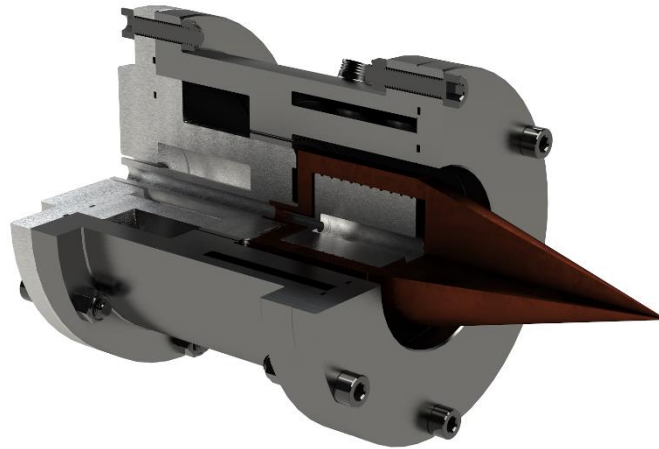


Memorial University of Newfoundland
Faculty of Engineering and Applied Science



ME 7704: Drawing Package

Put forward by:
DETechnologies

Shakib Miri 201848900

Logan Palmer 201906765

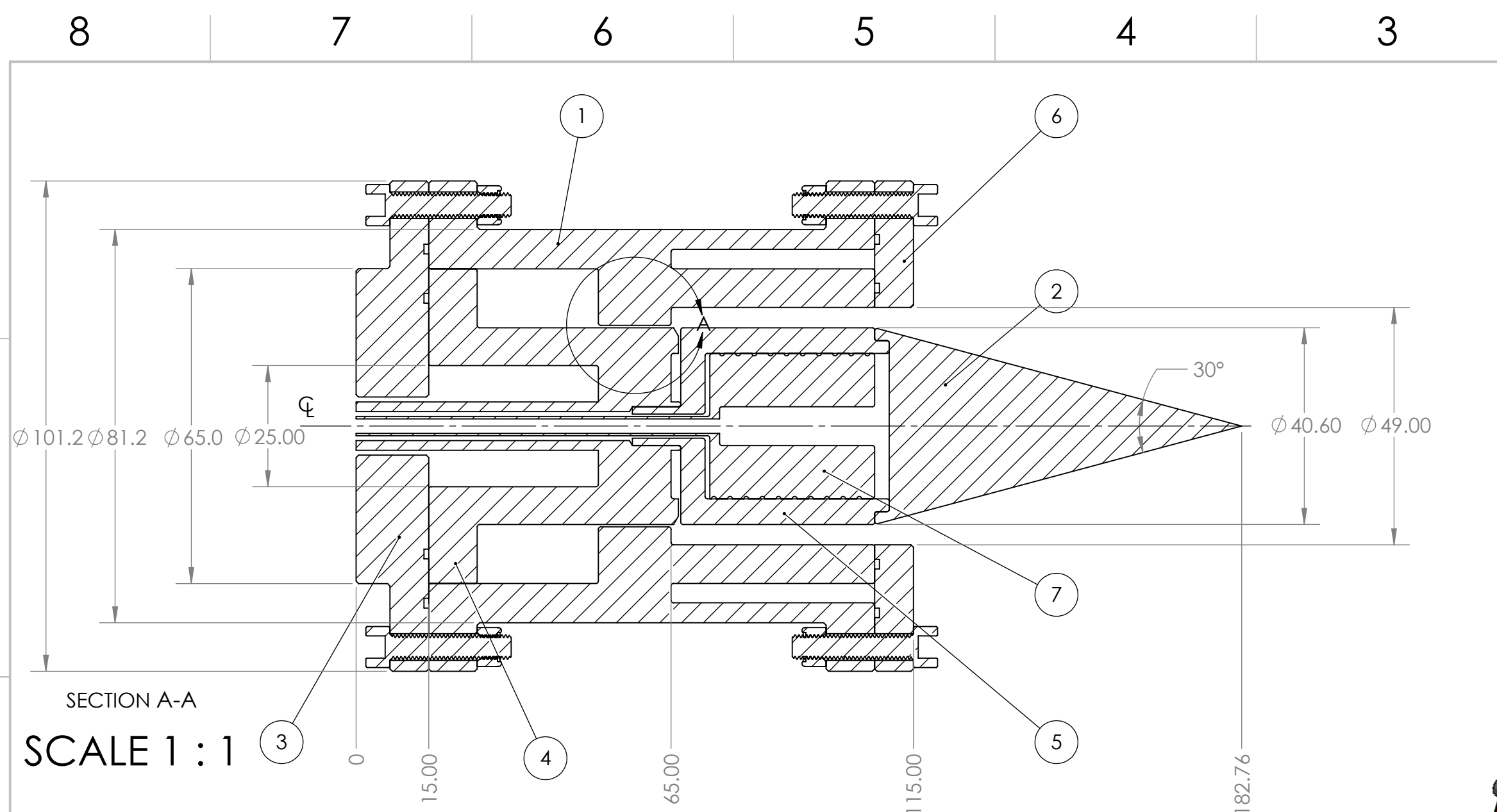
Patrick Cleary 201901261

Aidan Clark 201919990

Submitted for review by

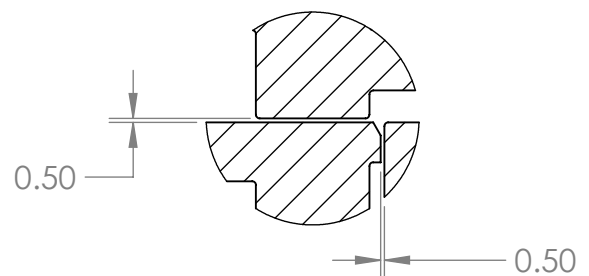
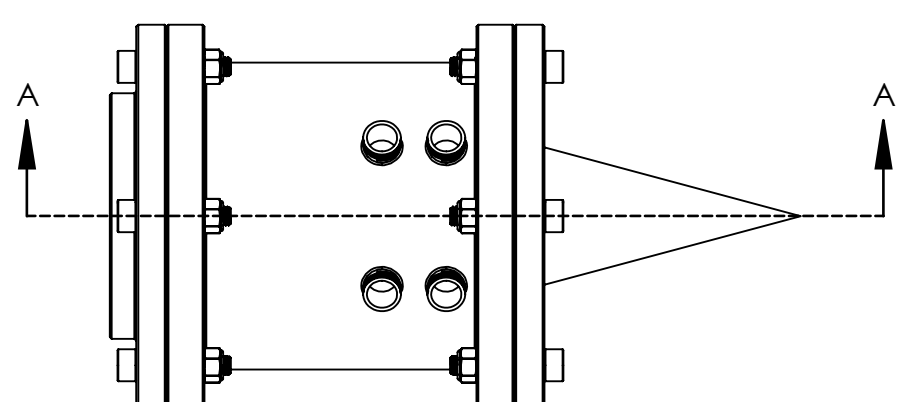
Professor Mihiran Galagedarage Don
Dr. Nakhla

Submitted on:
August 02, 2023



ITEM NO.	PART DESCRIPTION	QTY.
1	EXTERNAL HOUSING	1
2	AEROSPIKE	1
3	END CAP	1
4	PLENUM BODY	1
5	CENTRE BODY	1
6	COOLANT CAP	1
7	CENTRE BODY COOLING TUBE	1

SECTION A-A
SCALE 1 : 1



DETAIL A
SCALE 1 : 1

- NOTES:
- DO NOT SCALE FROM DRAWING
 - BREAK ALL SHARP EDGES
 - DETAIL A SHOWCASES FUEL AND OXIDIZER INJECTION SLOT WIDTHS

THIRD ANGLE PROJECTION

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
1. DIMENSIONS IN MM
2. TOLERANCES:
- ANGULAR: ±1°
- .X: ±2.0
- .X: ±0.5
- .XX: ±0.2

