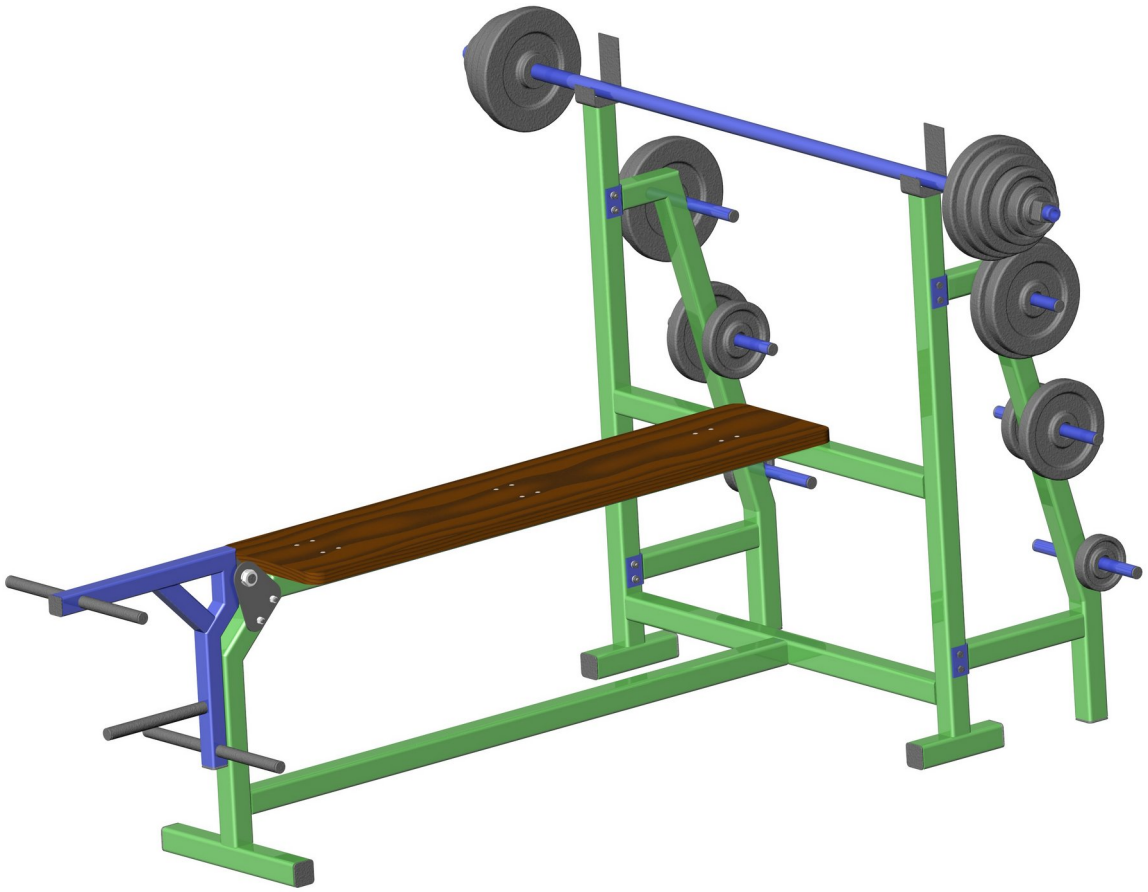
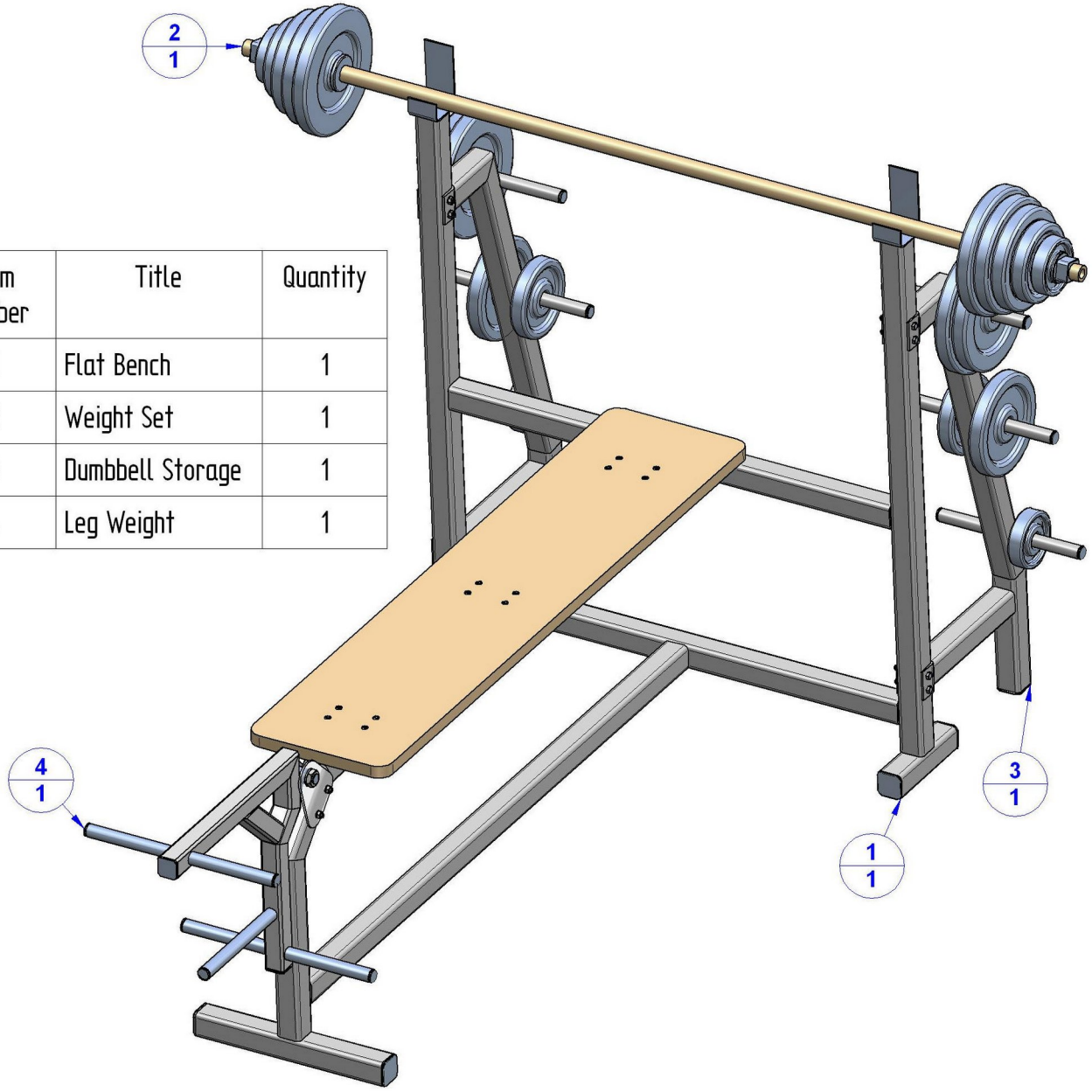
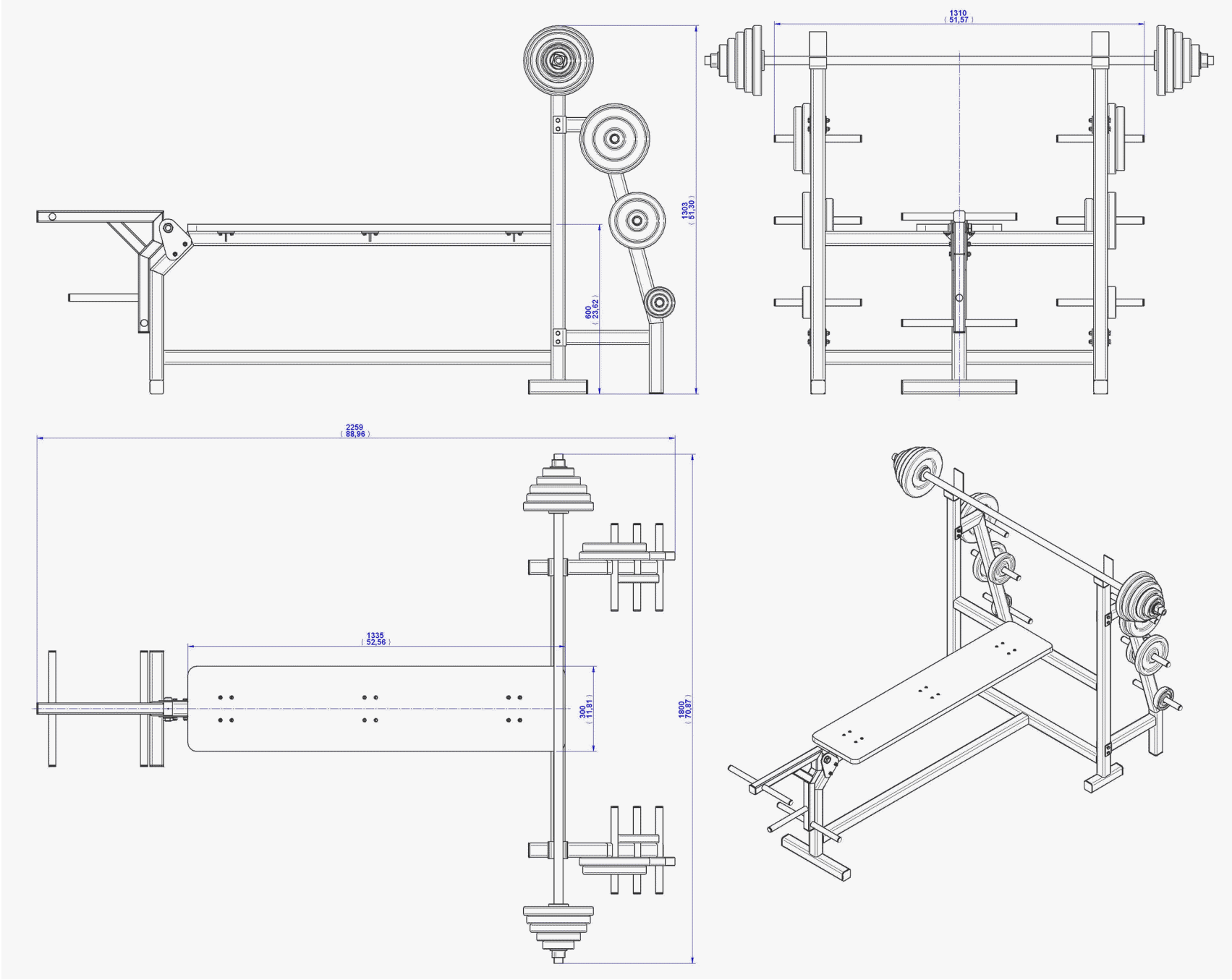
Olympic flat bench
with plate storage, weight set and leg developer



Sub-assembly list

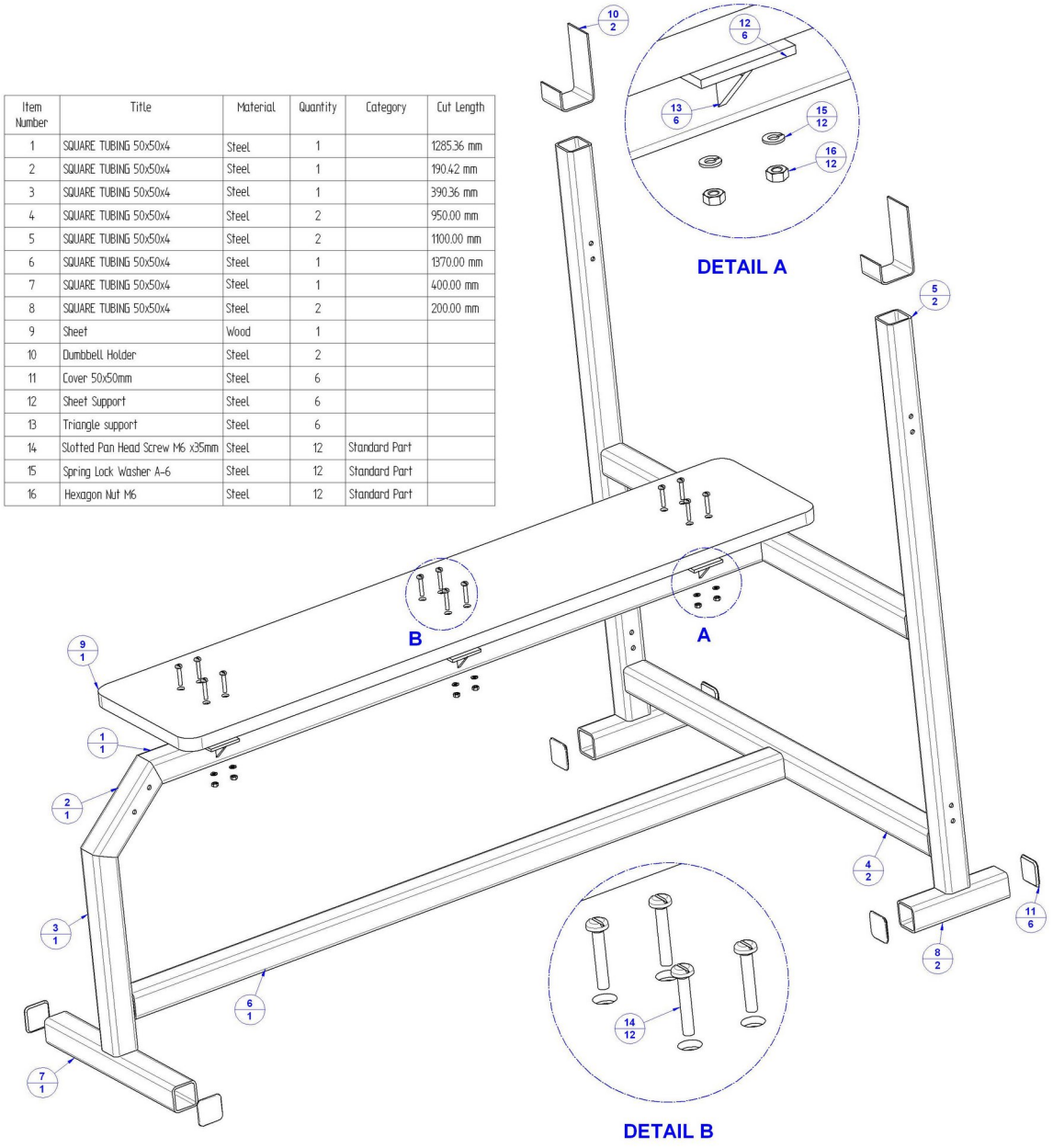
Item Number	Title	Quantity
1	Flat Bench	1
2	Weight Set	1
3	Dumbbell Storage	1
4	Leg Weight	1

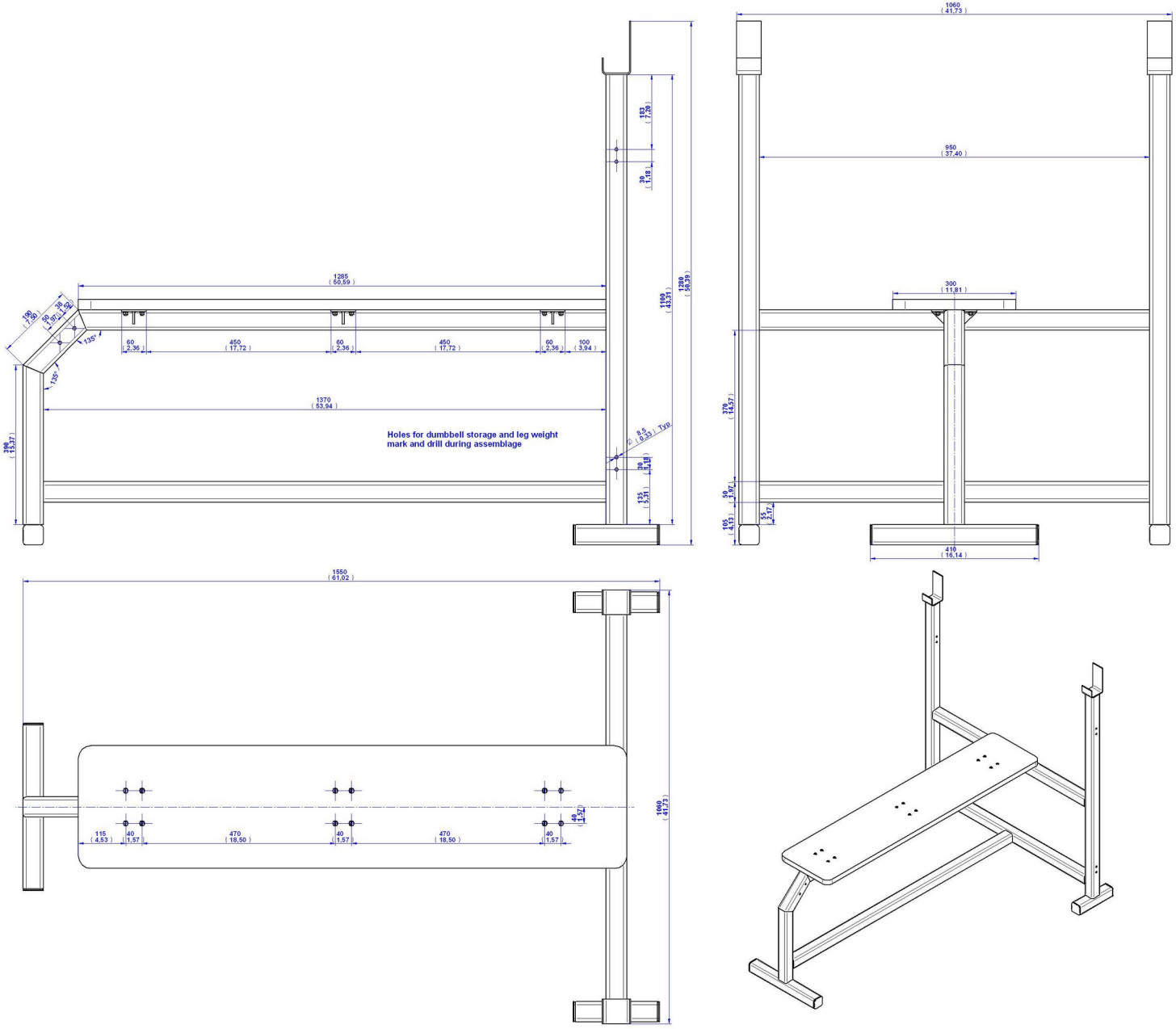



1310
(51,57)
1303
(51,30)
600
(23,62)
2259
(88,96)
1335
(52,56)
300
(11,81)
1800
(70,87)

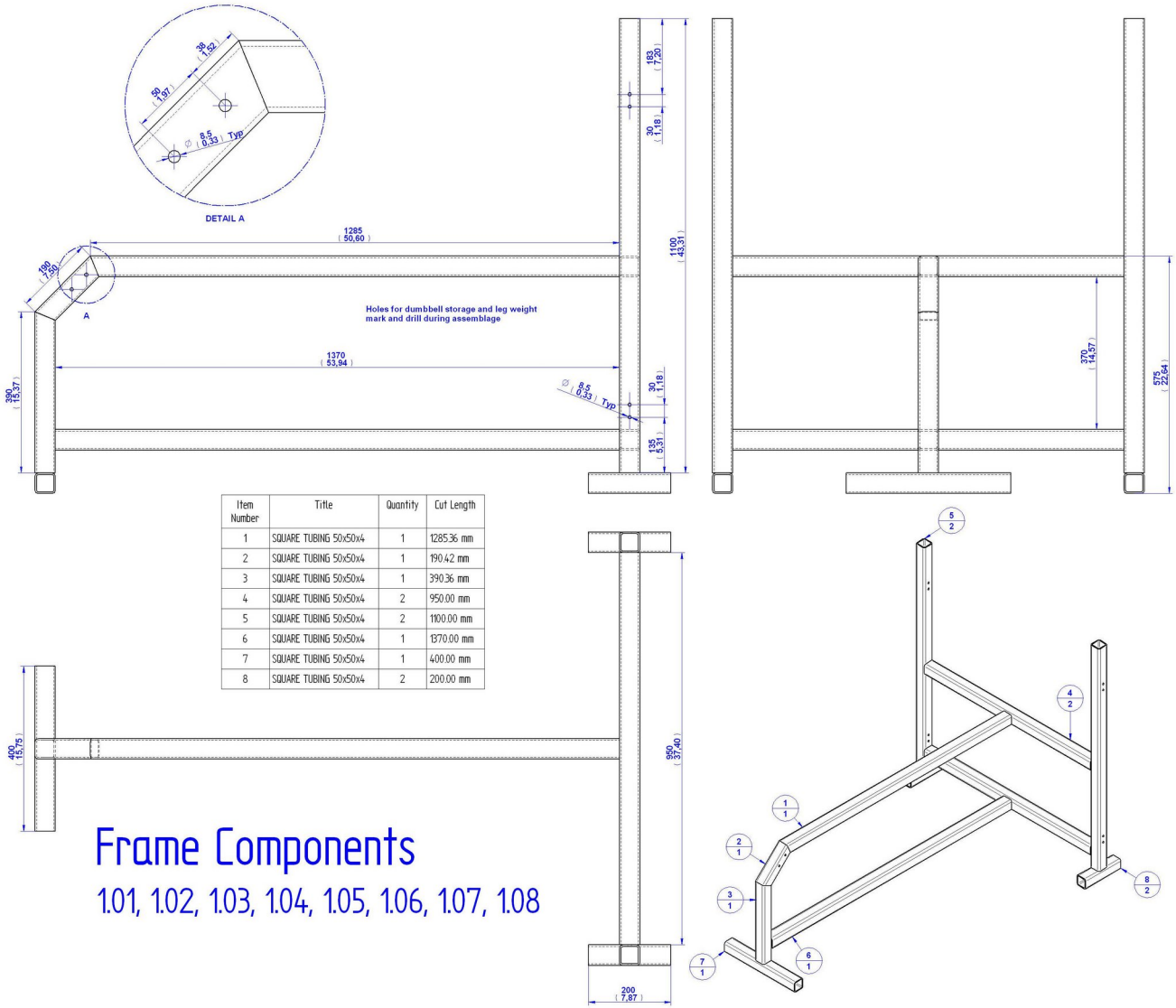
1. Flat bench sub-assembly – Parts list and 2D documentation

Item Number	Title	Material	Quantity	Category	Cut Length
1	SQUARE TUBING 50x50x4	Steel	1		1285.36 mm
2	SQUARE TUBING 50x50x4	Steel	1		190.42 mm
3	SQUARE TUBING 50x50x4	Steel	1		390.36 mm
4	SQUARE TUBING 50x50x4	Steel	2		950.00 mm
5	SQUARE TUBING 50x50x4	Steel	2		1100.00 mm
6	SQUARE TUBING 50x50x4	Steel	1		1370.00 mm
7	SQUARE TUBING 50x50x4	Steel	1		400.00 mm
8	SQUARE TUBING 50x50x4	Steel	2		200.00 mm
9	Sheet	Wood	1		
10	Dumbbell Holder	Steel	2		
11	Cover 50x50mm	Steel	6		
12	Sheet Support	Steel	6		
13	Triangle support	Steel	6		
14	Slotted Pan Head Screw M6 x35mm	Steel	12	Standard Part	
15	Spring Lock Washer A-6	Steel	12	Standard Part	
16	Hexagon Nut M6	Steel	12	Standard Part	

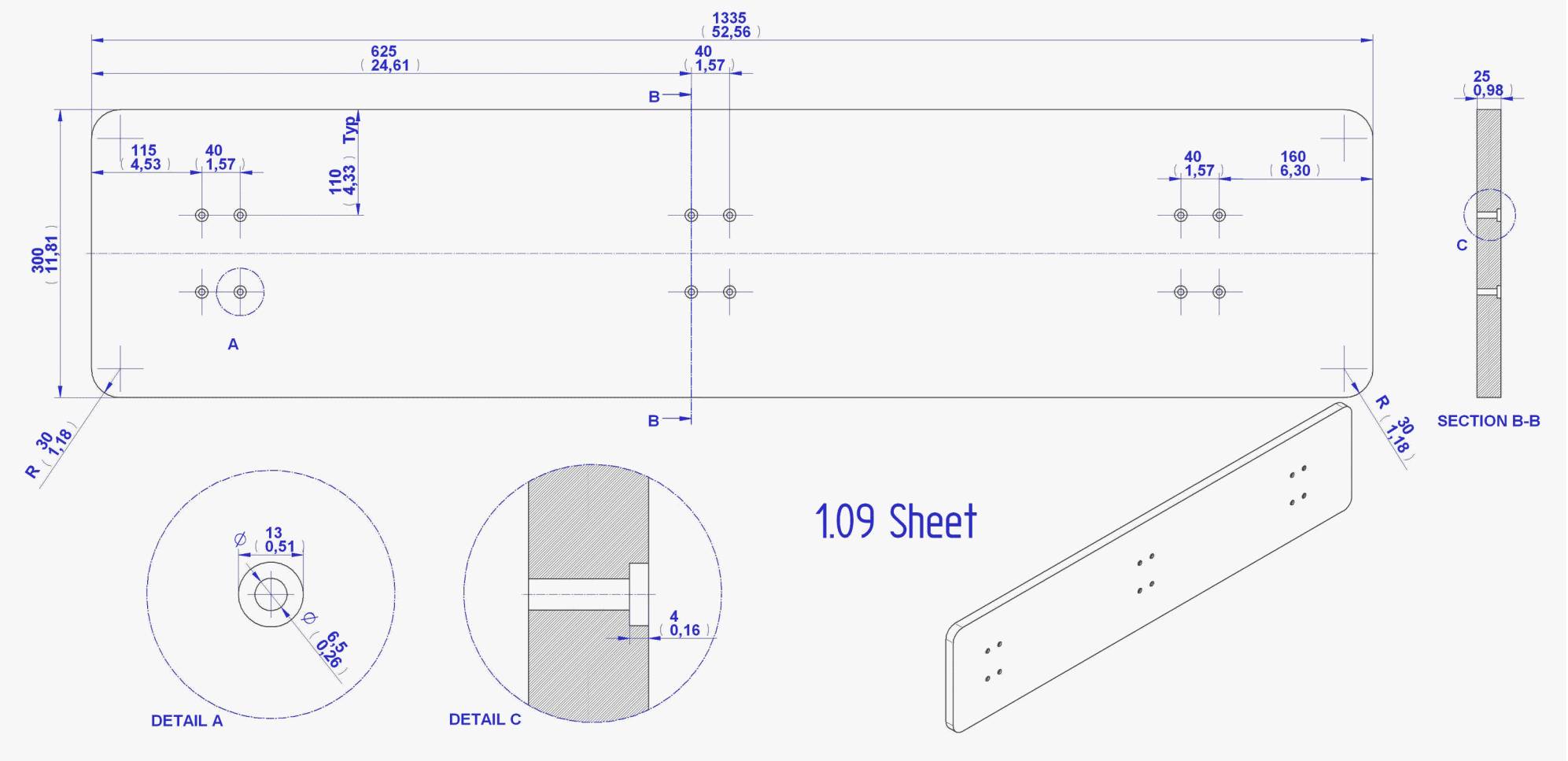



1285
(50,59)
1260
(49,61)
1100
(43,31)
153
(7,20)
30
(1,18)
60
(2,36)
450
(17,72)
60
(2,36)
450
(17,72)
60
(2,36)
100
(3,94)
135°
135°
1370
(53,94)
190
(13,97)
Holes for dumbbell storage and leg weight
mark and drill during assemblage
8,5
(0,33) Typ.
30
(1,18)
135
(5,31)
1060
(41,73)
950
(37,40)
300
(11,81)
370
(14,57)
50
(1,97)
35,7
(1,41)
105
(4,13)
410
(16,14)
1550
(61,02)
1060
(41,73)
115
(4,53)
40
(1,57)
470
(18,50)
40
(1,57)
470
(18,50)
40
(1,57)
40
(1,57)

