B

B

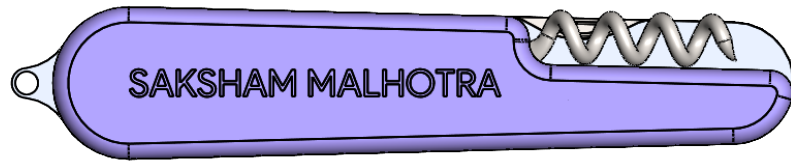SAKSHAM MALHOTRA

UTILITY TOOL
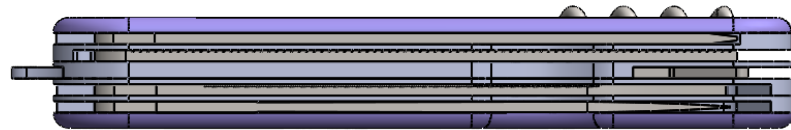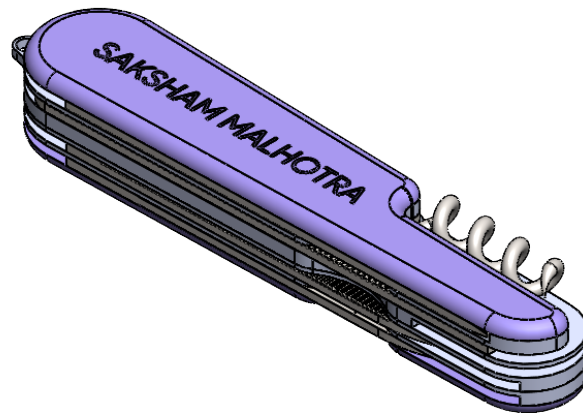
A

A

SAKSHAM MALHOTRA

TITLE:

Utility Tool

NAME:
Saksham Malhotra

STUDENT #:
20662268

SCALE: 1:1 | ME 555 | SHEET 1 OF 14

B
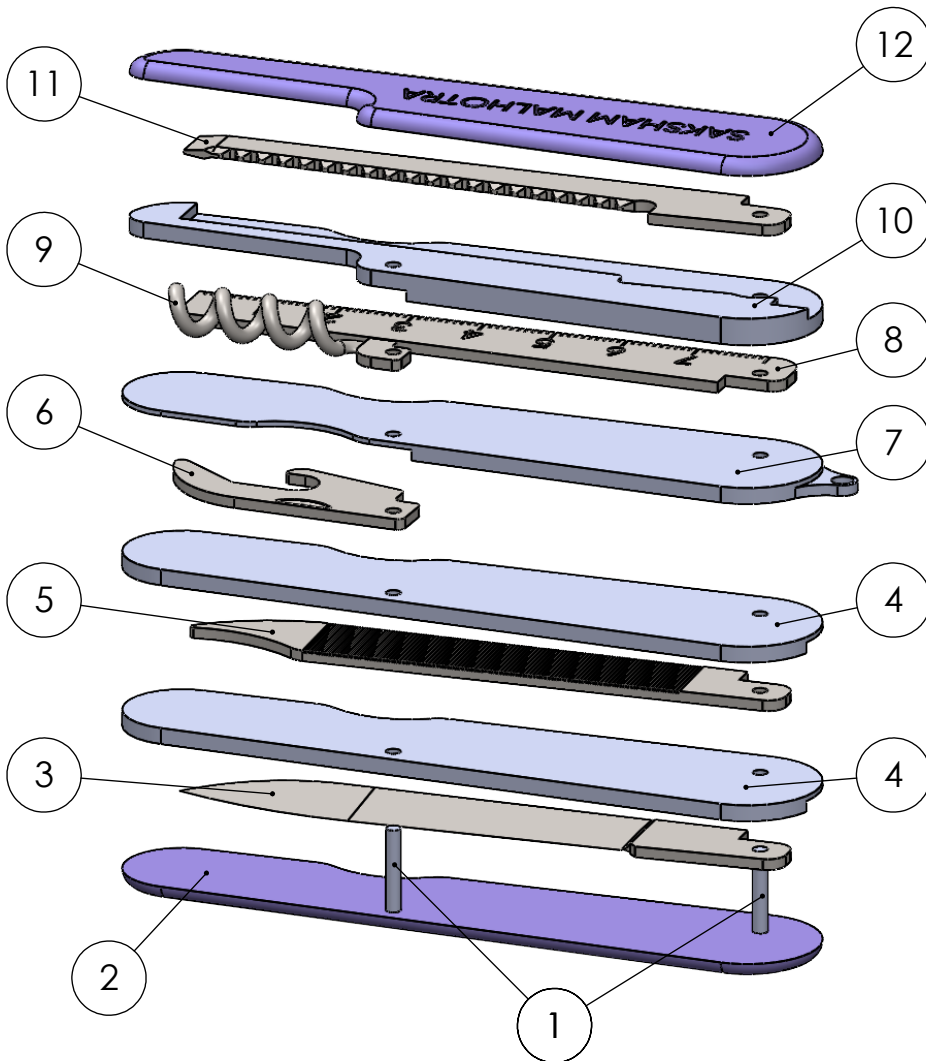
Part #	Part Name	Material	QTY.
1	Pin	Aluminum	2
2	Outter Shell Front	Aluminum	1
3	Large Knife	Stainless Steel	1
4	Separator 1	Aluminum	2
5	File Tool	Stainless Steel	1
6	Bottle Opener	Stainless Steel	1
7	Separator 2	Aluminum	1
8	Ruler	Stainless Steel	1
9	Corkscrew	Stainless Steel	1
10	Separator 3	Aluminum	1
11	Saw Knife	Stainless Steel	1
12	Outter Shell Back	Aluminum	1

A

TITLE:

Utility Tool B.O.M.

NAME:
Saksham Malhotra

STUDENT #:
20662268

SCALE: 1:1   ME 555   SHEET 2 OF 14

B

B

12.50

H6
$\varnothing$ 2.000 n5

A

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated
- Pin manufactured for press fit into "Outer Shell Front" and "Outer Shell Back"

TITLE:		
	Pin	
NAME:		**STUDENT #:**
Saksham Malhotra		20662268
SCALE: 8:1	ME 555	SHEET 3 OF 14

