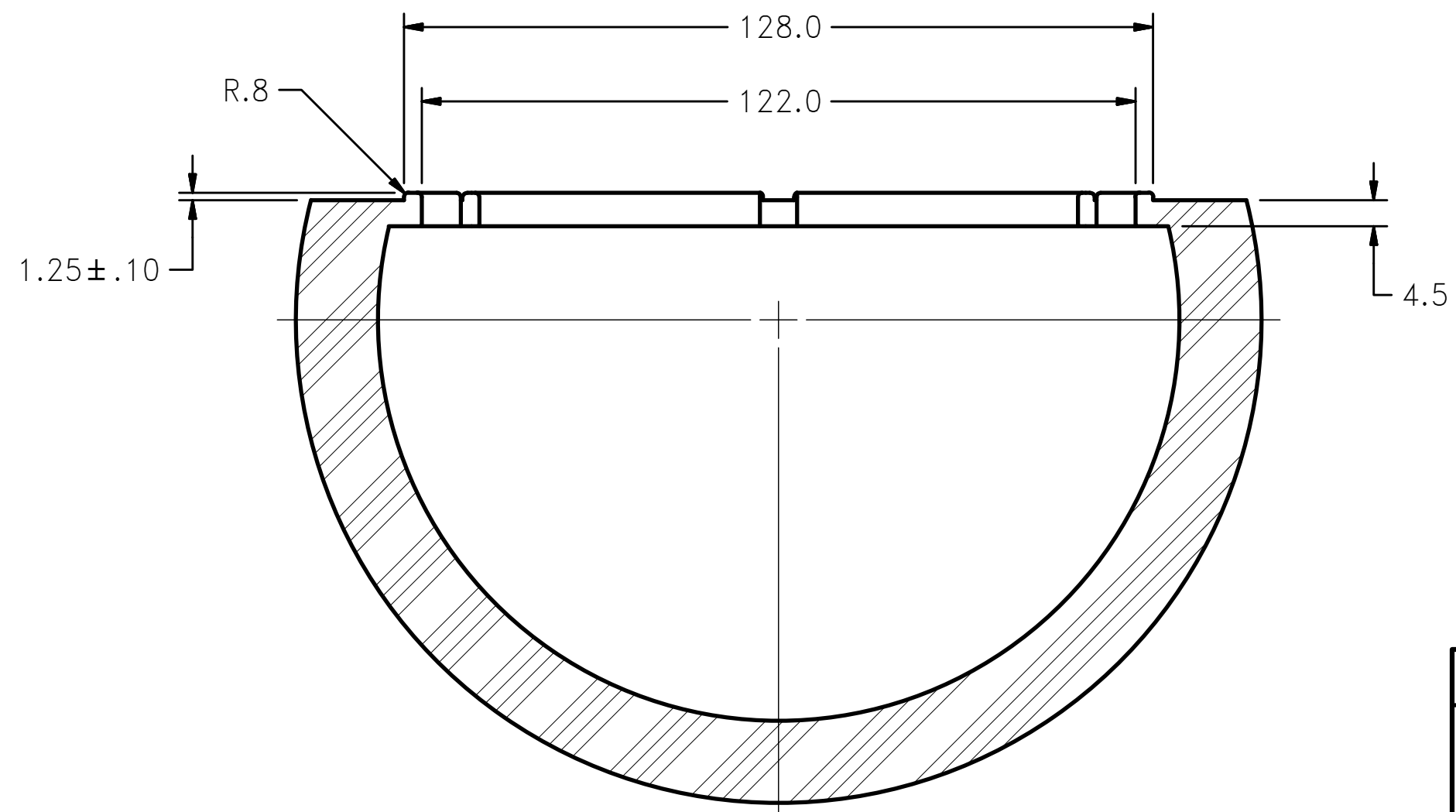
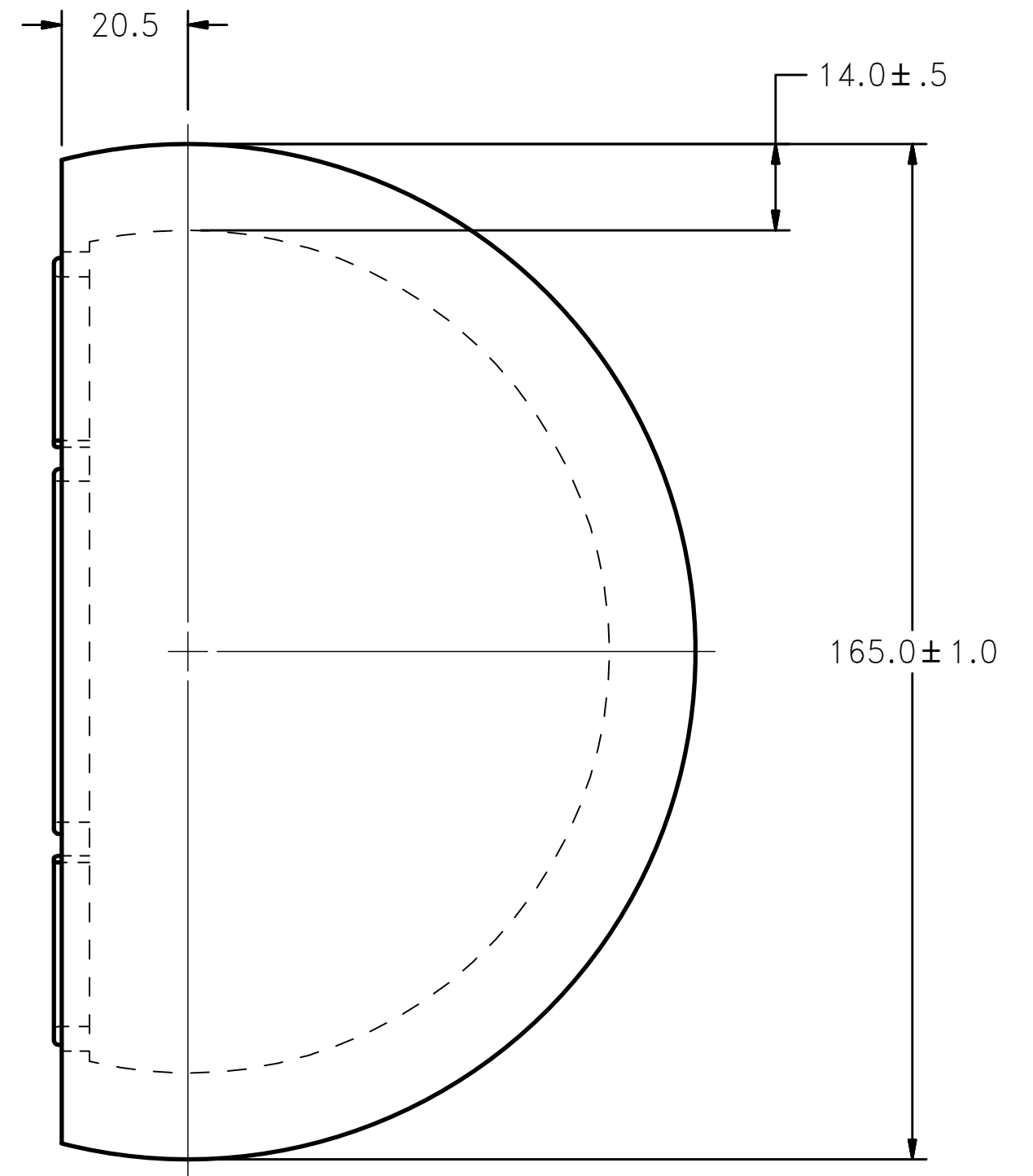
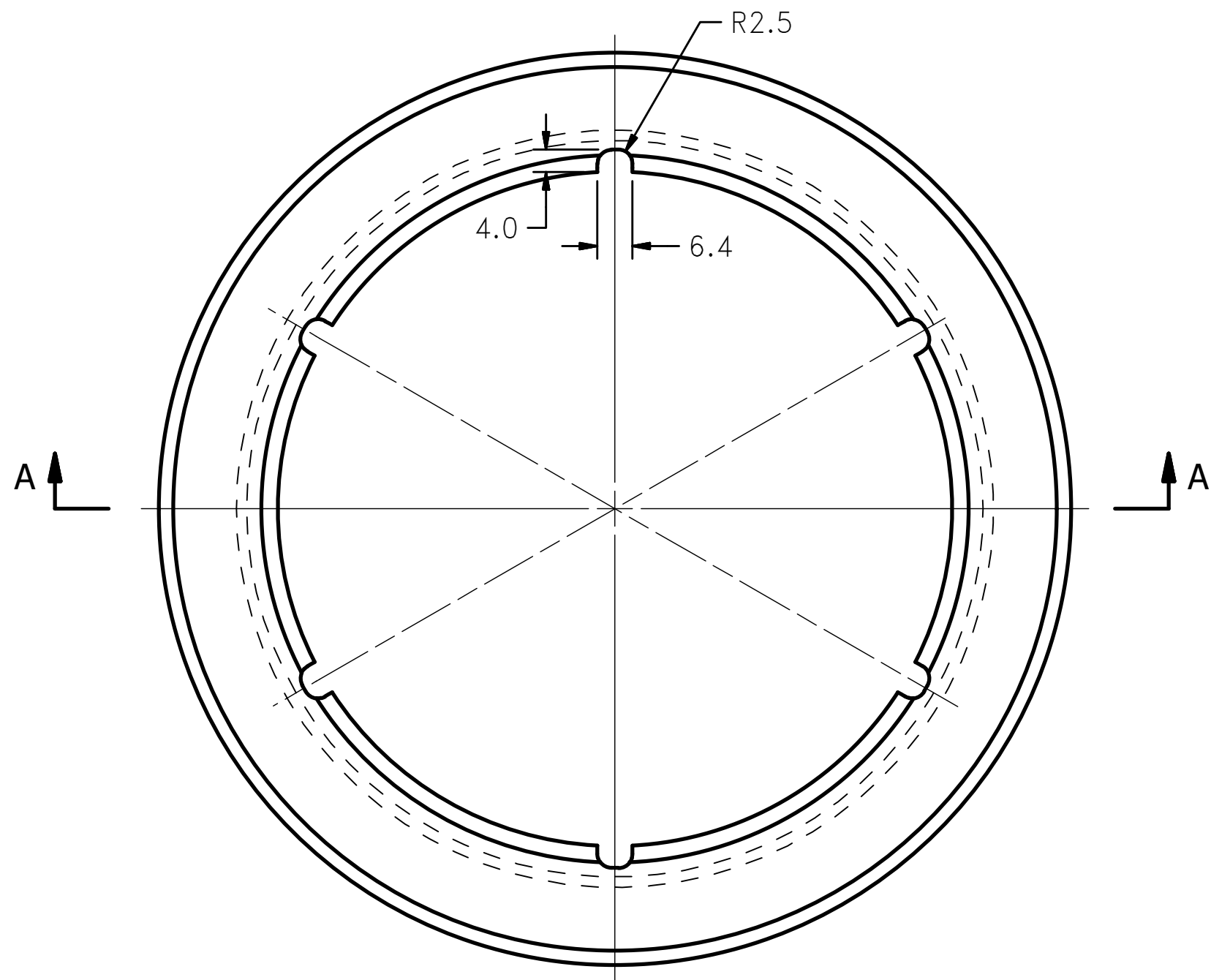