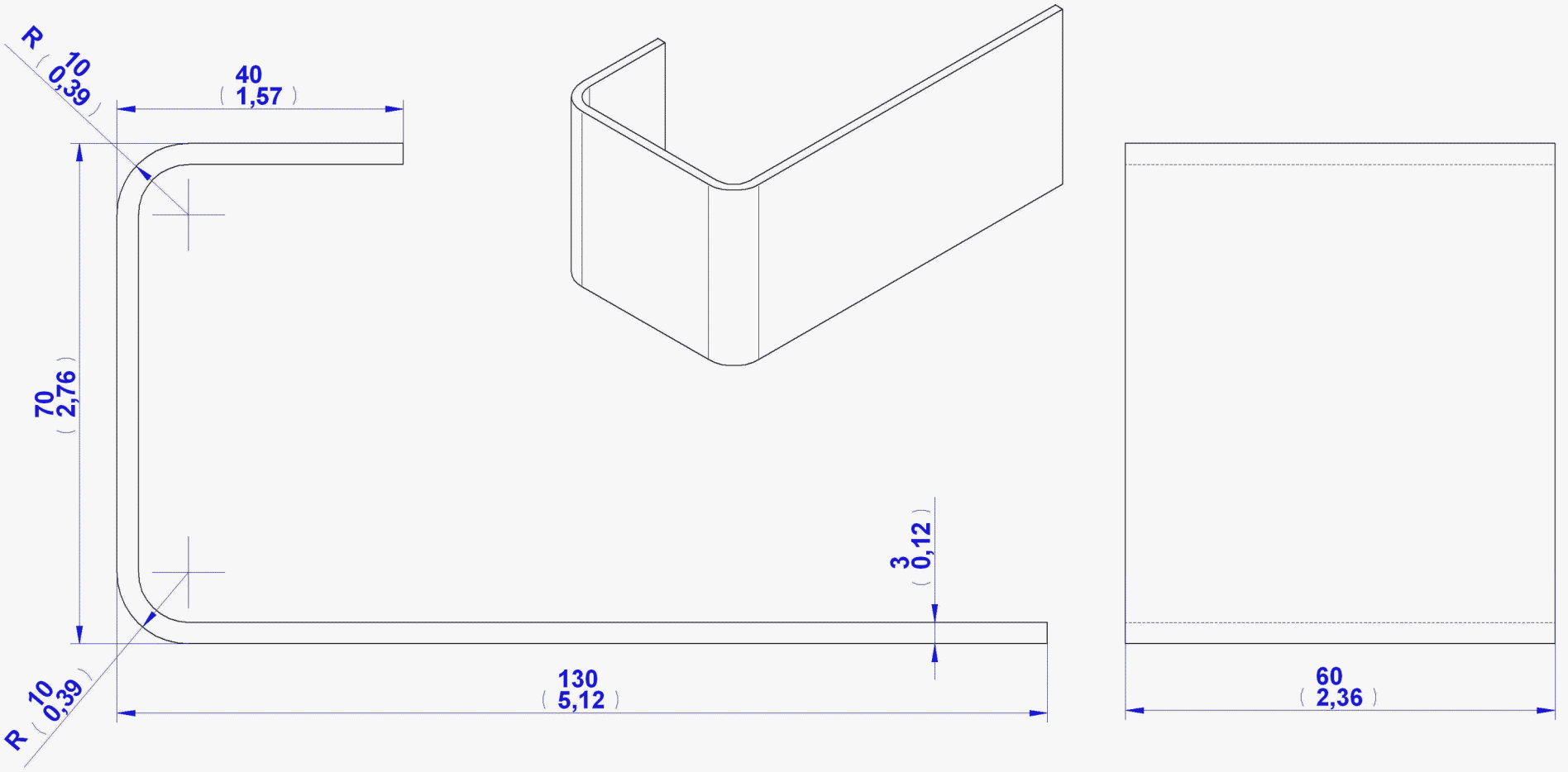
Frame components

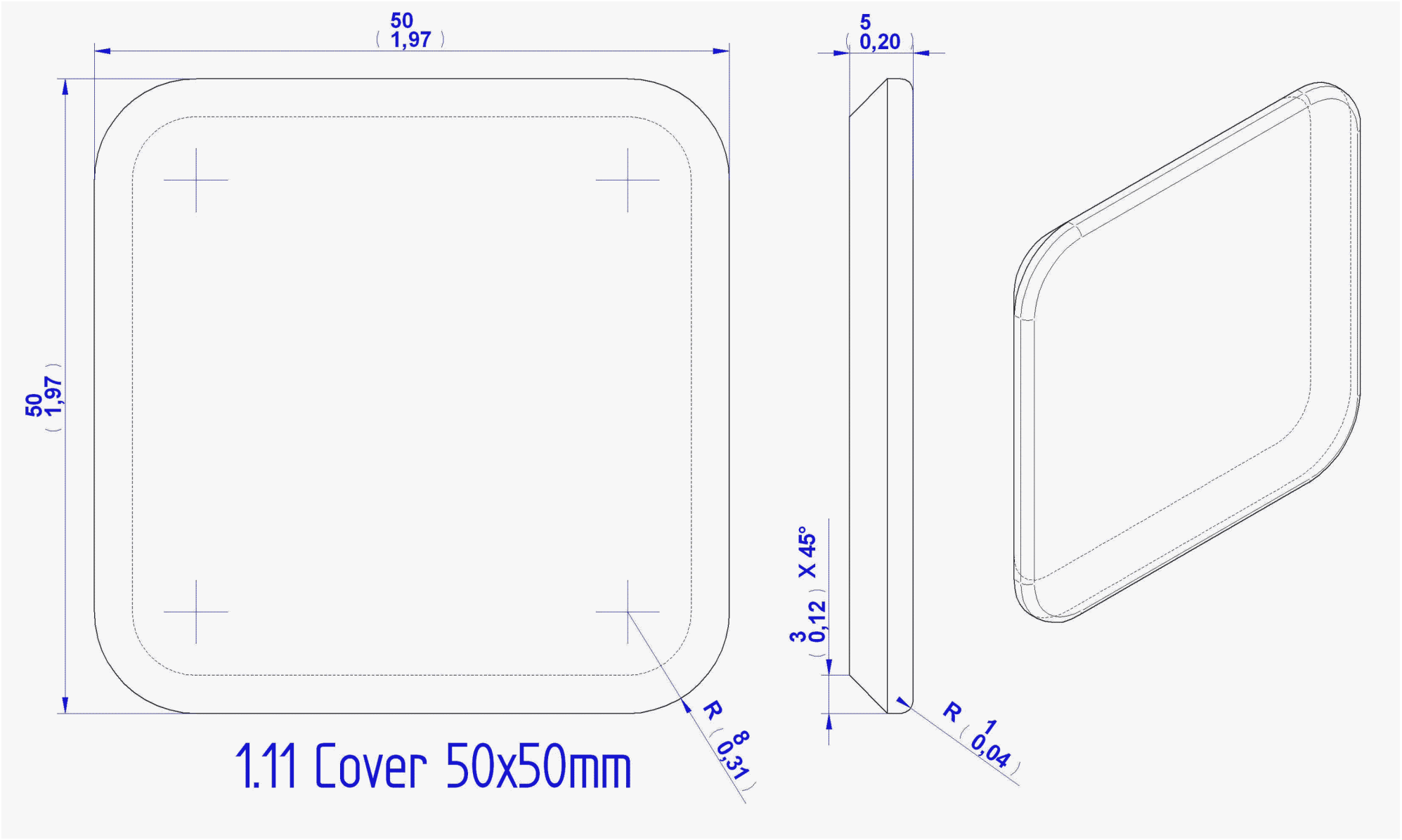


Item Number	Title	Quantity	Cut Length
1	SQUARE TUBING 50x50x4	1	1285.36 mm
2	SQUARE TUBING 50x50x4	1	190.42 mm
3	SQUARE TUBING 50x50x4	1	390.36 mm
4	SQUARE TUBING 50x50x4	2	950.00 mm
5	SQUARE TUBING 50x50x4	2	1100.00 mm
6	SQUARE TUBING 50x50x4	1	1370.00 mm
7	SQUARE TUBING 50x50x4	1	400.00 mm
8	SQUARE TUBING 50x50x4	2	200.00 mm

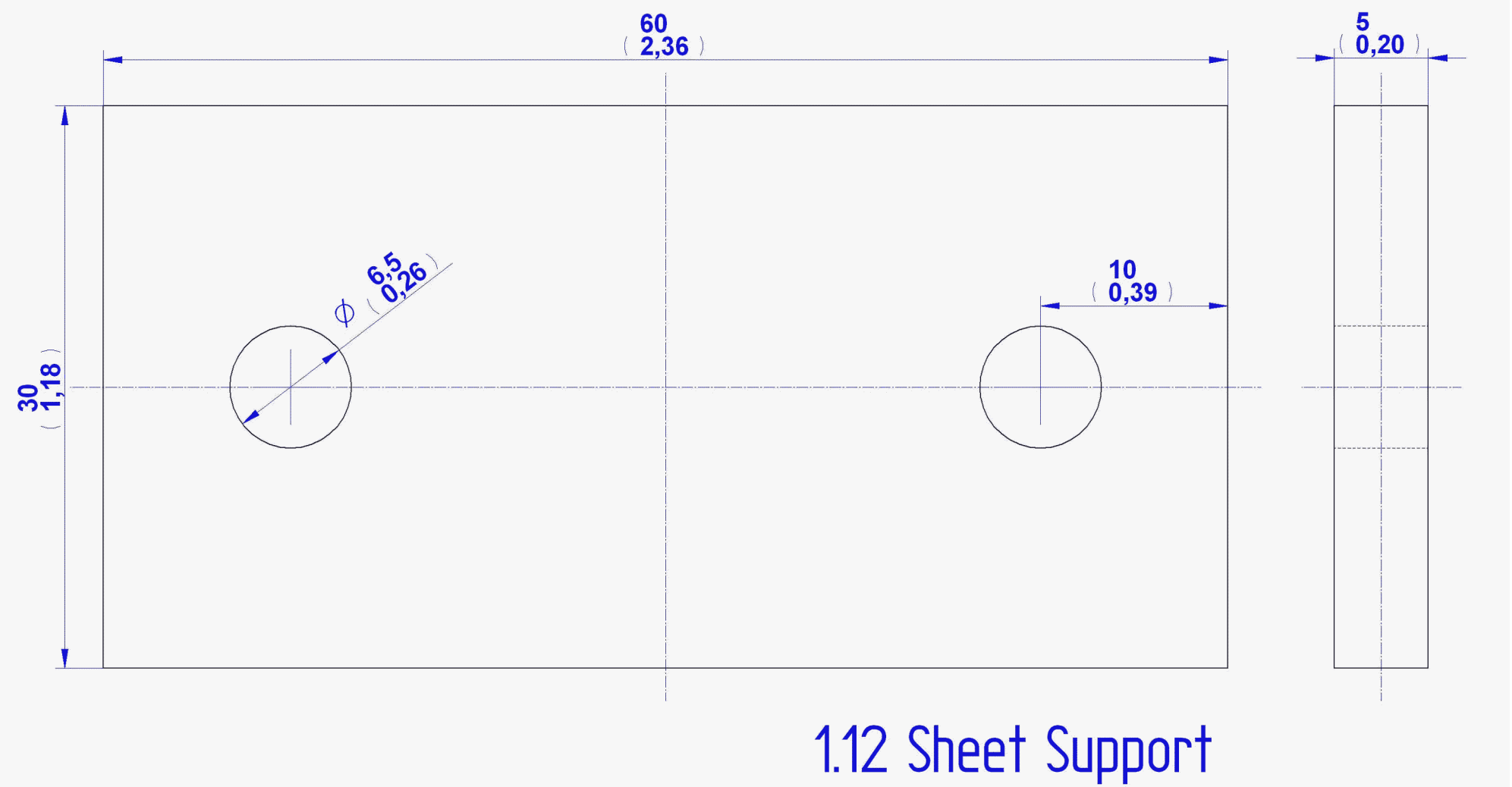

1335
52,56
625
24,61
40
1,57
B
115
4,53
40
1,57
110
4,33
Typ.
40
1,57
160
6,30
300
11,81
A
B
R 30
1,18
R 30
1,18
25
0,98
C
SECTION B-B
1.09 Sheet
13
0,51
6,5
0,26
DETAIL A
4
0,16
DETAIL C

