

**Government of India
Bhabha Atomic Research Centre
Multidisciplinary Research Group
Applied Physics Division**

Ref: APD/CB/MF/17/AC/330/OPA/137119

04/08/2017

Sub:-“Fabrication, Inspection & Supply of New Coil Assemblies along with associated accessories” as per given drawings and specifications

Due Date: 16th AUGUST, 2017

Dear Sirs,

1. Quotations are invited for the minor fabrication job, as per the enclosed specifications and drawings.
2. Bidder shall quote for fabrication of these components with material.
3. Bidder shall take out an insurance policy in favor of BARC for any free issue material supplied.
4. Taxes shall be quoted separately. Form H shall be provided where necessary.
5. The quotations must reach Head, Applied Physics Division on or before the due date referred above and must be sent in a sealed envelope super scribed with the above reference number and due date.
6. The address on the envelope should read:

The Head,
Applied Physics Division, PURNIMA LABS,
Bhabha Atomic Research Centre
Trombay, Mumbai - 400 085.
Attn: Mr. Ankur Chowdhury
7. The fabrication work shall be subject to inspection by our representative. The finished components shall not be dispatched prior to approval by our representative at the bidder's works. Necessary inspection facilities should be provided to our engineers during fabrication at bidder's premises.
8. The bidder shall deliver the finished components after approval by our representative, within 30 days from the date of the firm purchase order issued to the bidder. The finished components shall be delivered by the bidder at **Applied Physics Division, Purnima Laboratory, (Near Plutonium Plant), Bhabha Atomic Research Centre, Trombay, Mumbai 400 085.**
9. Head, Applied Physics Division, BARC, reserves the right to accept/reject any or all quotations without assigning any reason.
10. Payment will be made by cheque only after satisfactory completion of work on production of bill, delivery challan and advance stamped receipt. It may be noted that IT @ 2% shall be deducted from your bills.
11. Job will be guaranteed against material and manufacturing defects for 1 year from the date of supply.

(Mr. Ankur Chowdhury)
For and on behalf of.
Head, Applied Physics Division

SPECIFICATIONS

1. All instructions mentioned along with the part and assembly drawings need to be strictly followed.
2. The various parts that constitute this assembly and their respective quantities required are summed up in the following table:

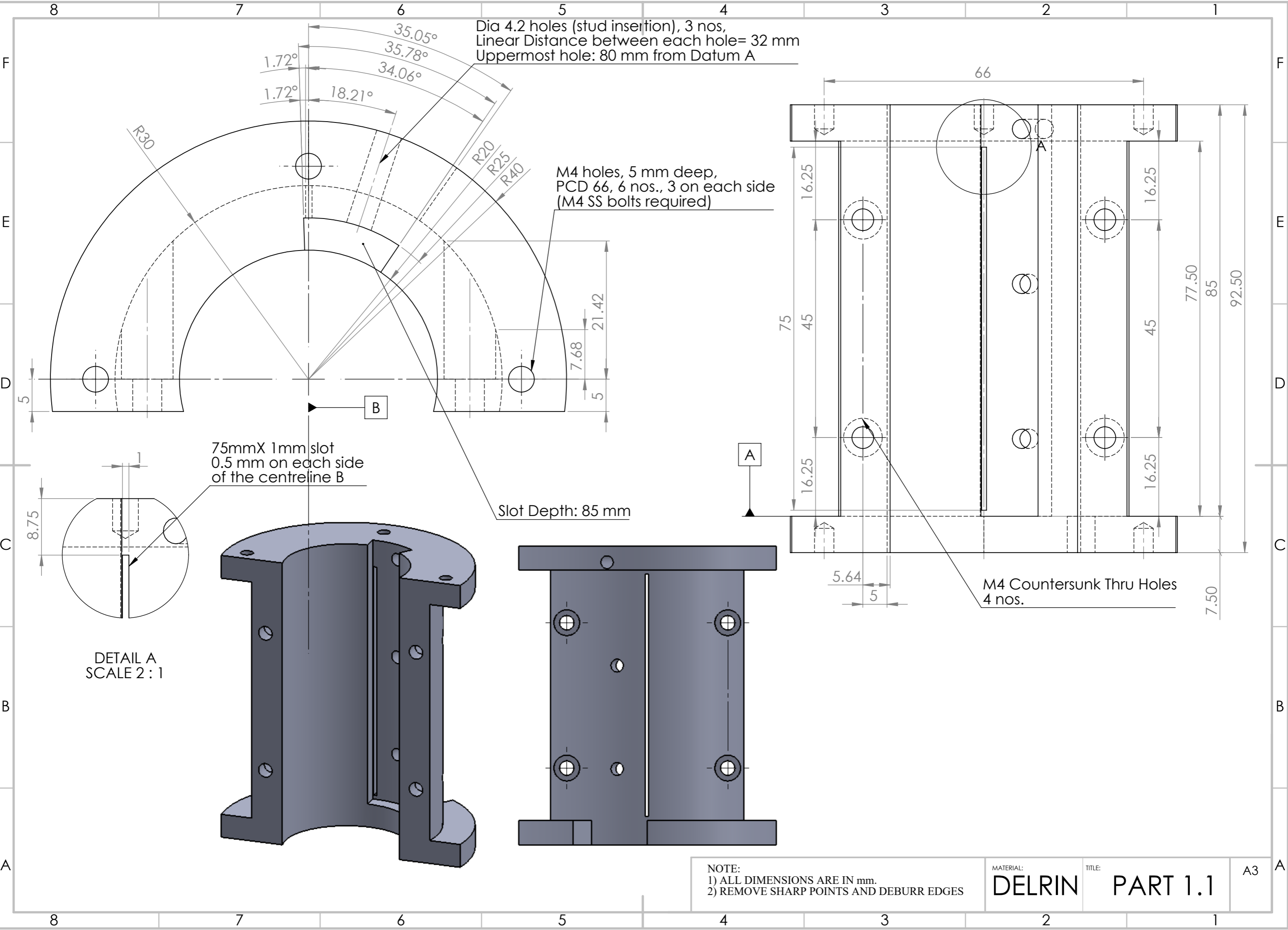
Sl. No.	Part Name	Material	Quantity
1.	PART 1.1	Delrin	6 nos.
2.	PART 1.2	Delrin	6 nos.
3.	PART 2	Copper	6 nos.
4.	PART 3	Copper	6 nos.
5.	PART 4	Copper	6 nos.
6.	PART 5	OFHC Copper	6 nos.
7.	PART 6	SS 304	4 nos.
8.	PART 7	SS 304	10 nos.
9.	PART 8.1	SS 304	5 nos.
10.	PART 8.2	SS 304	5 nos.
11.	Additional Part 1	Delrin	4 nos.