B

SAKSHAM MALHOTRA

R3.00
R3.00
R3.00

2.00

R2.00

H6
2x ⌀ 2.00 n5 ▽ 1.00

80.00

0.50

6.50

R10.00

R8.00

3.00

6.25

5.00

35.00

A
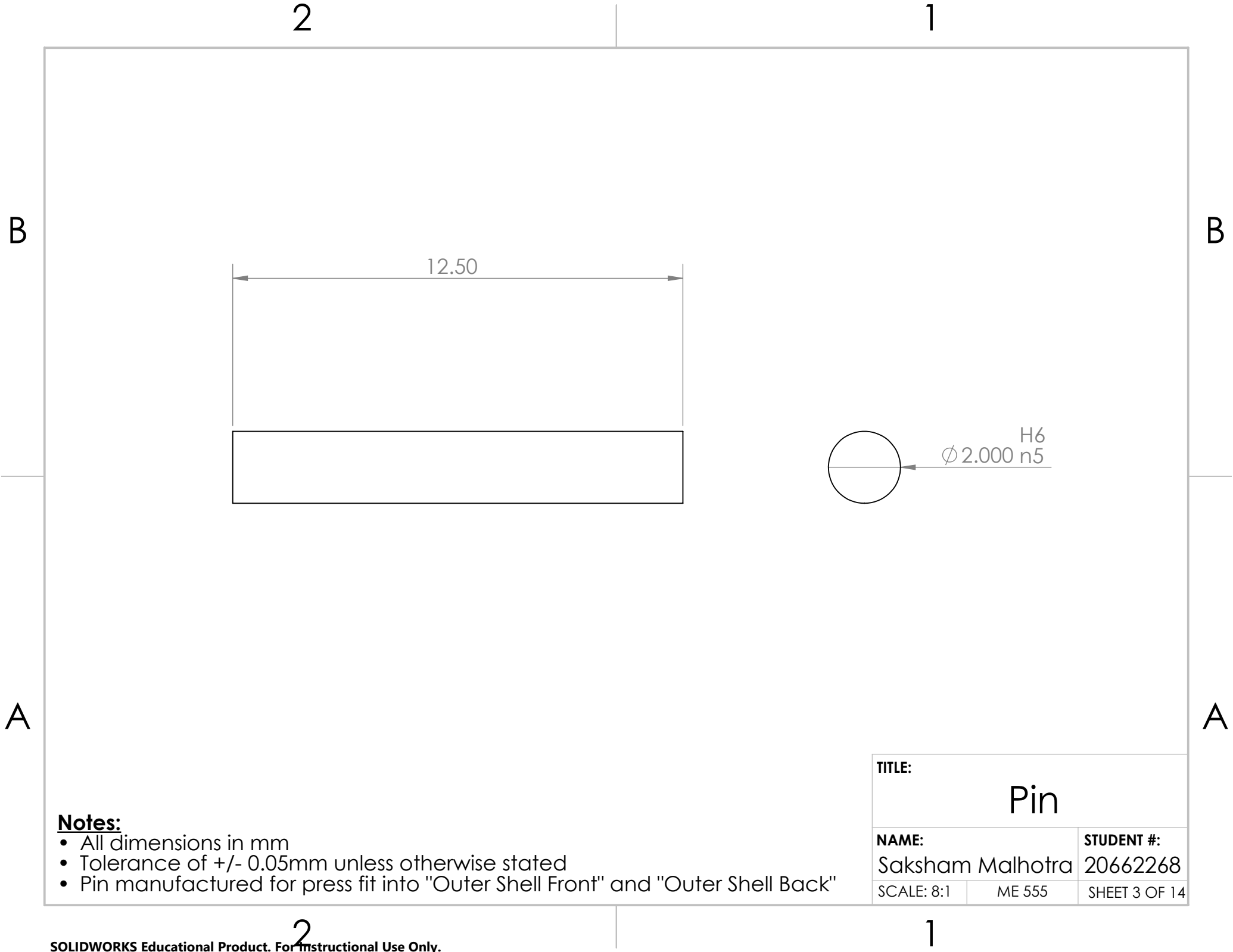
TITLE:

Outer Shell Back

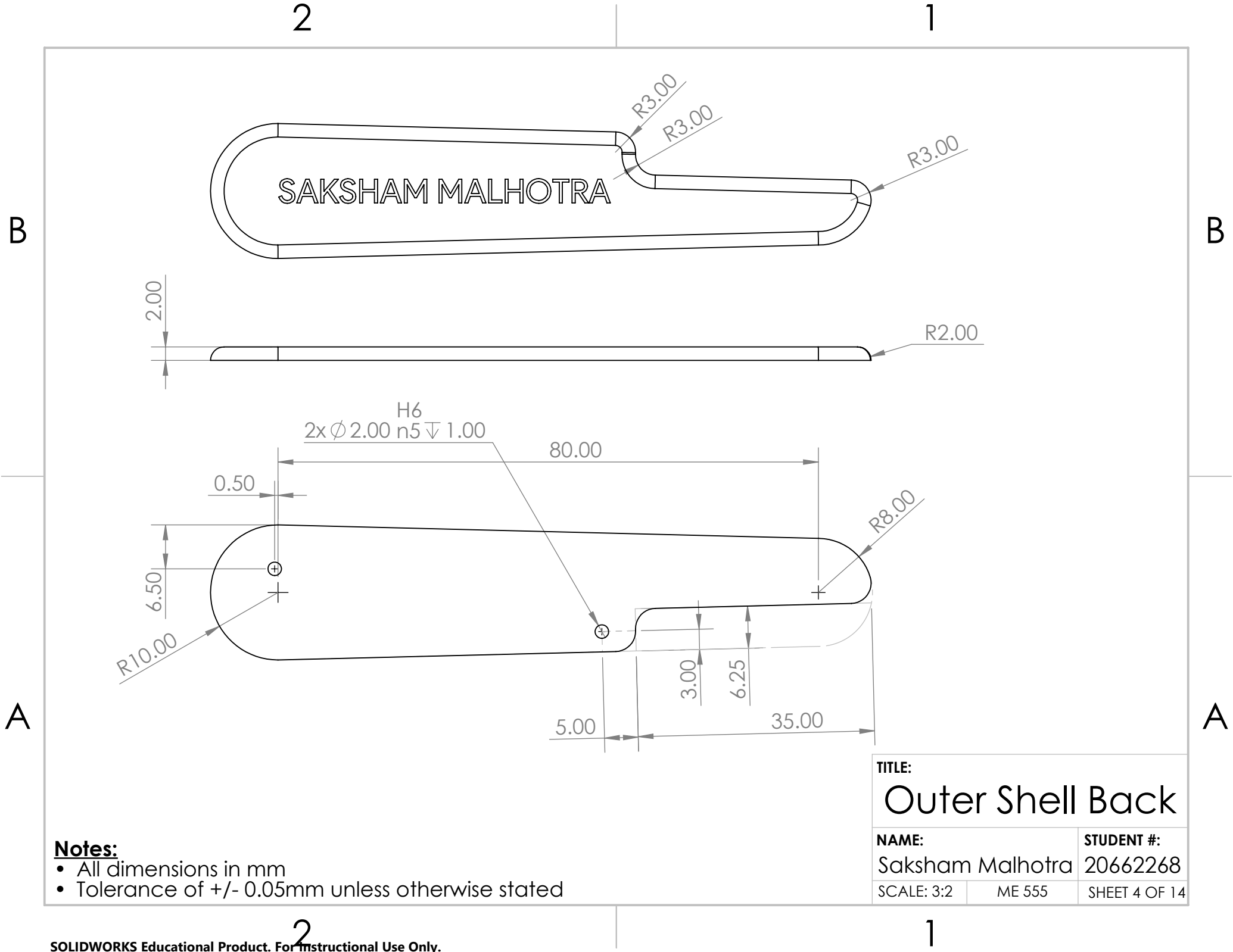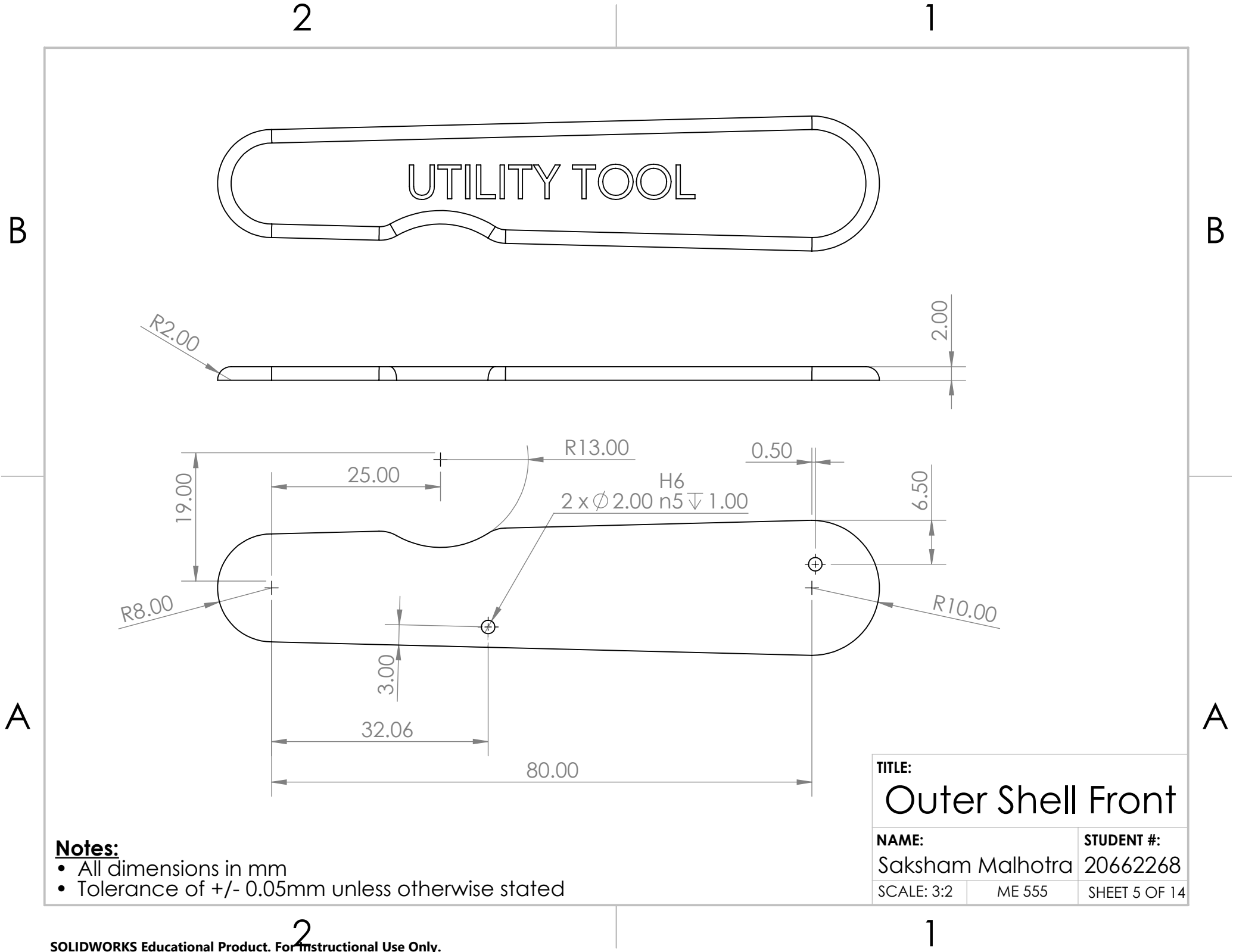| **NAME:**		**STUDENT #:**
Saksham Malhotra		20662268
SCALE: 3:2	ME 555	SHEET 4 OF 14