1


ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
2	6	5000348	HELICOIL, M8 x 1.25 x 8	Stainless Steel
1	1	CHI-0210	HEAD CASTING	Aluminum-6061

PARTS LIST

UNITS ARE mm		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
TOLERANCES ARE: *			
DECIMALS	ANGLES	SKULL CASTING ASSEMBLY CHILD PEDESTRIAN HEADFORM	
X ±0.5	±0.5°		
X ±0.1		CHILD PEDESTRIAN HEADFORM CHI-0200	
.XX ±0.05			
* unless otherwise noted		SCALE: FULL	DATE: 4/30/2009
		APPROVALS: Jim Clevenger	ENG: [blank]
SIZE: C	SHEET: 1 of 1	DRAWING NUMBER: CHI-0200	



SECTION A-A
SCALE 1 : 1

UNITS ARE mm		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
TOLERANCES ARE: *			
DECIMALS	ANGLES	SCALE: FULL	DATE
X ± 0.5	± 0.5°	APPROVALS	DATE
X ± 0.1		DRAWN	4/30/2009
.XX ± 0.05		CHECKED	
* unless otherwise noted		ENG	
		SIZE	SHEET
		C	1 of 1
		DRAWING NUMBER	
		CHI-0300	

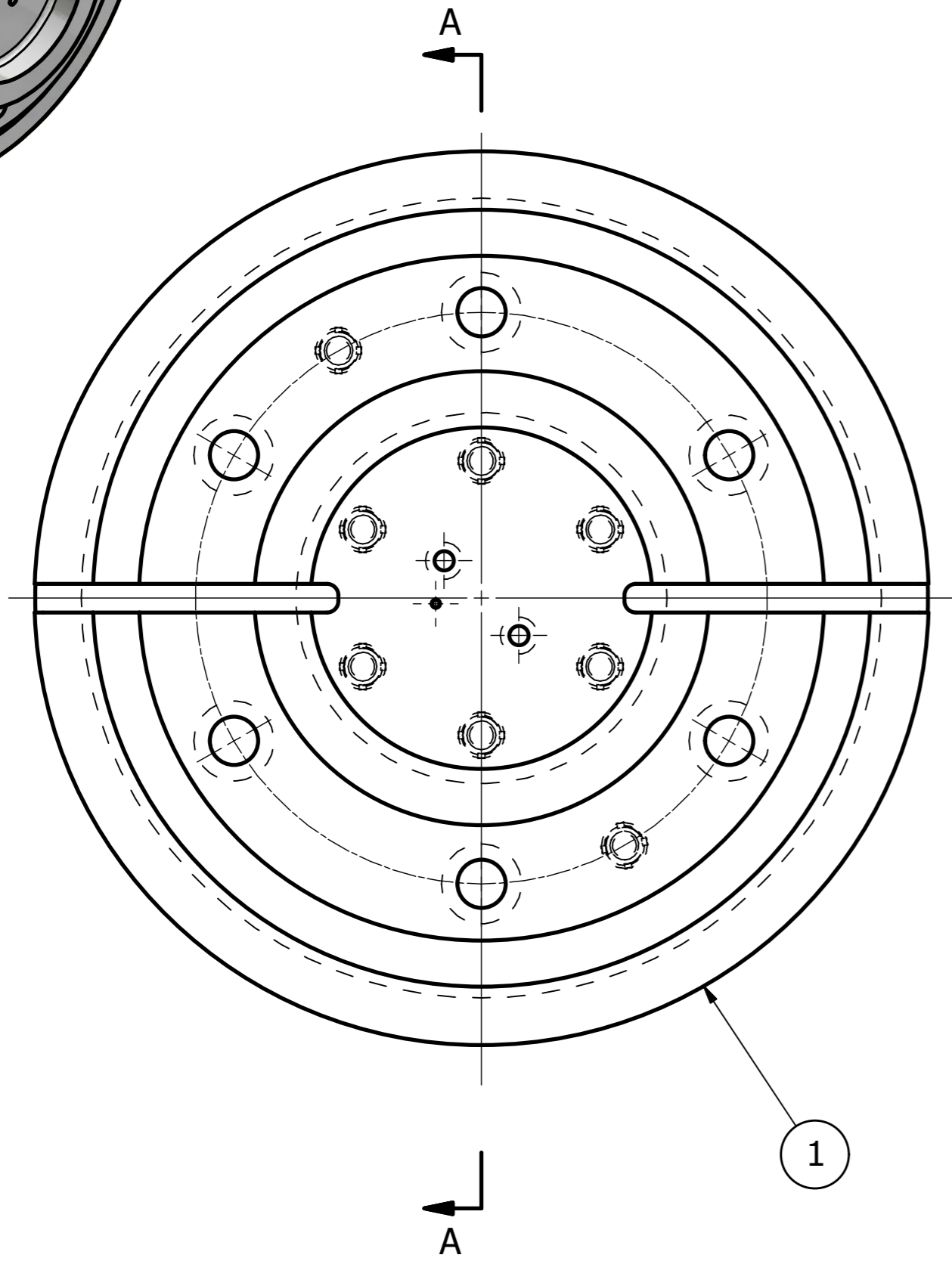
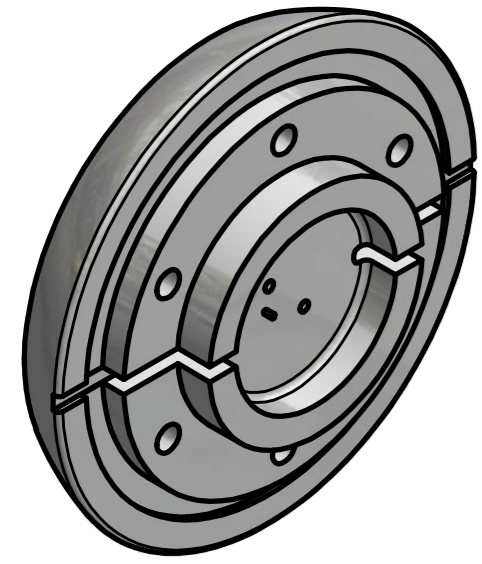


NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

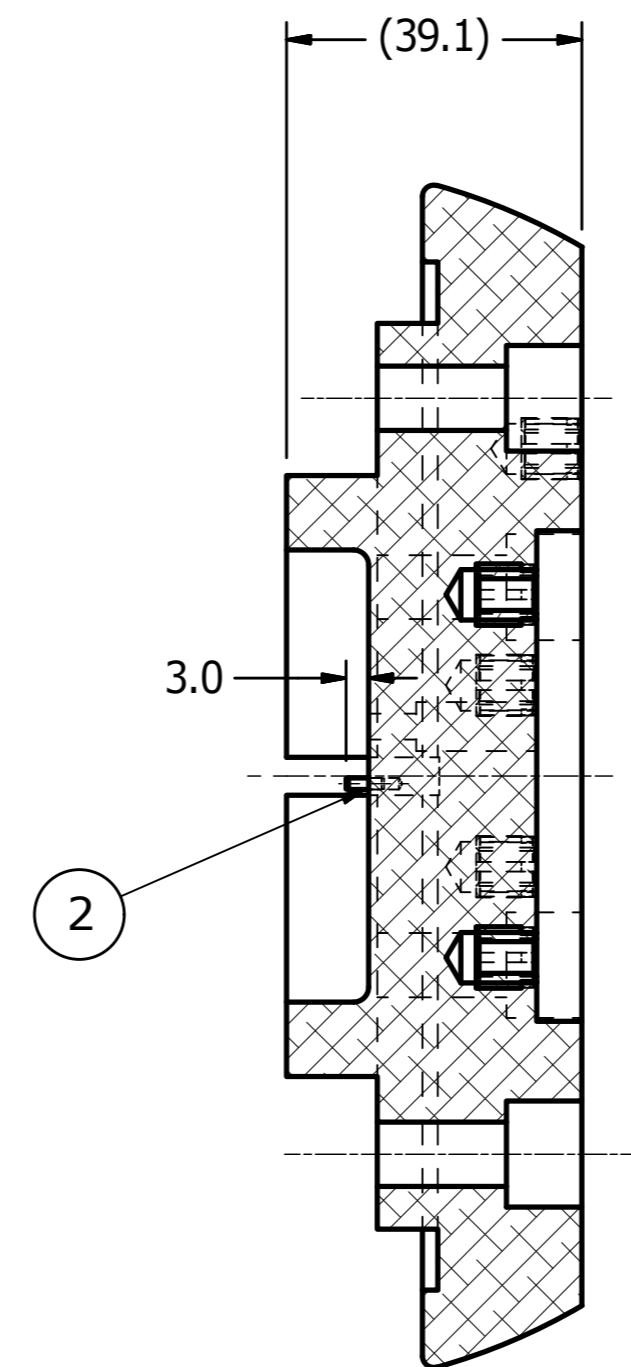
HEADFORM FLESH

CHILD PEDESTRIAN HEADFORM