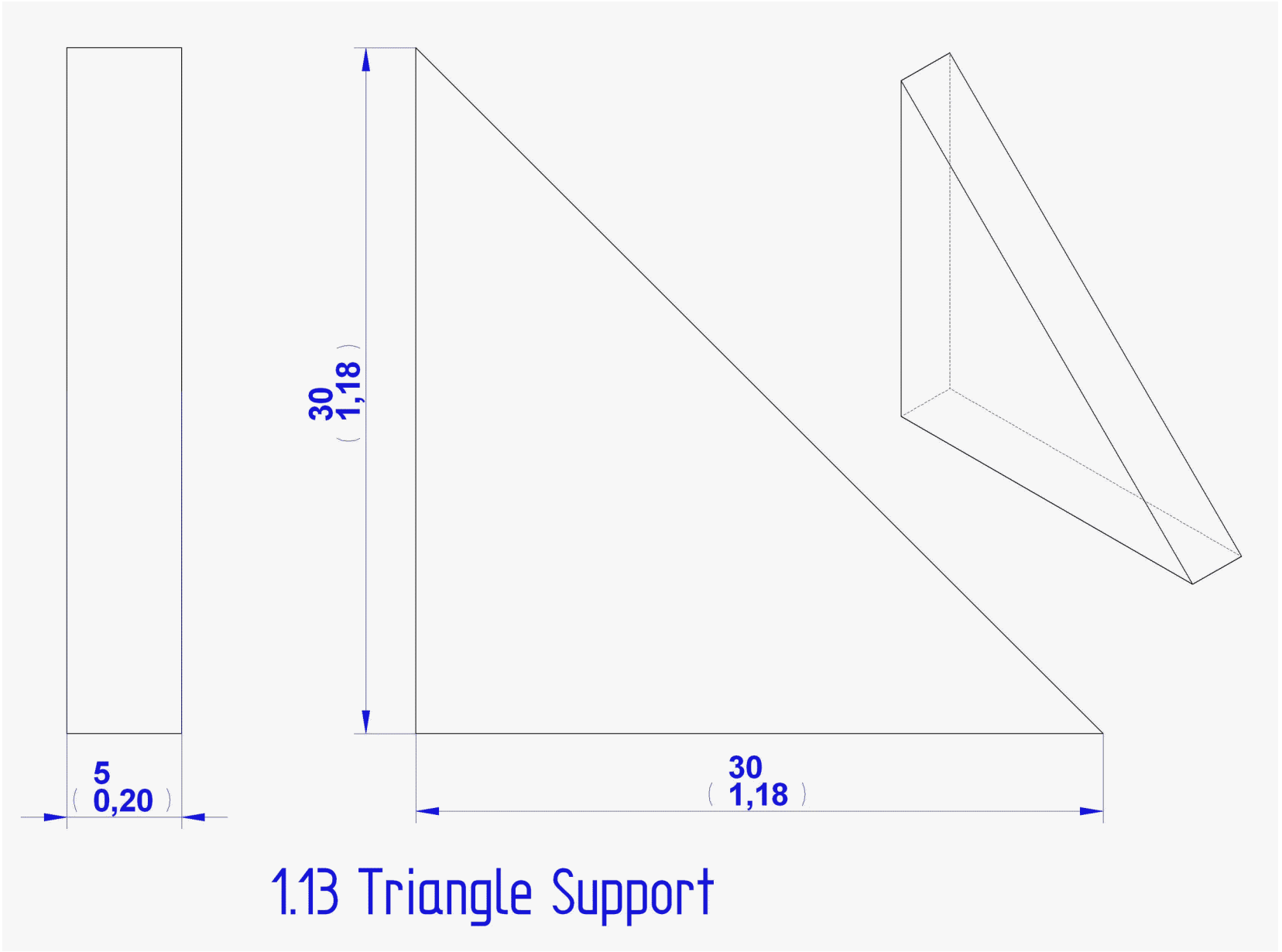
1.10 Dumbbell Holder





1.11 Cover 50x50mm

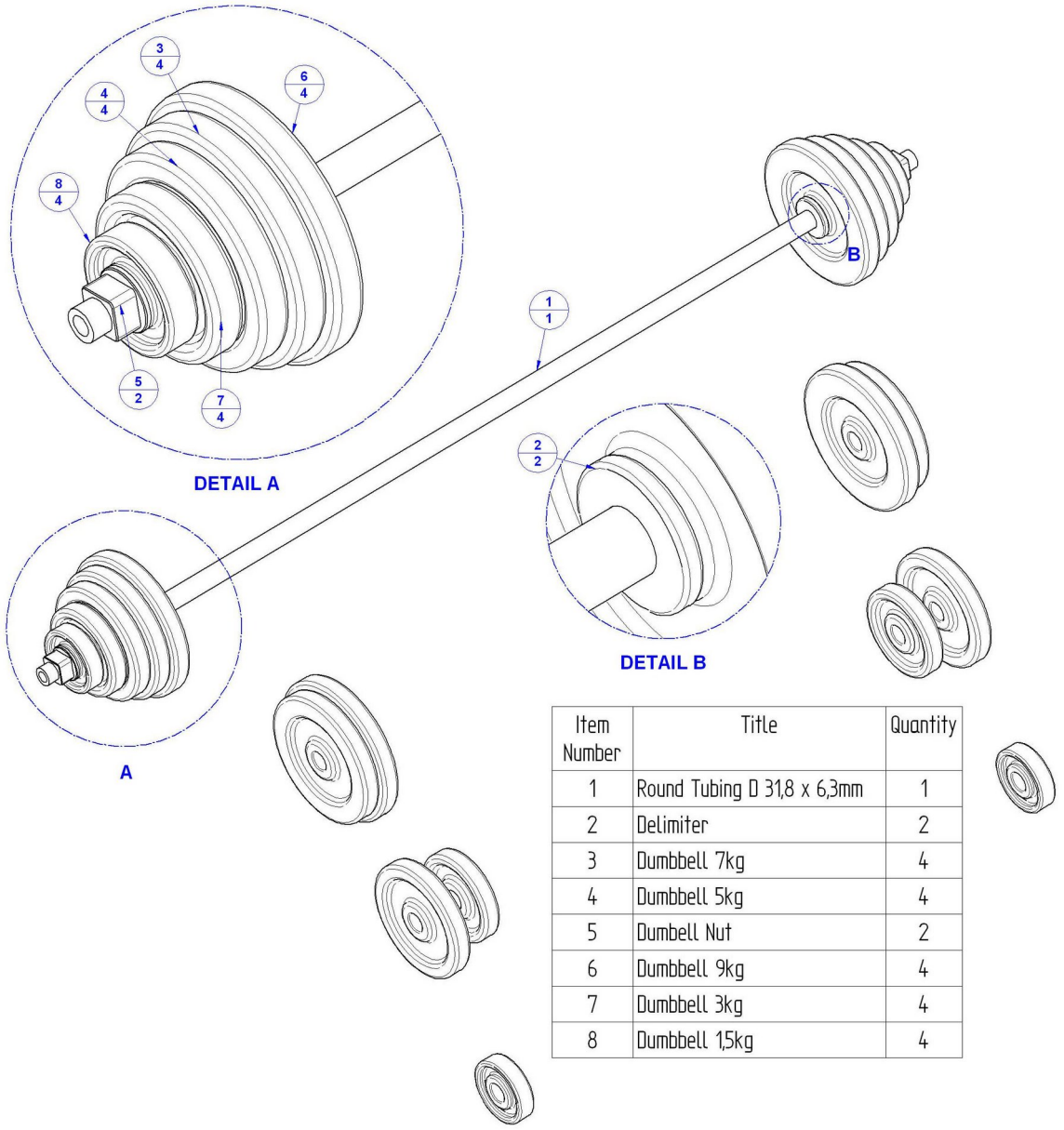

60
(2,36)
5
(0,20)
30
(1,18)
Φ 6,5
(0,26)
10
(0,39)
1.12 Sheet Support



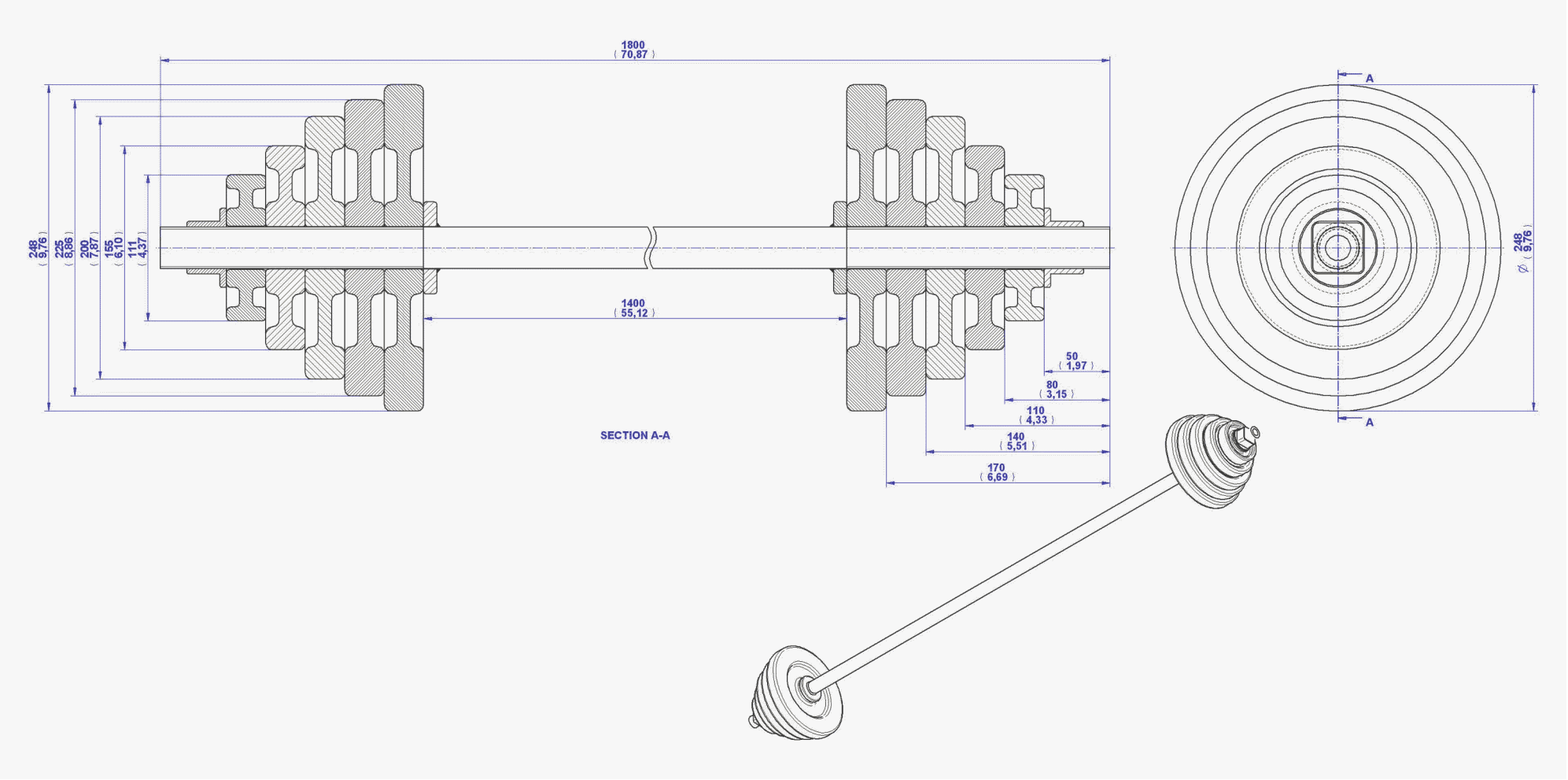
1.13 Triangle Support

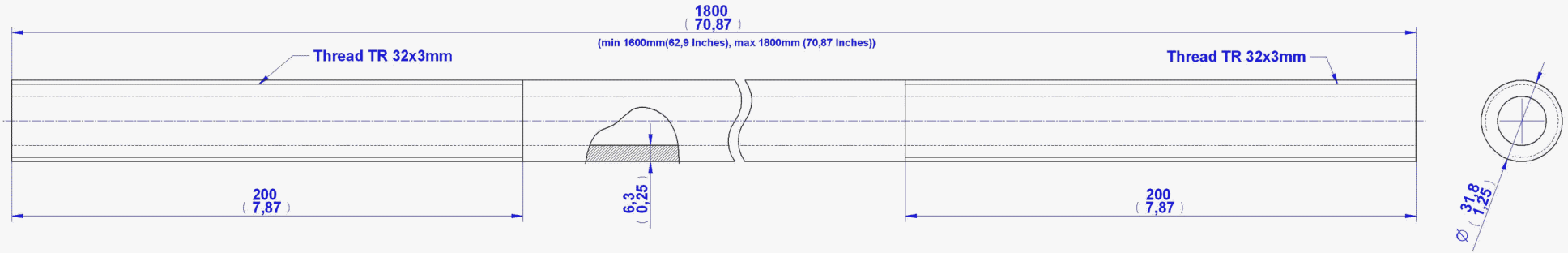
Standard Parts

2. Weight set sub-assembly – Parts list and 2D documentation

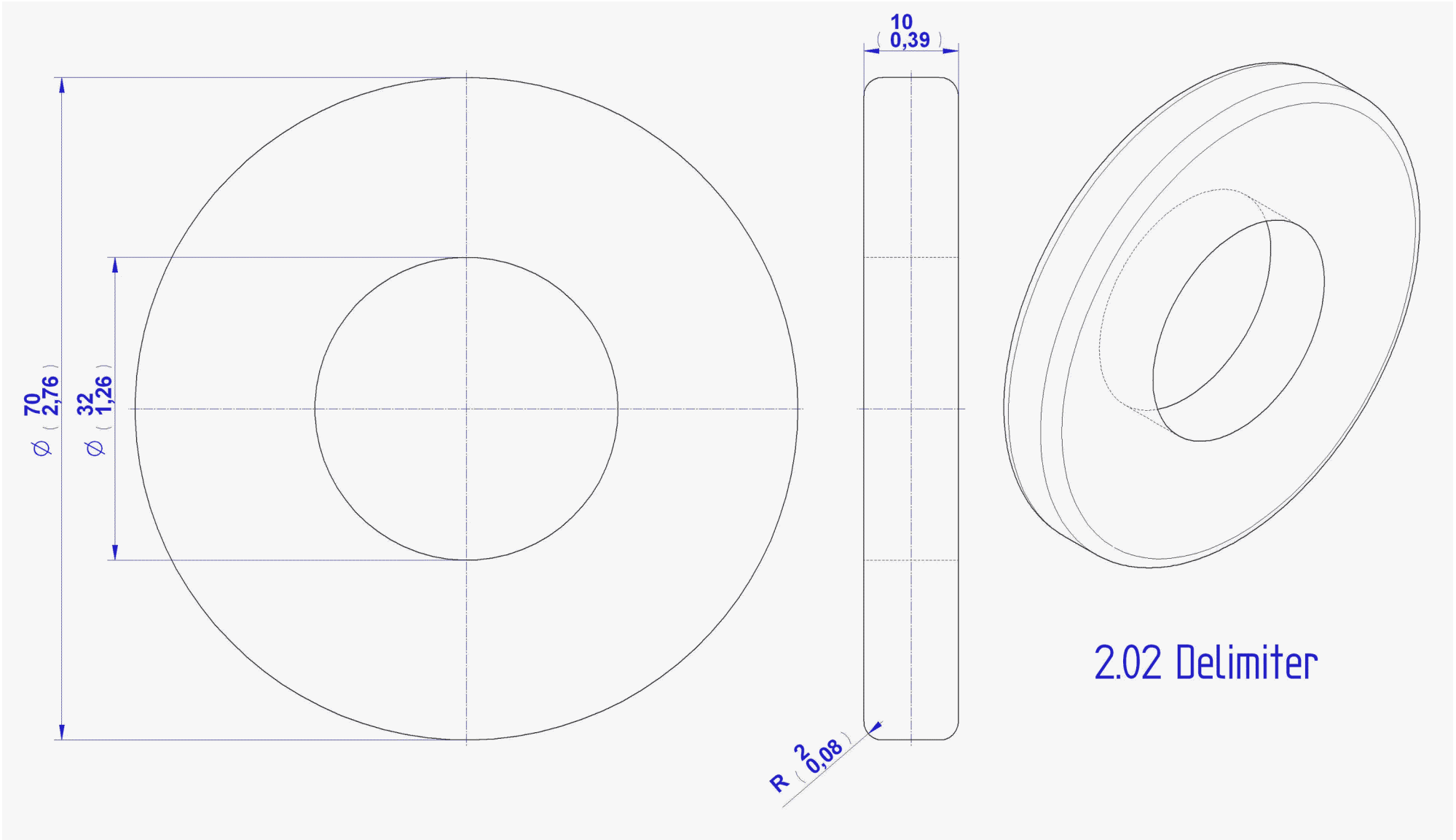


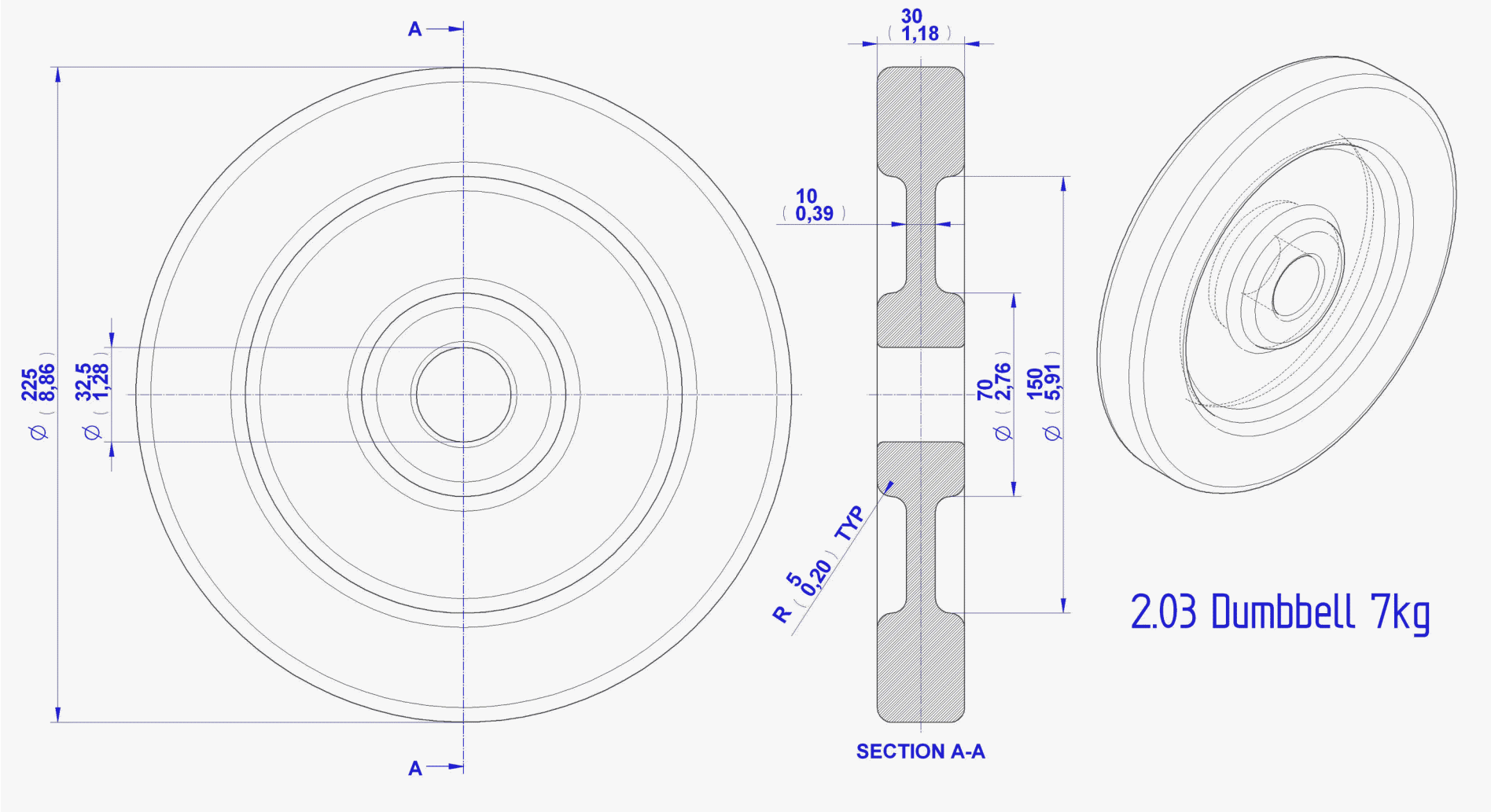
Item Number	Title	Quantity
1	Round Tubing D 31,8 x 6,3mm	1
2	Delimiter	2
3	Dumbbell 7kg	4
4	Dumbbell 5kg	4
5	Dumbell Nut	2
6	Dumbbell 9kg	4
7	Dumbbell 3kg	4
8	Dumbbell 1,5kg	4

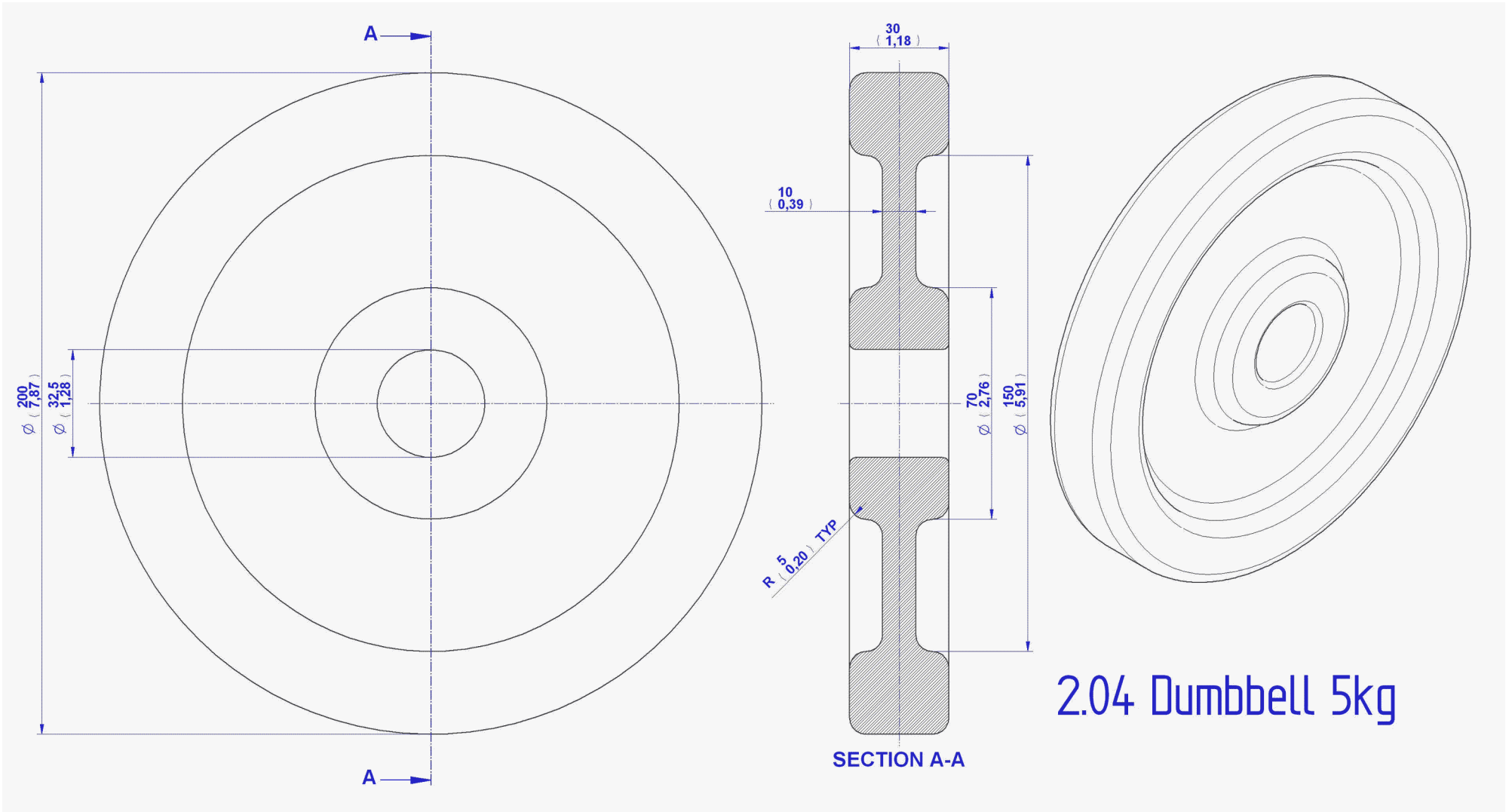

1800
(70,87)
248
(9,76)
225
(8,86)
200
(7,87)
155
(6,10)
111
(4,37)
1400
(55,12)
50
(1,97)
80
(3,15)
110
(4,33)
140
(5,51)
170
(6,69)
SECTION A-A
A
A
Ø 248
(9,76)

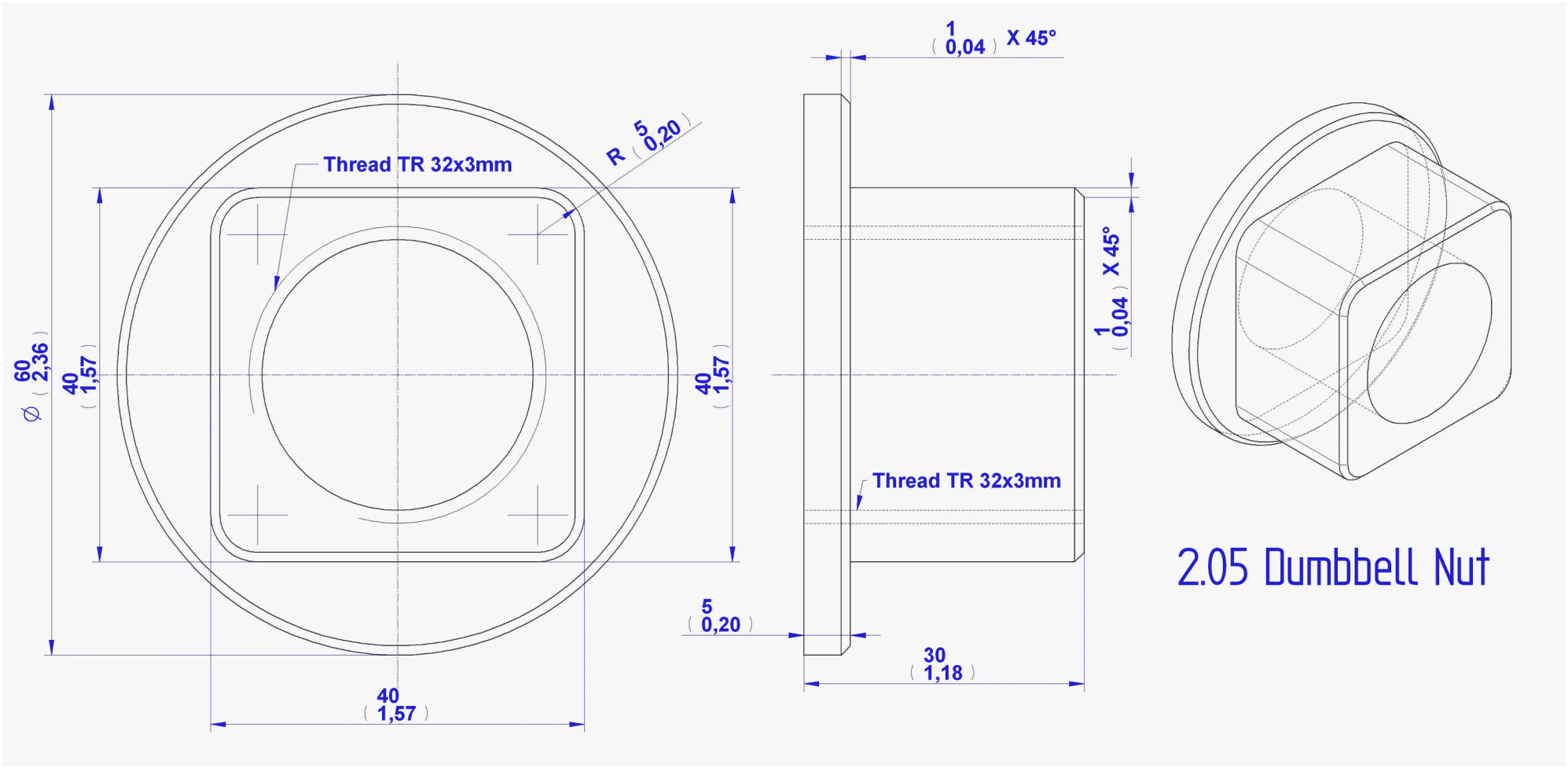


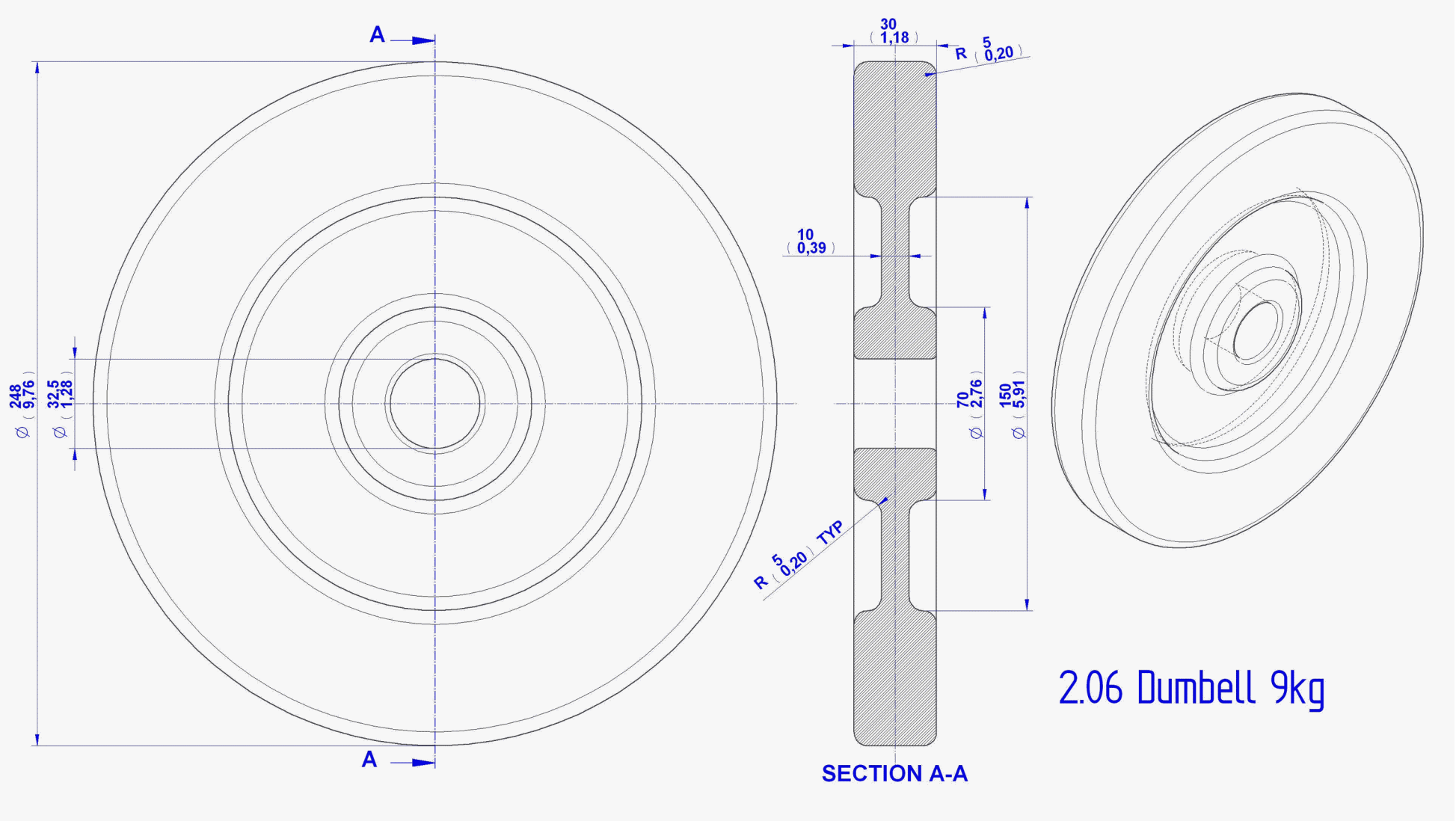
2.01 Round Tubing D31,8 x 6,3mm

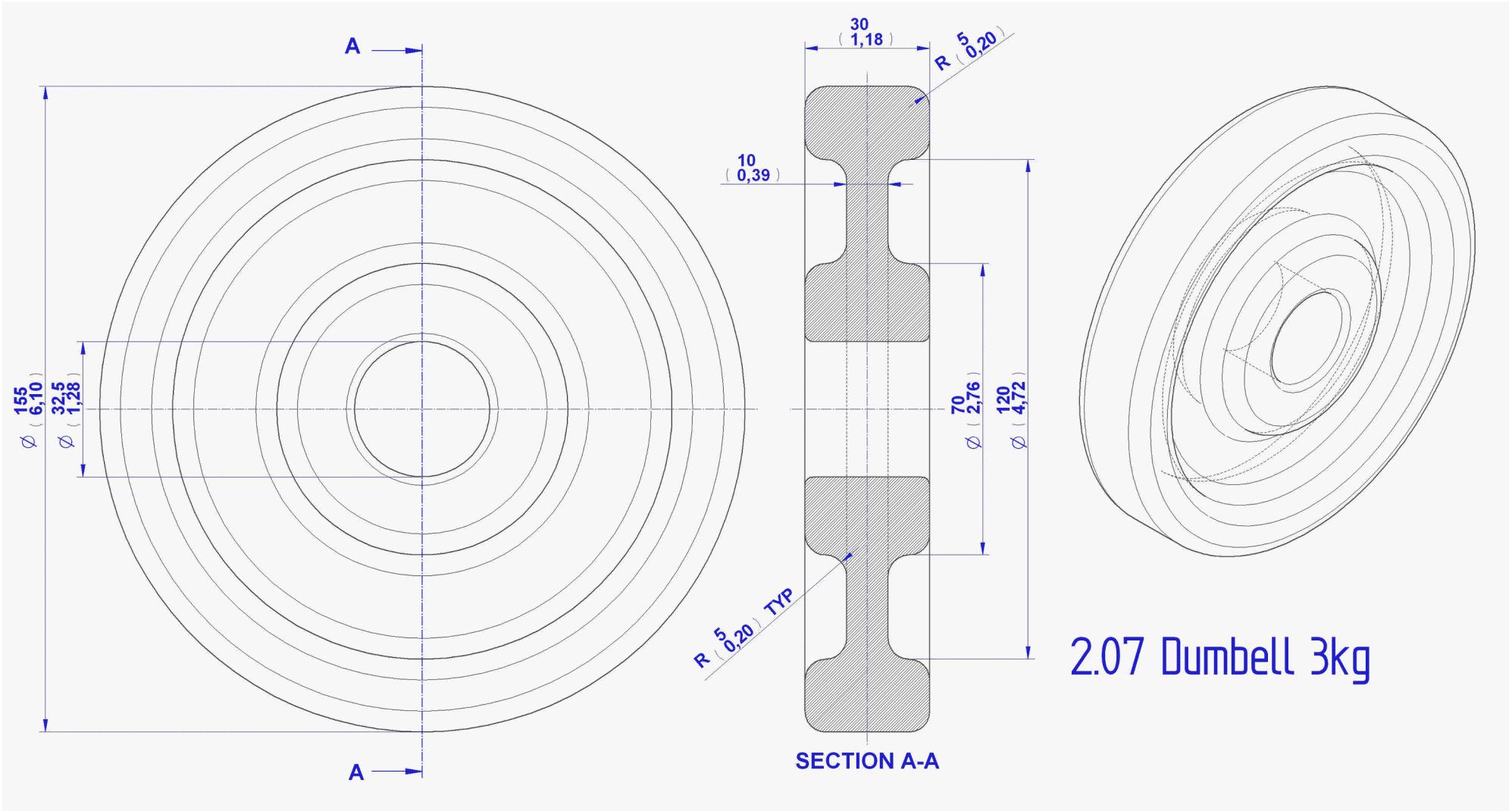

10
(0,39)
70
(2,76)
32
(1,26)
R 2
(0,08)
2.02 Delimiter

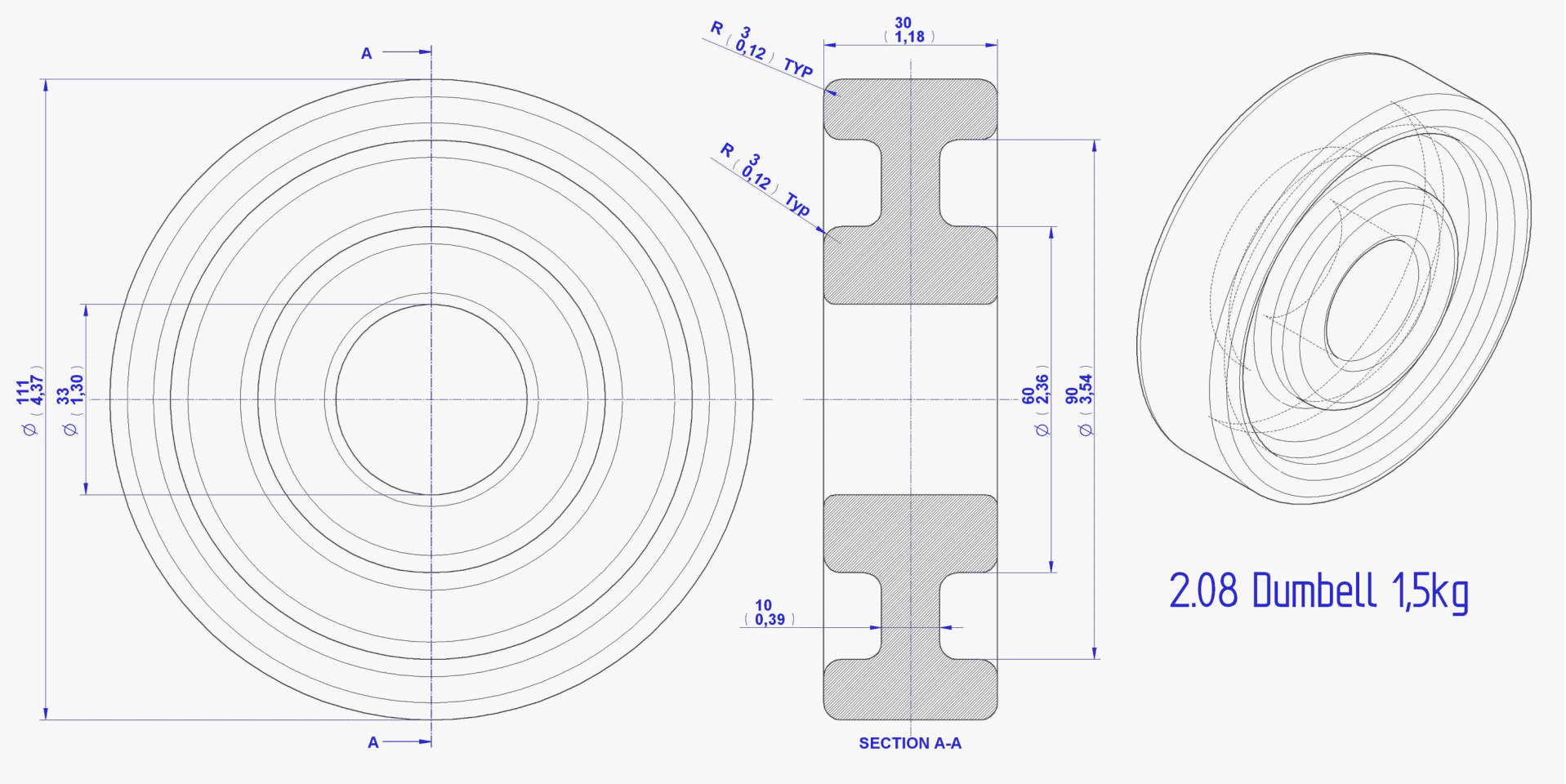

A
A
225
8,86
32,5
1,28
30
1,18
10
0,39
70
2,76
150
5,91
R 5
0,20
TYP
SECTION A-A
2.03 Dumbbell 7kg