3. The parts need to be supplied individually as the assembly of these parts is to be done in our laboratory. However, parts PART 1.1 and PART 2 should be assembled and delivered. The assembly procedure will be provided by the indenter after the release of work order.

4. Accessories required along with this set:

- I. Copper sheet roll (0.5 mm thickness and more than 75 mm width). The width has to be greater than 75 mm. Length of roll required 25 metres.
- II. Single side adhesive Kapton tape 50 microns; width: greater than 100 mm; 30 metres
- III. Mylar sheet 200 microns thick, 150 mm long, 10 metres roll
- IV. Fasteners required:
 - i. M4 SS bolts 10 mm long 50 7.5 mm long 50
 - ii. M6 SS bolts 8.5 mm long 50
 - iii. M4 SS stud 2.65 mm long 50
 - iv. M4 Delrin bolts 10 mm long 25
 - v. M4 Delrin stud 18.5 mm long 25
 - vi. M6 SS bolts 5.5 mm long 30

NEW COIL ASSEMBLY



Dia 4.2 holes (stud insertion), 3 nos,
 Linear Distance between each hole= 32 mm
 Uppermost hole: 80 mm from Datum A

M4 holes, 5 mm deep,
 PCD 66, 6 nos., 3 on each side
 (M4 SS bolts required)

75mmX 1mm slot
 0.5 mm on each side
 of the centreline B

Slot Depth: 85 mm

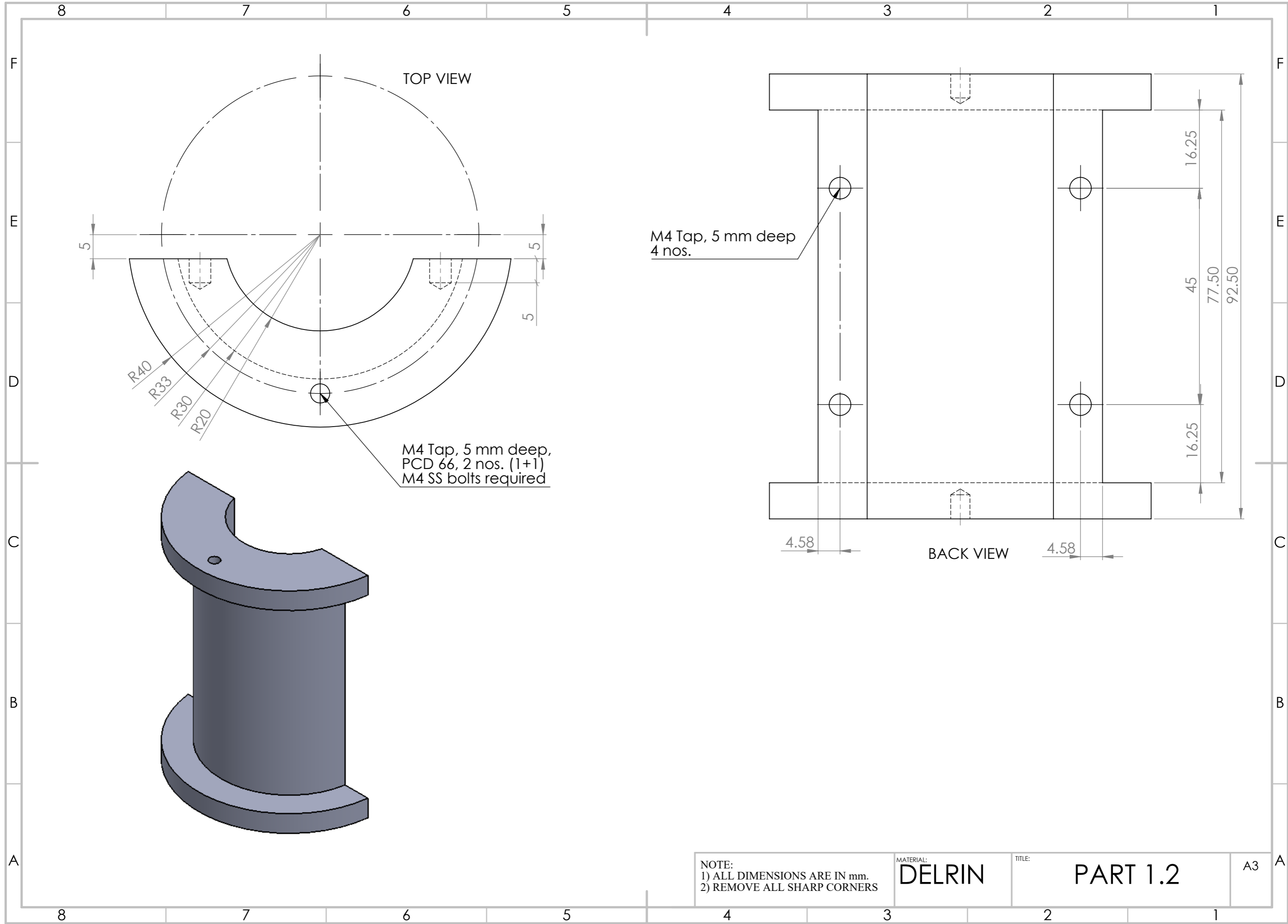
M4 Countersunk Thru Holes
 4 nos.

DETAIL A
 SCALE 2 : 1

NOTE:
 1) ALL DIMENSIONS ARE IN mm.
 2) REMOVE SHARP POINTS AND DEBURR EDGES

MATERIAL: **DELTRIN** TITLE: **PART 1.1**

A3



TOP VIEW

M4 Tap, 5 mm deep
4 nos.