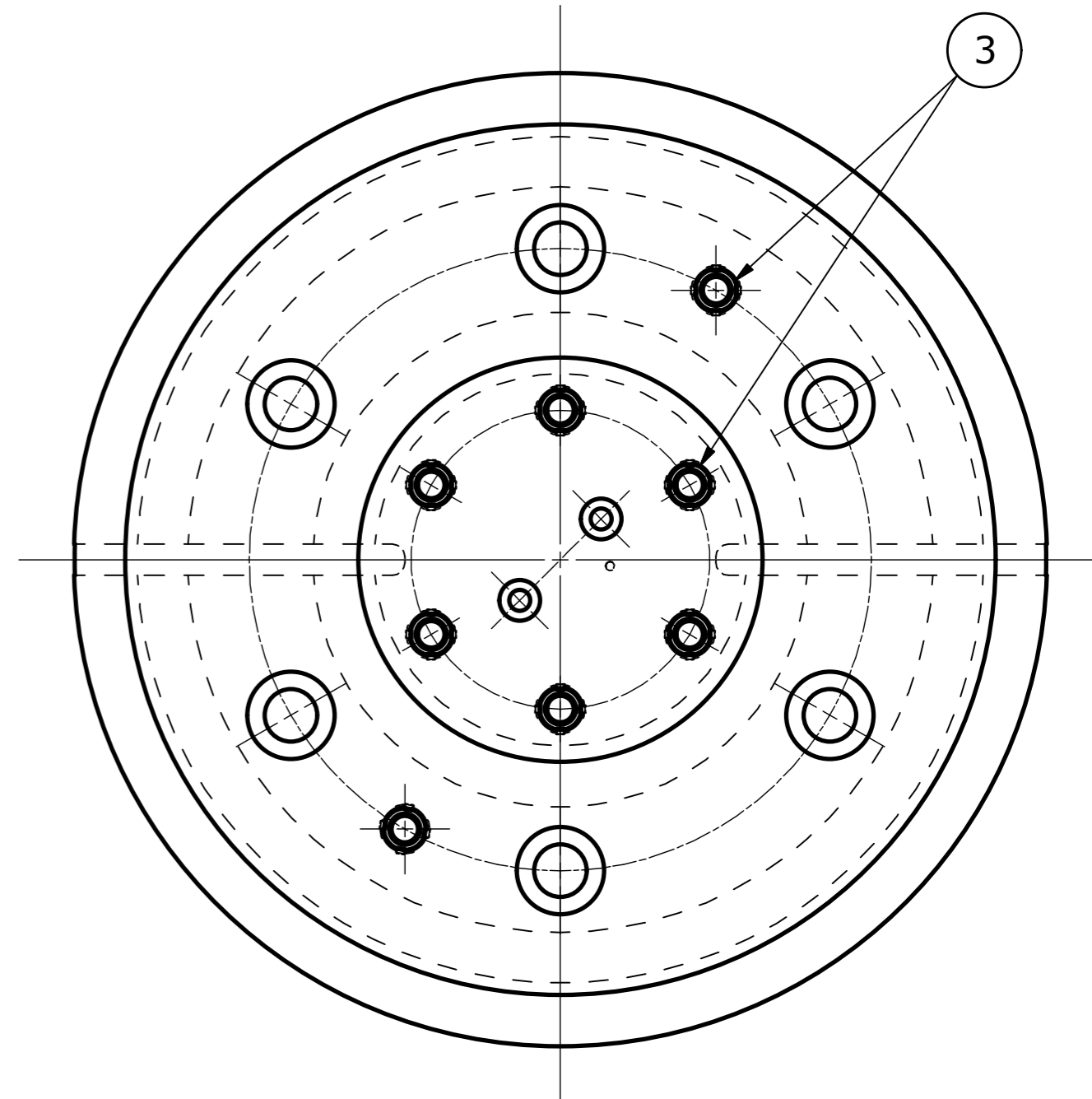
CHI-0300



FRONT VIEW



SECTION A-A

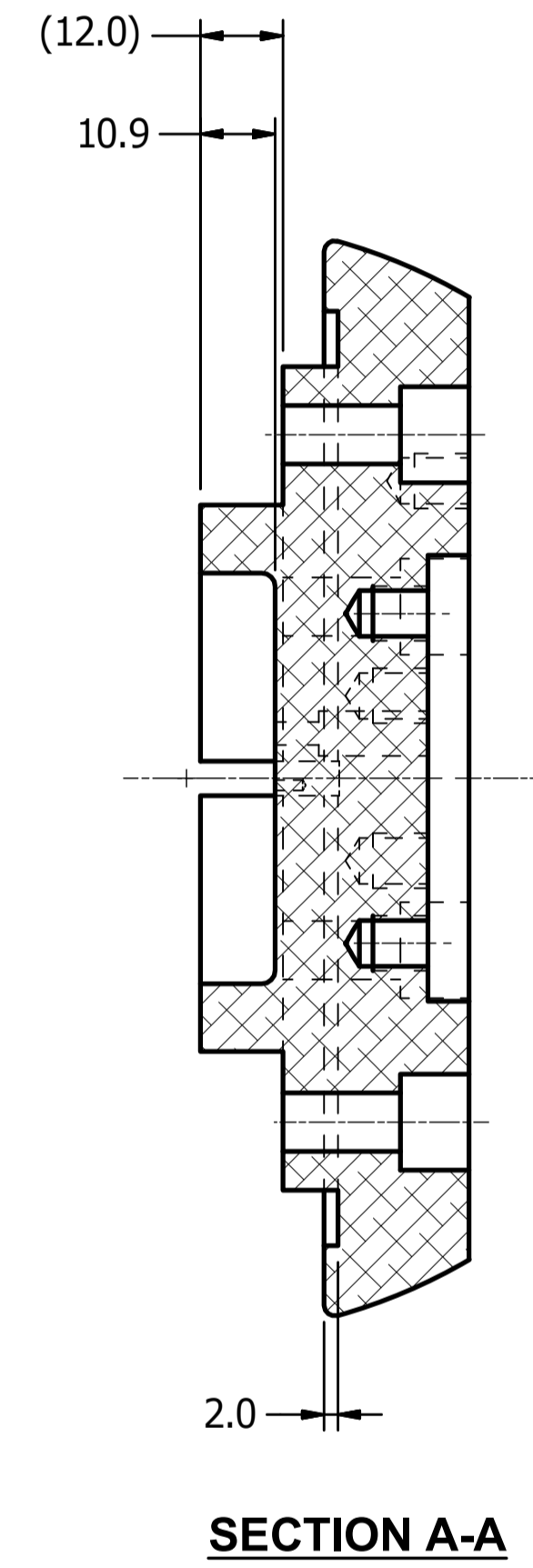
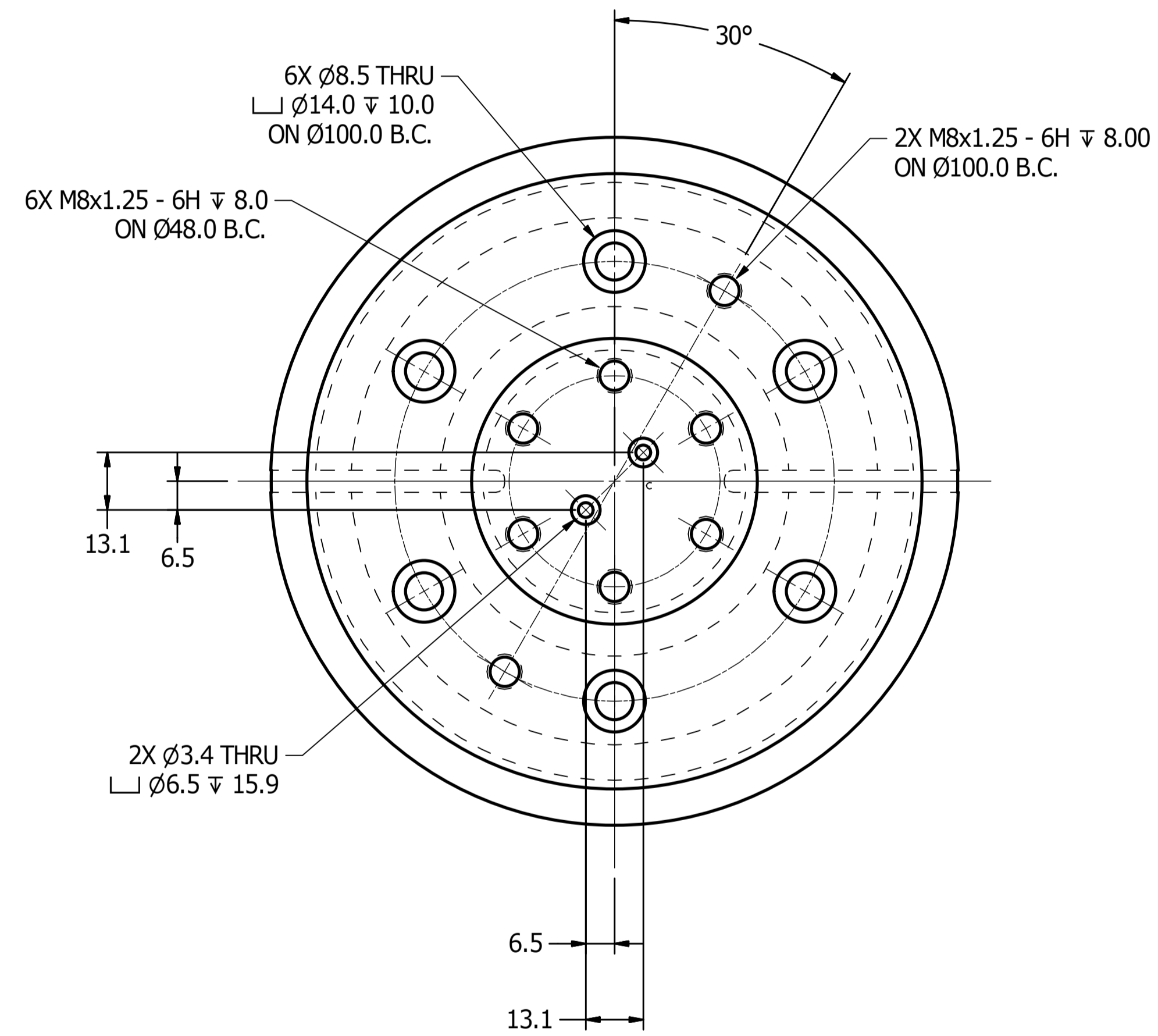