A
A
200
7,87
32,5
1,28
30
1,18
10
0,39
70
2,76
150
5,91
R 5
0,20
TYP
SECTION A-A
2.04 Dumbbell 5kg

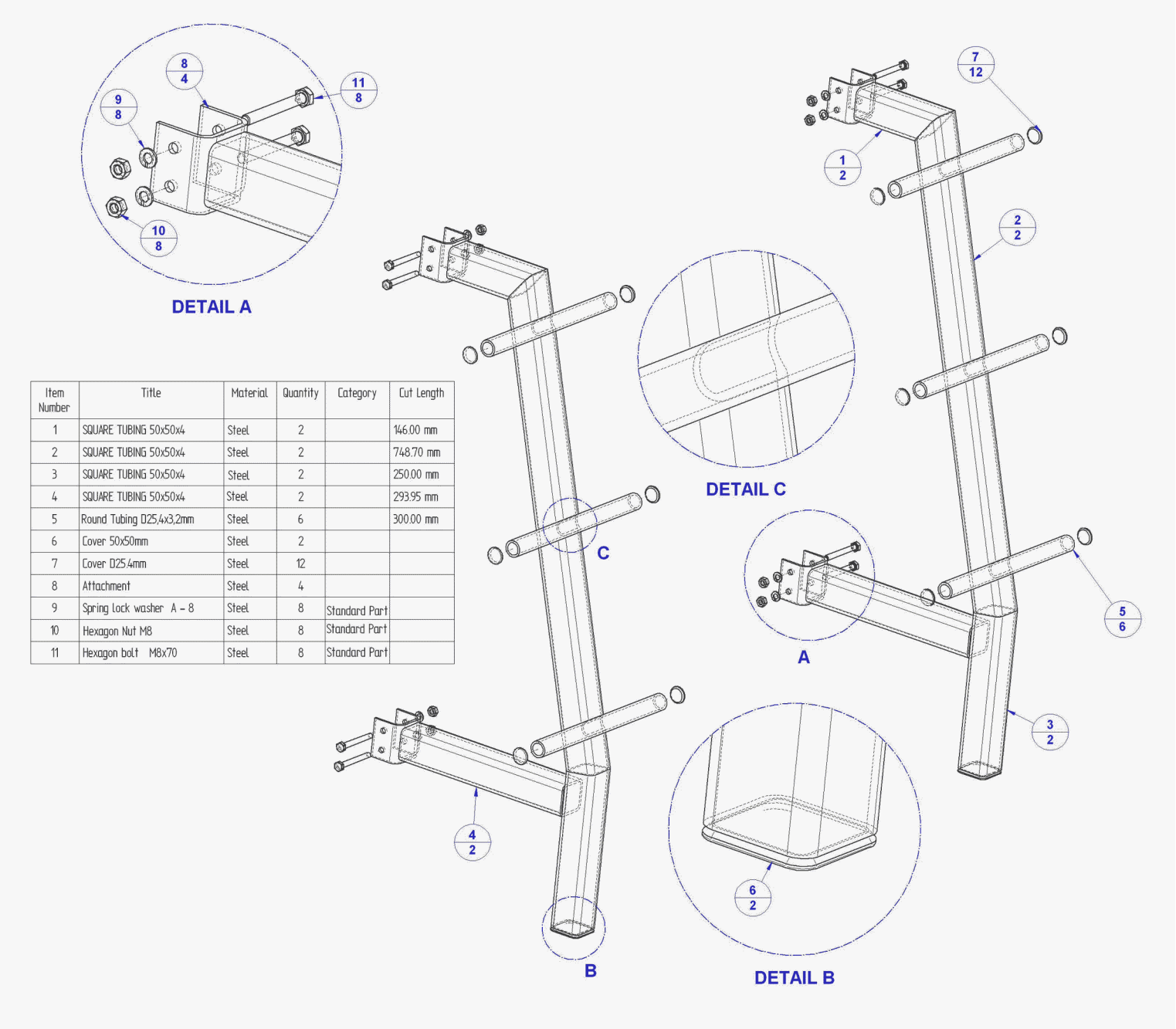

Thread TR 32x3mm
R 5 (0,20)
60 (2,36)
40 (1,57)
40 (1,57)
40 (1,57)
1 (0,04) X 45°
1 (0,04) X 45°
Thread TR 32x3mm
5 (0,20)
30 (1,18)
2.05 Dumbbell Nut


A
A
248
9,76
32,5
1,28
30
1,18
R 5
0,20
10
0,39
70
2,76
150
5,91
R 5
0,20 TYP
SECTION A-A
2.06 Dumbell 9kg

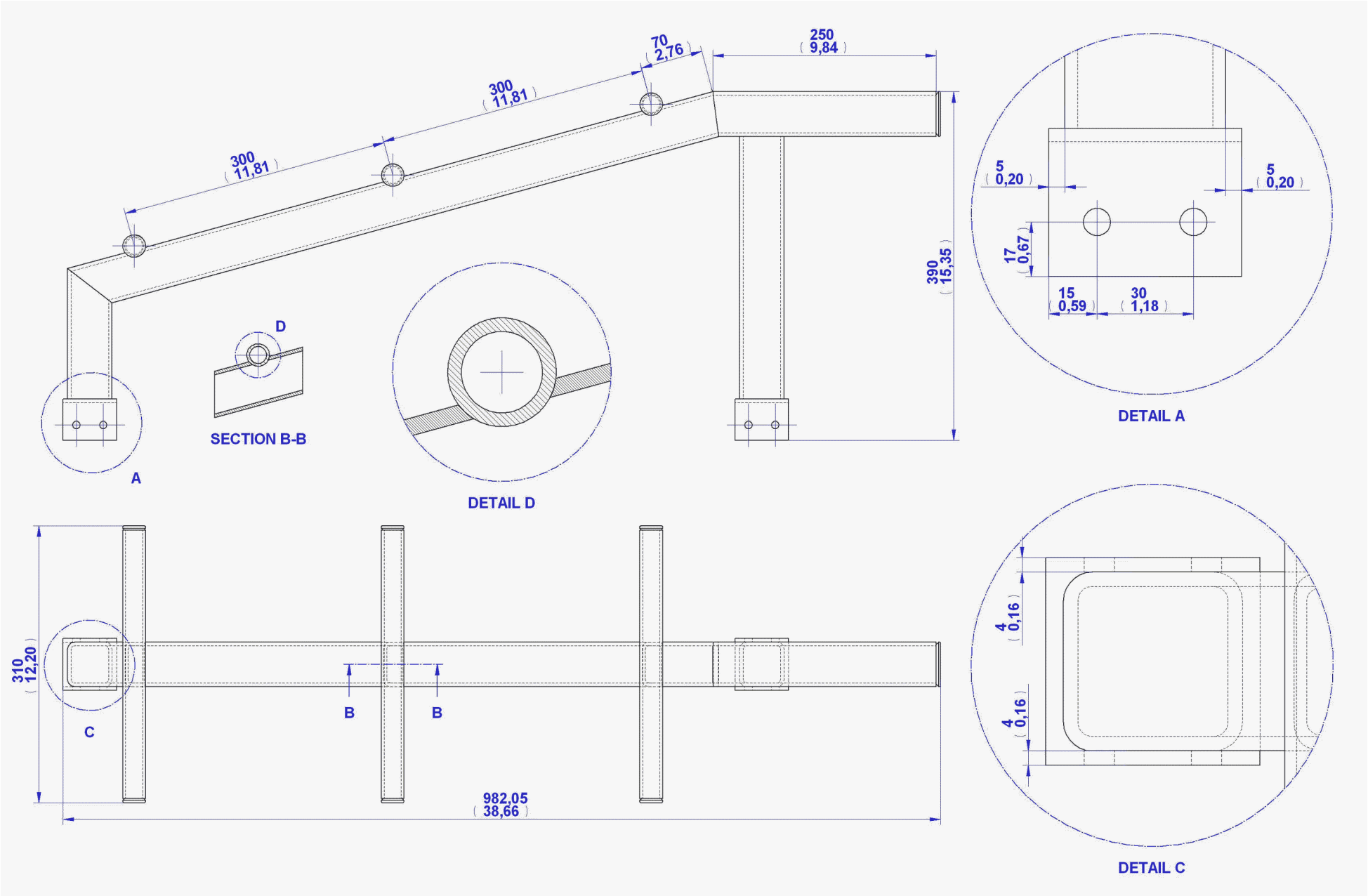

A
A
155
6,10
32,5
1,28
30
1,18
R 5
0,20
10
0,39
70
2,76
120
4,72
R 5
0,20 TYP
SECTION A-A
2.07 Dumbell 3kg


A
A
111
4,37
33
1,30
R 3
0,12 TYP
R 3
0,12 Typ
30
1,18
60
2,36
90
3,54
10
0,39
SECTION A-A
2.08 Dumbell 1,5kg

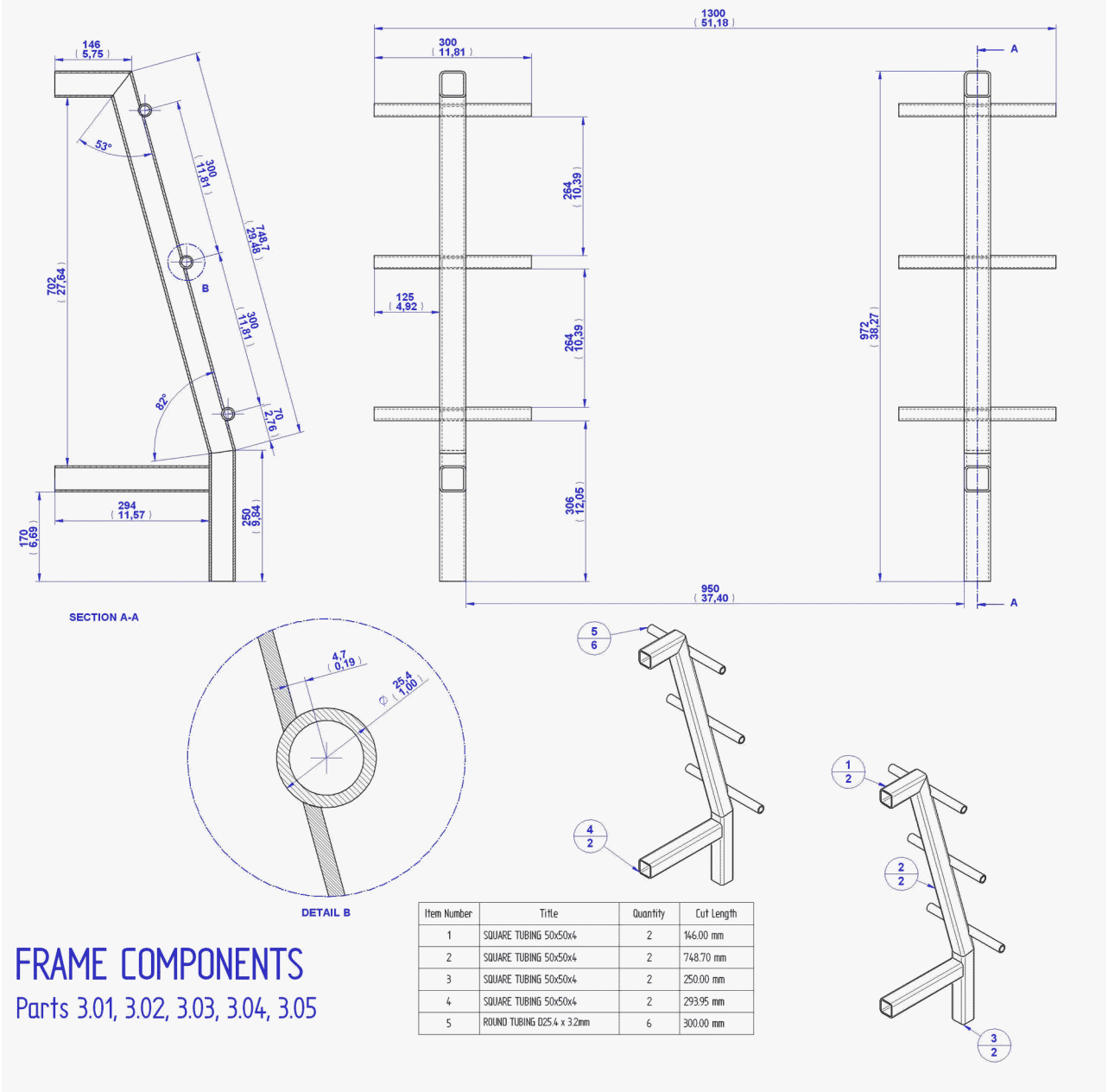
3. Plate storage sub-assembly – Parts list and 2D documentation



Item Number	Title	Material	Quantity	Category	Cut Length
1	SQUARE TUBING 50x50x4	Steel	2		146.00 mm
2	SQUARE TUBING 50x50x4	Steel	2		748.70 mm
3	SQUARE TUBING 50x50x4	Steel	2		250.00 mm
4	SQUARE TUBING 50x50x4	Steel	2		293.95 mm
5	Round Tubing D25,4x3,2mm	Steel	6		300.00 mm
6	Cover 50x50mm	Steel	2		
7	Cover D25.4mm	Steel	12		
8	Attachment	Steel	4		
9	Spring Lock washer A - 8	Steel	8	Standard Part	
10	Hexagon Nut M8	Steel	8	Standard Part	
11	Hexagon bolt M8x70	Steel	8	Standard Part	


70
2,76
250
9,84
300
11,81
300
11,81
390
15,35
D
SECTION B-B
A
DETAIL D
5
0,20
5
0,20
17
0,67
15
0,59
30
1,18
DETAIL A
310
12,20
C
B
B
982,05
38,66
4
0,16
4
0,16
DETAIL C