M4 Tap, 5 mm deep,
PCD 66, 2 nos. (1+1)
M4 SS bolts required

BACK VIEW

NOTE:
1) ALL DIMENSIONS ARE IN mm.
2) REMOVE ALL SHARP CORNERS

MATERIAL:
DELTRIN

TITLE:
PART 1.2

A3

4

3

2

1

F

F

E

E

D

D

C

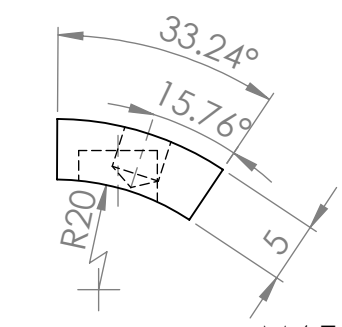
C

B

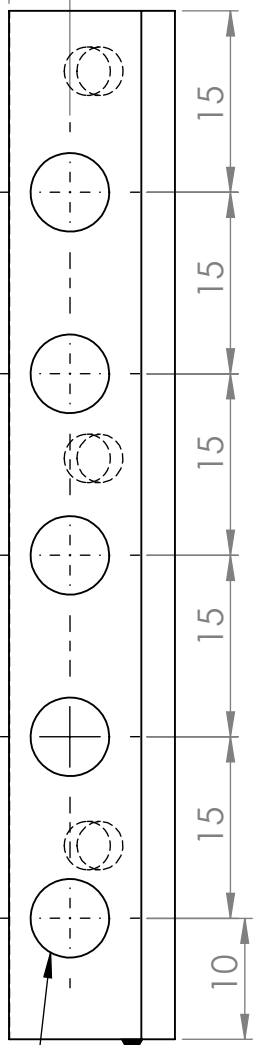
B

A

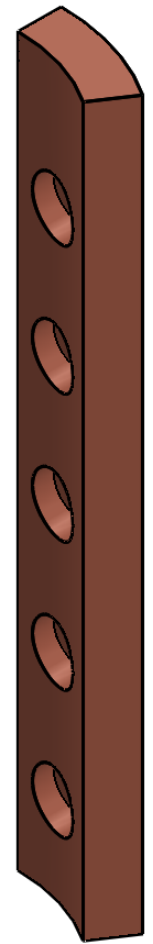
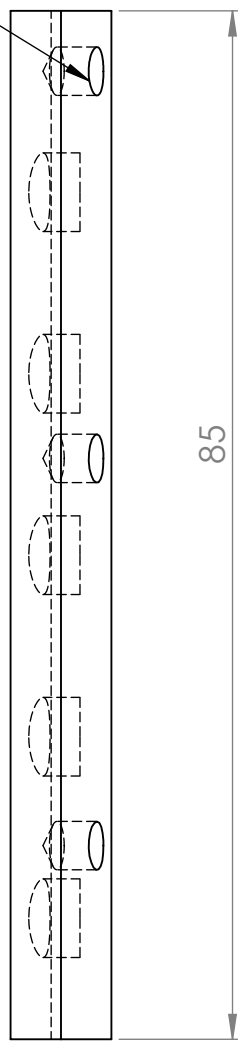
A



M4 Tap, 3.5 mm deep, 3 nos.
 80 mm ht. distance of uppermost tap from Datum B
 Linear distance between holes: 32 mm.



M6 Tapping
 2.5 mm deep
 5 holes



NOTE :
 1) ALL DIMENSIONS ARE IN mm.
 2) REMOVE ALL SHARP EDGES.

MATERIAL:
COPPER

TITLE :
PART 2

A4

4

3

2

1

4

3

2

1

F

F

E

E

D

D

C

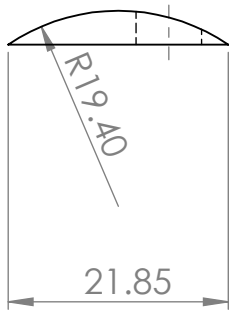
C

B

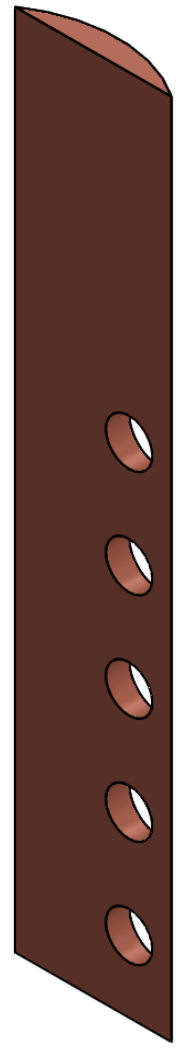
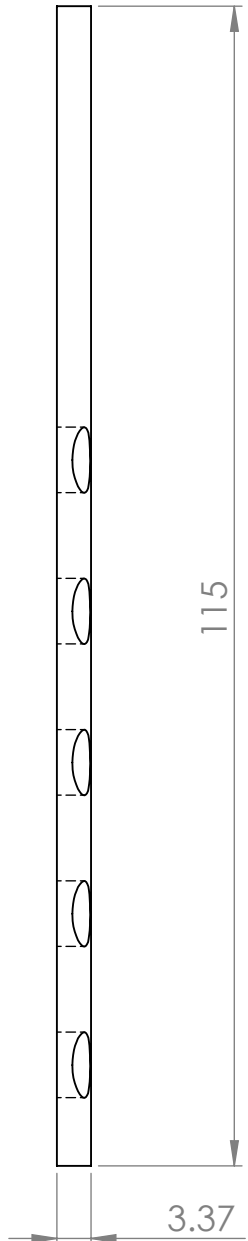
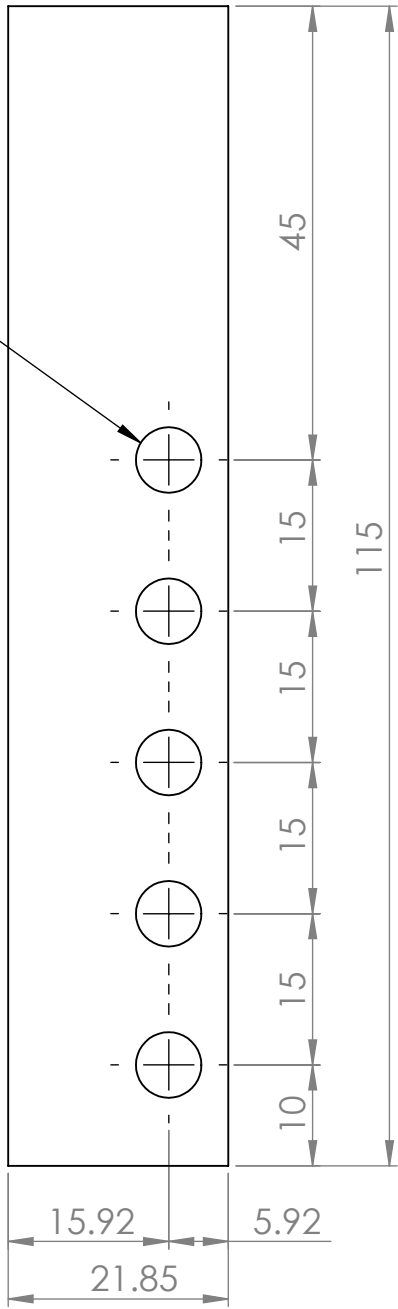
B