INTERPRET DRAWING PER:
ASME Y14.5M-1994

MATERIAL



NAME	DATE
PC	2023-07-27
SM	2023-07-27

DO NOT SCALE DRAWING

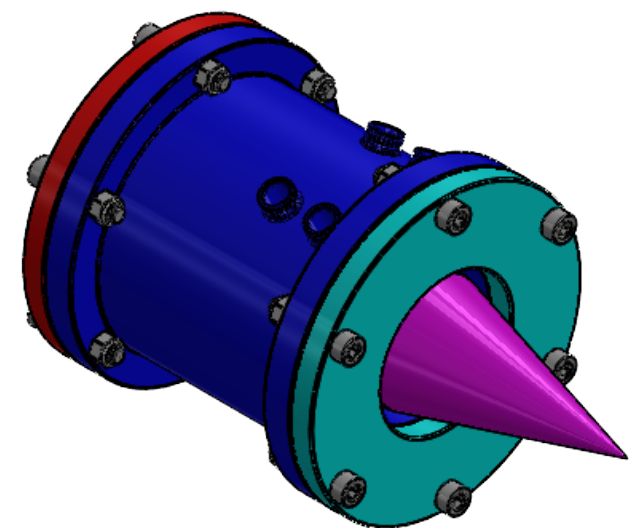
DESCRIPTION:
**MASTER ASYM
MAJOR
DIMENSIONS**

DWG. NO.
100-001

REV
-

WEIGHT:

SHEET 1 OF 1



8 7 6 5 4 3 2 1

D

D

C

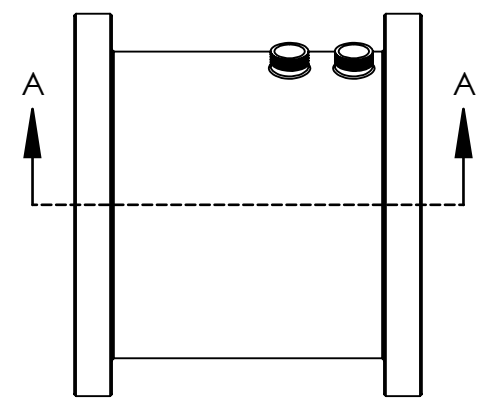
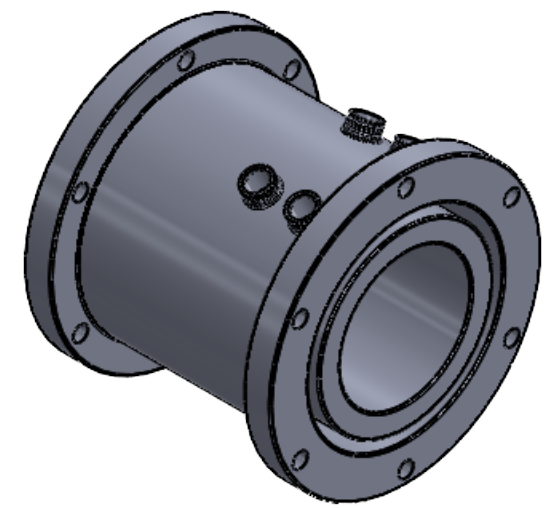
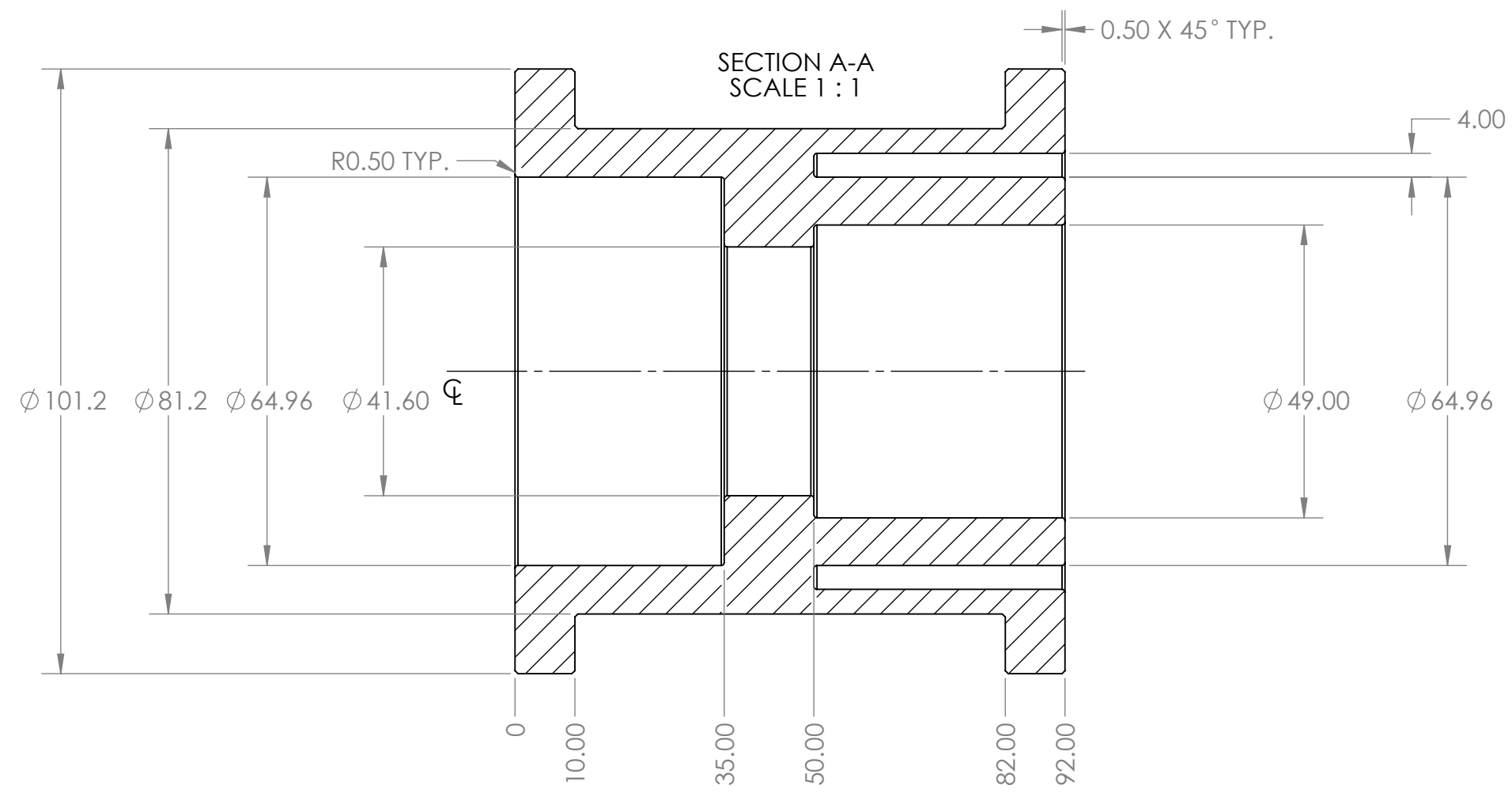
C

B

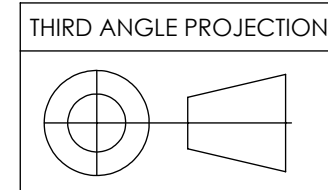
B

A

A



NOTES:
1. DO NOT SCALE FROM DRAWING
2. BREAK ALL SHARP EDGES



UNLESS OTHERWISE SPECIFIED:
1. DIMENSIONS IN MM
2. TOLERANCES:
- ANGULAR: ±1°
- .X: ±2.0
- .X: ±0.5
- .XX: ±0.2

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.