Notes:
- All dimensions in mm
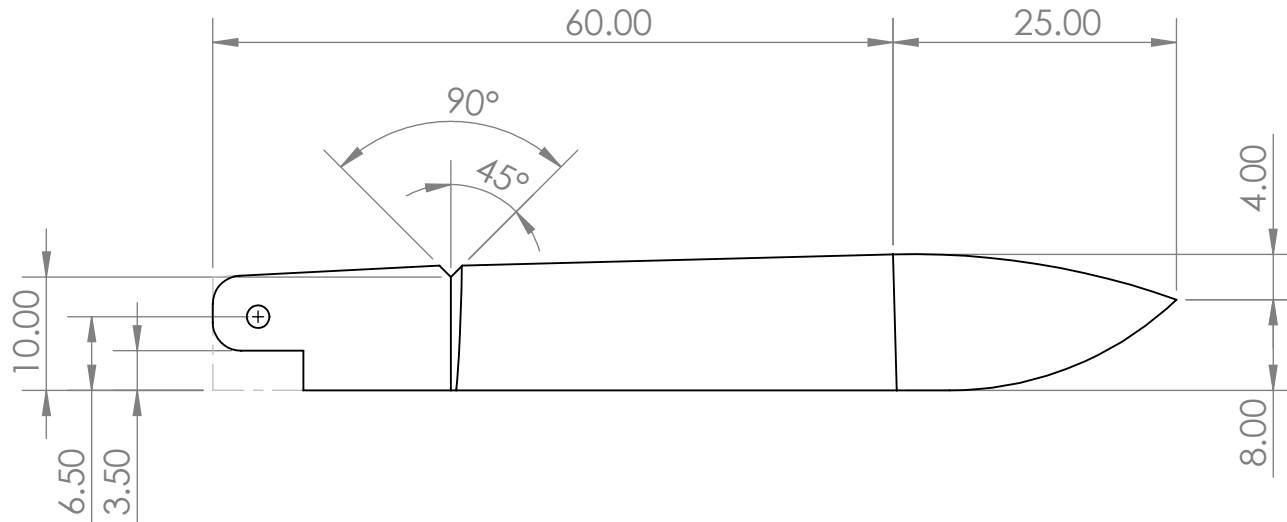- Tolerance of +/- 0.05mm unless otherwise stated

UTILITY TOOL

R2.00

2.00

R13.00

0.50

25.00

19.00

H6
2 x ⌀ 2.00 n5 ⍂ 1.00

6.50

R8.00

3.00

R10.00

32.06

80.00

A   A

TITLE:

Outer Shell Front

NAME:	STUDENT #:
Saksham Malhotra	20662268

SCALE: 3:2	ME 555	SHEET 5 OF 14
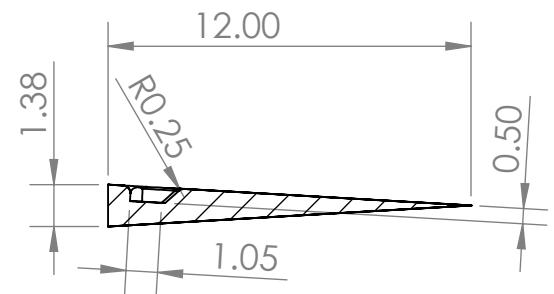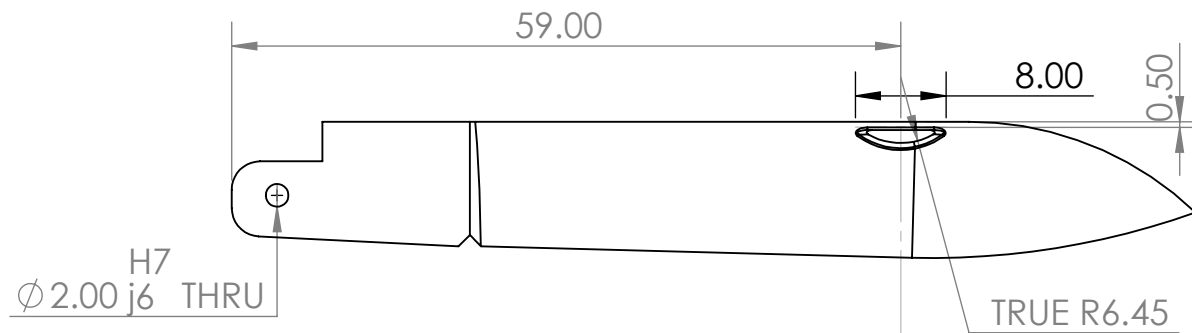
Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

B

B

59.00

8.00

0.50

H7
⌀ 2.00 j6   THRU

TRUE R6.45

12.00

1.38

R0.25

0.50

1.05

SECTION A-A
SCALE 4 : 1

1.50

A
A

60.00

25.00

90°

45°

4.00

10.00

8.00

6.50

3.50

A

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated
- Section A-A shows the dimensions for the "Pull-out Tab" feature used for various parts in the assembly

TITLE:		
	Large Knife	
NAME:		**STUDENT #:**
Saksham Malhotra		20662268
SCALE: 3:2	ME 555	SHEET 6 OF 14