A

A



Ø 6.1 Thru.
5 holes



NOTE :
1) ALL DIMENSIONS ARE IN mm.
2) REMOVE ALL SHARP EDGES.

MATERIAL:
COPPER

TITLE :
PART 3

A4

4

3

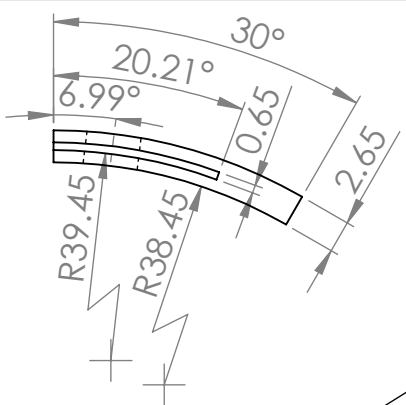
2

1

4 3 2 1

F

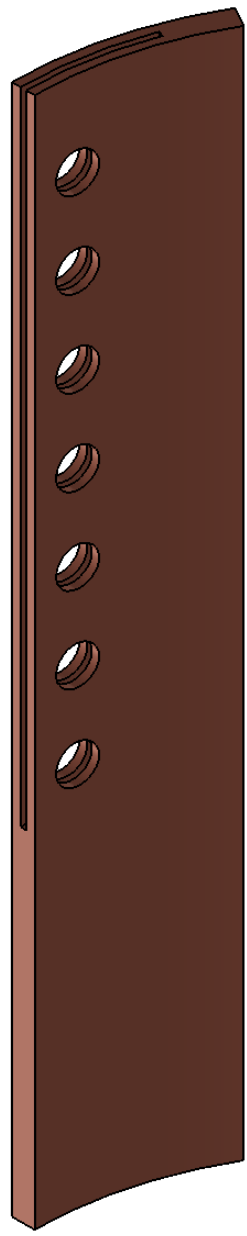
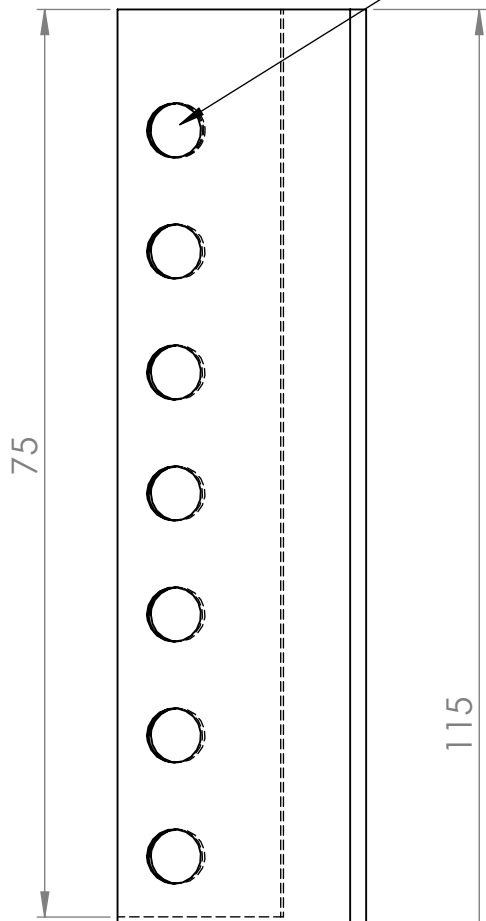
F



M4 Tap (Stud Insertion),
 7 nos,
 Distance of uppermost hole
 from Datum A: 105 mm
 Linear distance between holes: 10 mm

E

E



D

D

C

C

B

B

A

20.55

115

7.80

A

NOTE :
 1) ALL DIMENSIONS ARE IN mm.
 2) REMOVE ALL SHARP EDGES.