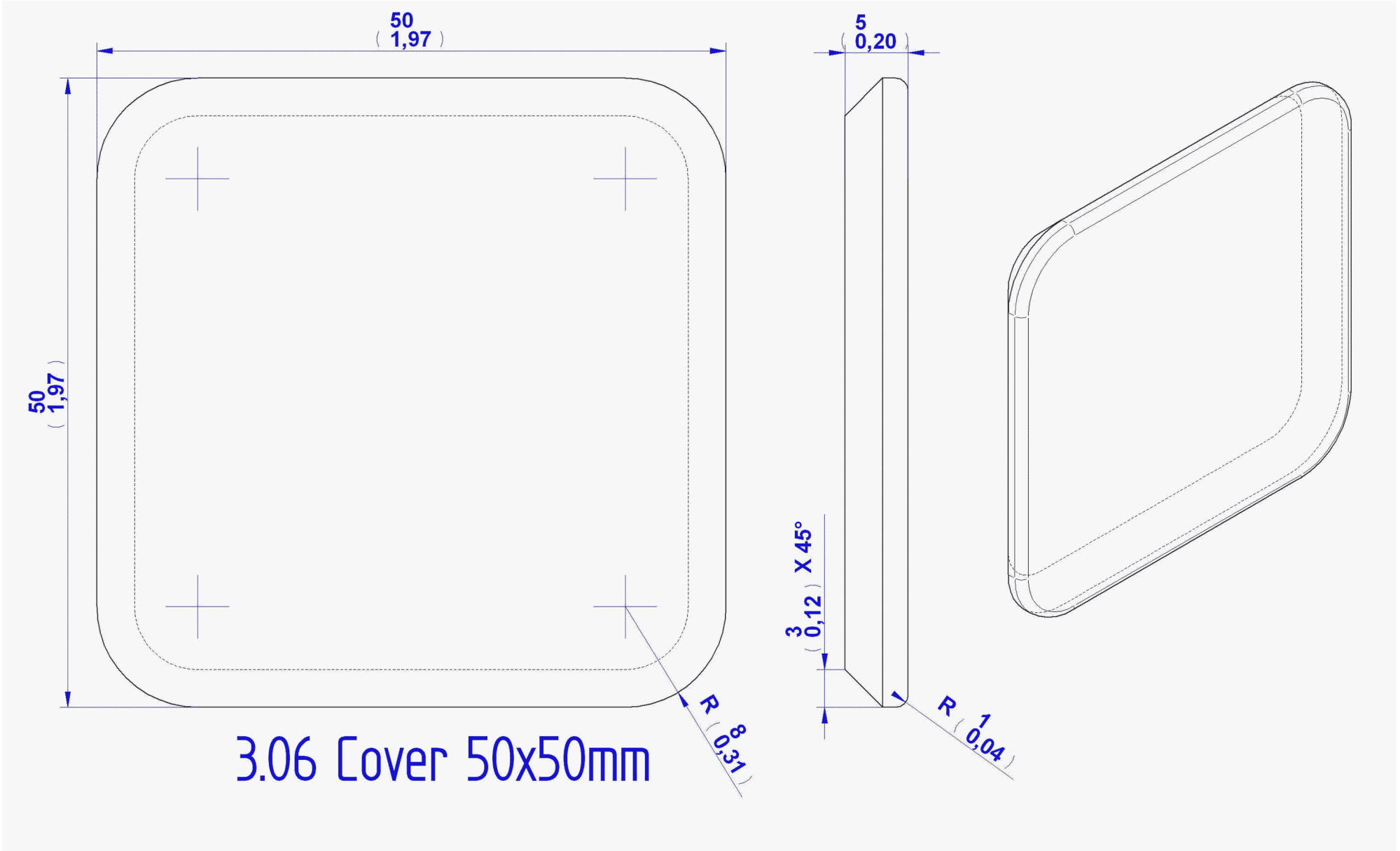
Frame components

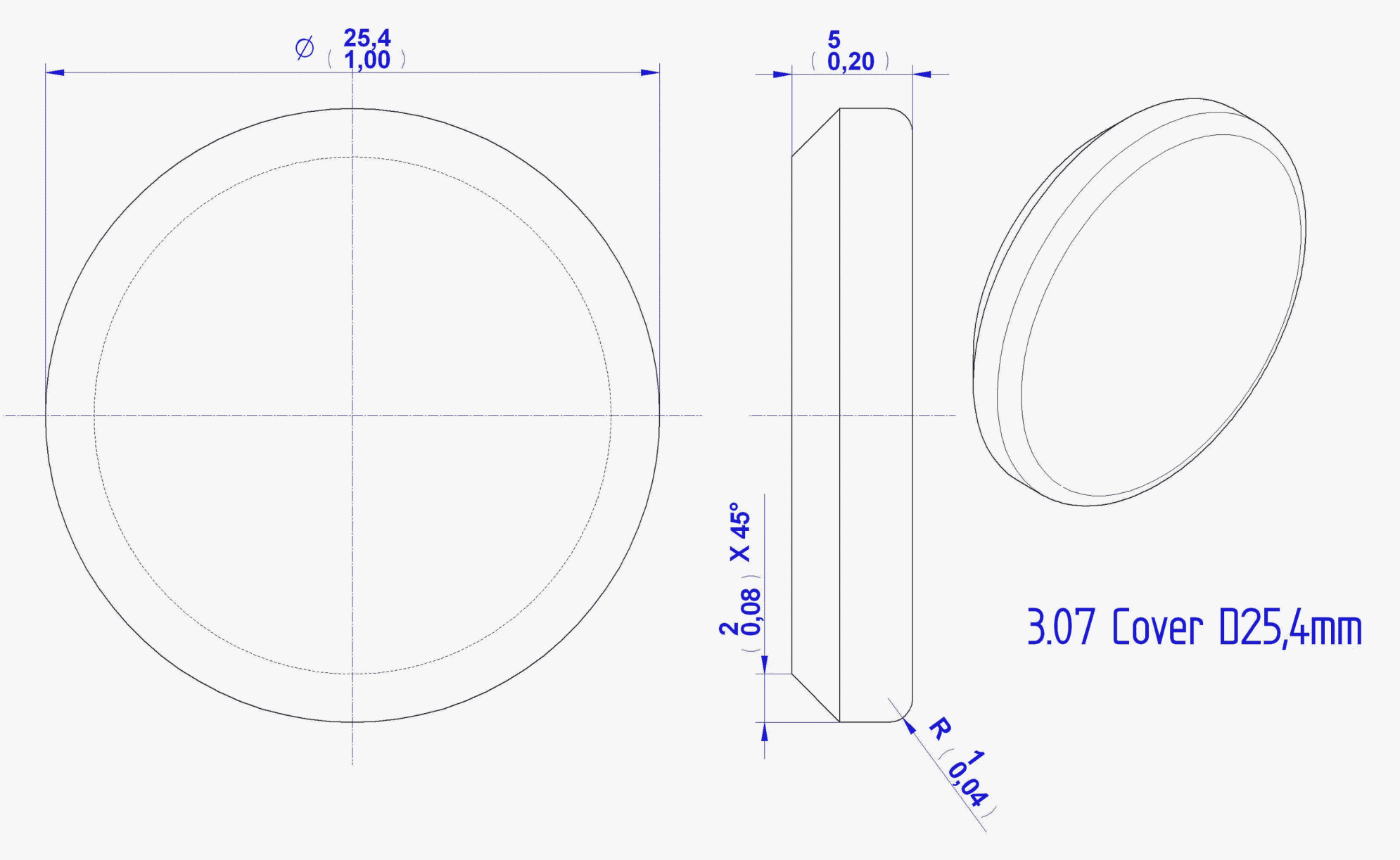


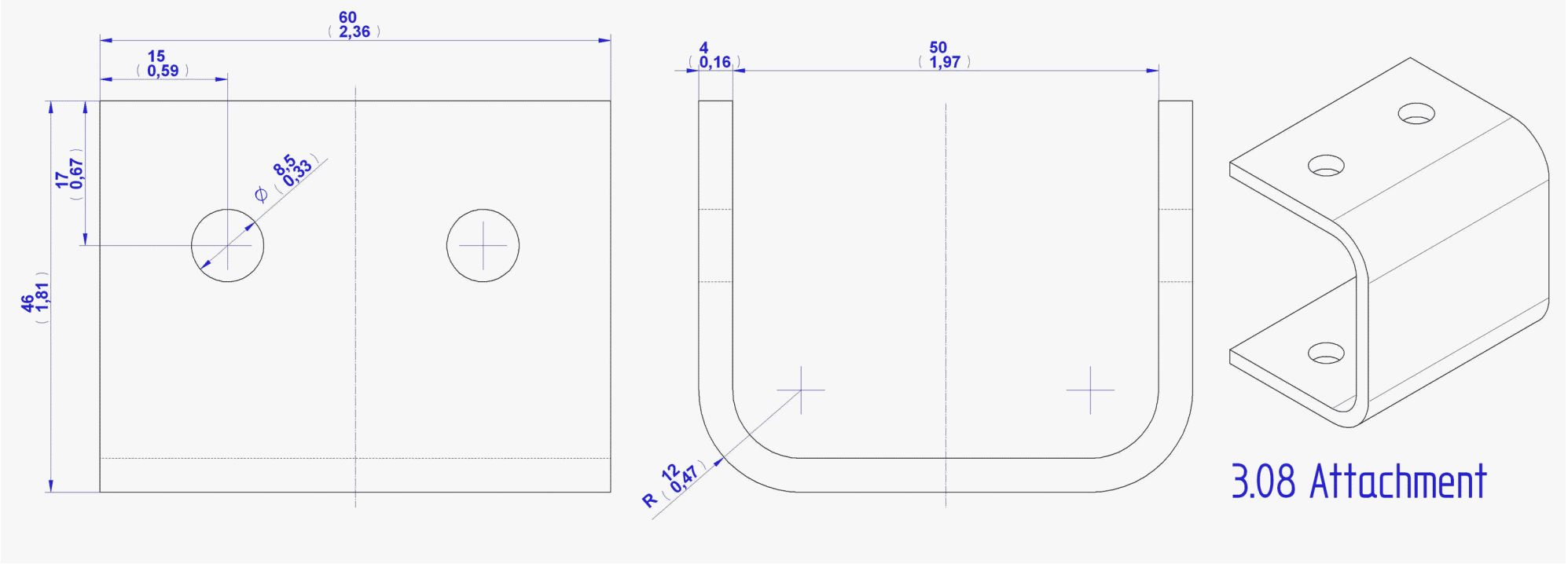
FRAME COMPONENTS

Parts 3.01, 3.02, 3.03, 3.04, 3.05

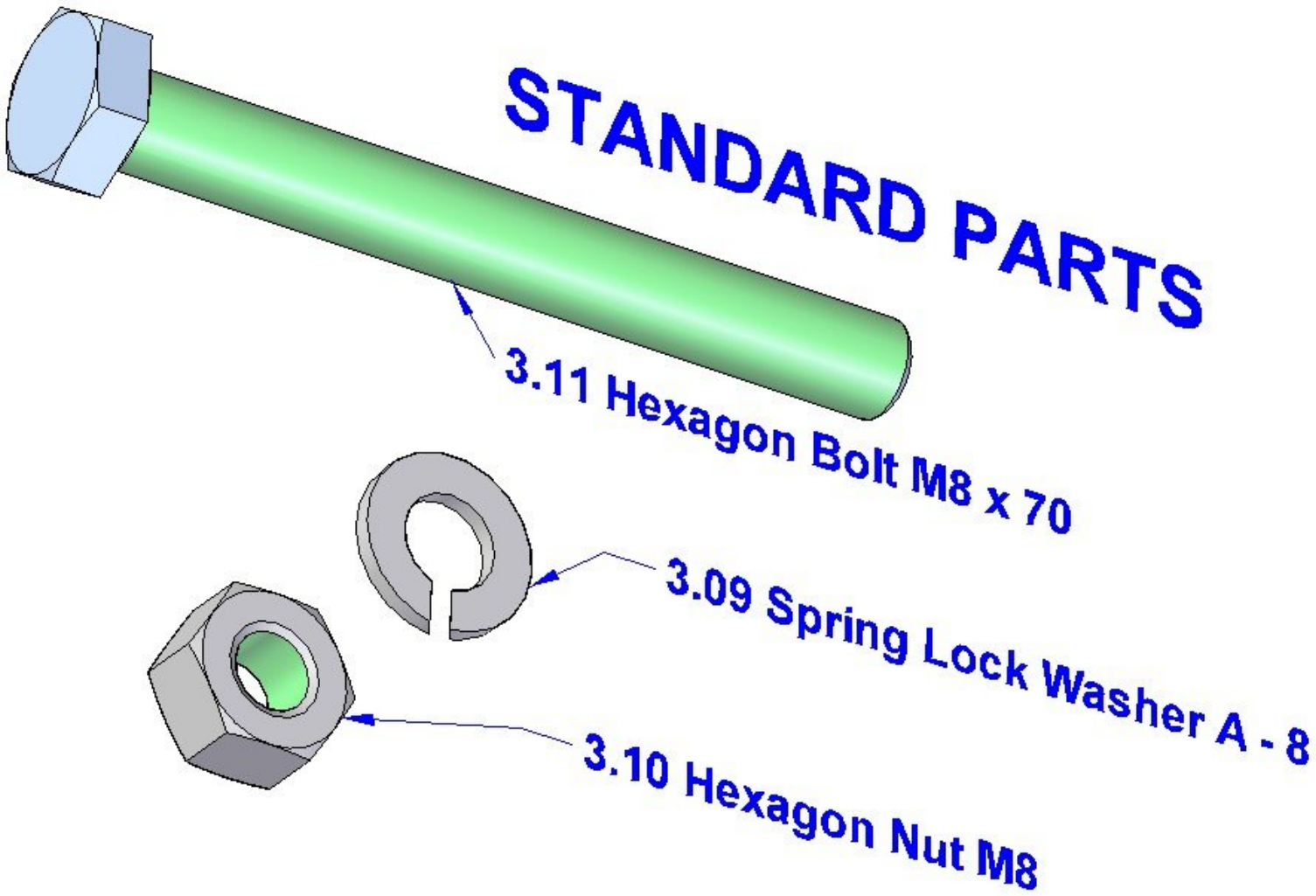
Item Number	Title	Quantity	Cut Length
1	SQUARE TUBING 50x50x4	2	146.00 mm
2	SQUARE TUBING 50x50x4	2	748.70 mm
3	SQUARE TUBING 50x50x4	2	250.00 mm
4	SQUARE TUBING 50x50x4	2	293.95 mm
5	ROUND TUBING D25.4 x 3.2mm	6	300.00 mm


50
(1,97)
50
(1,97)
R 8
(0,31)
5
(0,20)
3
(0,12)
X 45°
R 1
(0,04)
3.06 Cover 50x50mm


Ø 25,4 (1,00)
5 (0,20)
2 (0,08) X 45°
R 1 (0,04)
3.07 Cover D25,4mm

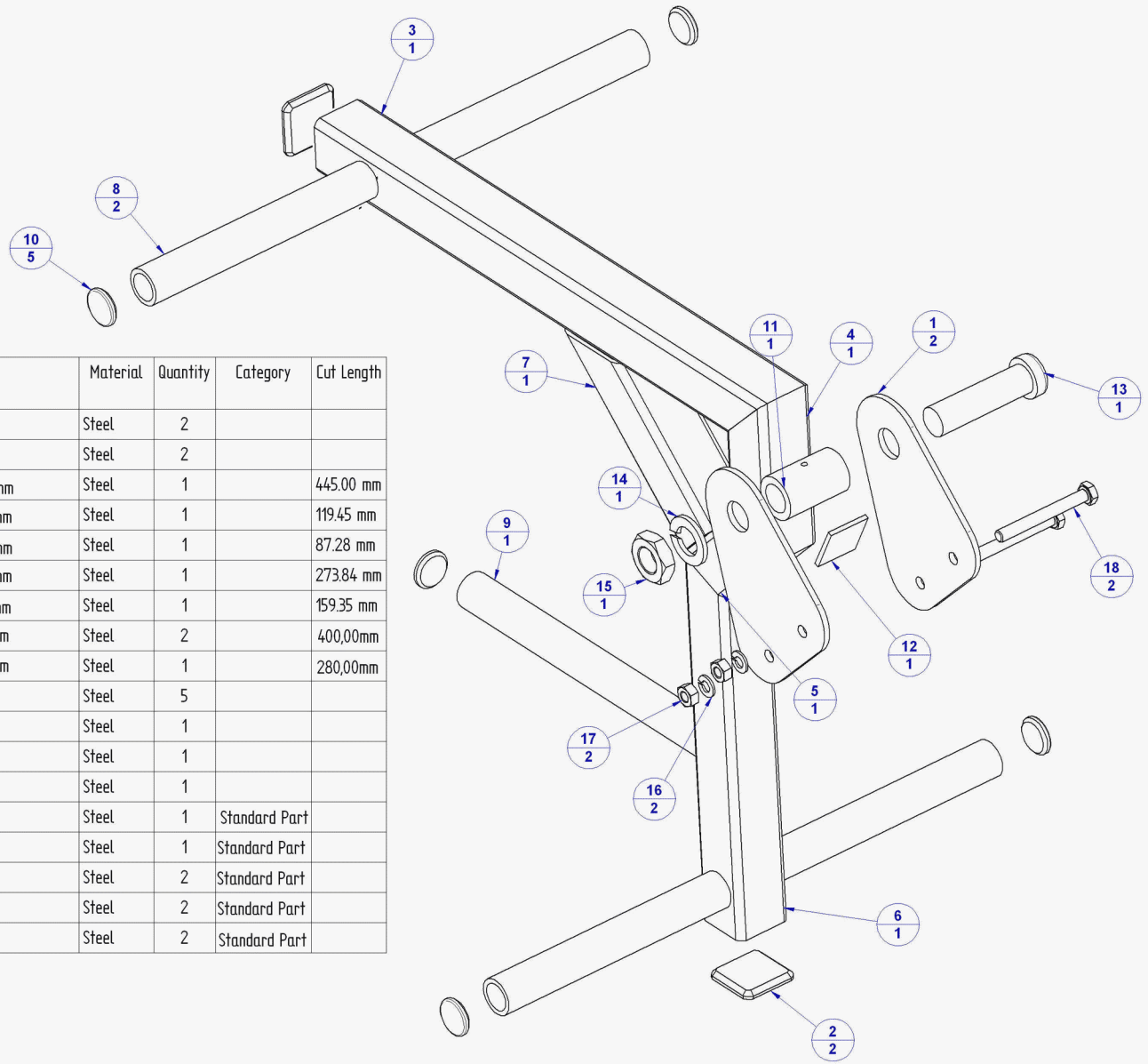

60
(2,36)
15
(0,59)
17
(0,67)
46
(1,81)
ϕ 8,5
(0,33)
4
(0,16)
50
(1,97)
R 12
(0,47)
3.08 Attachment

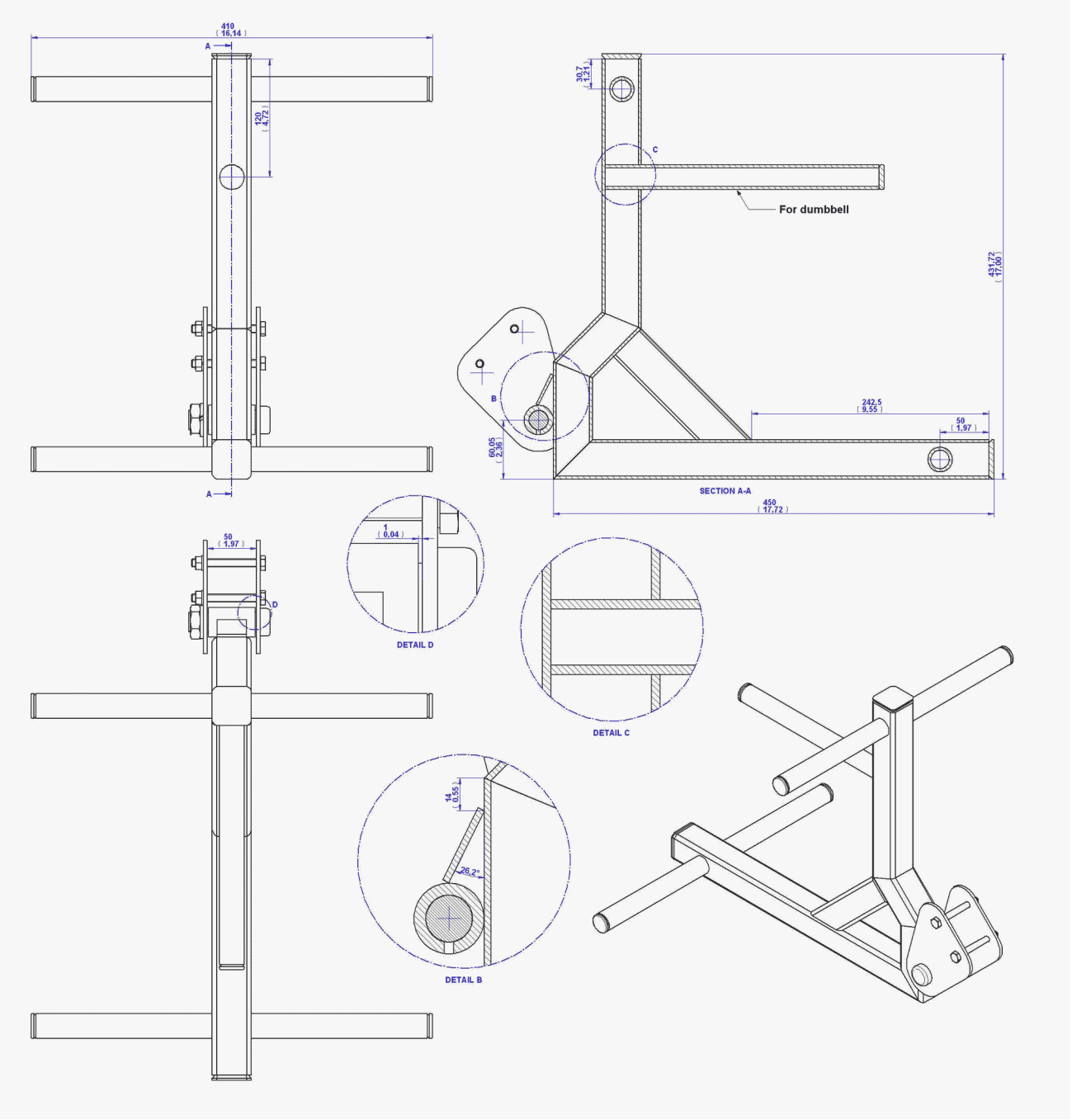
Standard Parts

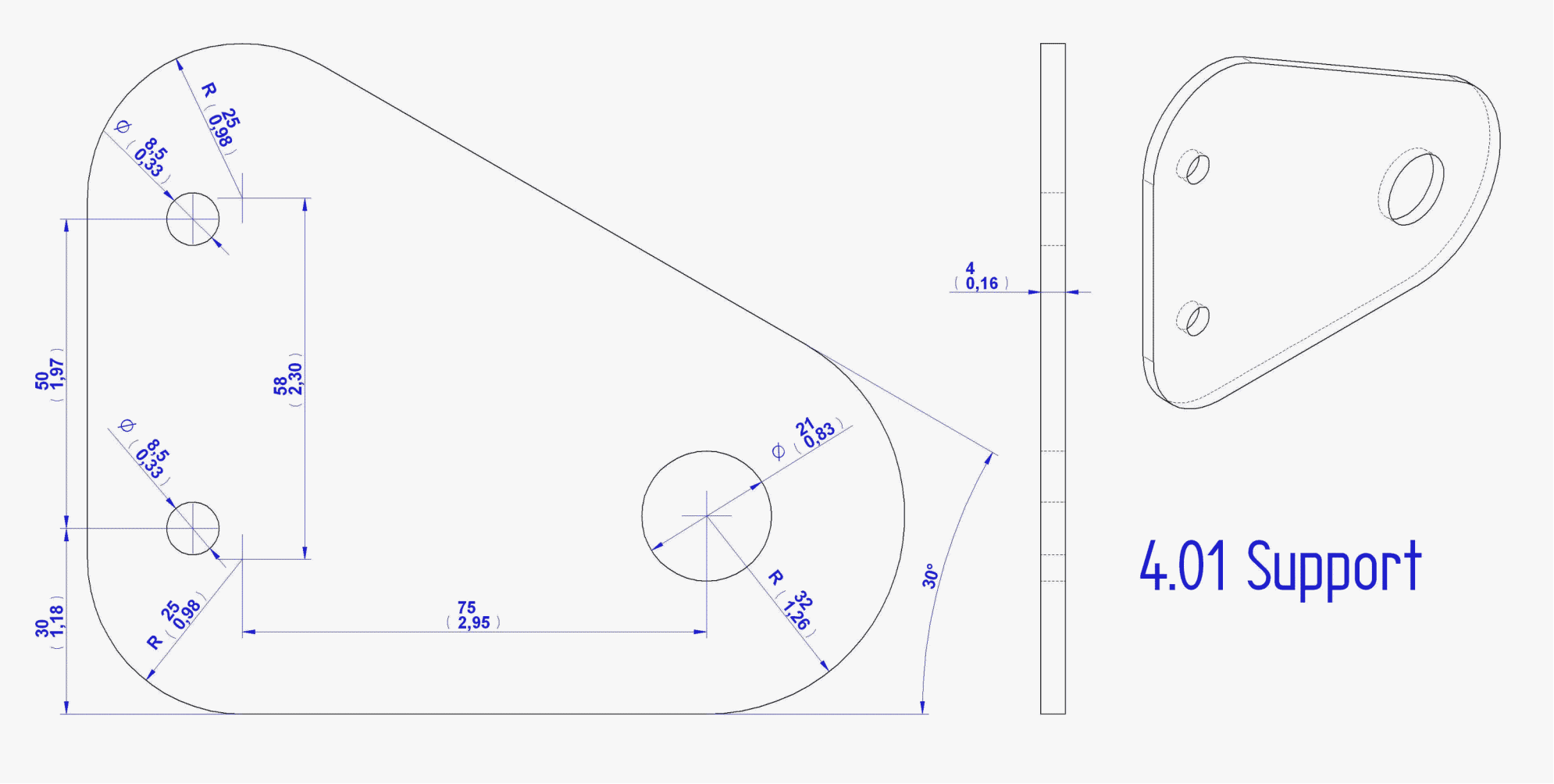


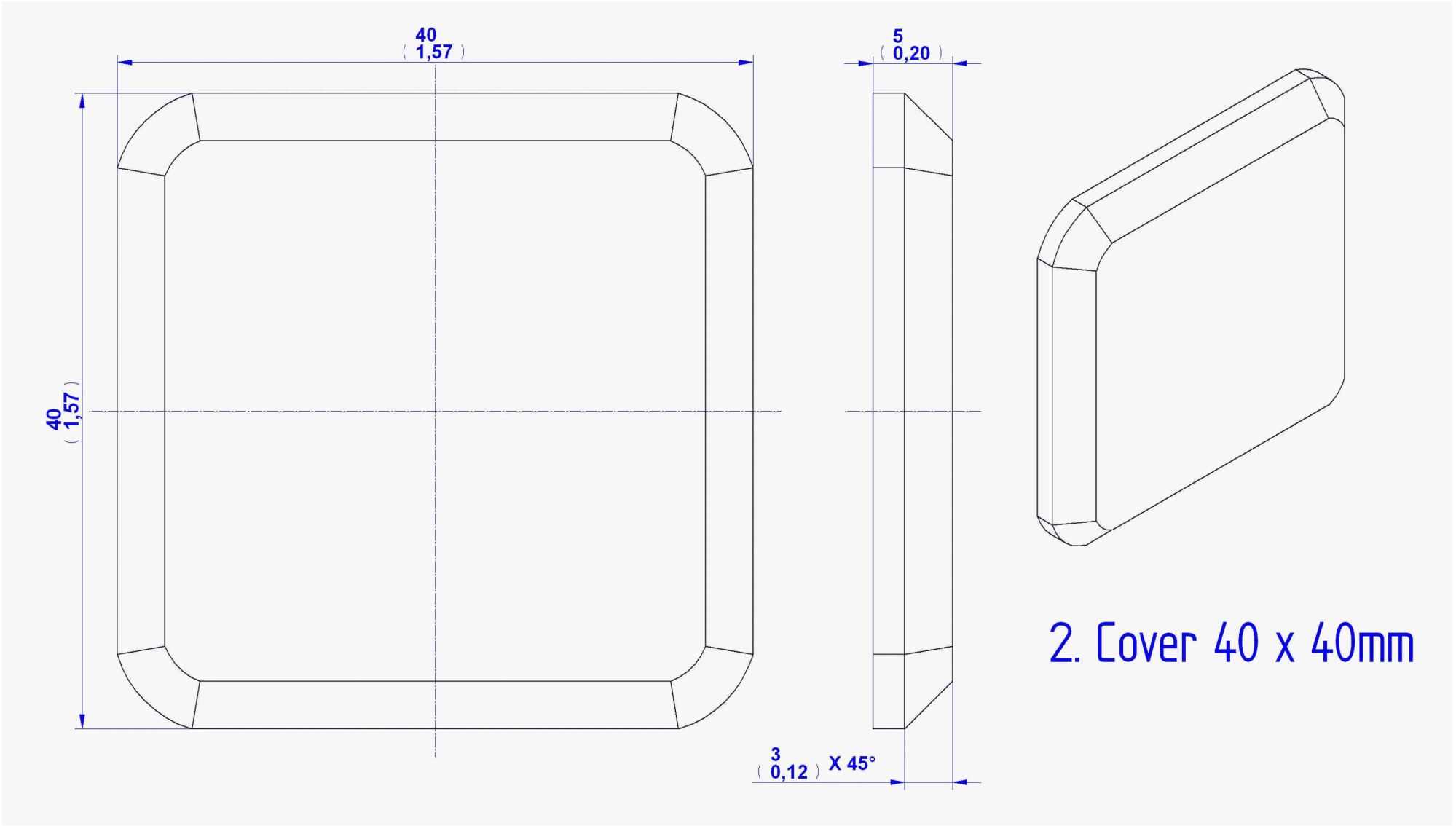
4. Leg developer sub-assembly – Parts list and 2D documentation

Item Number	Title	Material	Quantity	Category	Cut Length
1	Support	Steel	2		
2	Cover 40x40	Steel	2		
3	Square Tubing 40x40x2,9mm	Steel	1		445.00 mm
4	Square Tubing 40x40x2,9mm	Steel	1		119.45 mm
5	Square Tubing 40x40x2,9mm	Steel	1		87.28 mm
6	Square Tubing 40x40x2,9mm	Steel	1		273.84 mm
7	Square Tubing 40x40x2,9mm	Steel	1		159.35 mm
8	Round Tubing D25,4 x 3,2mm	Steel	2		400,00mm
9	Round Tubing D25,4 x 3,2mm	Steel	1		280,00mm
10	Cover D25.4mm	Steel	5		
11	Cilinder	Steel	1		
12*	Sheet Support	Steel	1		
13	Axle	Steel	1		
14	Spring Lock Washer A-20	Steel	1	Standard Part	
15	Hexagon Nut M20	Steel	1	Standard Part	
16	Spring lock washer A - 8	Steel	2	Standard Part	
17	Hexagon Nut M8	Steel	2	Standard Part	
18	Hexagon bolt M8x70	Steel	2	Standard Part	

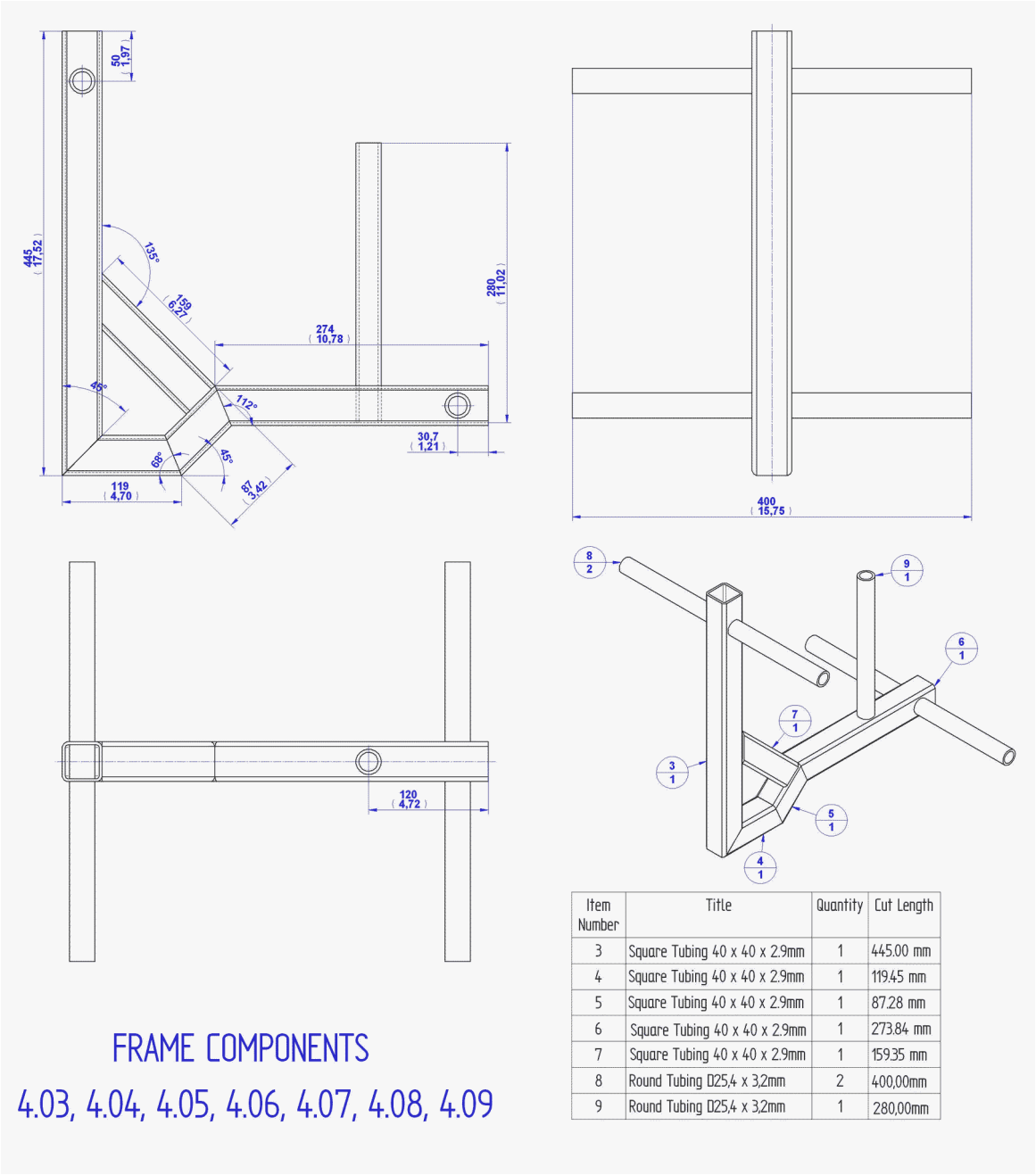



410
(16,14)
A
122
(4,72)
A
30,7
(1,21)
C
For dumbbell
431,72
(17,00)
B
242,5
(9,55)
50
(1,97)
60,05
(2,36)
SECTION A-A
450
(17,72)
50
(1,97)
D
1
(0,04)
DETAIL D
DETAIL C
14
(0,55)
26,2°
DETAIL B