B
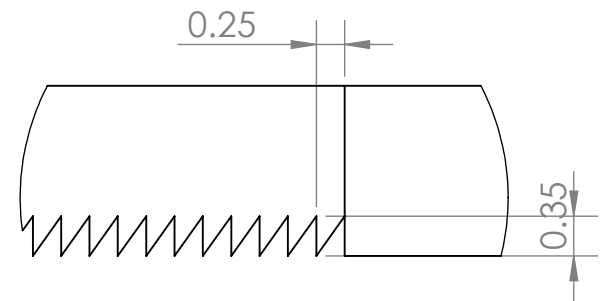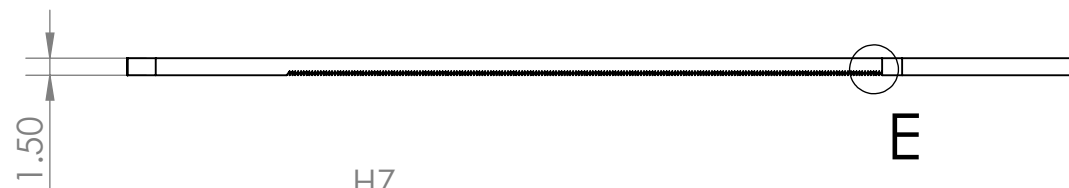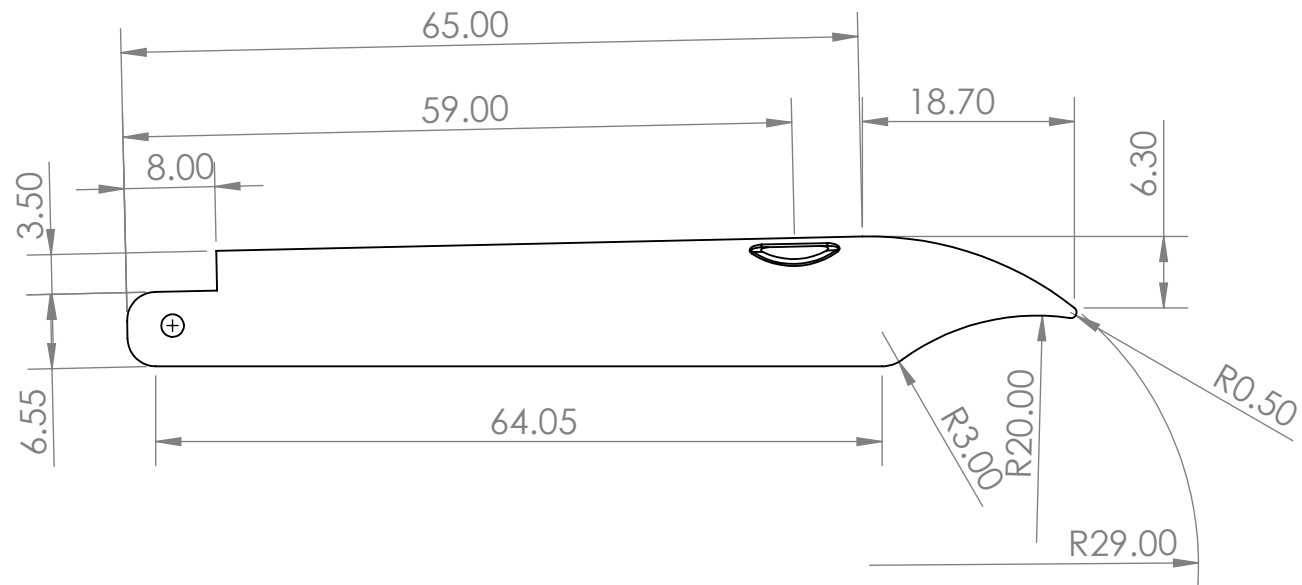
65.00

59.00

18.70

8.00

3.50

6.30

6.55

64.05

R3.00

R20.00

R0.50

R29.00

B

0.25

1.50

E

0.35

DETAIL E
SCALE 15 : 1

H7
⌀2.00 j6 THRU

4.75

10.00

11.45

A

14.05

52.50

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated
- "Pull-out tab" feature dimensions presented on Sheet 6 (Large Knife)

TITLE:

File Tool

NAME:
Saksham Malhotra
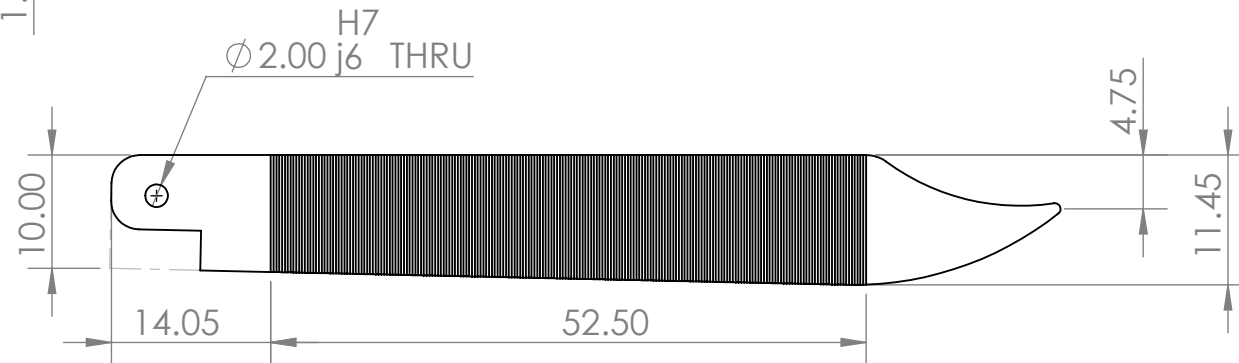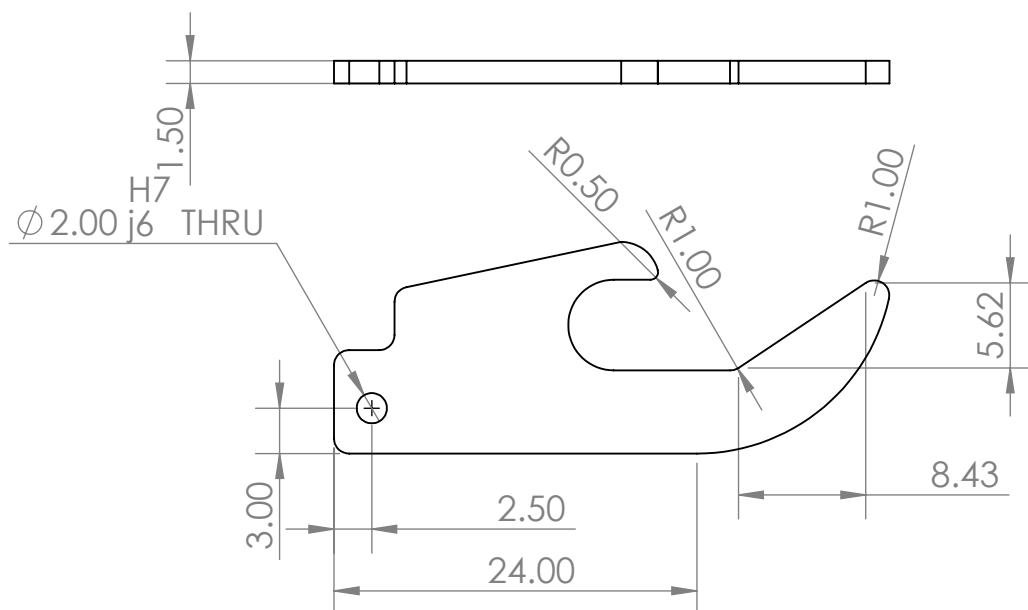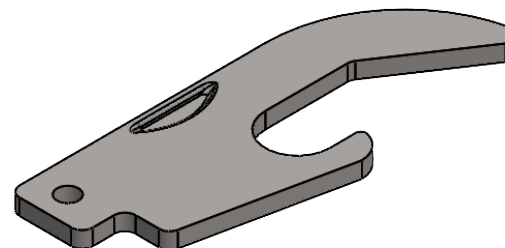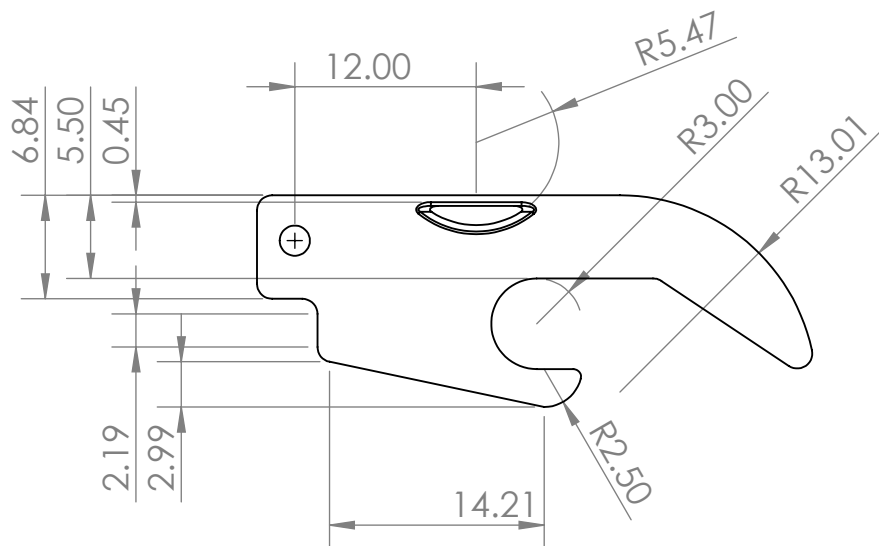
STUDENT #:
20662268

SCALE: 3:2 | ME 555 | SHEET 7 OF 14

B

6.84
5.50
0.45
12.00
R5.47
R3.00
R13.01
2.19
2.99
R2.50
14.21

B

1.50
H7
⌀ 2.00 j6   THRU
R0.50
R1.00
R1.00
5.62
8.43
3.00
2.50
24.00

A

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

TITLE:

Bottle Opener

NAME:	STUDENT #:
Saksham Malhotra	20662268

SCALE: 2:1	ME 555	SHEET 8 OF 14

B
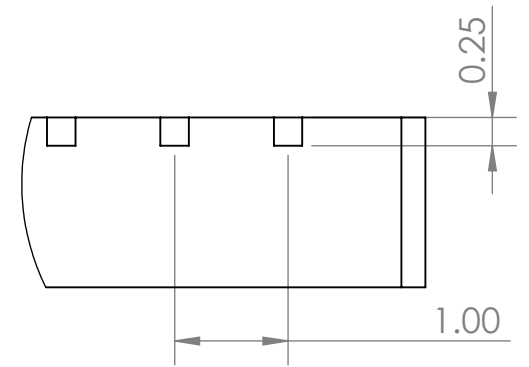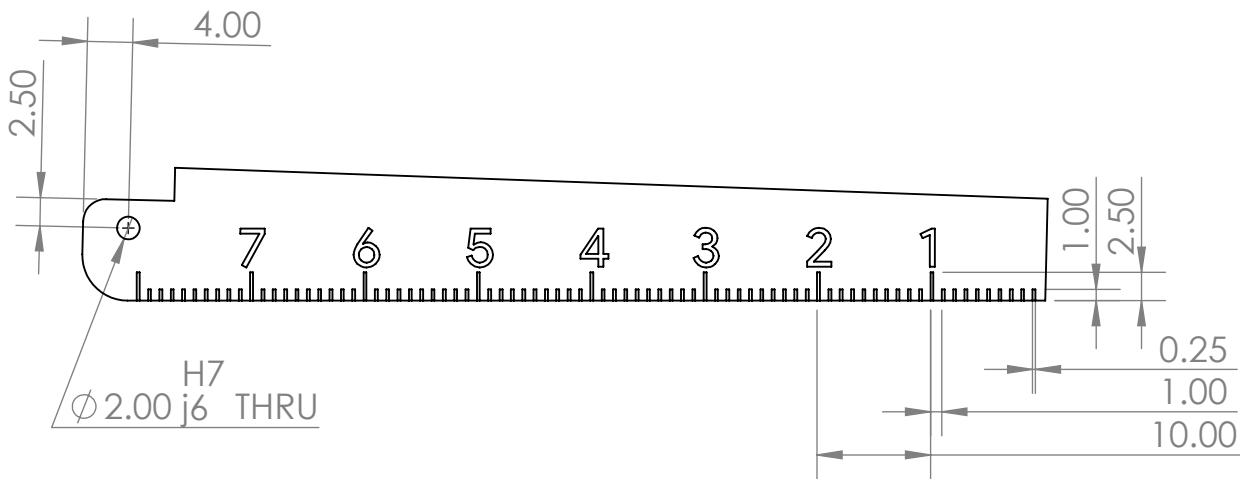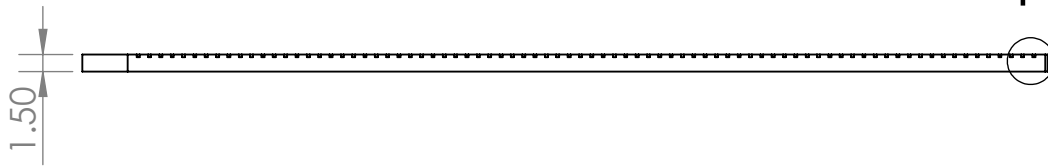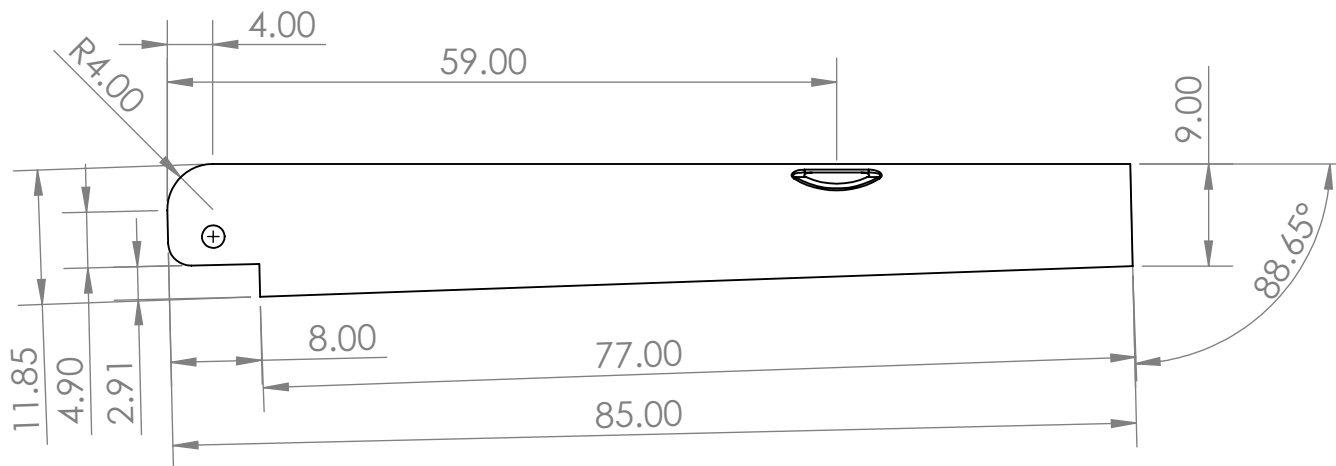
4.00
2.50

7 6 5 4 3 2 1

H7
Ø 2.00 j6 THRU

1.00
2.50
0.25
1.00
10.00

F

0.25

DETAIL F
SCALE 15 : 1

1.00

B

1.50

4.00
59.00
R4.00
9.00
88.65°

A

11.85
4.90
2.91

8.00
77.00
85.00

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated
- "Pull-out tab" feature dimensions presented on Sheet 6 (Large Knife)

A

TITLE:		
	Ruler	
NAME:		**STUDENT #:**
Saksham Malhotra		20662268
SCALE: 3:2	ME 555	SHEET 9 OF 14