INTERPRET DRAWING PER:
ASME Y14.5M-1994

MATERIAL
316 STAINLESS STEEL



DESCRIPTION:
EXTERNAL HOUSING

	NAME	DATE
DRAWN	PC	2023-08-01
CHECKED	SM	2023-08-01

DWG. NO.
200-001

REV
-

DO NOT SCALE DRAWING

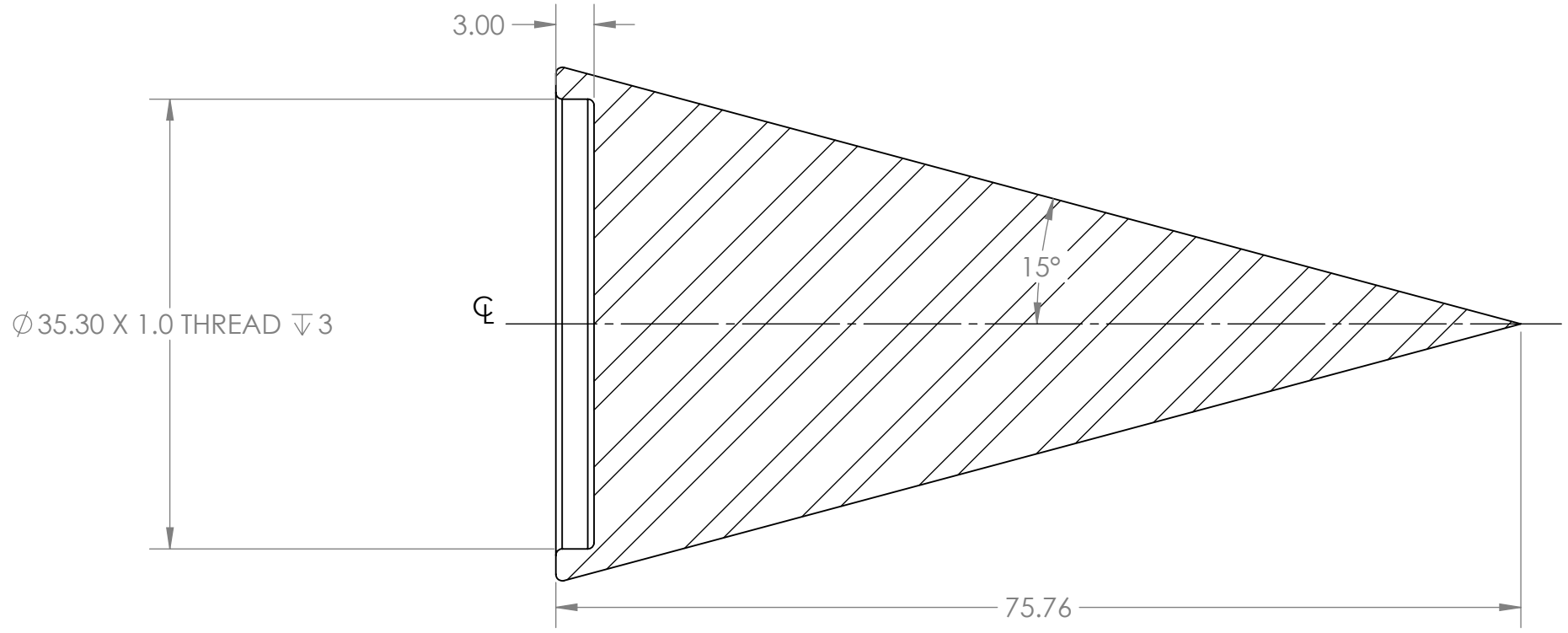
WEIGHT:

SHEET 1 OF 1

8 7 6 5 4 3 2 1

D

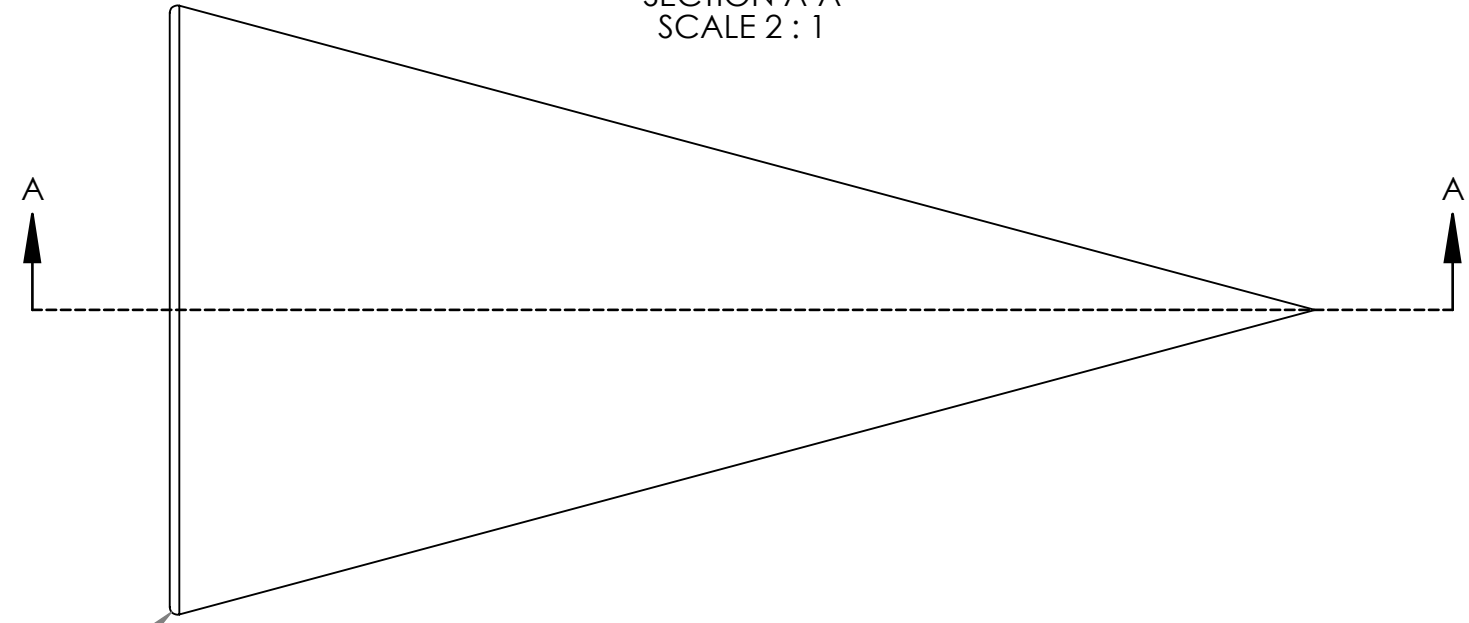
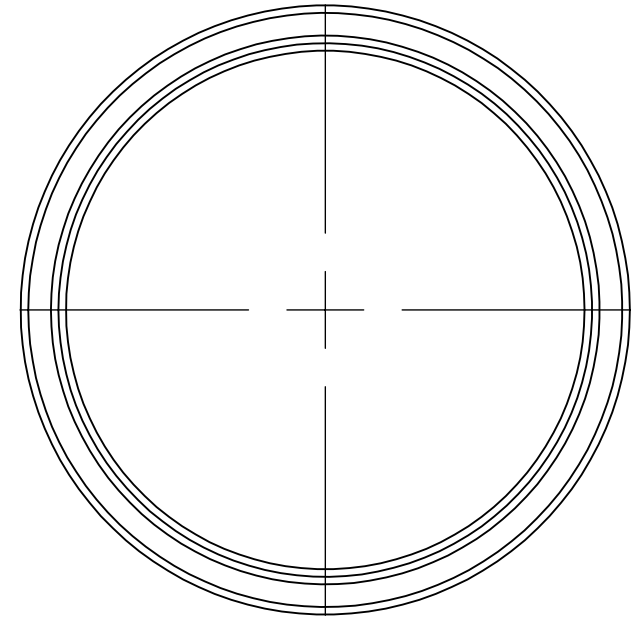
D