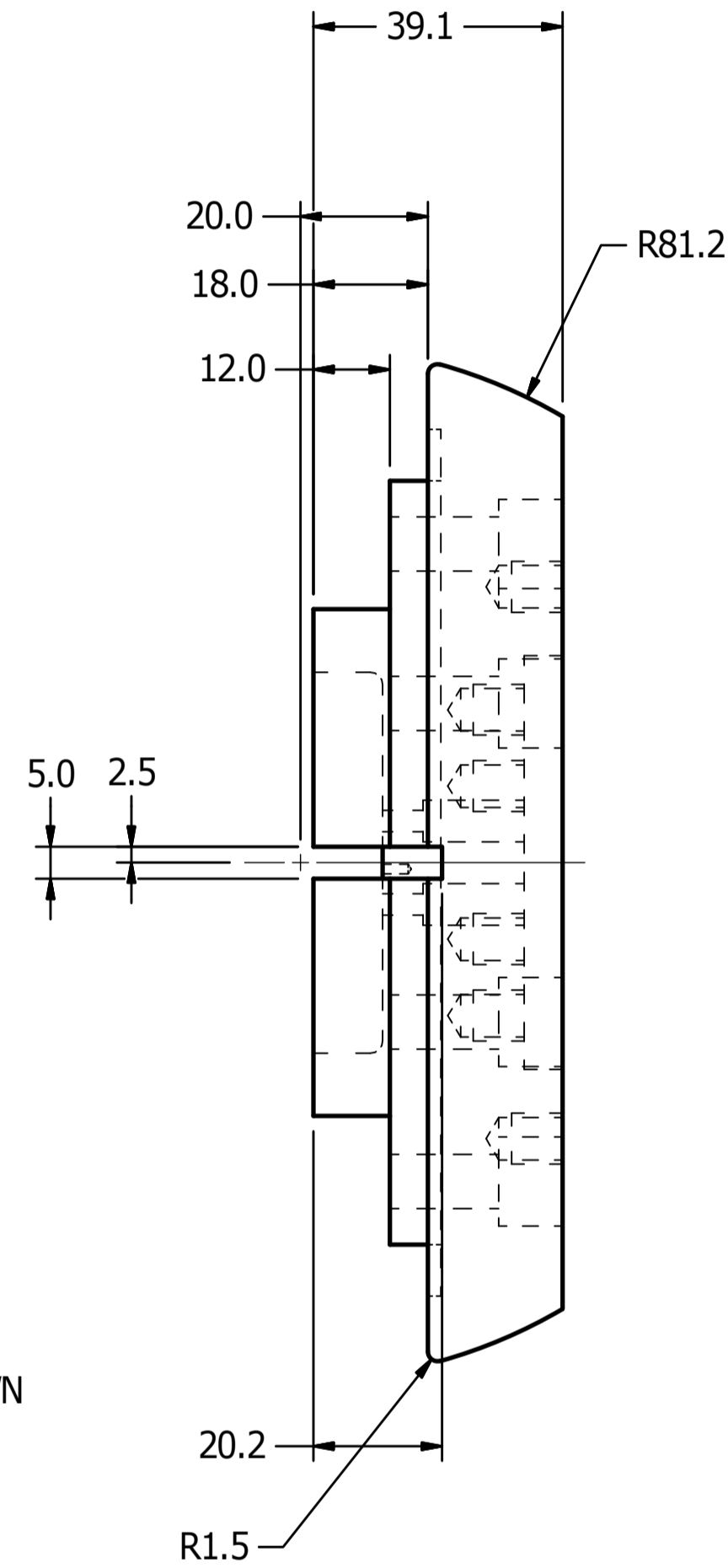
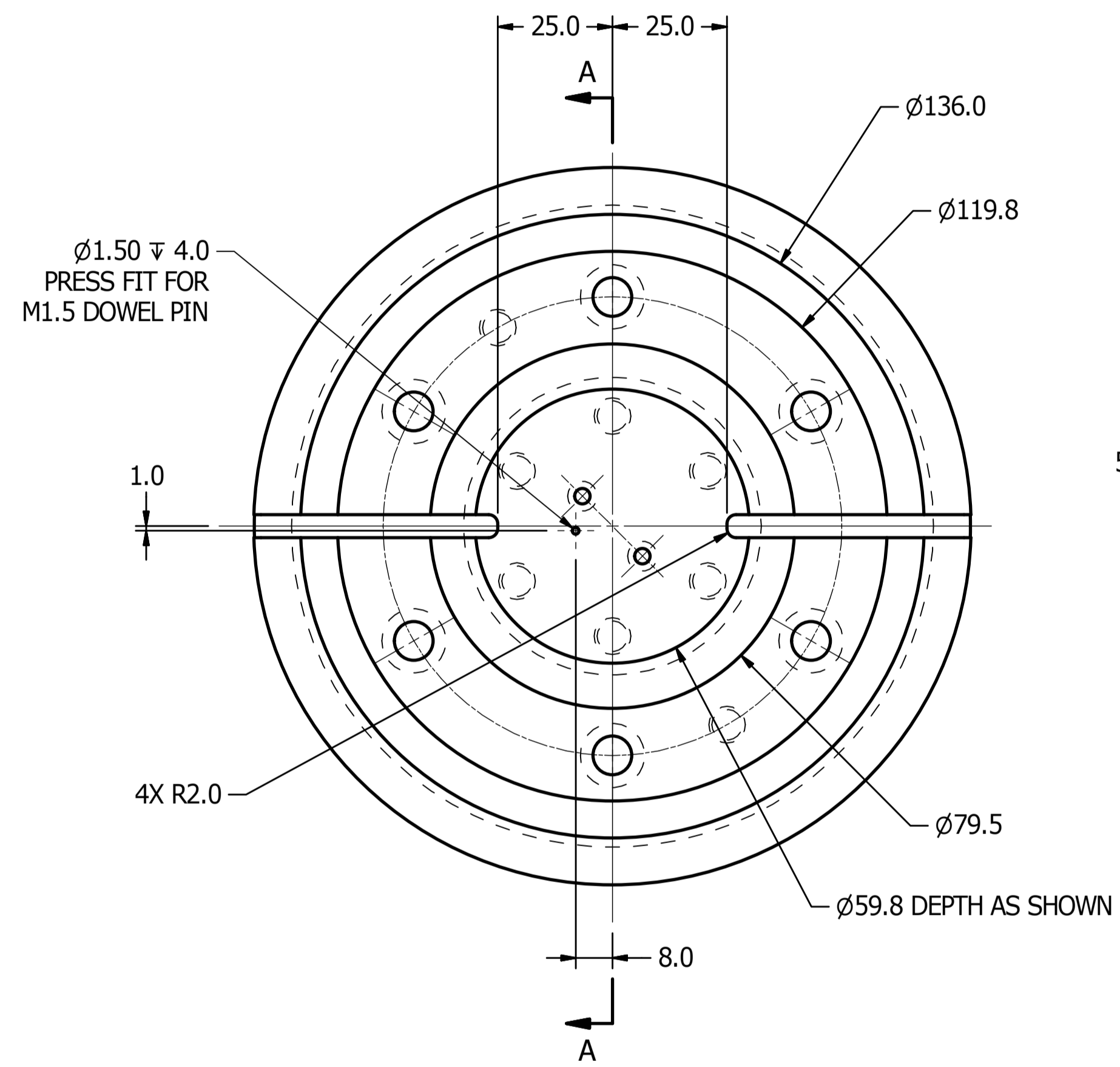
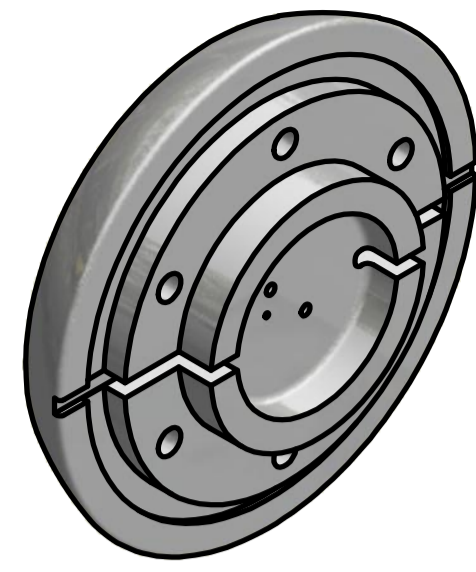