B

⌀ 2.00 j6 H7 THRU

157°

2.00

20.00

7.00

2.00

R1.00

R0.50

R3.00

4.00

⌀ 7.00

⌀ 3.00

3.75

4.50

H

H

7.00

1.50

2.00

1.00

0.75

3.50
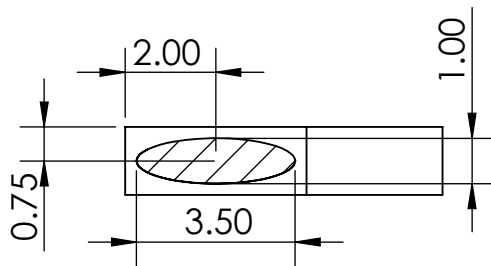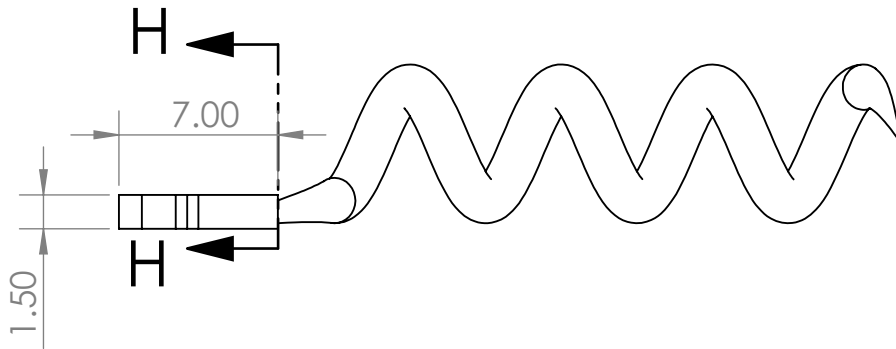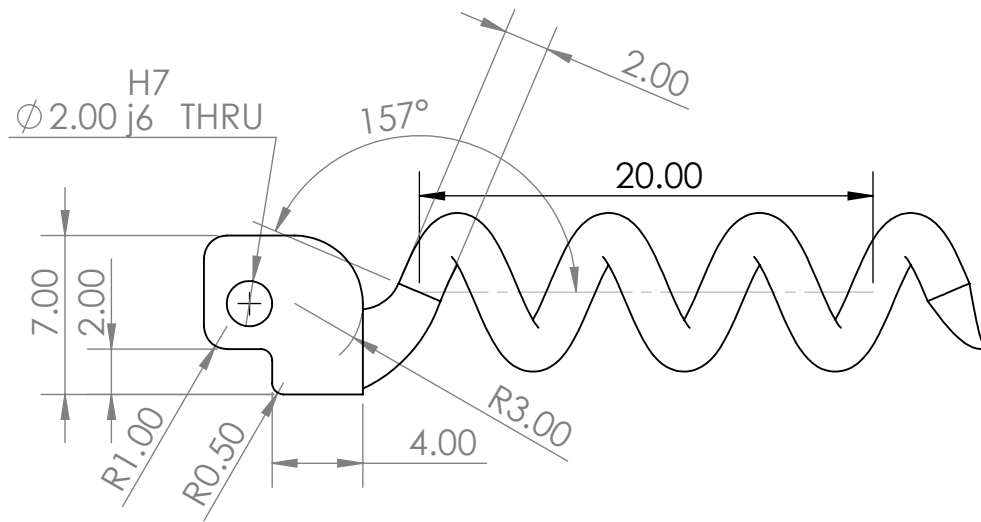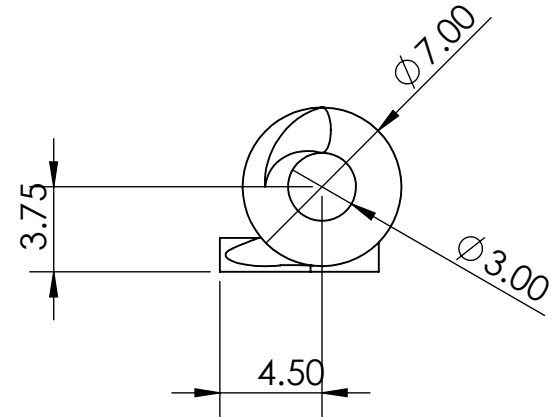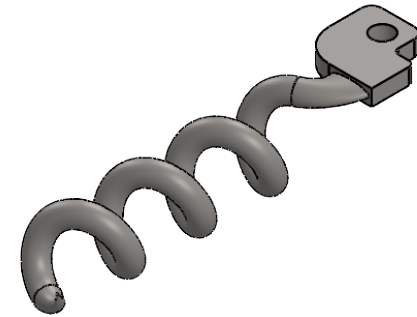
SECTION H-H
SCALE 6 : 1

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

TITLE:

Corkscrew

NAME:	STUDENT #:
Saksham Malhotra	20662268

SCALE: 3:1	ME 555	SHEET 10 OF 14
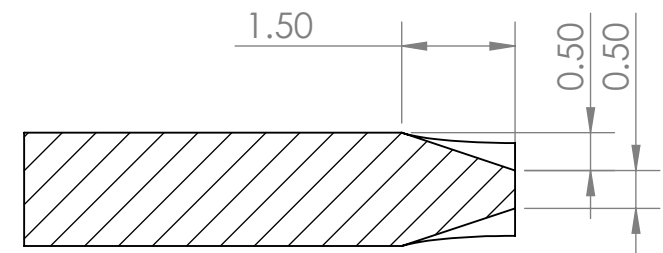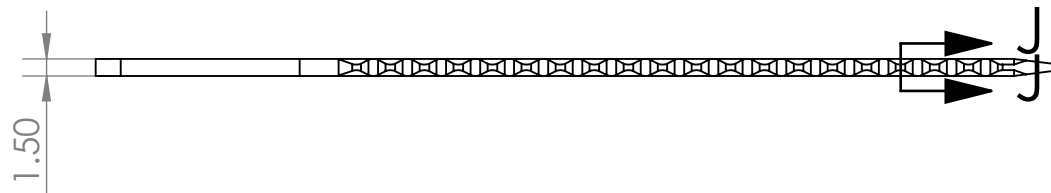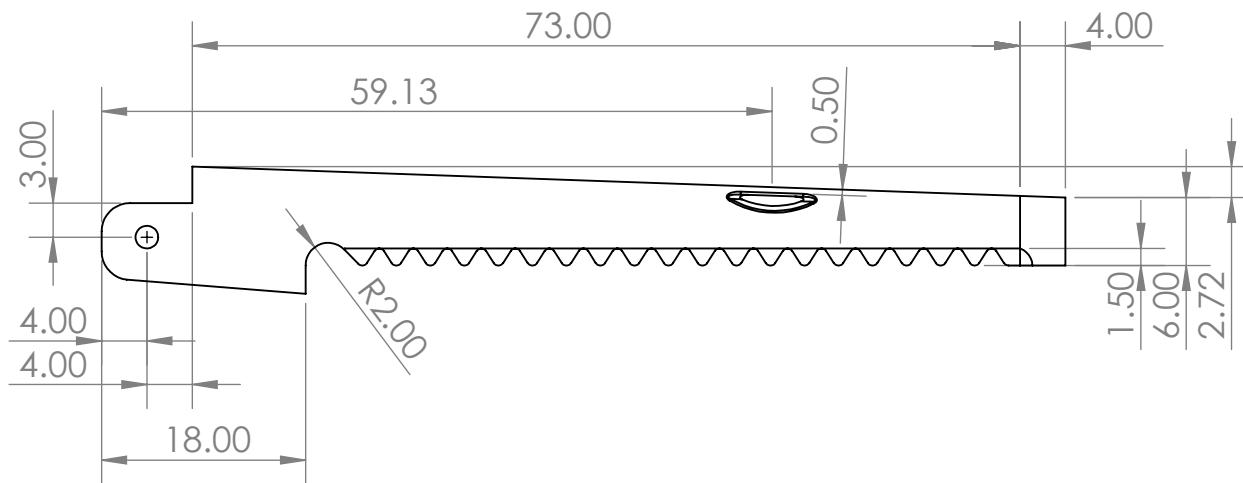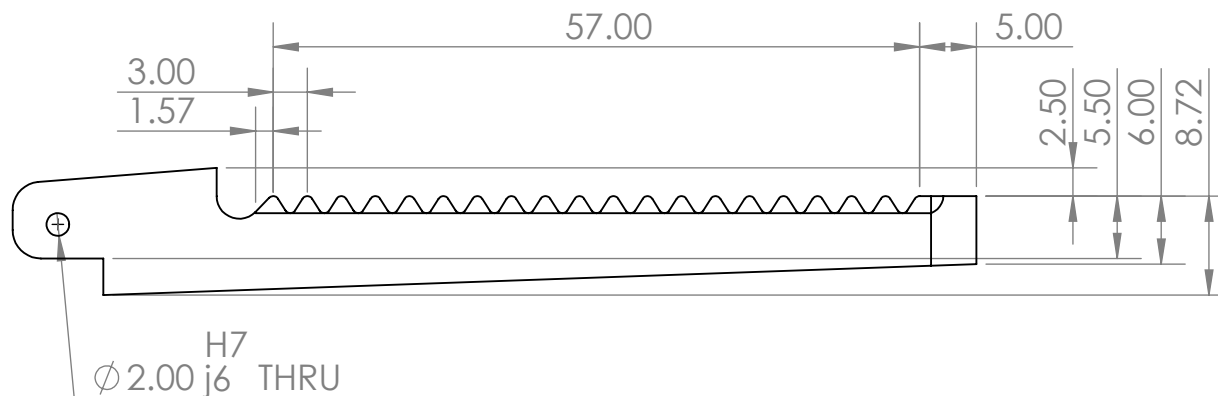
B

73.00

4.00

59.13

0.50

3.00

R2.00

4.00

4.00

18.00

1.50
6.00
2.72

B

1.50

J

1.50

0.50
0.50

SECTION J-J
SCALE 10 : 1

3.00

57.00

5.00

1.57

2.50
5.50
6.00
8.72

A

H7
Ø 2.00 j6   THRU

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated
- "Pull-out tab" feature dimensions presented on Sheet 6 (Large Knife)

TITLE:

Saw Knife

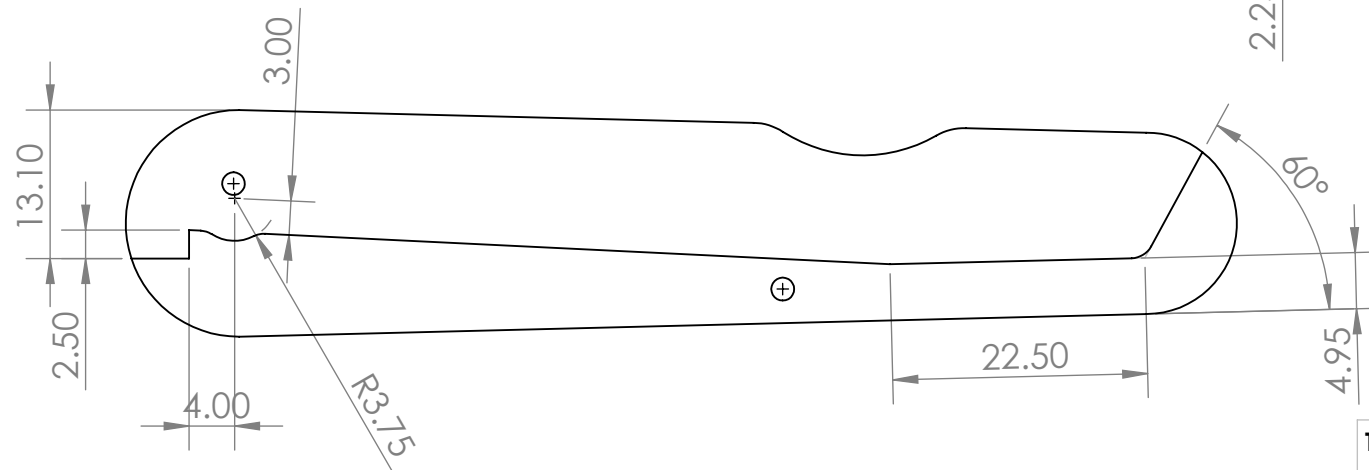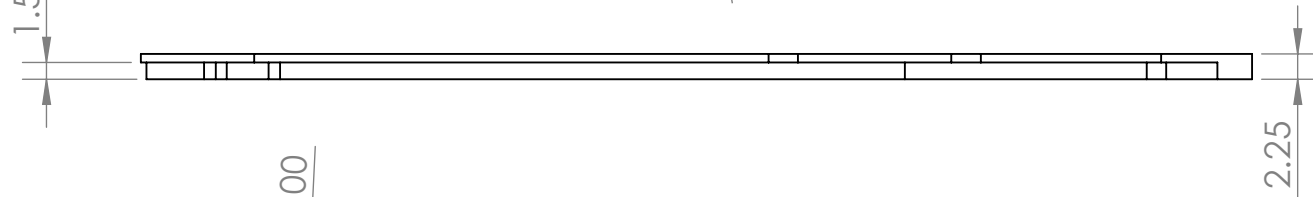| NAME:	STUDENT #:
Saksham Malhotra	20662268

| SCALE: 3:2 | ME 555 | SHEET 11 OF 14 |

B   B

R10.00

H7
2 x Ø 2.00 j6 THRU

80.00

32.06

3.00

R8.00

6.50

R5.00

19.00

0.50

R13.00

25.00

1.50

2.25

3.00

13.10

60°

2.50

22.50

4.95

4.00

R3.75

A   A
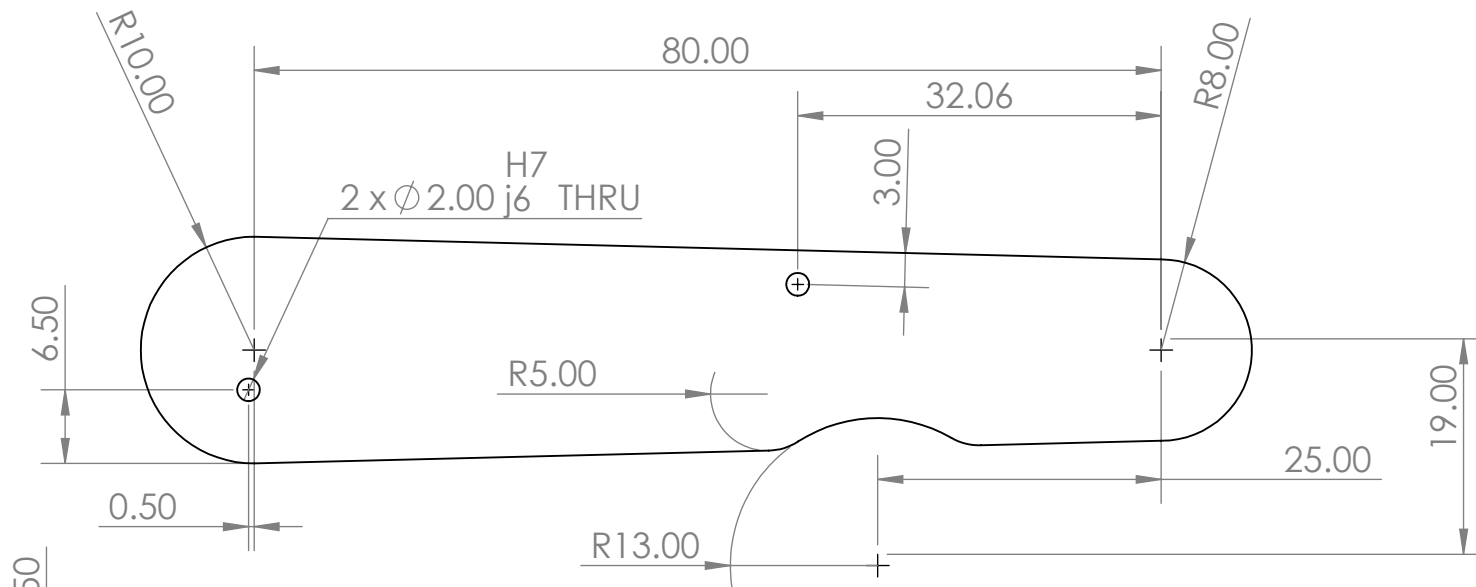
Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

TITLE:

Separator 1

NAME:		**STUDENT #:**
Saksham Malhotra		20662268
SCALE: 3:2	ME 555	SHEET 12 OF 14
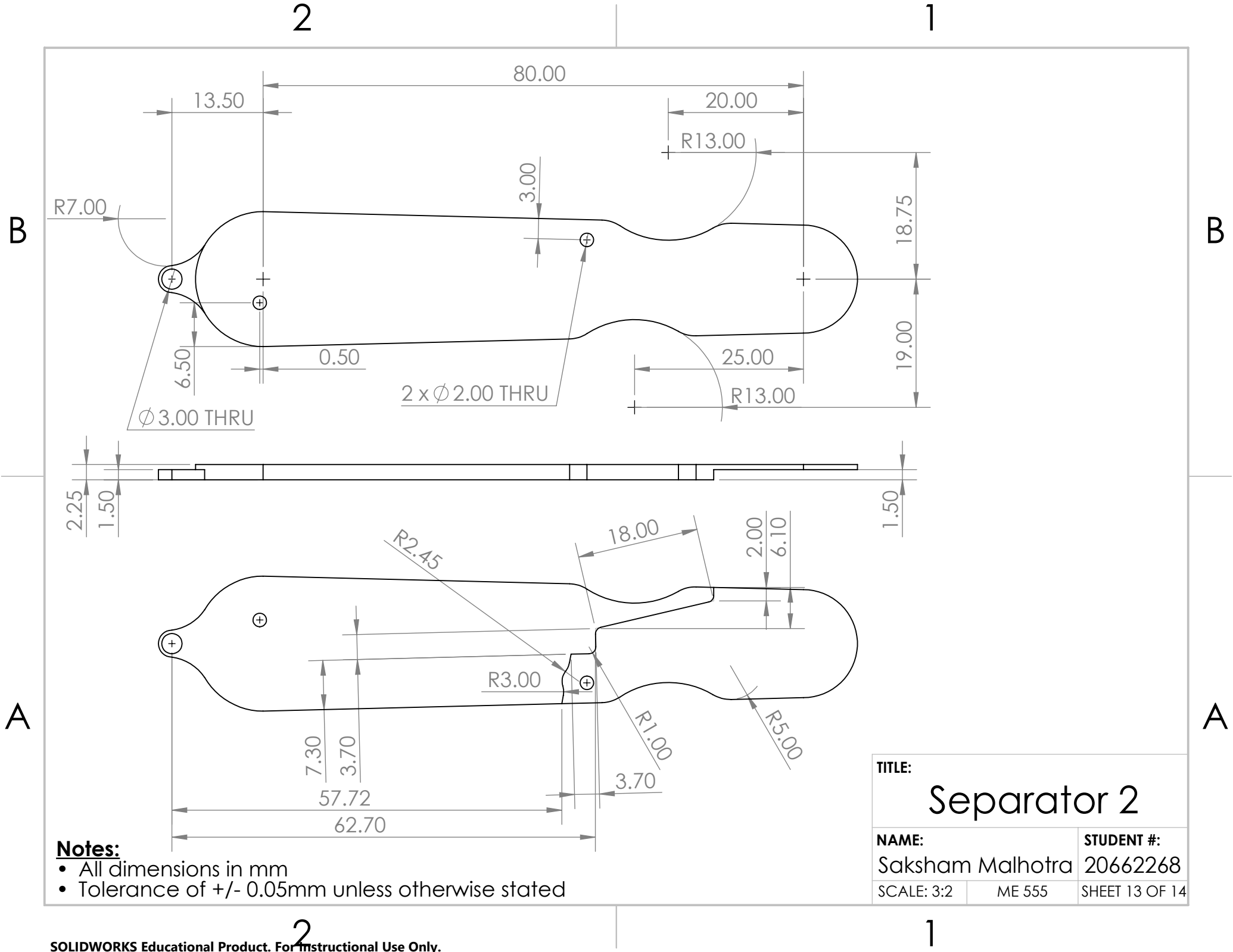
B