MATERIAL:
COPPER

TITLE :
PART 4

A4

A

4 3 2 1

4

3

2

1

F

F

E

E

D

D

C

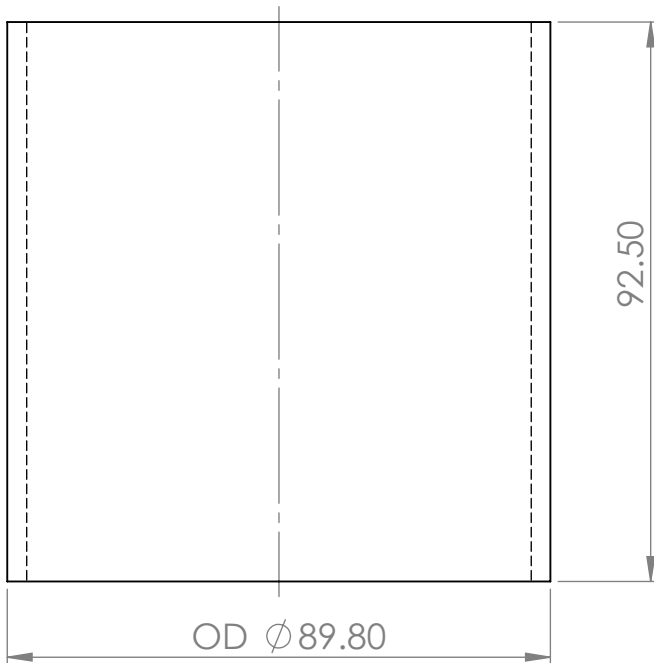
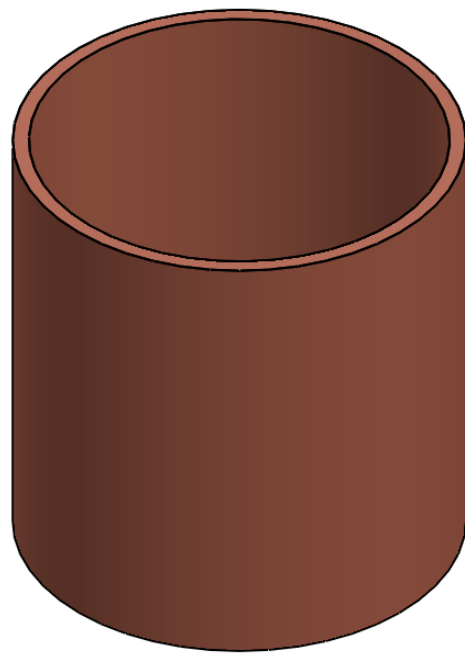
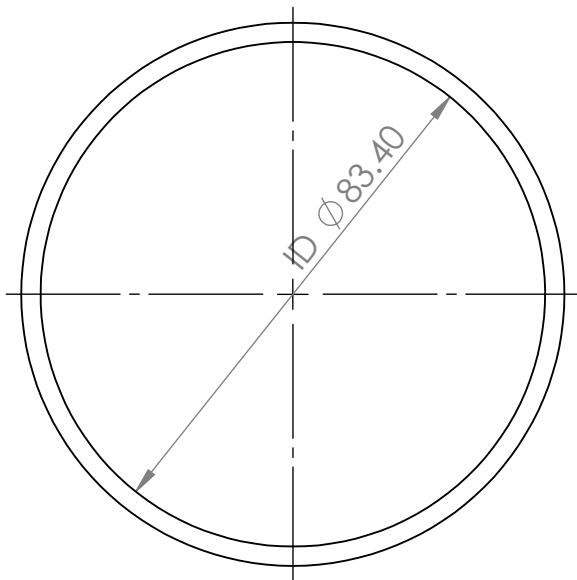
C

B

B

A

A



NOTE:
MATERIAL TEST CERTIFICATE REQUIRED

NOTE :

- 1) ALL DIMENSIONS ARE IN mm.
- 2) REMOVE ALL SHARP EDGES.

MATERIAL:

OFHC COPPER

TITLE :

PART 5

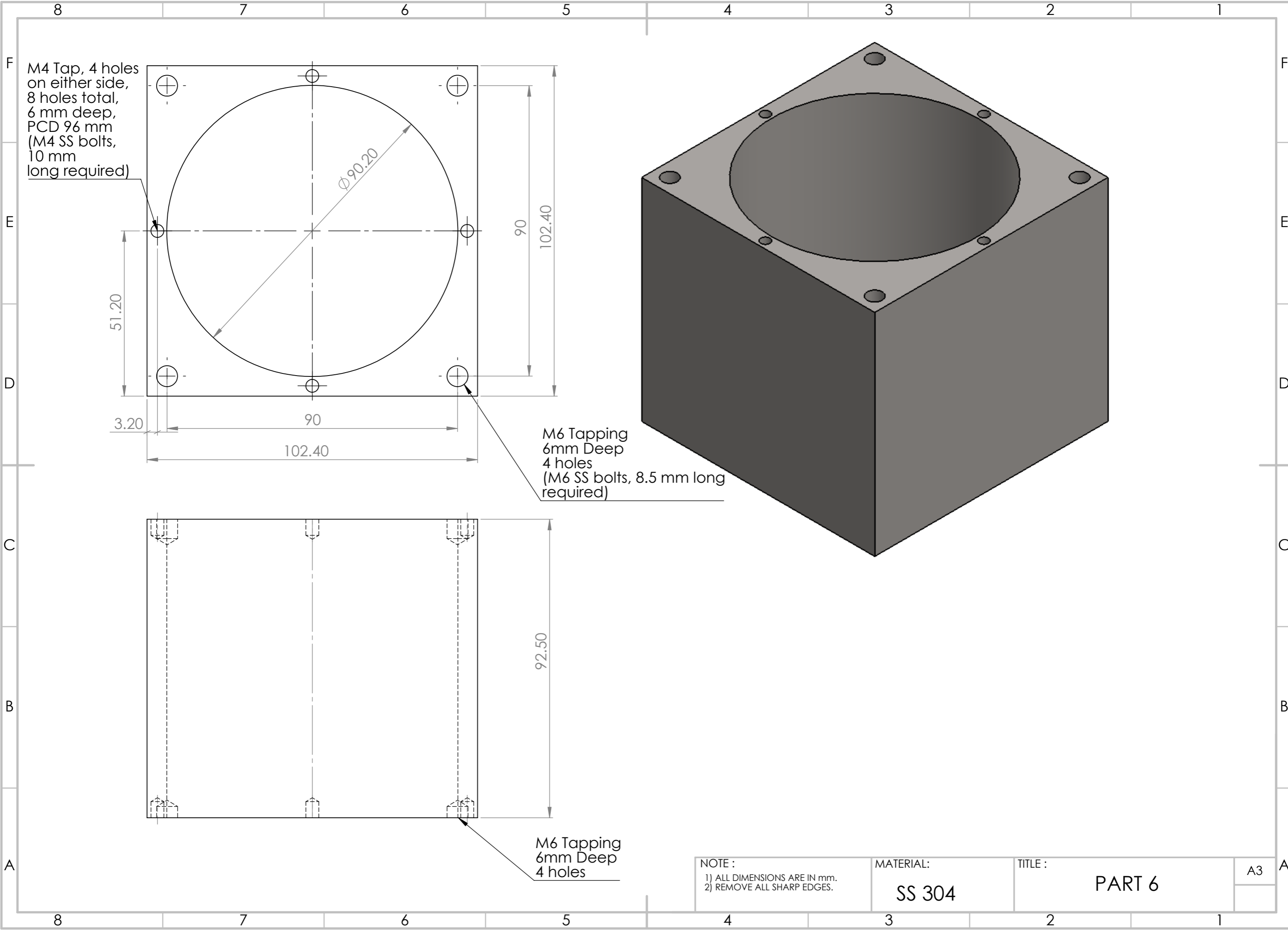
A4

4

3

2

1



M4 Tap, 4 holes on either side, 8 holes total, 6 mm deep, PCD 96 mm (M4 SS bolts, 10 mm long required)