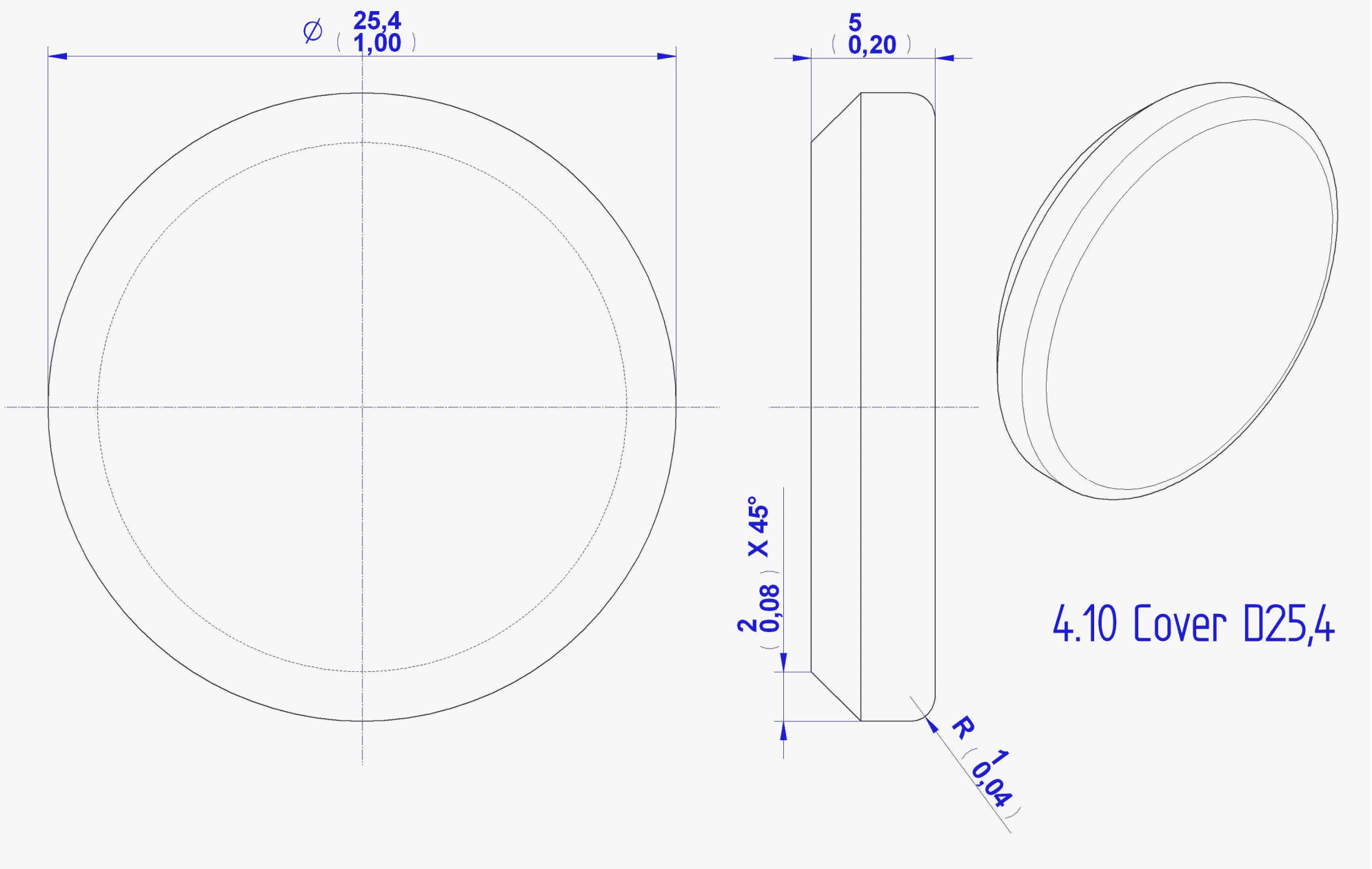

R 25 (0,98)
Ø 8,5 (0,33)
50 (1,97)
58 (2,30)
Ø 8,5 (0,33)
Ø 21 (0,83)
30 (1,18)
R 25 (0,98)
75 (2,95)
R 32 (1,26)
30°
4 (0,16)
4.01 Support

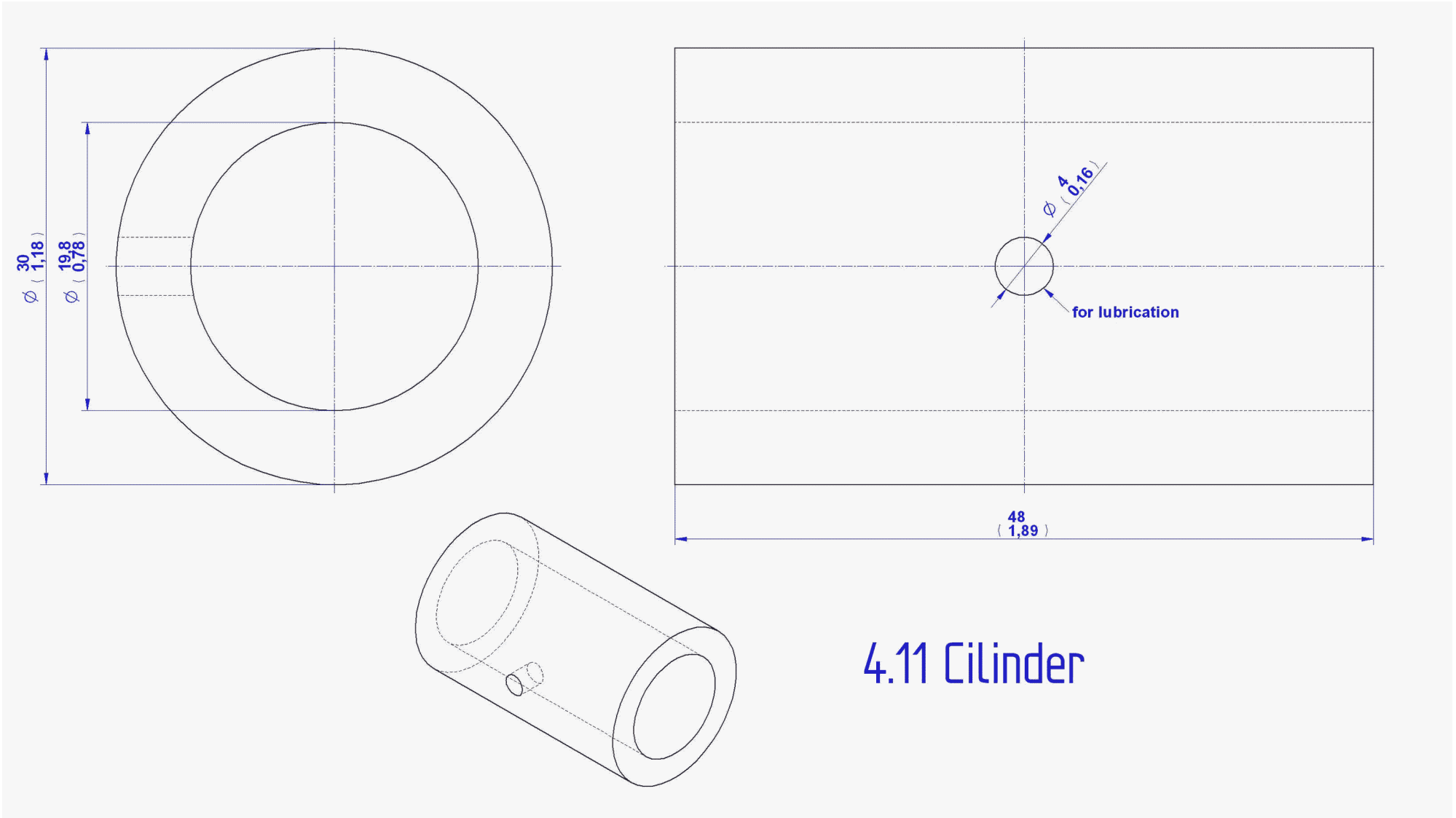

40
(1,57)
40
(1,57)
5
(0,20)
3
(0,12) X 45°
2. Cover 40 x 40mm

Frame Components

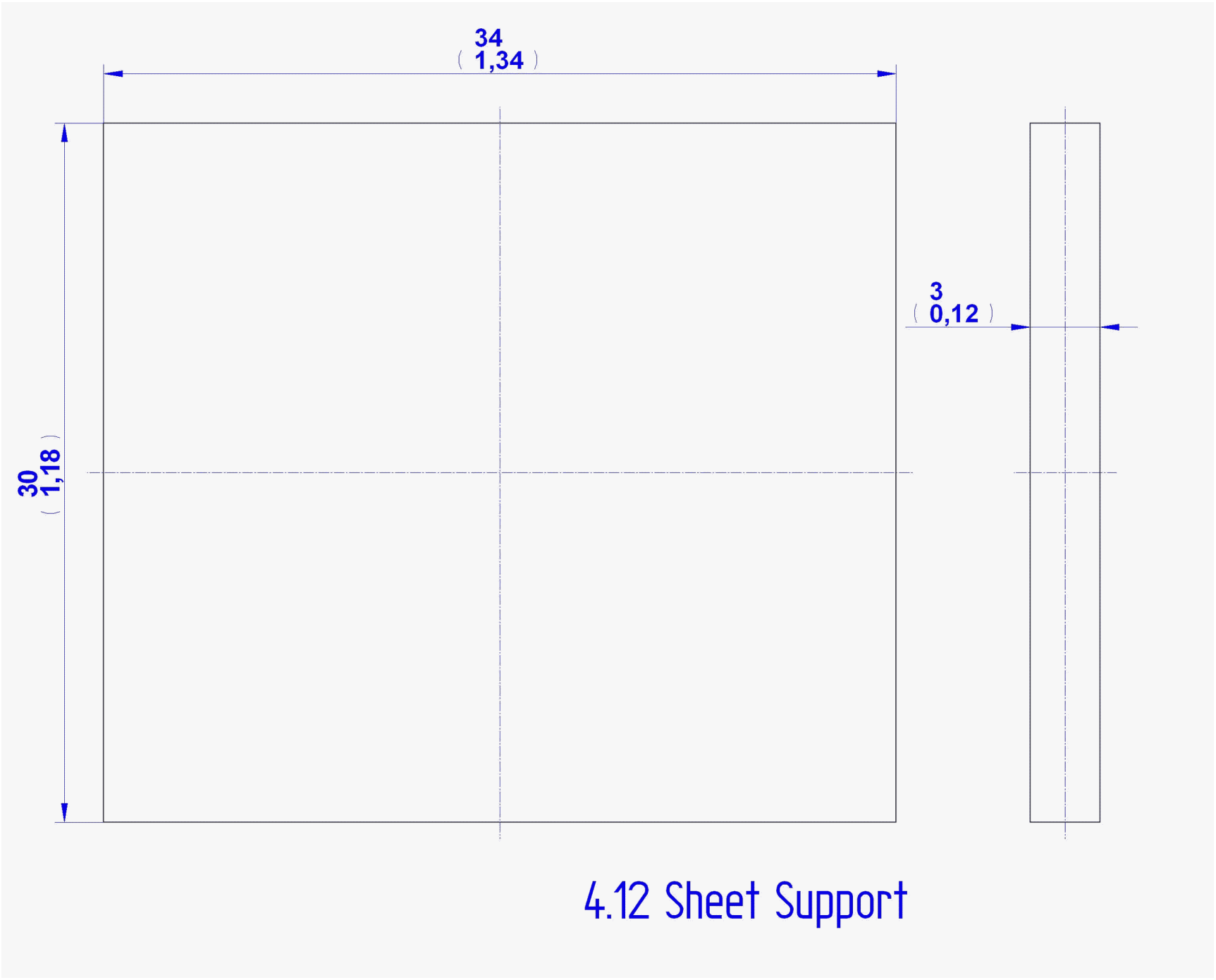


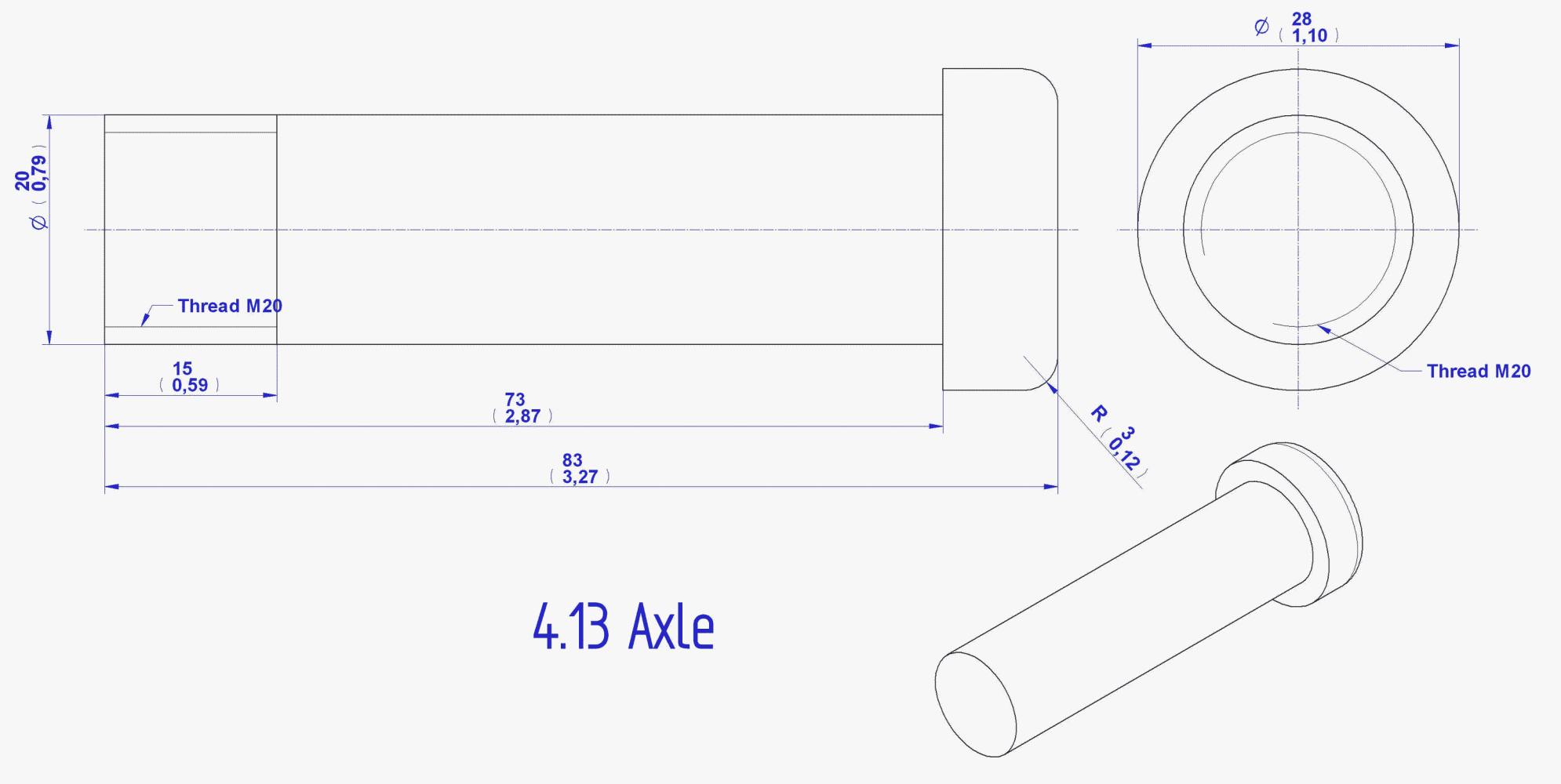
Item Number	Title	Quantity	Cut Length
3	Square Tubing 40 x 40 x 2.9mm	1	445.00 mm
4	Square Tubing 40 x 40 x 2.9mm	1	119.45 mm
5	Square Tubing 40 x 40 x 2.9mm	1	87.28 mm
6	Square Tubing 40 x 40 x 2.9mm	1	273.84 mm
7	Square Tubing 40 x 40 x 2.9mm	1	159.35 mm
8	Round Tubing Ø25,4 x 3,2mm	2	400,00mm
9	Round Tubing Ø25,4 x 3,2mm	1	280,00mm


Ø 25,4 (1,00)
5 (0,20)
2 (0,08) X 45°
R 1 (0,04)
4.10 Cover D25,4



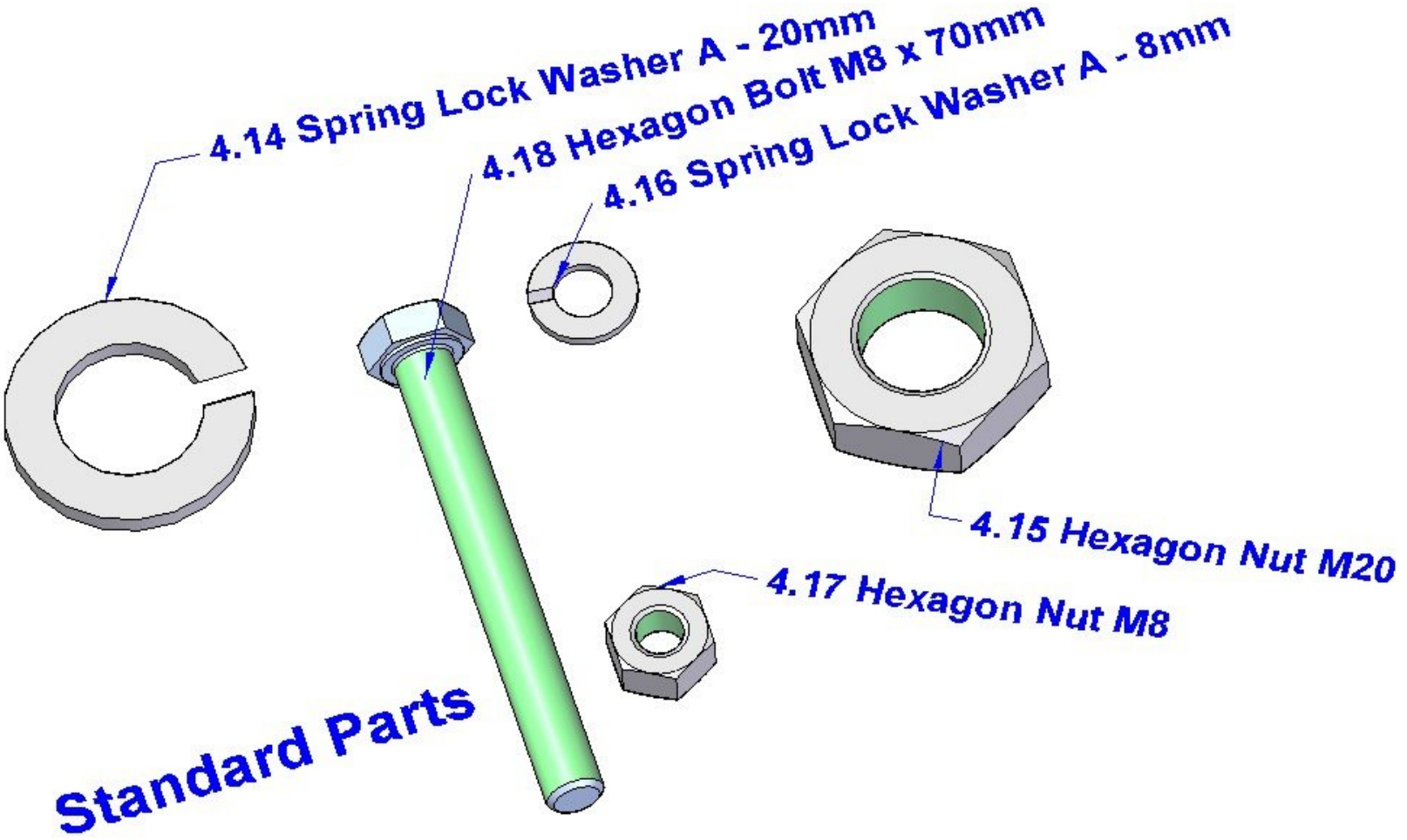
4.11 Cilinder


34
(1,34)
30
(1,18)
3
(0,12)
4.12 Sheet Support


Ø 28 (1,10)
Ø 20 (0,79)
Thread M20
15 (0,59)
73 (2,87)
83 (3,27)
R (3 0,12)
Thread M20

4.13 Axle

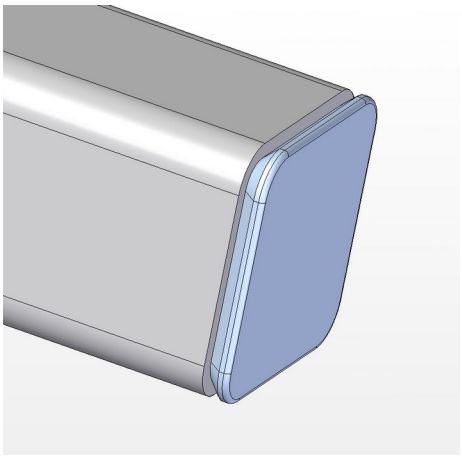
Standard Parts

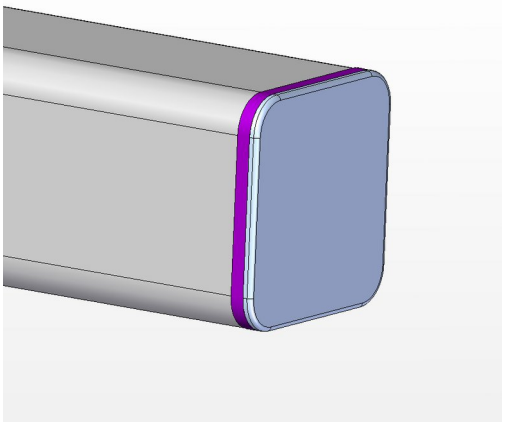


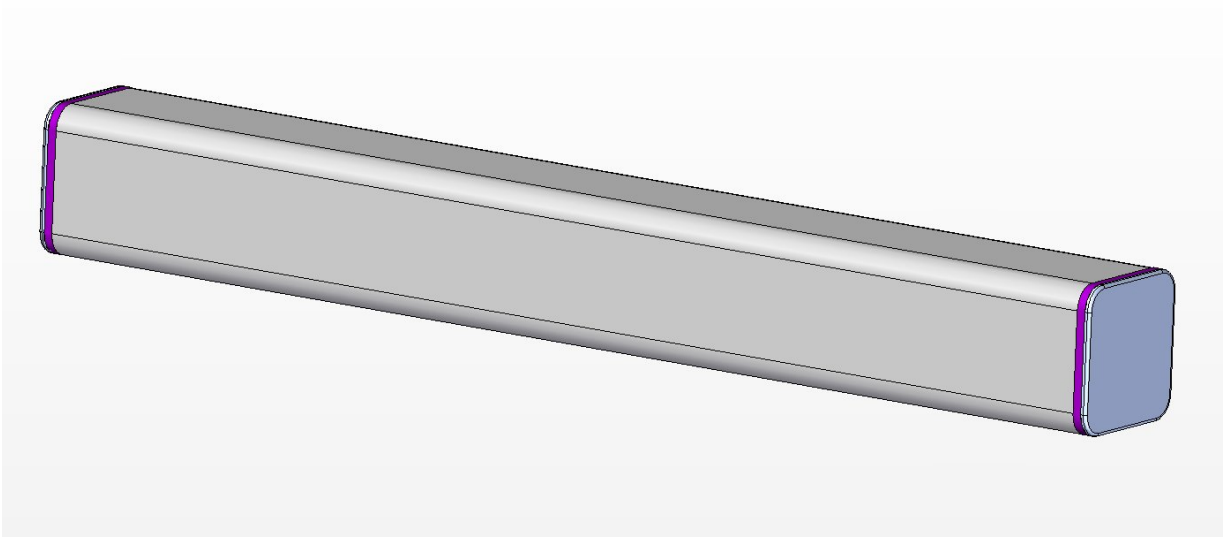
Assemblage images

1. Flat bench sub-assembly

1.