C

C

SECTION A-A
SCALE 2:1



B

B

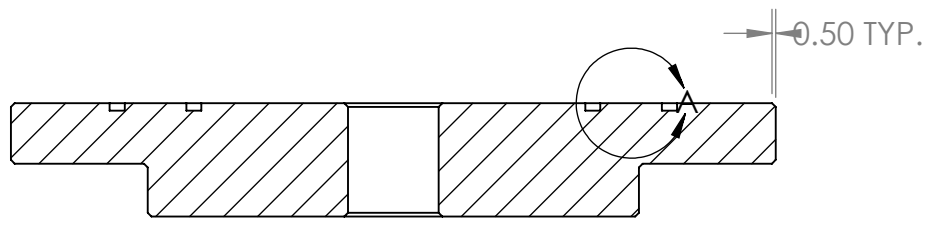
NOTES:
1. DO NOT SCALE FROM DRAWING
2. BREAK ALL SHARP EDGES

THIRD ANGLE PROJECTION 	UNLESS OTHERWISE SPECIFIED: 1. DIMENSIONS IN MM 2. TOLERANCES: - ANGULAR: ±1° - .X: ±2.0 - .X: ±0.5 - .XX: ±0.2			DESCRIPTION: <h2 style="text-align: center;">AEROSPIKE</h2>	
	INTERPRET DRAWING PER: ASME Y14.5M-1994	MATERIAL: <h3 style="text-align: center;">316 STAINLESS</h3>		DWG. NO. <h2 style="text-align: center;">200 - 002</h2>	REV -
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.			DO NOT SCALE DRAWING		WEIGHT: SHEET 1 OF 1

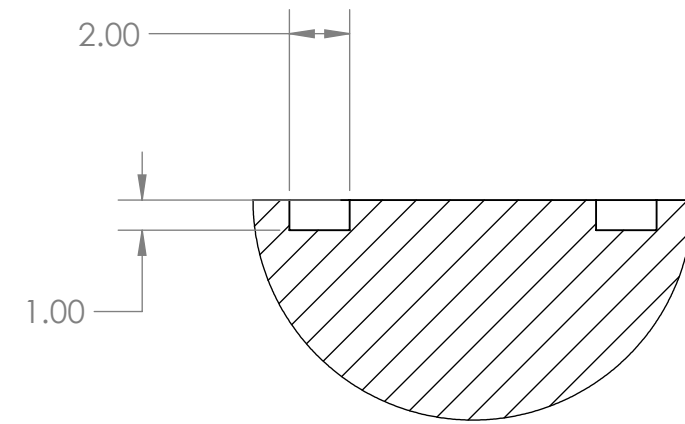
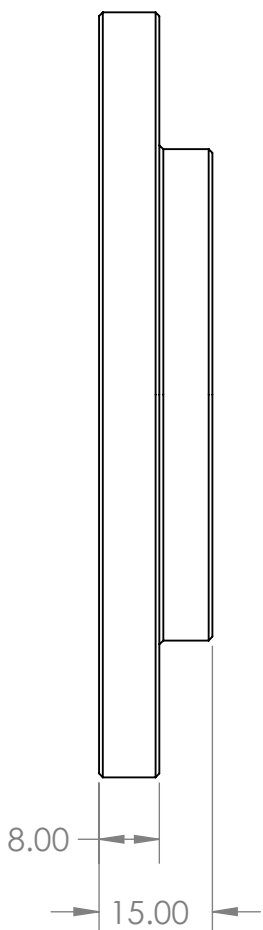
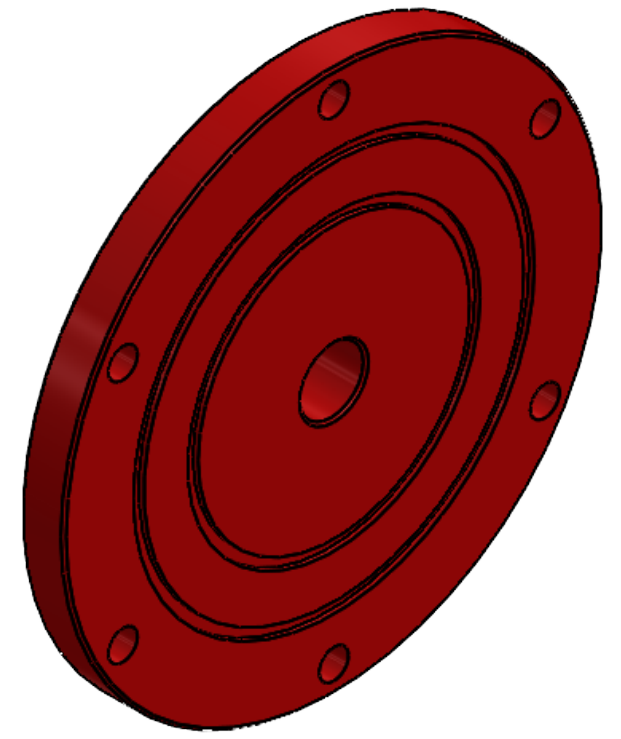
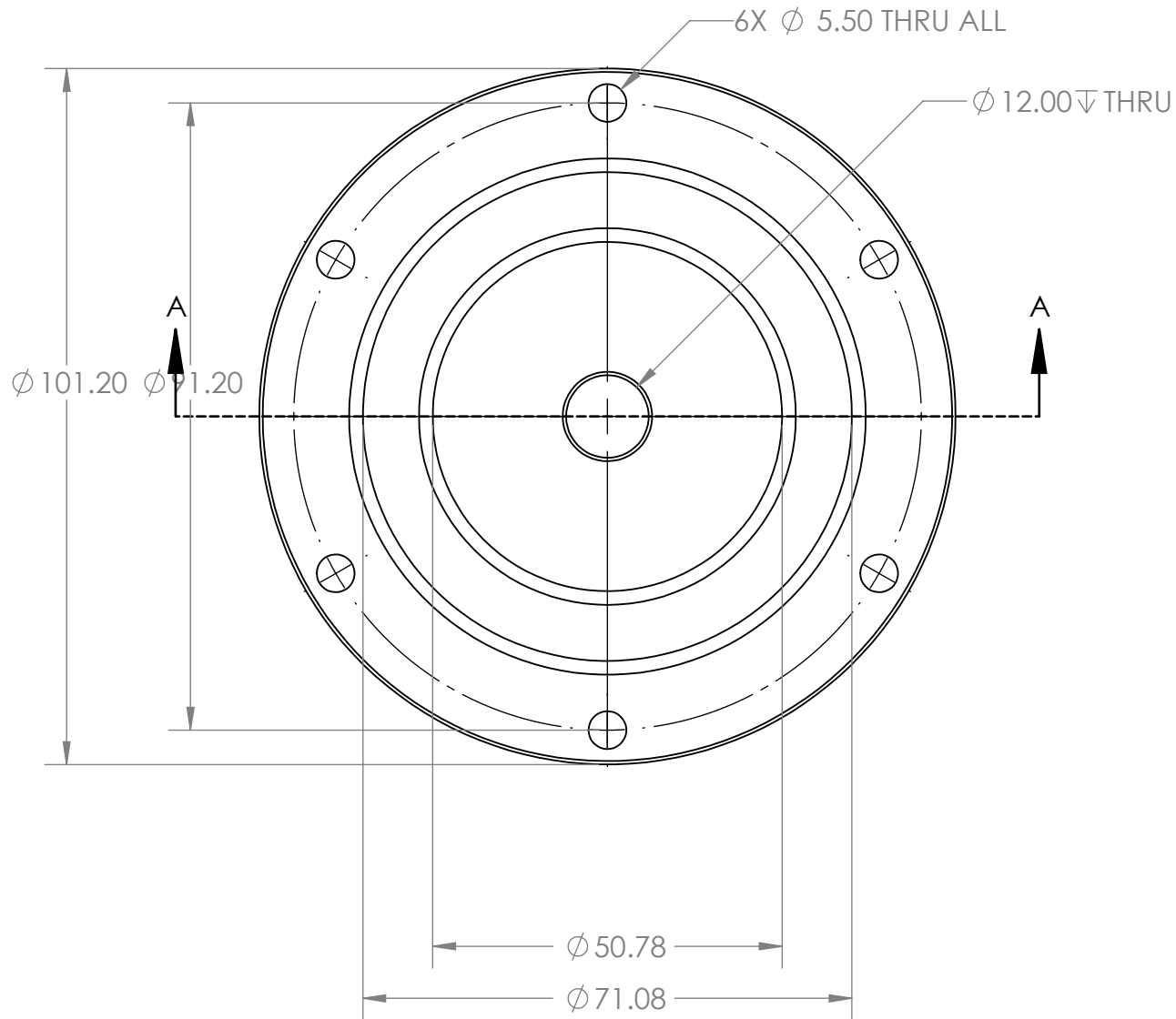
A