M6 Tapping 6mm Deep 4 holes (M6 SS bolts, 8.5 mm long required)

M6 Tapping 6mm Deep 4 holes

NOTE : 1) ALL DIMENSIONS ARE IN mm. 2) REMOVE ALL SHARP EDGES.	MATERIAL: SS 304	TITLE : PART 6	A3
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4

3

2

1

F

F

E

E

D

D

C

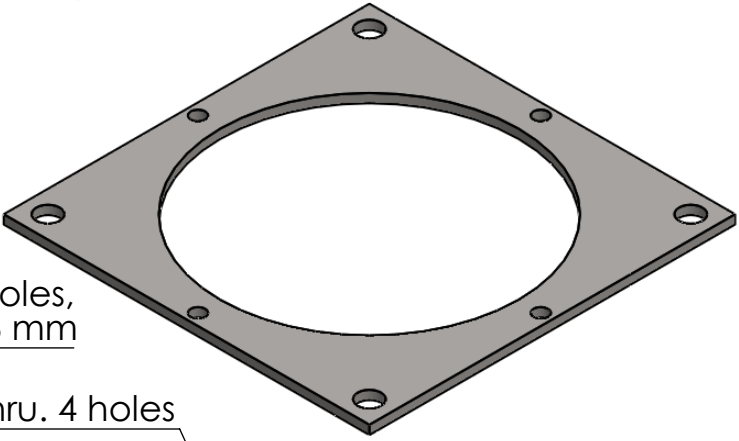
C

B

B

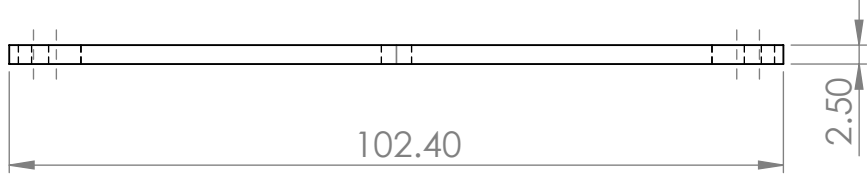
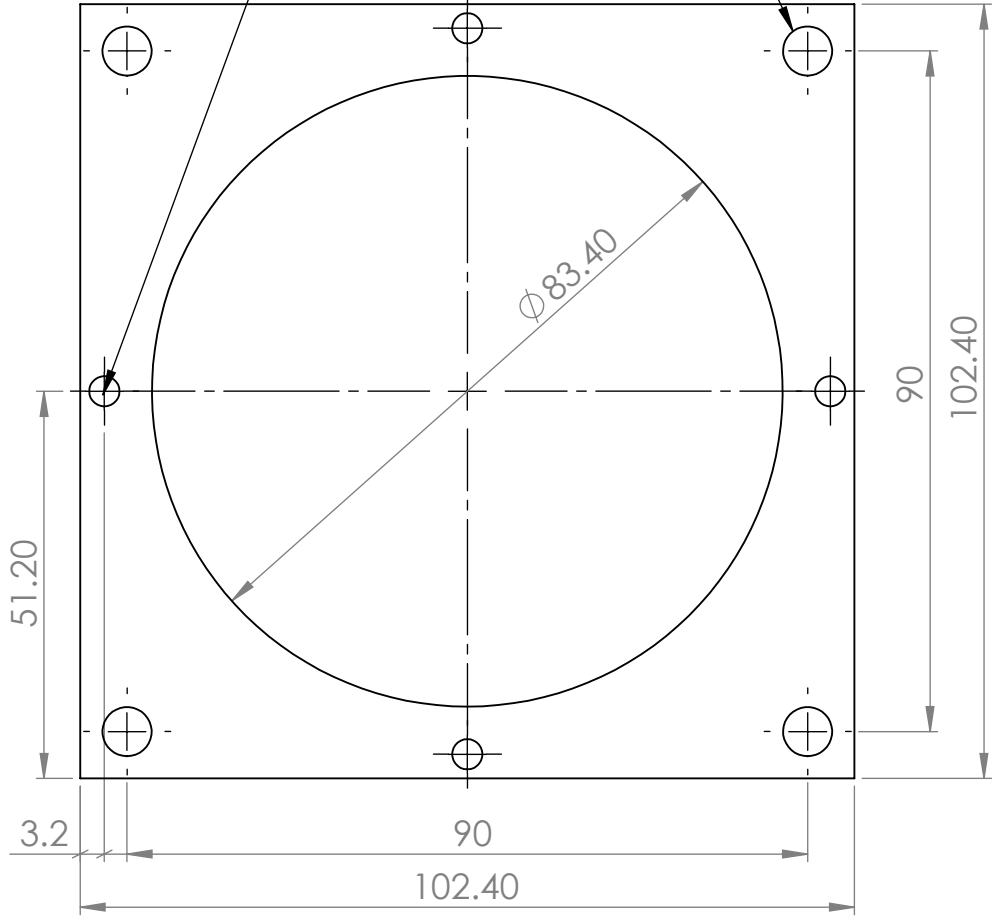
A

A



Dia 4.2 Thru. Holes,
4 nos., PCD 96 mm

Ø 6.1 Thru. 4 holes



NOTE:
1) ALL DIMENSIONS ARE IN mm.
2) REMOVE ALL SHARP EDGES.