REAR VIEW

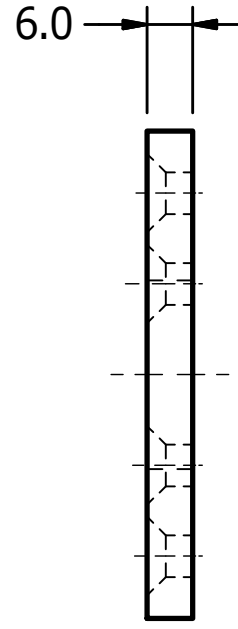
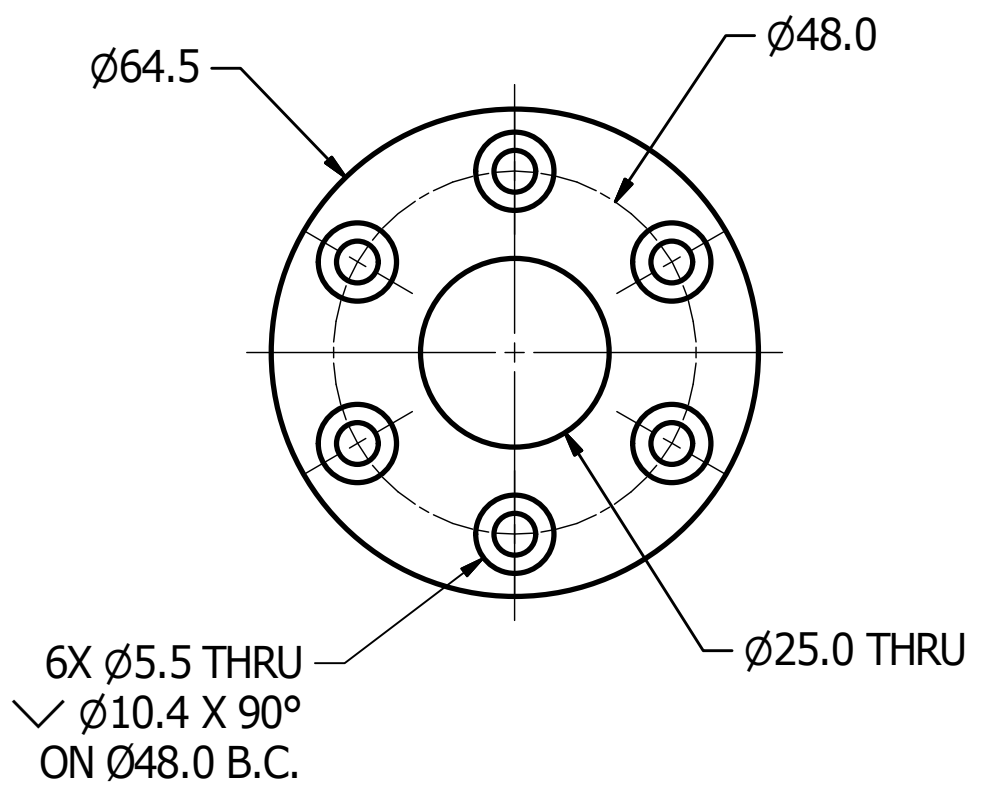
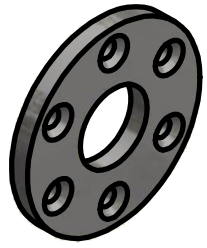
3	8	5000348	KEENSERT, M5 X 0.8 X 8 LG.	S. S.
2	1	5000225	PIN, DOWEL M1.5 x 5	S. S.
1	1	CHI-0110	BACK PLATE	
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: X ±.5 XX ±.2 XXX ±.1 MACHINED ANGLES ±.5° ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE 6/27/2016	
MATERIAL: HEAT TREAT: FINISH:	ENG: APPROVED:	THIRD ANGLE PROJECTION	SIZE: A2 SCALE: 1:1 DRAWING NUMBER: CHI-0100 SHEET: 1 OF 1