B
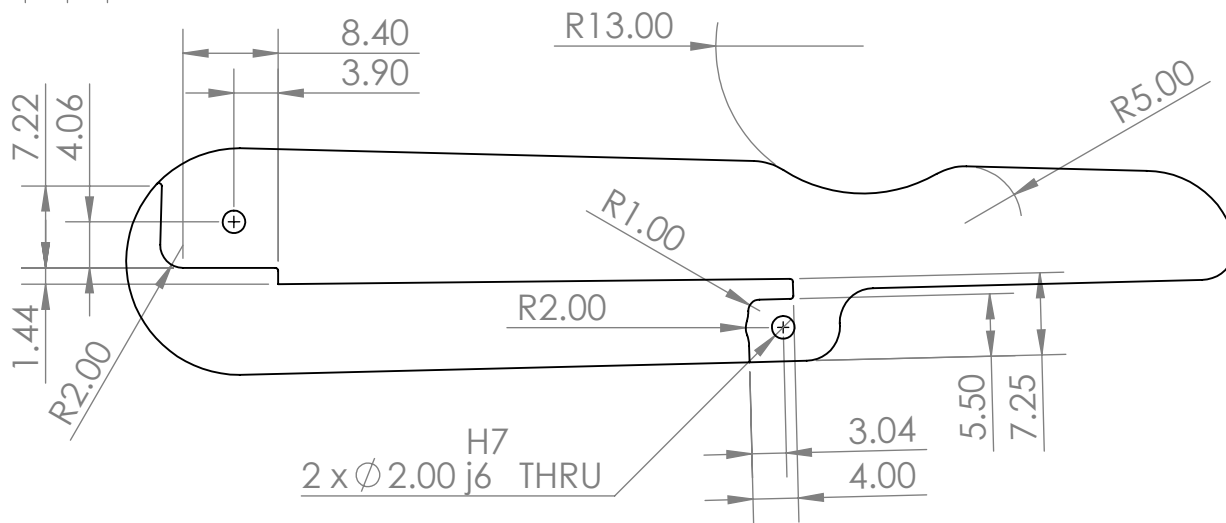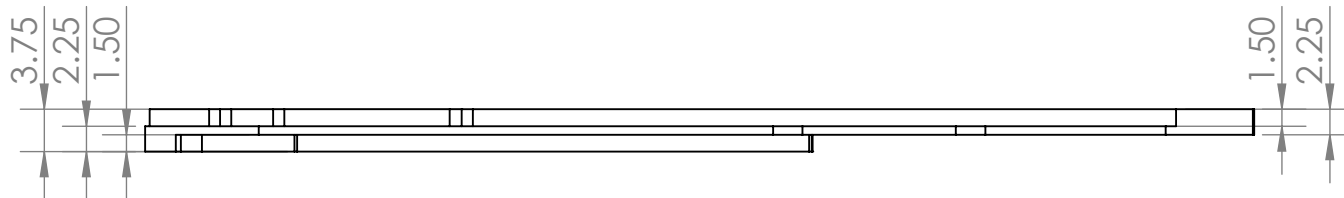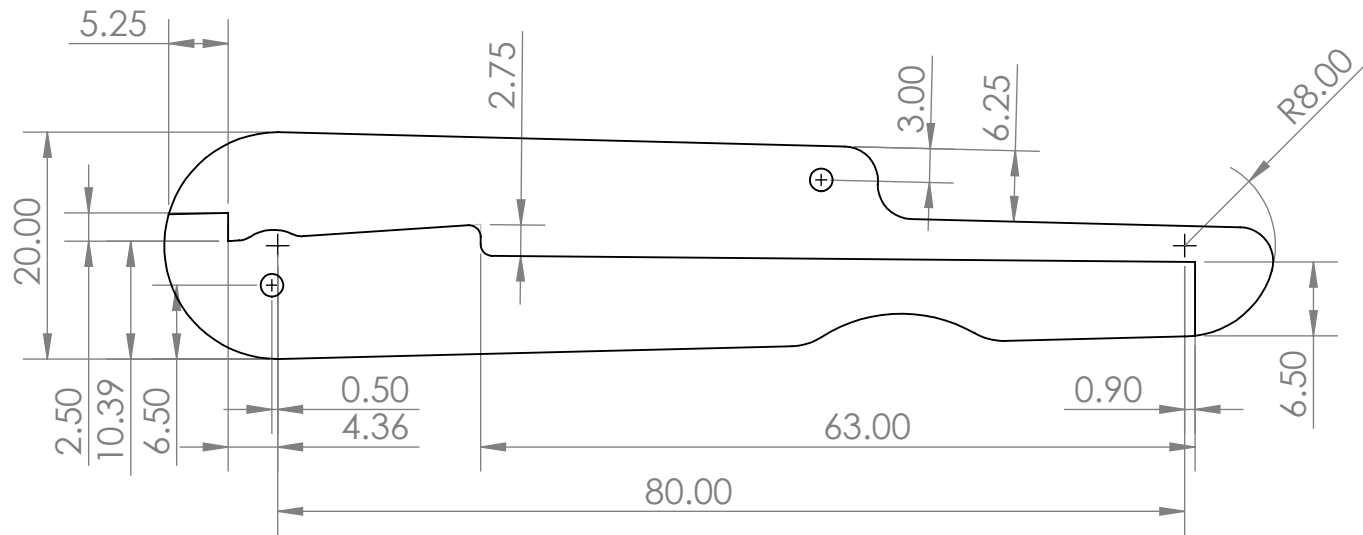
A

A

80.00

13.50

20.00

R13.00

3.00

18.75

R7.00

6.50

0.50

19.00

2 x ⌀ 2.00 THRU

25.00

R13.00

⌀ 3.00 THRU

2.25

1.50

1.50

R2.45

18.00

2.00

6.10

7.30

3.70

R3.00

R1.00

R5.00

3.70

57.72

62.70

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

TITLE:

Separator 2

NAME:	STUDENT #:
Saksham Malhotra	20662268
SCALE: 3:2	ME 555	SHEET 13 OF 14

B

5.25
2.75
3.00
6.25
R8.00
20.00
2.50
10.39
6.50
0.50
4.36
63.00
0.90
6.50
80.00

3.75
2.25
1.50
1.50
2.25

8.40
3.90
R13.00
R5.00
7.22
4.06
R1.00
R2.00
1.44
R2.00
5.50
7.25
3.04
4.00

H7
2 x ⌀ 2.00 j6　THRU

A

Notes:
- All dimensions in mm
- Tolerance of +/- 0.05mm unless otherwise stated

TITLE:

Separator 3

NAME:	**STUDENT #:**
Saksham Malhotra	20662268

| SCALE: 3:2 | ME 555 | SHEET 14 OF 14 |