MATERIAL:
SS 304

TITLE
PART 7

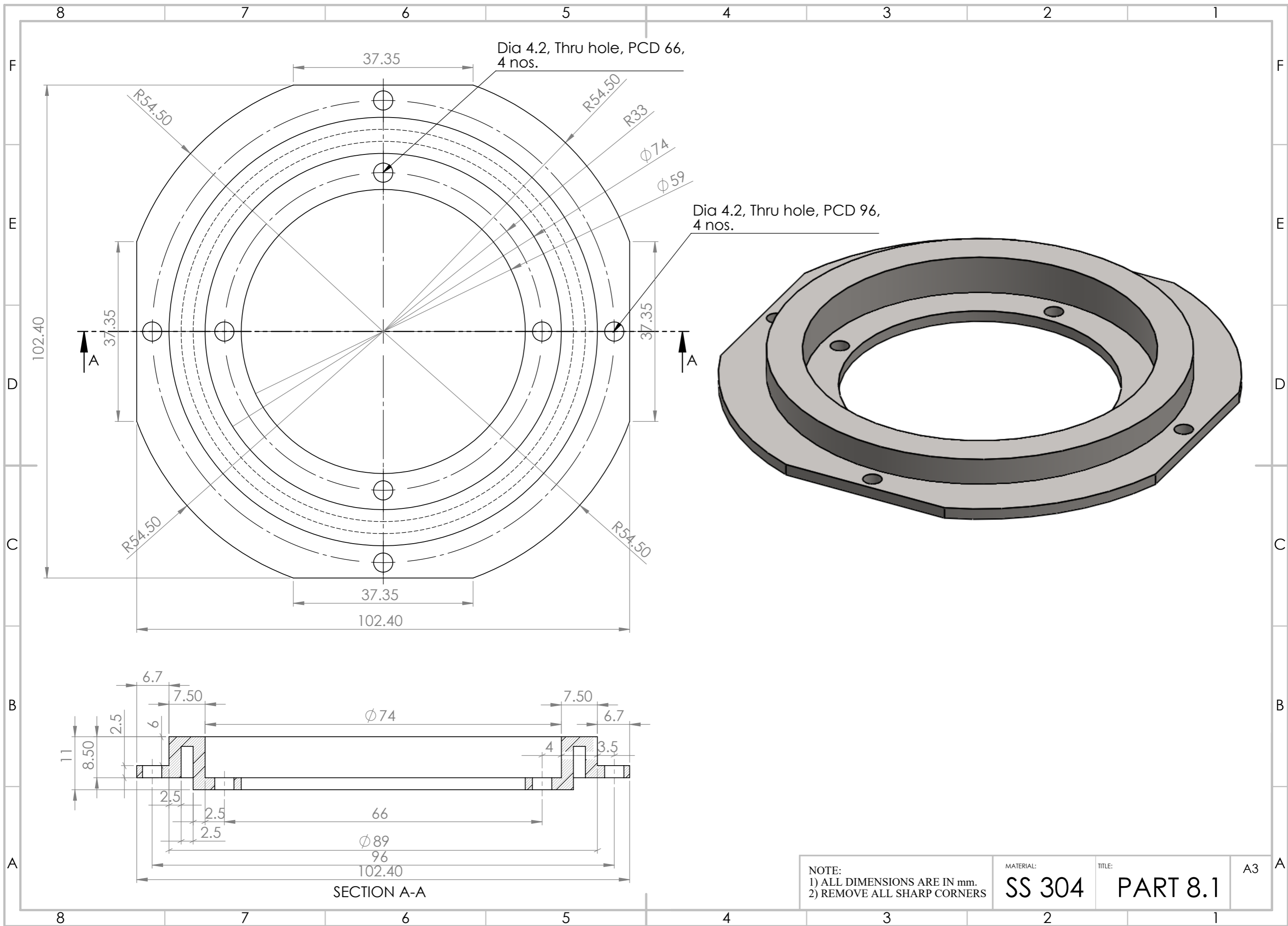
A4

4

3

2

1



Dia 4.2, Thru hole, PCD 66, 4 nos.

Dia 4.2, Thru hole, PCD 96, 4 nos.