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: X ±.5 X.X ±.2 X.XX ±.1	MACHINED ANGLES ±.5°	APPROVALS	DATE	BACK PLATE CHILD PEDESTRIAN HEADFORM	
DO NOT SCALE DRAWING ASME Y14.2M - 1994		DRAWN Dave Walker	6/27/2016	DRAWINGS NUMBER CHI-0110	
MATERIAL Aluminum 6061	FINISH	ENG	APPROVED	SIZE A1	SCALE 1:1
				THIRD ANGLE PROJECTION	SHEET 1 OF 1



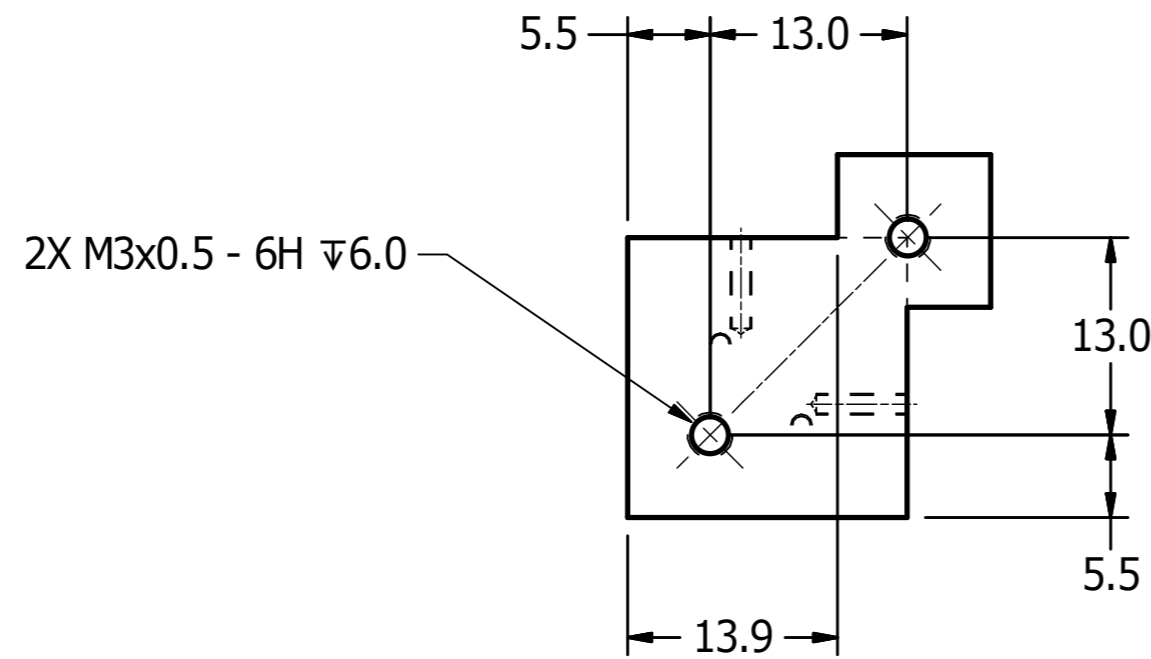
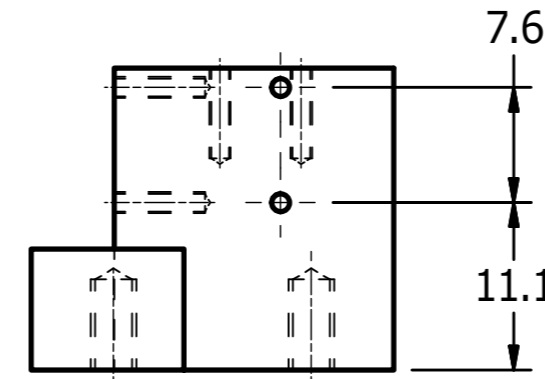
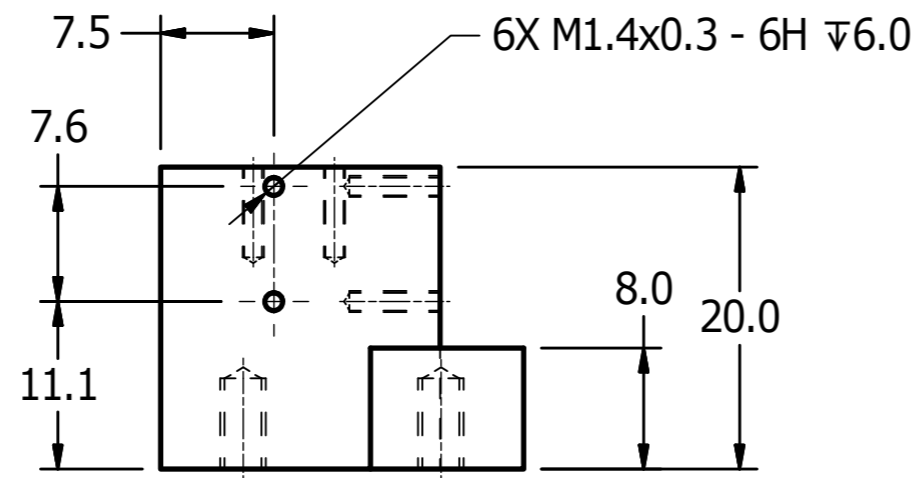
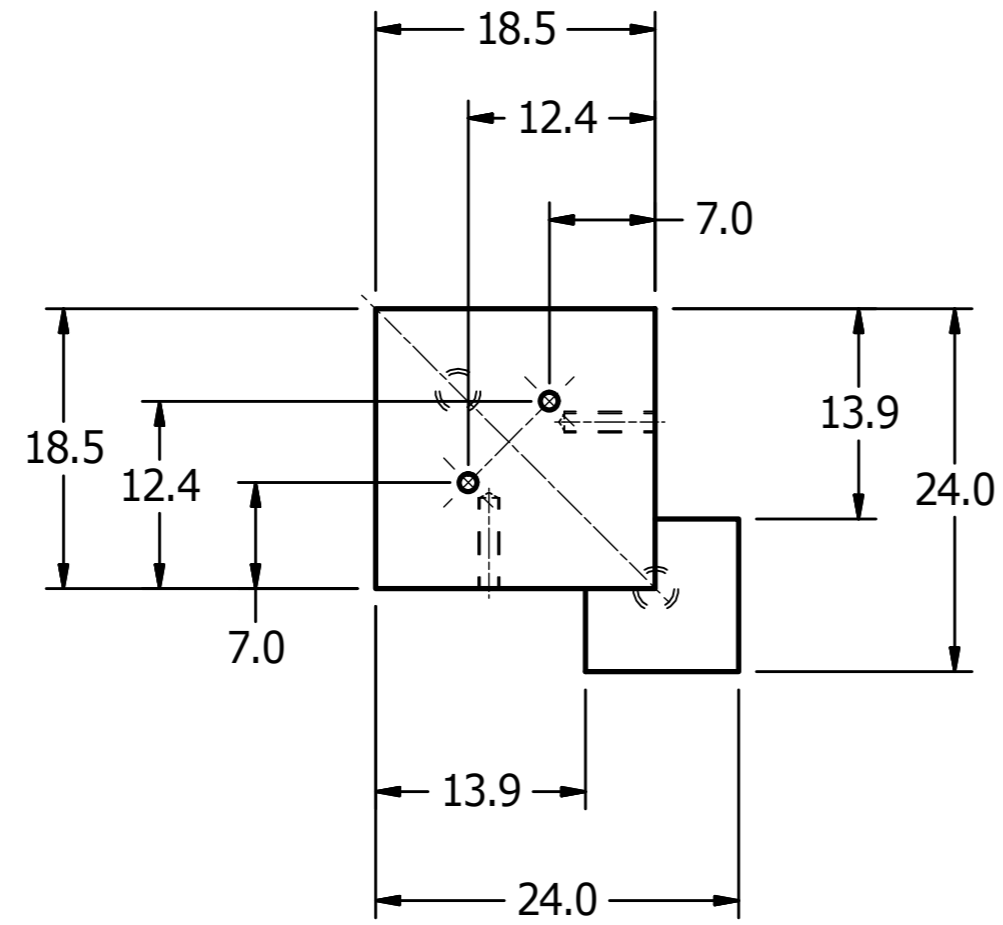
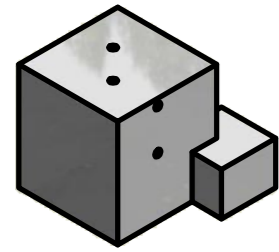
4 3 2 1