A

8 7 6 5 4 3 2 1



SECTION A-A
SCALE 1 : 1



DETAIL A
SCALE 4 : 1

NOTES:
1. DO NOT SCALE FROM DRAWING
2. BREAK ALL SHARP EDGES

THIRD ANGLE PROJECTION 	UNLESS OTHERWISE SPECIFIED: 1. DIMENSIONS IN MM 2. TOLERANCES: - ANGULAR: ±1° - .X: ±2.0 - .X: ±0.5 - .XX: ±0.2		DESCRIPTION: <h2 style="text-align: center;">END CAP</h2>										
	INTERPRET DRAWING PER: ASME Y14.5M-1994		MATERIAL: 316 STAINLESS STEEL	<table border="1"> <tr> <th>DRAWN</th> <th>NAME</th> <th>DATE</th> </tr> <tr> <td>PC</td> <td></td> <td>2023-08-01</td> </tr> <tr> <th>CHECKED</th> <th>SM</th> <th>2023-08-01</th> </tr> </table>	DRAWN	NAME	DATE	PC		2023-08-01	CHECKED	SM	2023-08-01
DRAWN	NAME	DATE											
PC		2023-08-01											
CHECKED	SM	2023-08-01											
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.		DO NOT SCALE DRAWING		WEIGHT: SHEET 1 OF 1									

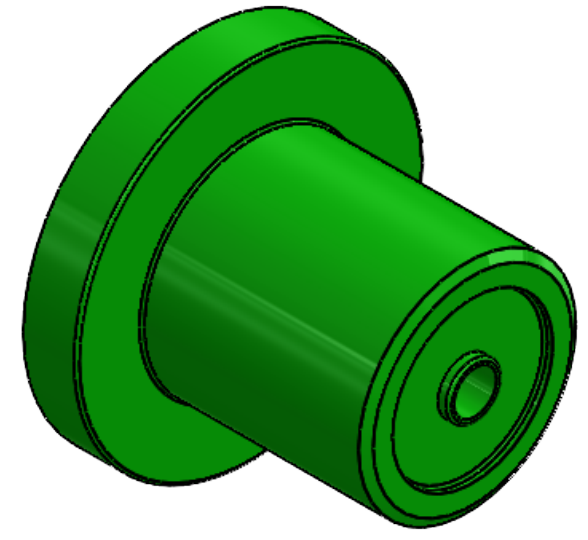
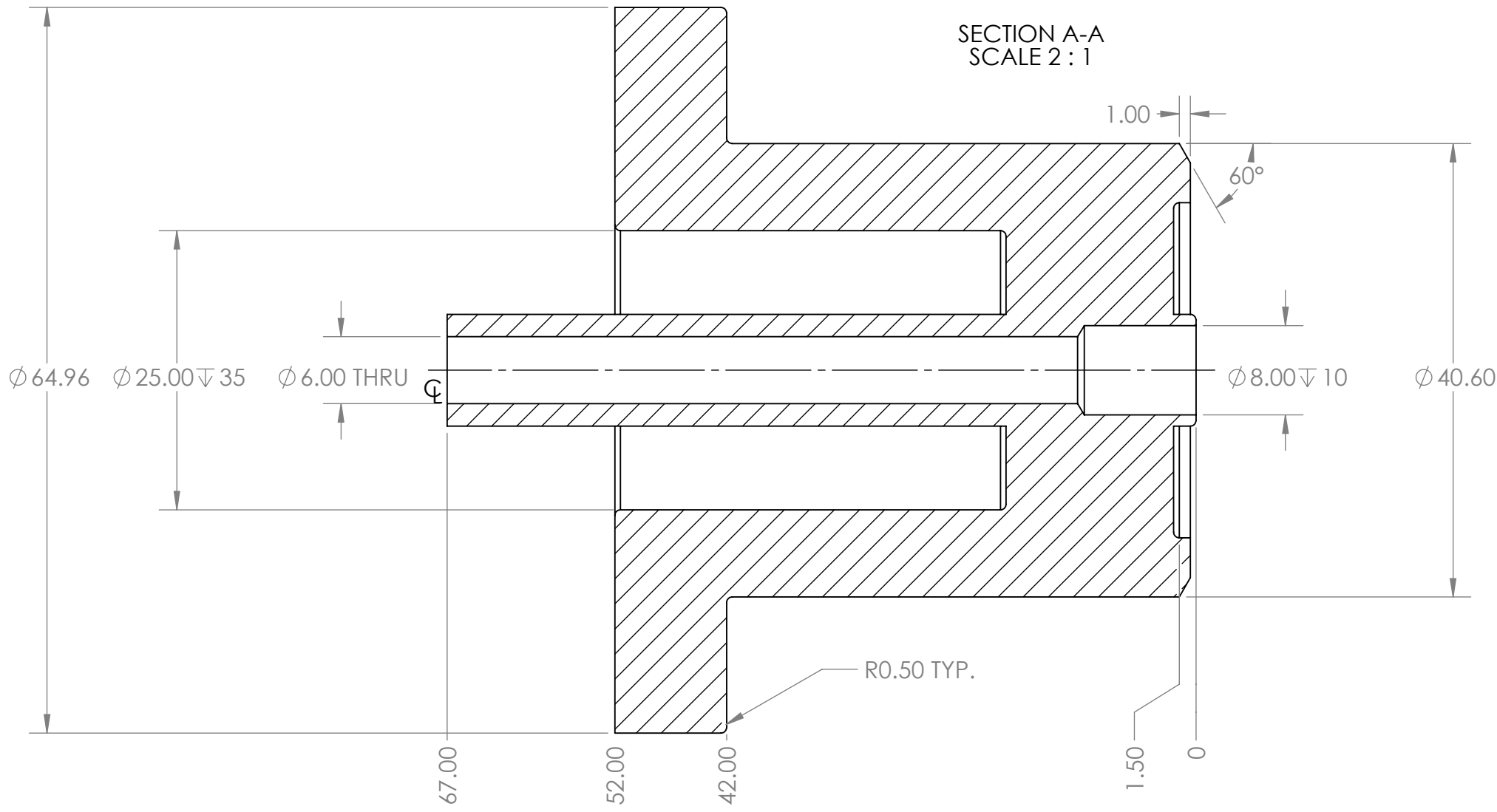
D
C
B
A

D
C
B
A

8 7 6 5 4 3 2 1

D

D

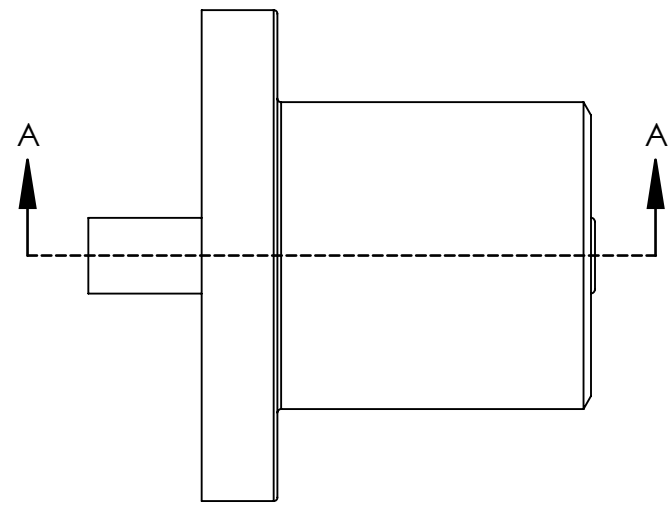


C

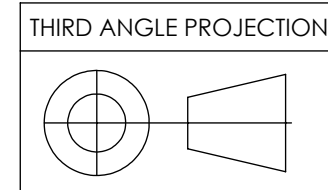
C

B

B



NOTES:
 1. DO NOT SCALE FROM DRAWING
 2. BREAK ALL SHARP EDGES



THIRD ANGLE PROJECTION
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
 1. DIMENSIONS IN MM
 2. TOLERANCES:
 - ANGULAR: ±1°
 - .X: ±2.0
 - .X.X: ±0.5
 - .XX: ±0.2