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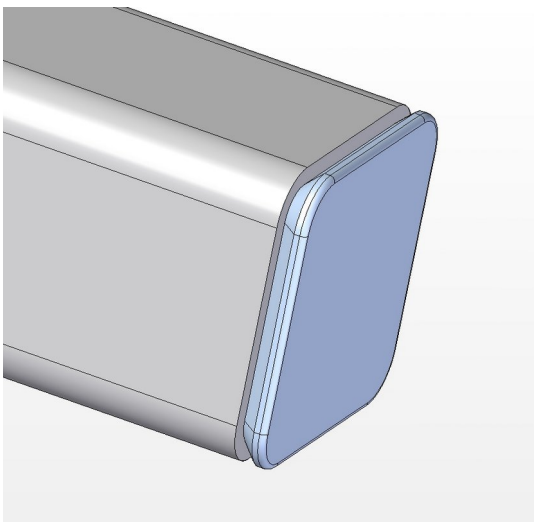

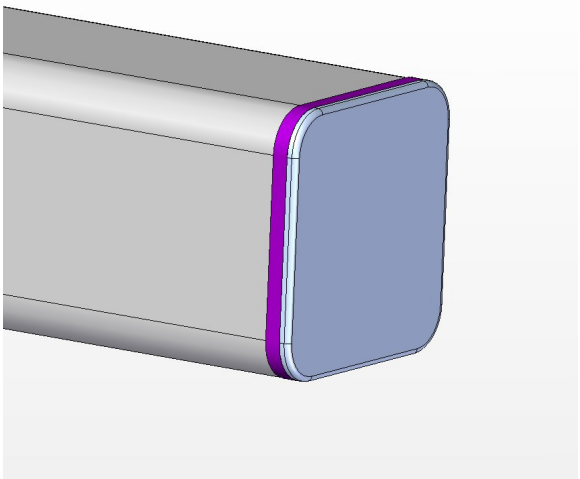

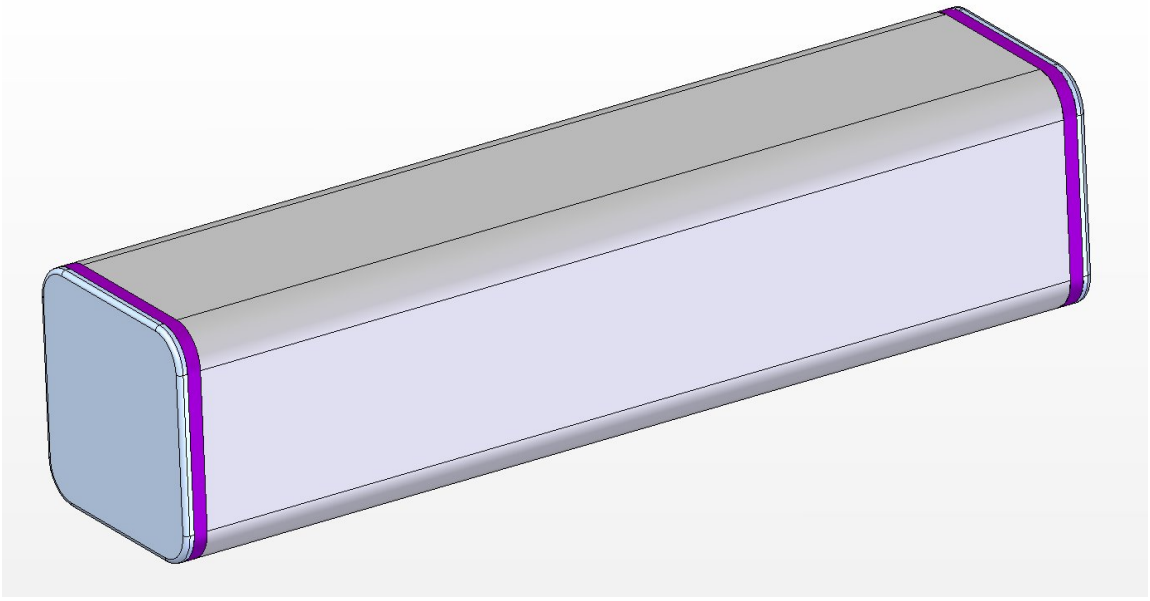

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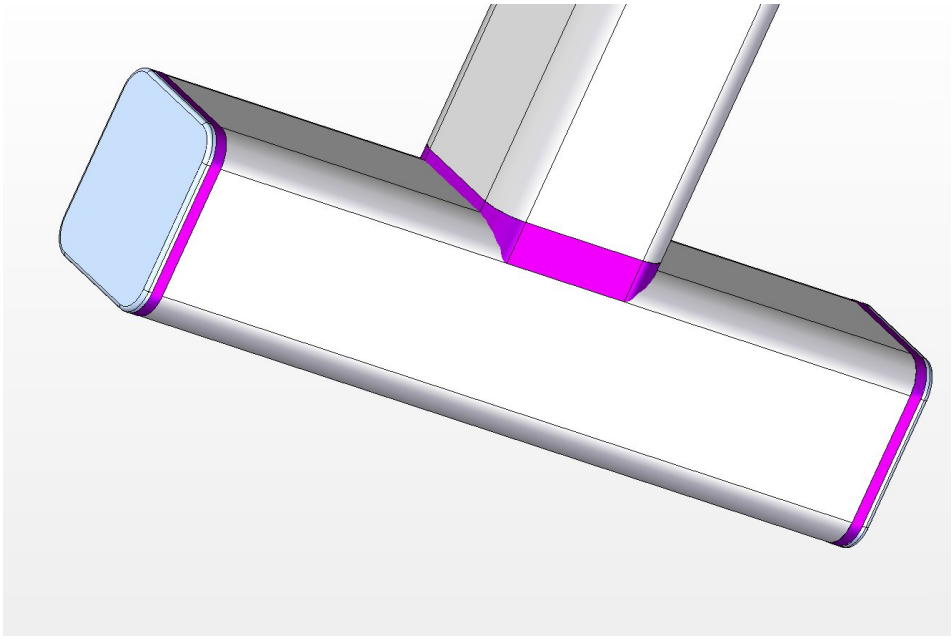

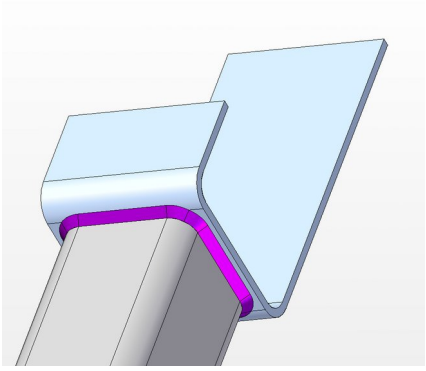

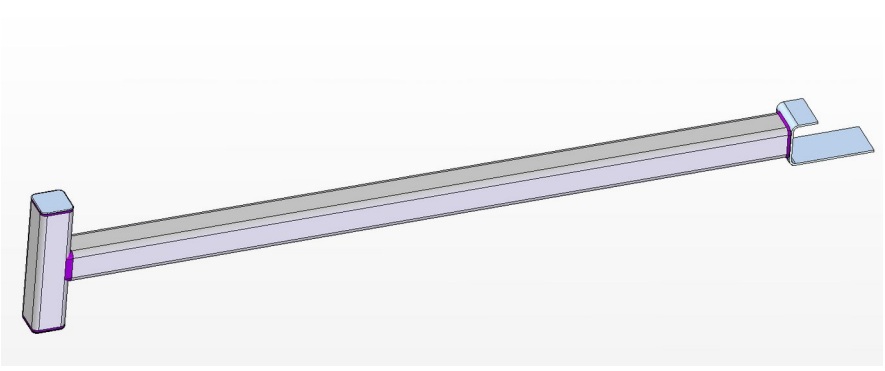

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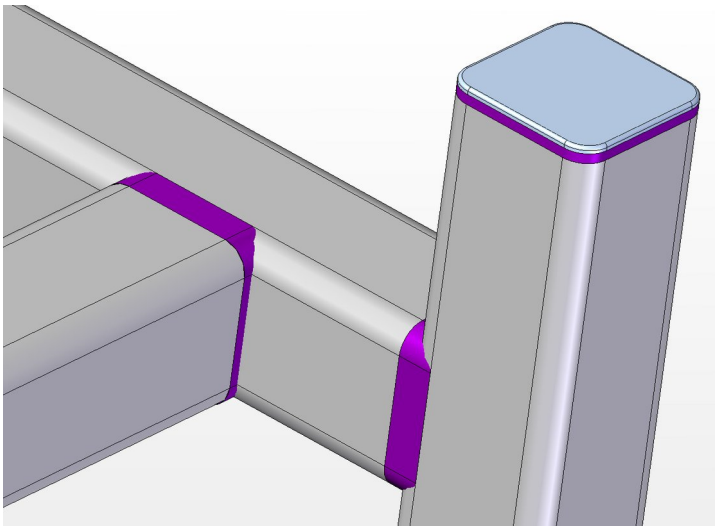

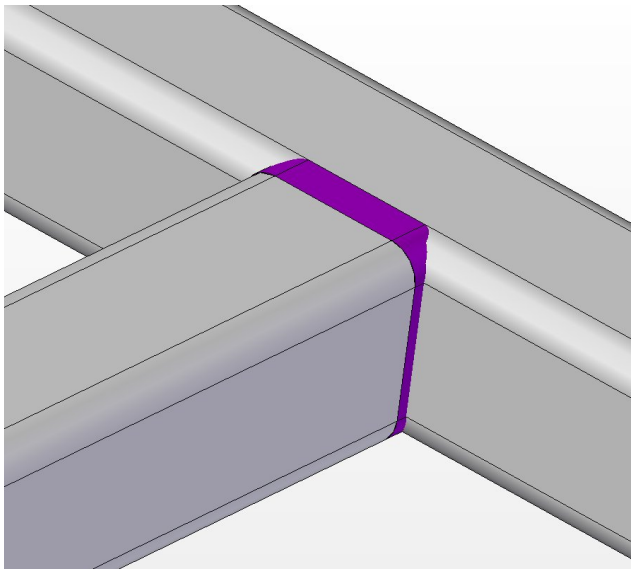

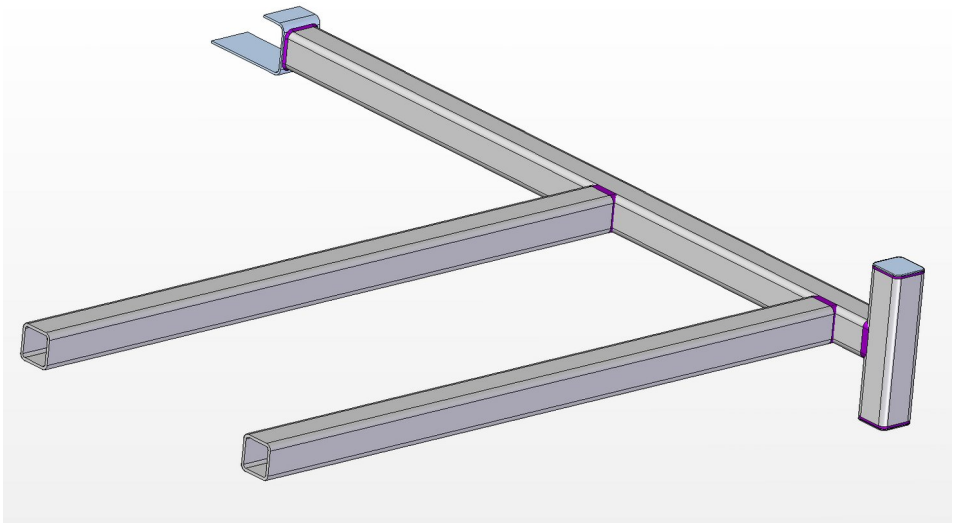

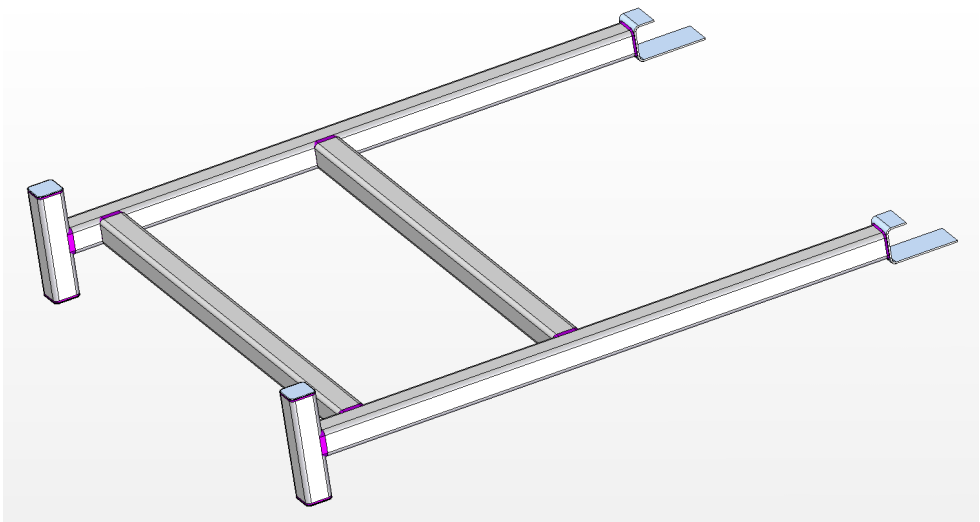

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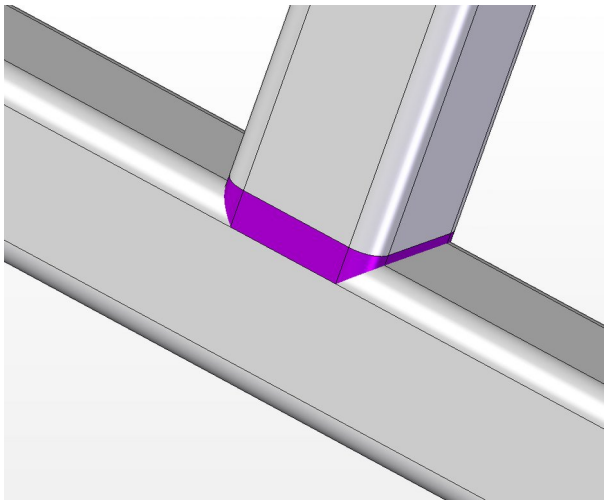

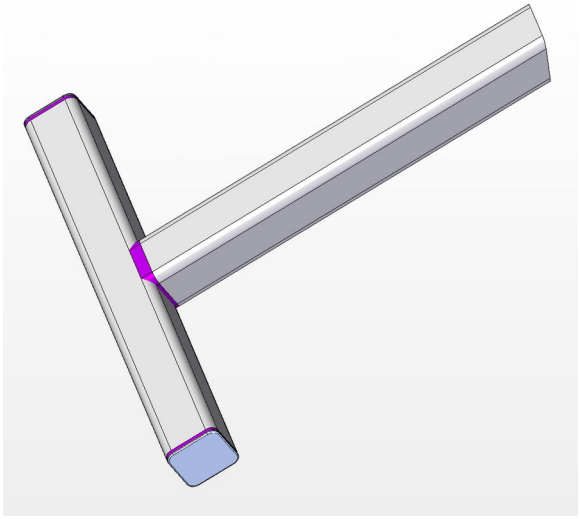

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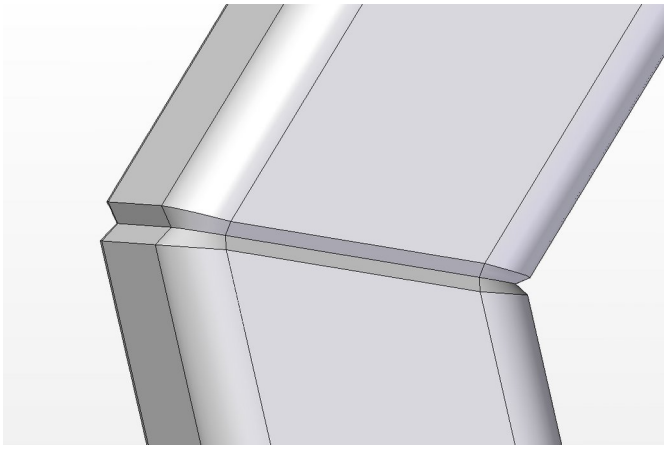

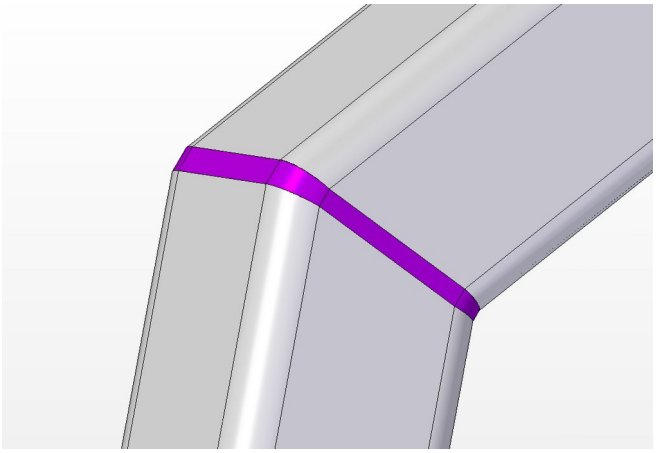

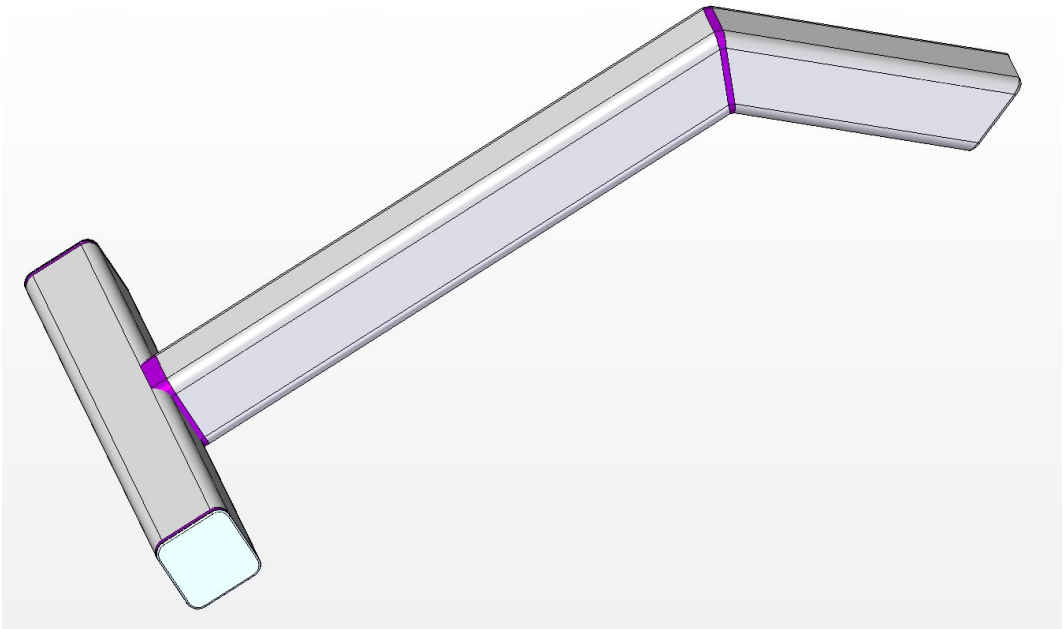

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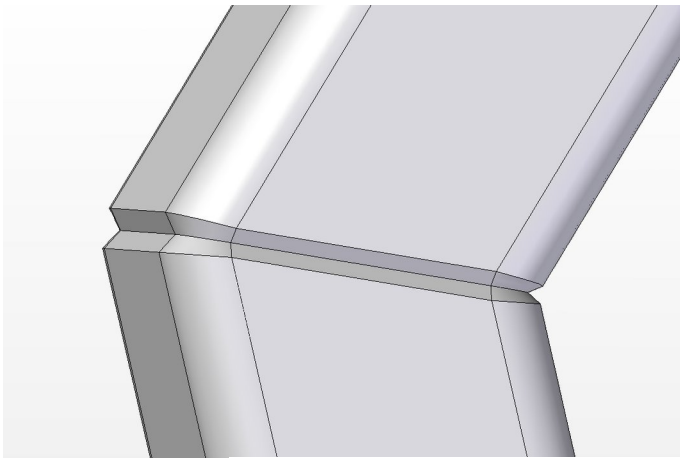

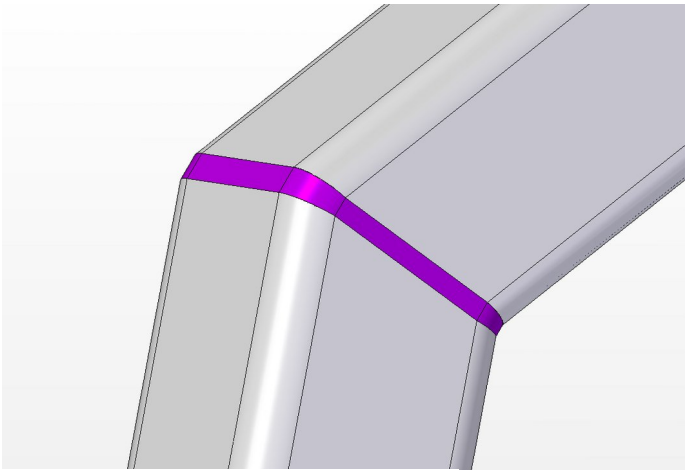

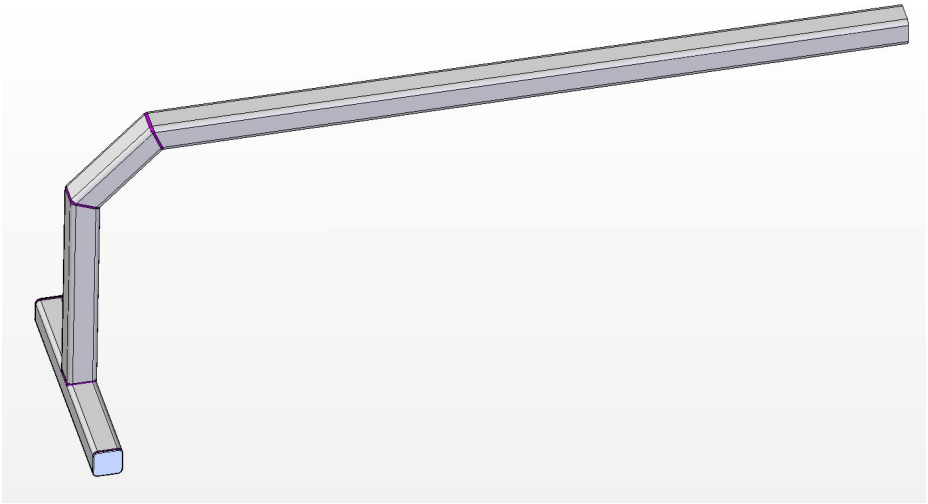

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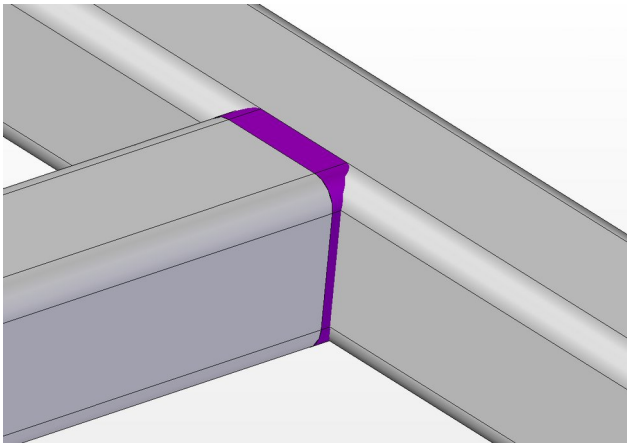

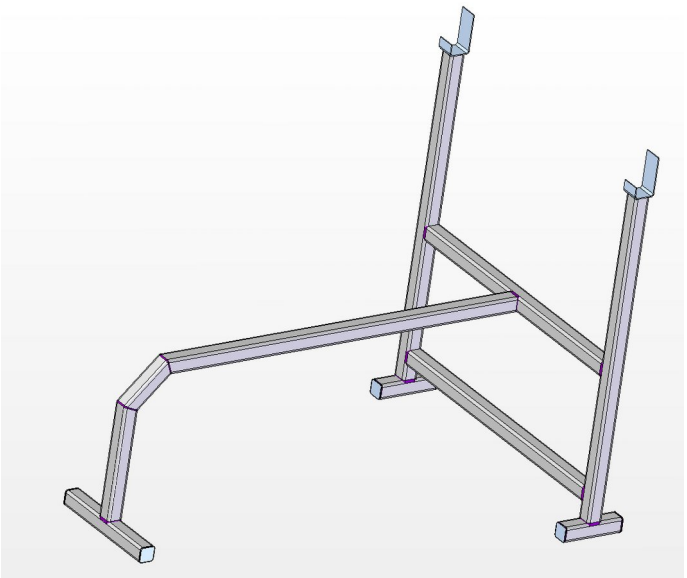

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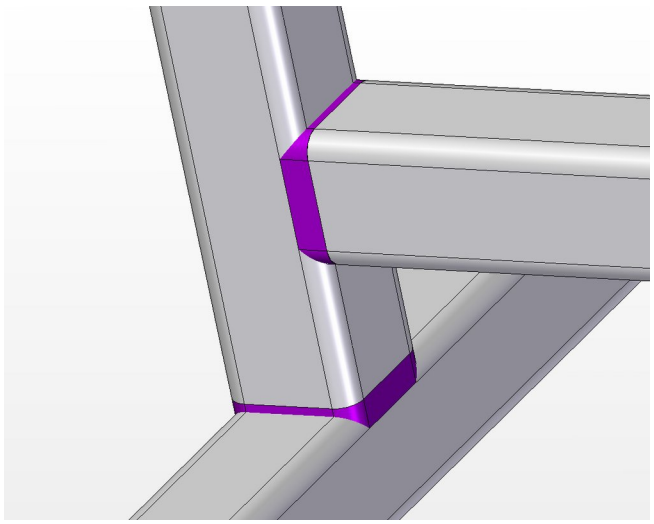