B B

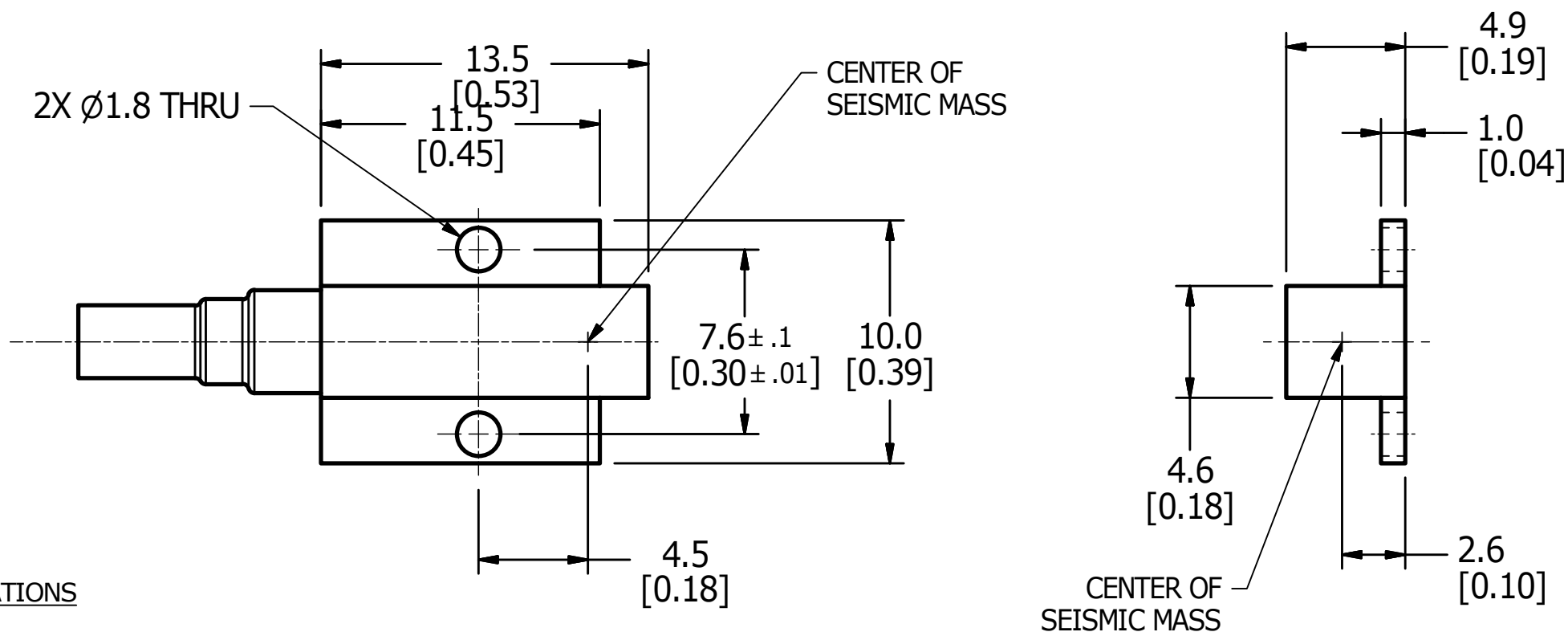
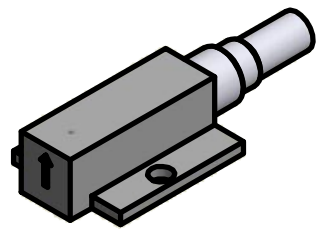
A A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: MACHINED X ±.5 1.6 X.X ±.2 1.5 X.XX ±.1 1.5 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker CHECKED	DATE 6/28/2016	BACK PLATE INSERT DISC CHILD PEDESTRIAN HEADFORM	
MATERIAL Steel, Mild HEAT TREAT FINISH	ENG APPROVED	THIRD ANGLE PROJECTION	SIZE A3 SCALE: 1 : 1	DRAWING NUMBER CHI-0120 SHEET 1 OF 1

4 3 2 1



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: X ±.5 X.X ±.2 X.XX ±.1 MACHINED ANGLES ±.5° ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 6/27/2016	
MATERIAL Aluminum 6061 HEAT TREAT FINISH	SIZE A2 SCALE: 2 : 1	DRAWING NUMBER CHI-0550 SHEET 1 OF 1	REV



SPECIFICATIONS

RANGE	± 1000 g
SIGNAL OUTPUT MUST BE COMPATIBLE WITH AND RECORDABLE IN A DATA CHANNEL AS DEFINED BY SAE J211	
DAMPING COEFFICIENT	0.7
TRANSVERSE SENSITIVITY	± 2% MAX.
NONLINEARITY & HYSTERESIS	± 2 MAX.
EXCITATION	10V dc MAX.
THERMAL SENSITIVITY	± 1% TYP. @ -15° to 65° C
TEMPERATURE EXPOSURE	-15° to 65° C
WEIGHT	1.2 g (WITHOUT CABLE)
HUMIDITY	SEALED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: X ±.5 X.X ±.2 X.XX ±.1 MACHINED 1/5 ANGLES ±.5° ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 7/20/2016	
MATERIAL HEAT TREAT FINISH	SIZE A3	DRAWING NUMBER SA572-S5	REV 1 OF 1
THIRD ANGLE PROJECTION		SCALE: NONE	SHEET 1 OF 1