INTERPRET DRAWING PER:
 ASME Y14.5M-1994
 MATERIAL
316 STAINLESS STEEL



DESCRIPTION:
PLENUM BODY

	NAME	DATE
DRAWN	PC	2023-08-01
CHECKED	SM	2023-08-01

DWG. NO.
200-004

REV
 -

DO NOT SCALE DRAWING

WEIGHT: SHEET 1 OF 1

A

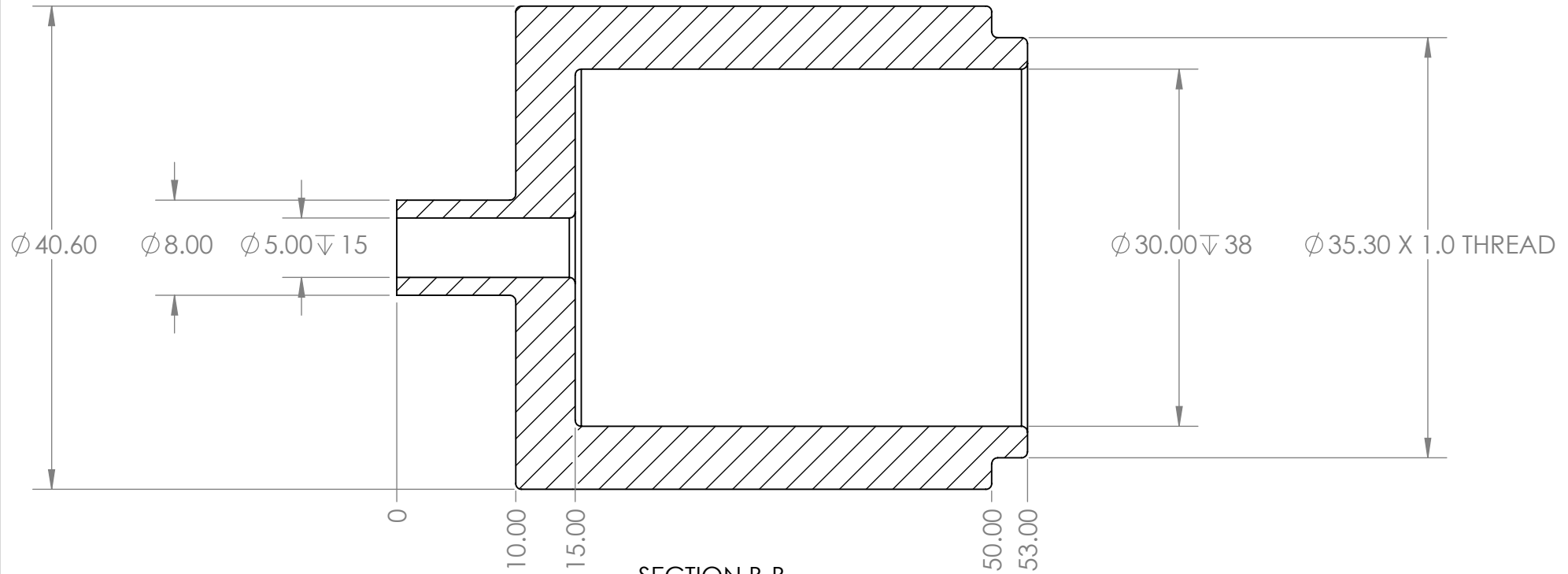
A

8 7 6 5 4 3 2 1

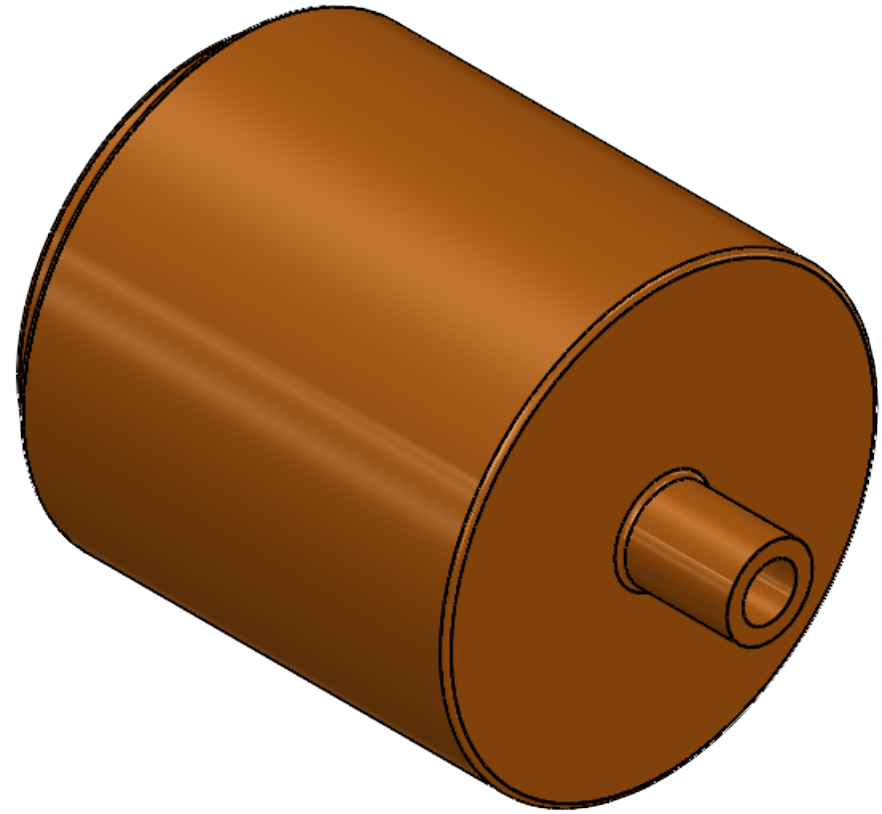
8 7 6 5 4 3 2 1

D

D

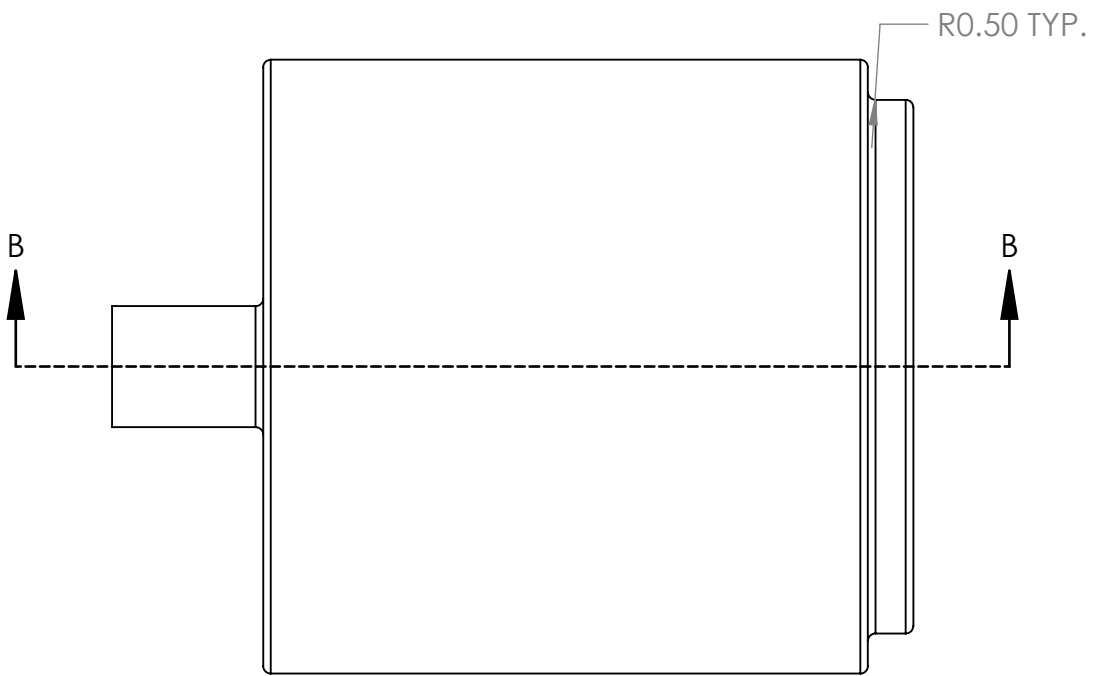


SECTION B-B
SCALE 2 : 1



C

C



R0.50 TYP.