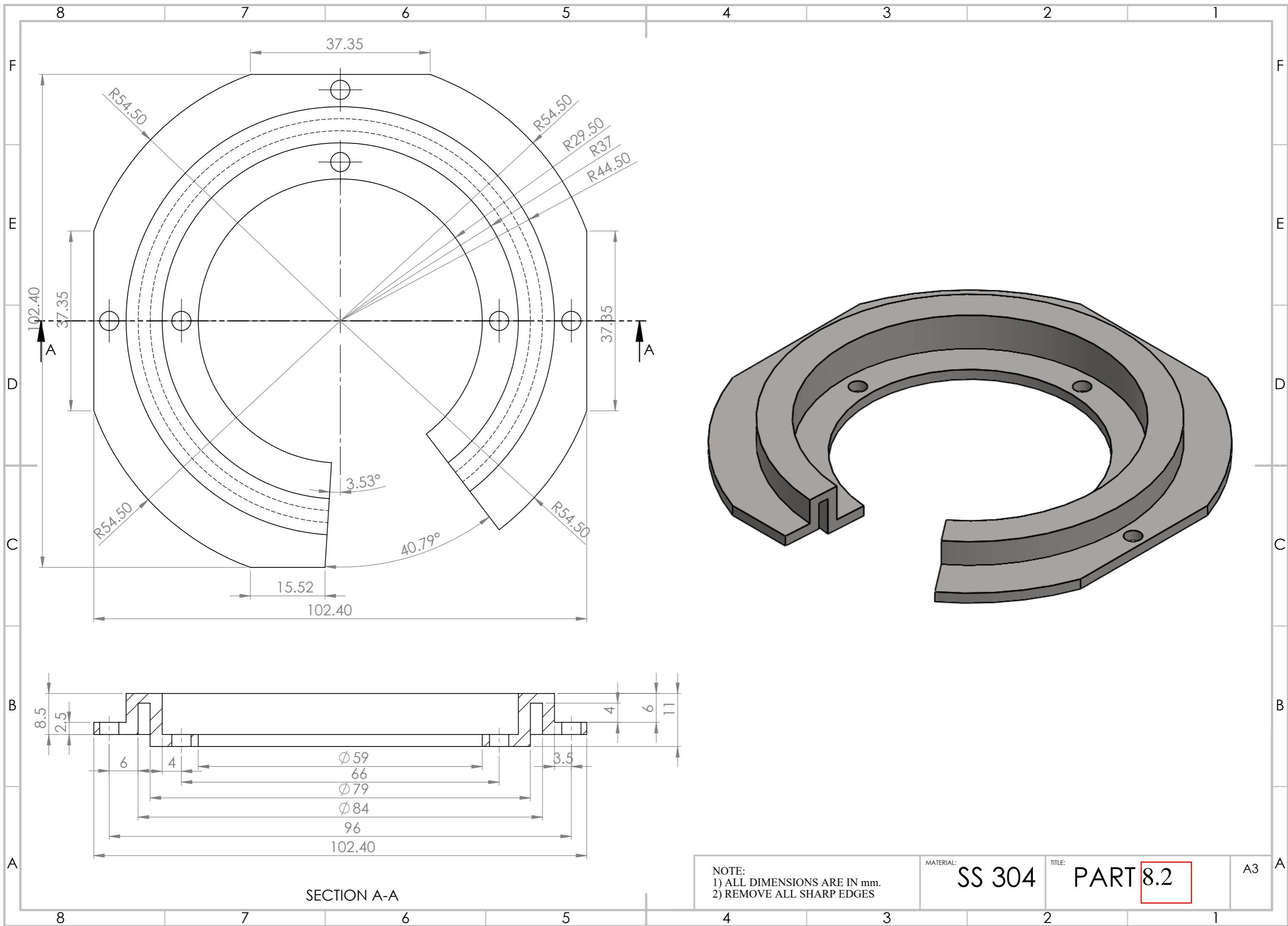
SECTION A-A

NOTE:
 1) ALL DIMENSIONS ARE IN mm.
 2) REMOVE ALL SHARP CORNERS

MATERIAL:
SS 304

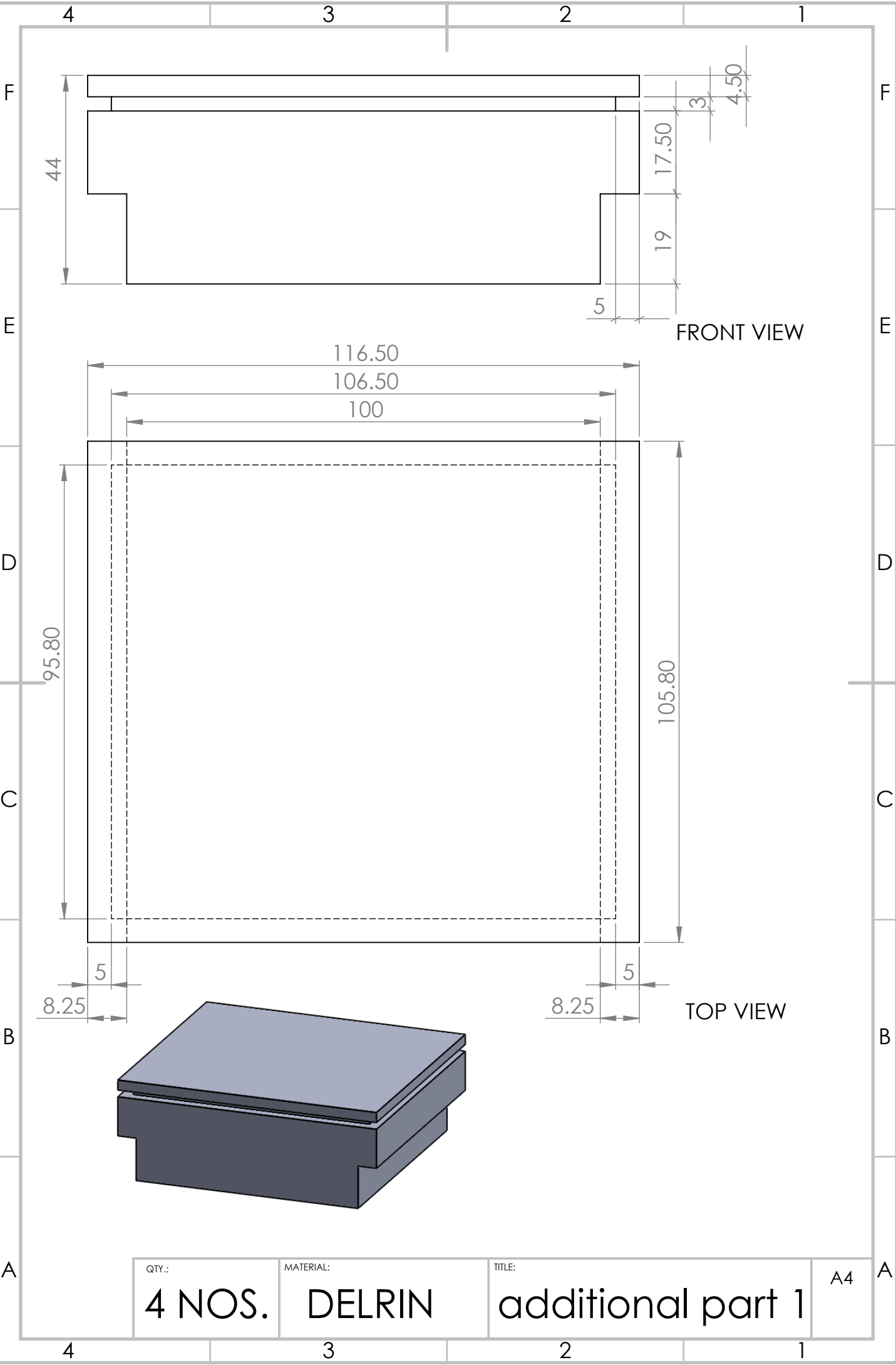
TITLE:
PART 8.1

A3



NOTE:
 1) ALL DIMENSIONS ARE IN mm.
 2) REMOVE ALL SHARP EDGES

MATERIAL: SS 304 TITLE: PART 8.2 A3



QTY.:	MATERIAL:	TITLE:	A4
4 NOS.	DELFIN	additional part 1	