B

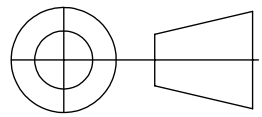
B

B

B

- NOTES:
 1. DO NOT SCALE FROM DRAWING
 2. BREAK ALL SHARP EDGES

THIRD ANGLE PROJECTION



UNLESS OTHERWISE SPECIFIED:

1. DIMENSIONS IN MM
 2. TOLERANCES:
 - ANGULAR: $\pm 1^\circ$
 - .X: ± 2.0
 - .X: ± 0.5
 - .XX: ± 0.2

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.

INTERPRET DRAWING PER:
 ASME Y14.5M-1994

MATERIAL

316 STAINLESS STEEL



DESCRIPTION:

CENTRE BODY

	NAME	DATE
DRAWN	PC	2023-08-01
CHECKED	SM	2023-08-01

DWG. NO.
200-005

REV

-

DO NOT SCALE DRAWING

WEIGHT:

SHEET 1 OF 1

A

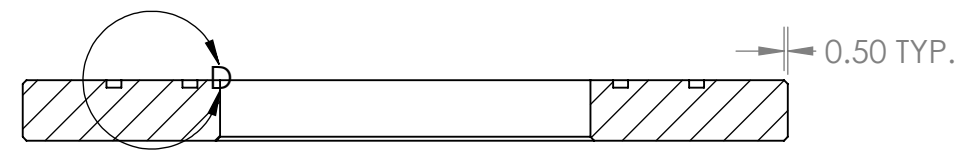
A

8 7 6 5 4 3 2 1

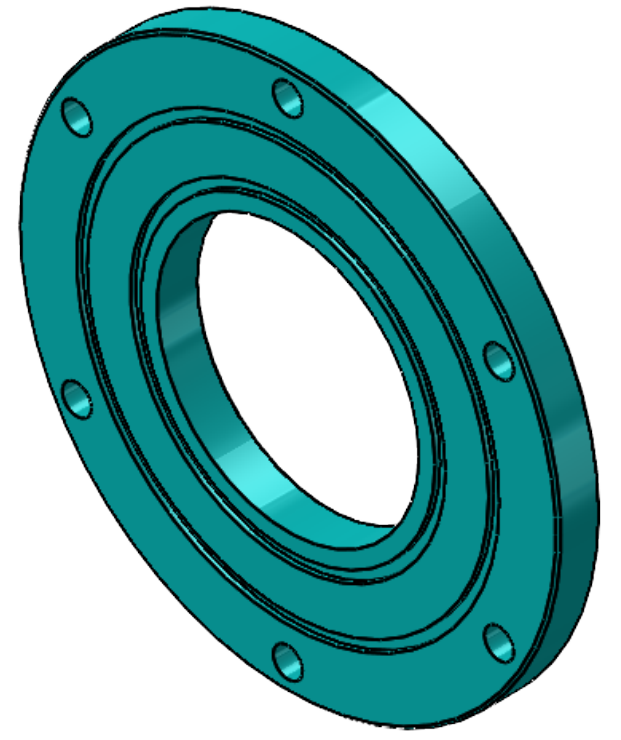
8 7 6 5 4 3 2 1

D

D

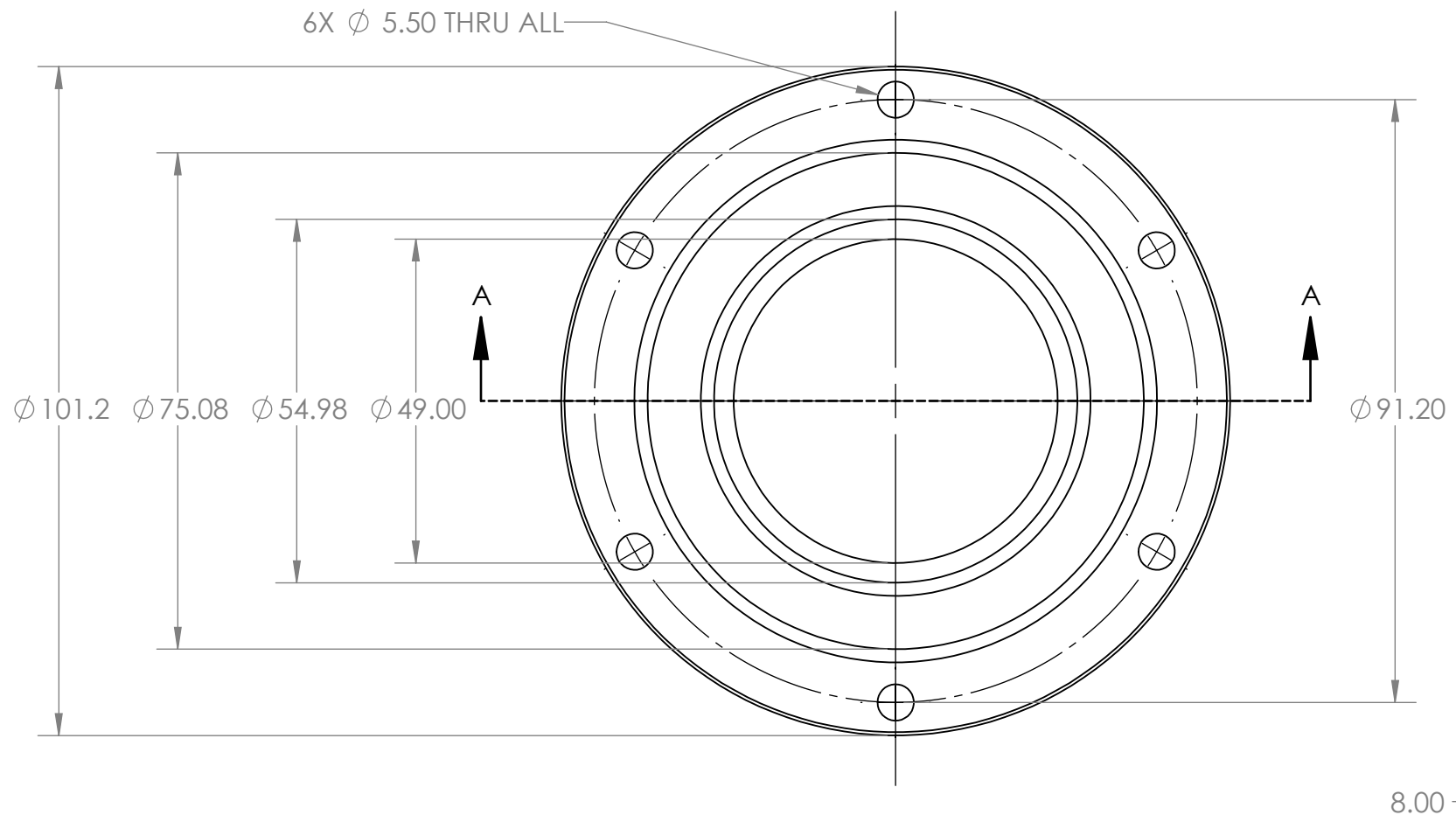


SECTION A-A
SCALE 1 : 1



C

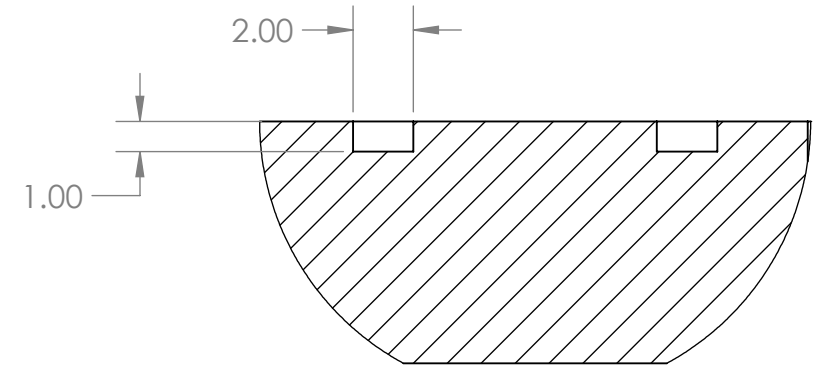
C



6X ϕ 5.50 THRU ALL

ϕ 101.2 ϕ 75.08 ϕ 54.98 ϕ 49.00 ϕ 91.20

8.00

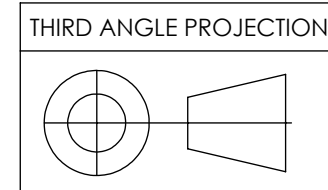


DETAIL D
SCALE 4 : 1

B

B

- NOTES:
 1. DO NOT SCALE FROM DRAWING
 2. BREAK ALL SHARP EDGES



THIRD ANGLE PROJECTION
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHOLOGIES IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
 1. DIMENSIONS IN MM
 2. TOLERANCES:
 - ANGULAR: $\pm 1^\circ$
 - .X: ± 2.0
 - .X: ± 0.5
 - .XX: ± 0.2

INTERPRET DRAWING PER:
 ASME Y14.5M-1994
 MATERIAL
 316 STAINLESS STEEL



DESCRIPTION:
COOLANT CAP

DRAWN	NAME	DATE
PC		2023-08-01
CHECKED	FML	DATE
		2023-08-01

DWG. NO.
200-006

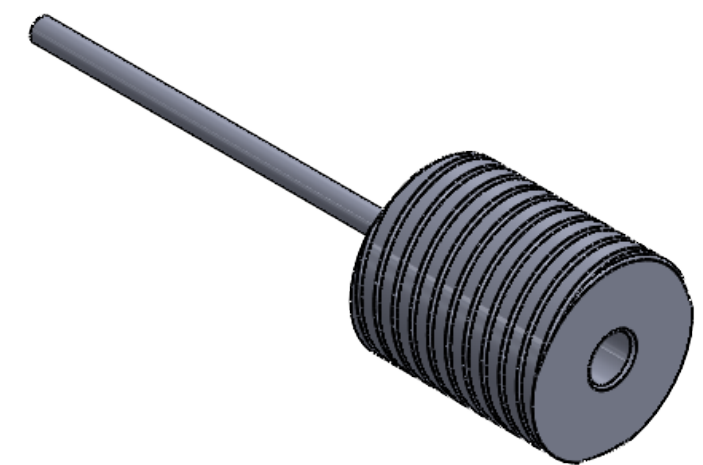
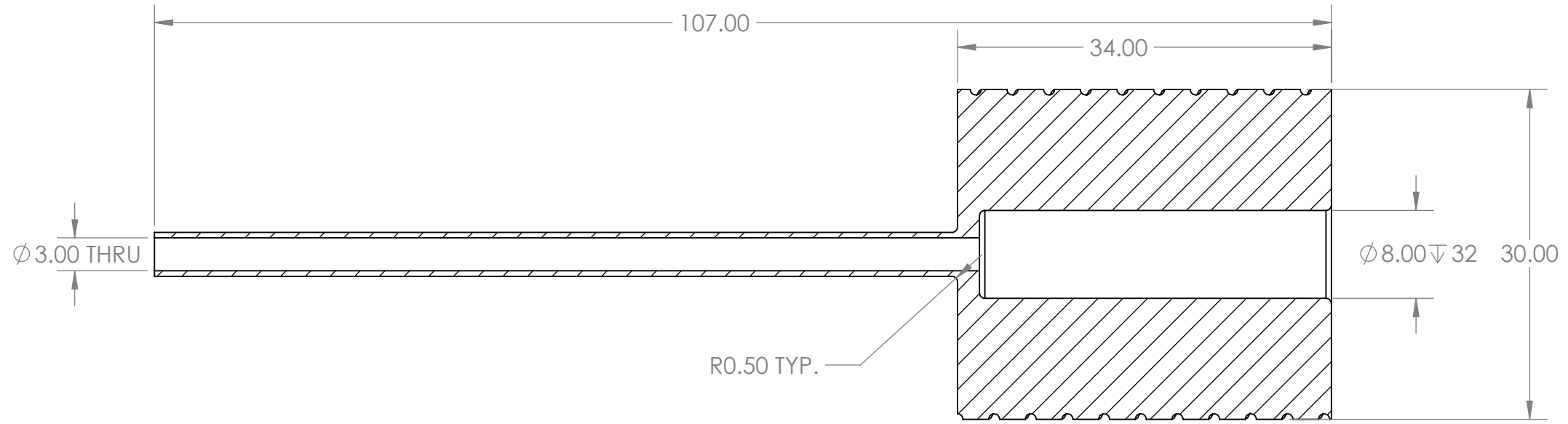
WEIGHT: SHEET 1 OF 1

A

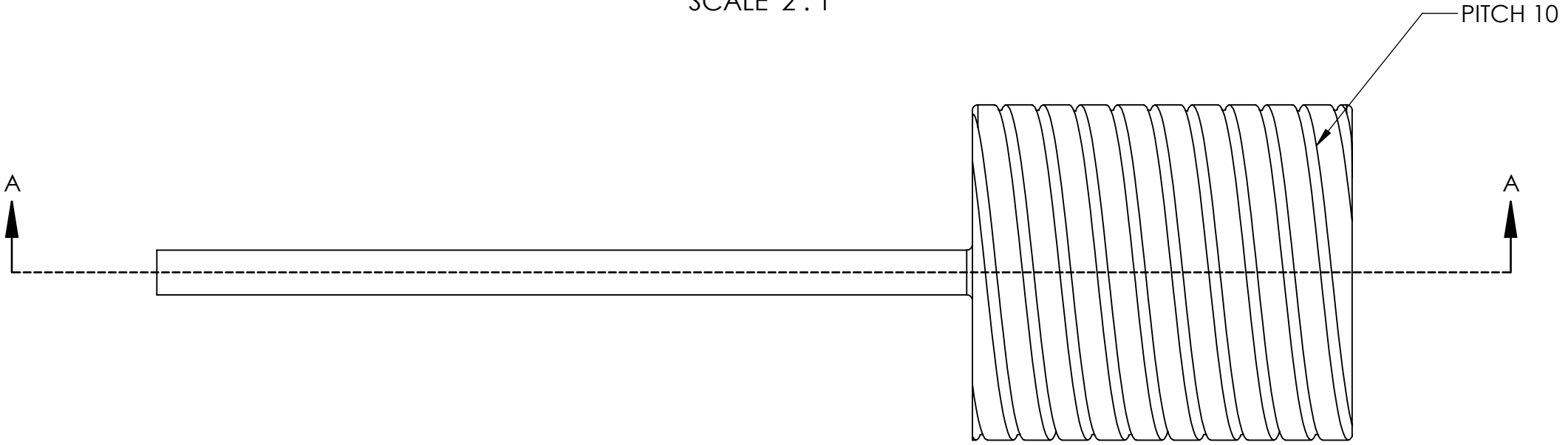
A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1



SECTION A-A
SCALE 2:1



NOTES:
1. DO NOT SCALE FROM DRAWING
2. BREAK ALL SHARP EDGES

THIRD ANGLE PROJECTION 	UNLESS OTHERWISE SPECIFIED: 1. DIMENSIONS IN MM 2. TOLERANCES: - ANGULAR: ±1° - .X: ±2.0 - .X: ±0.5 - .XX: ±0.2			DESCRIPTION: CENTRE BODY COOLING TUBE	
	INTERPRET DRAWING PER: ASME Y14.5M-1994	MATERIAL: 316 STAINLESS STEEL		DWG. NO. 200-007	REV -
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DETECHNOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DETECHNOLOGIES IS PROHIBITED.			DO NOT SCALE DRAWING		WEIGHT: SHEET 1 OF 1