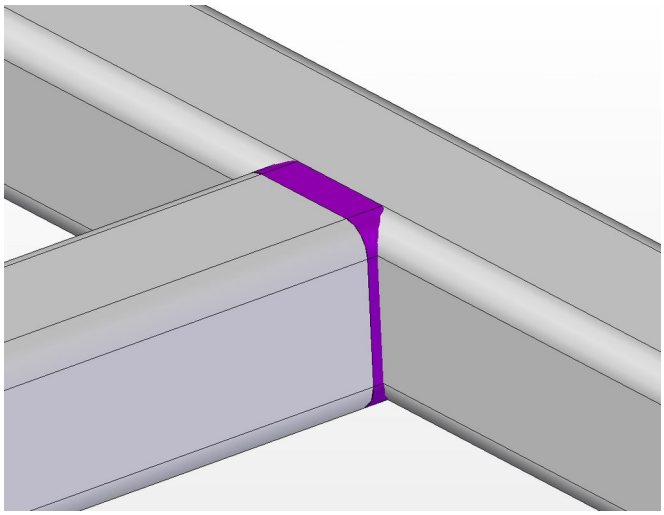

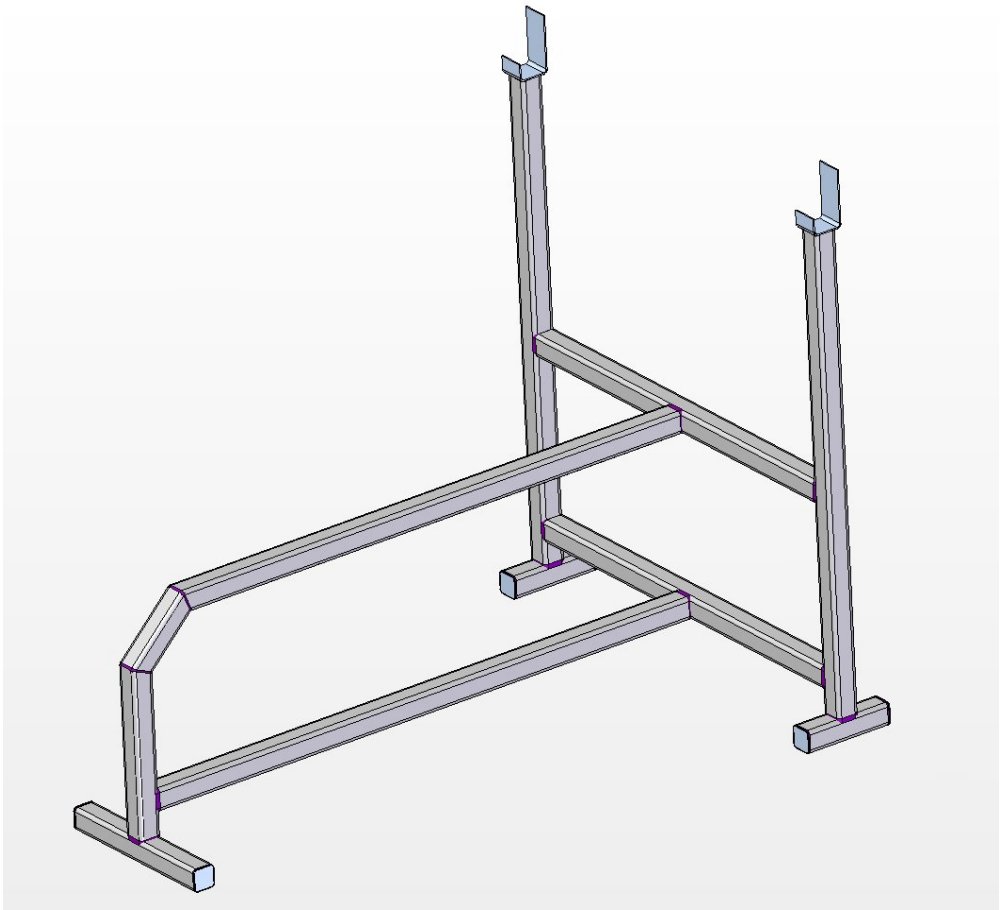

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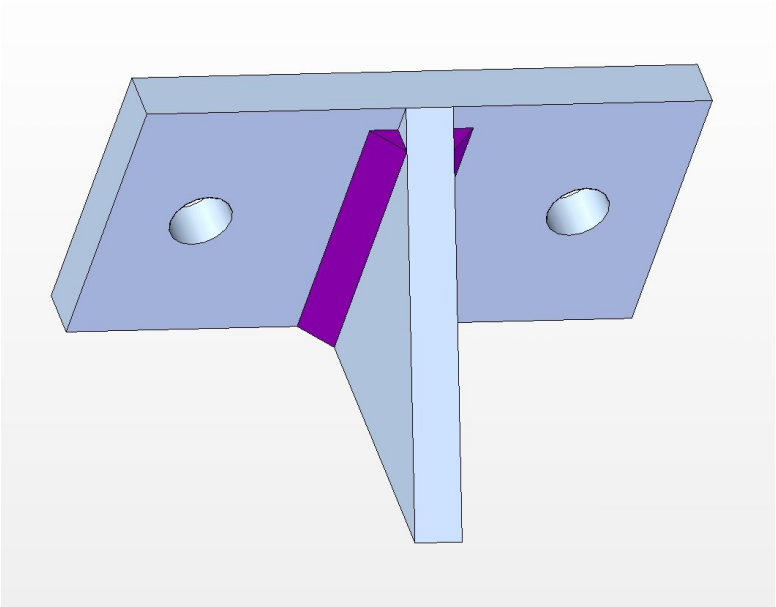

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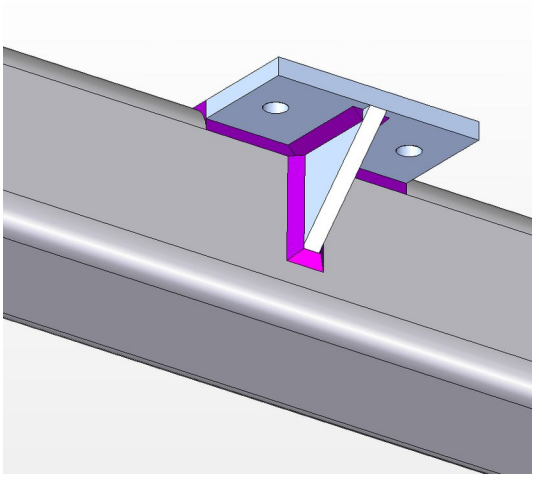

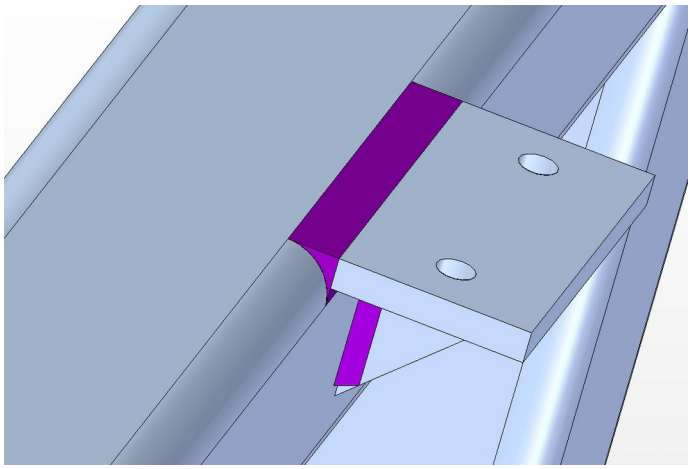

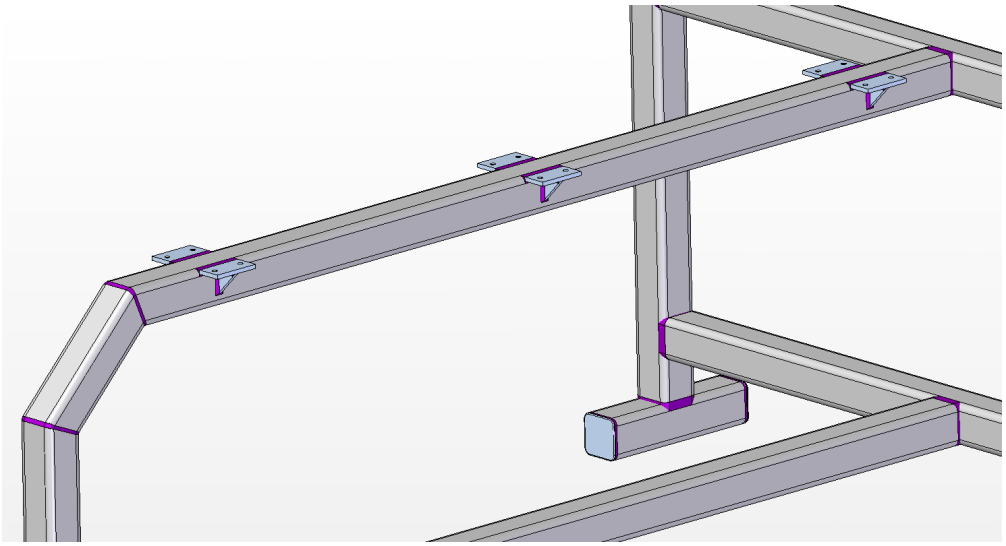

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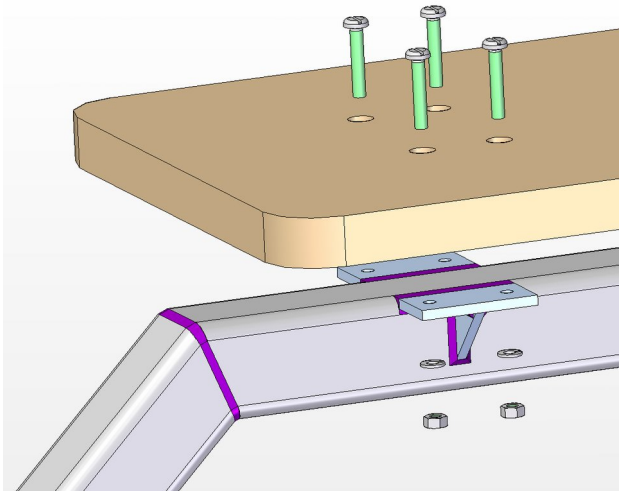
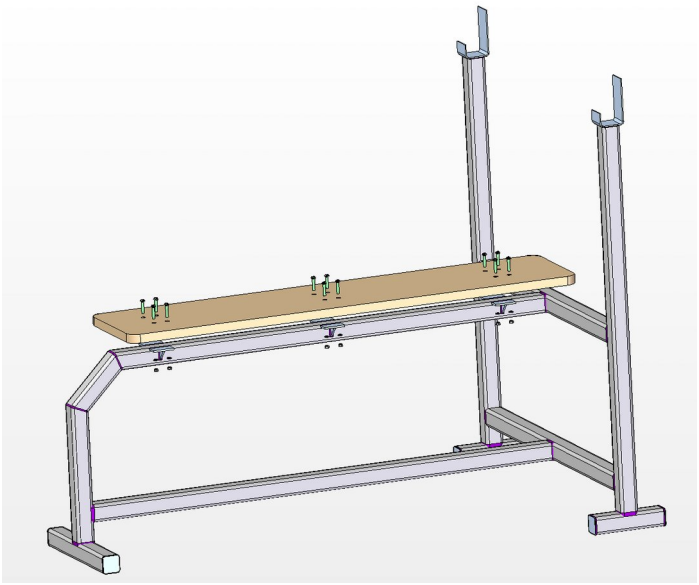
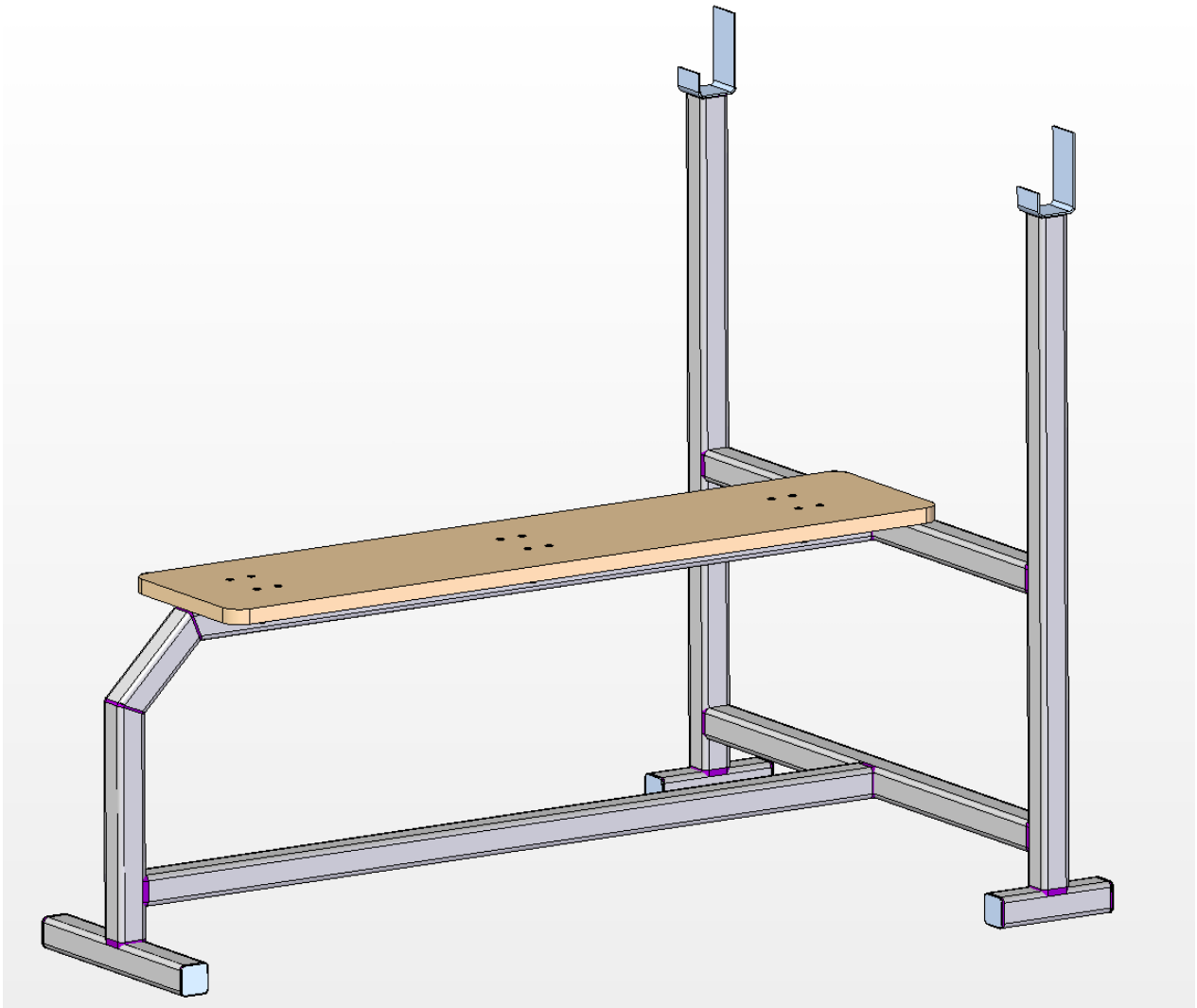
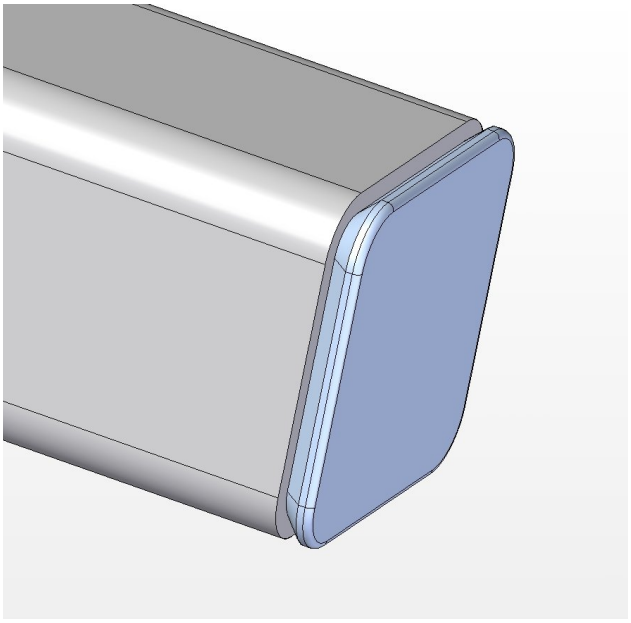


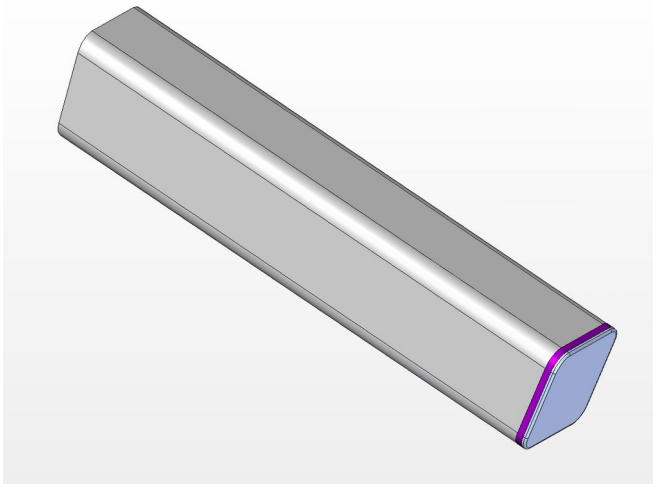




3. Plate storage sub-assembly

1.





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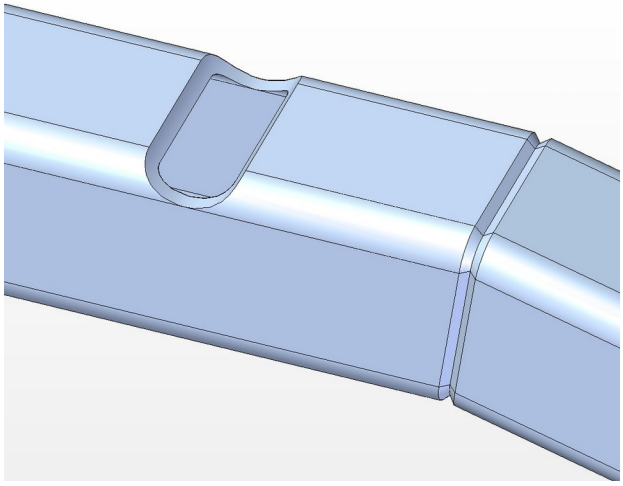

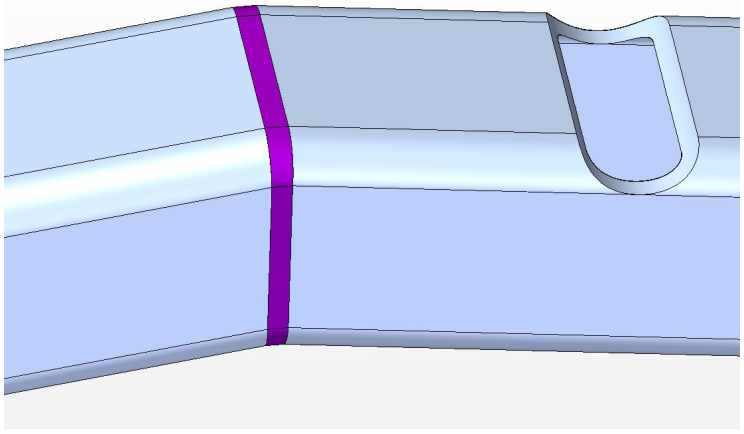

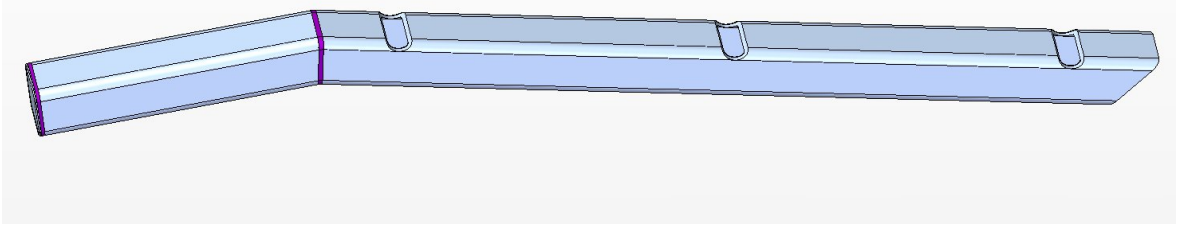

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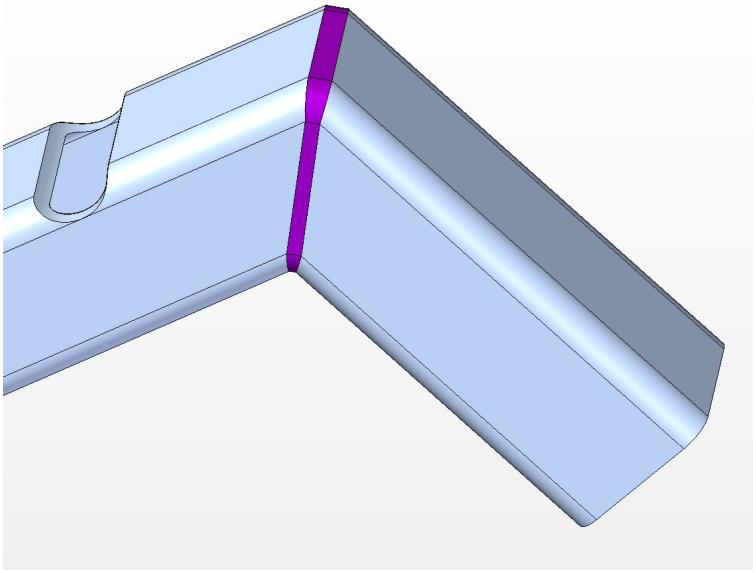

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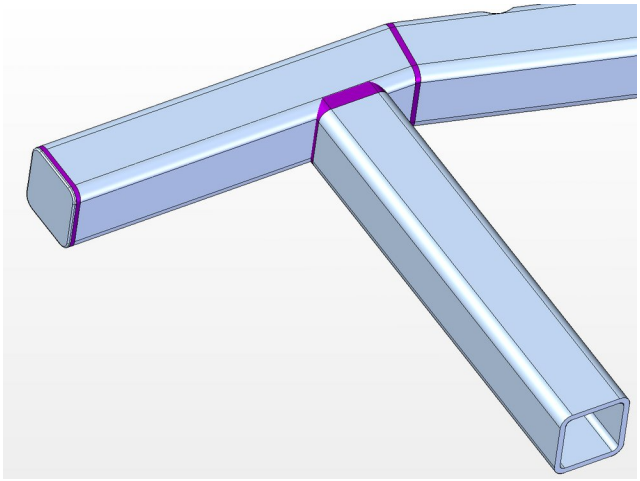

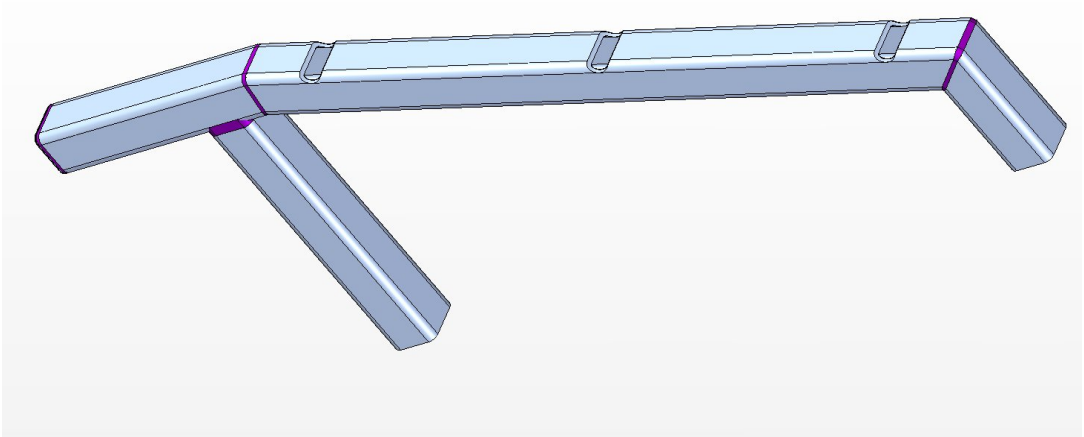

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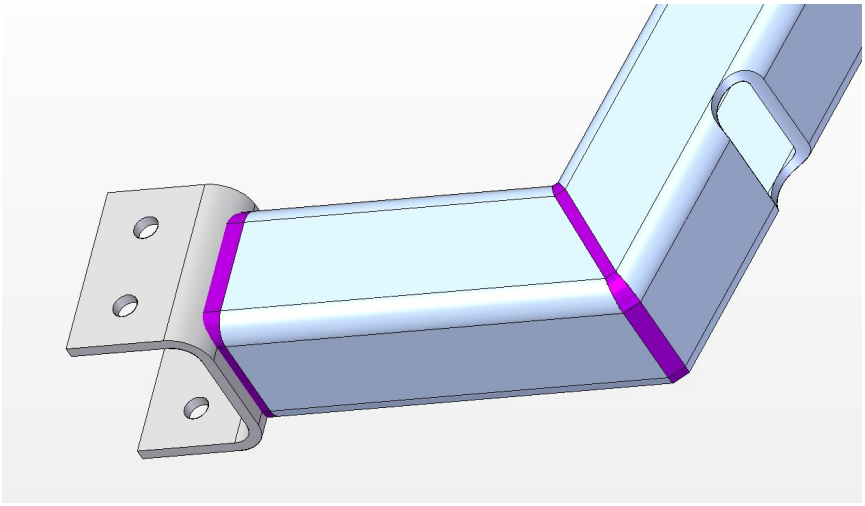

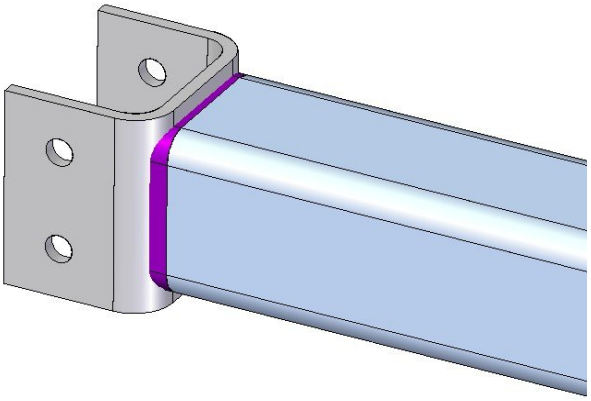

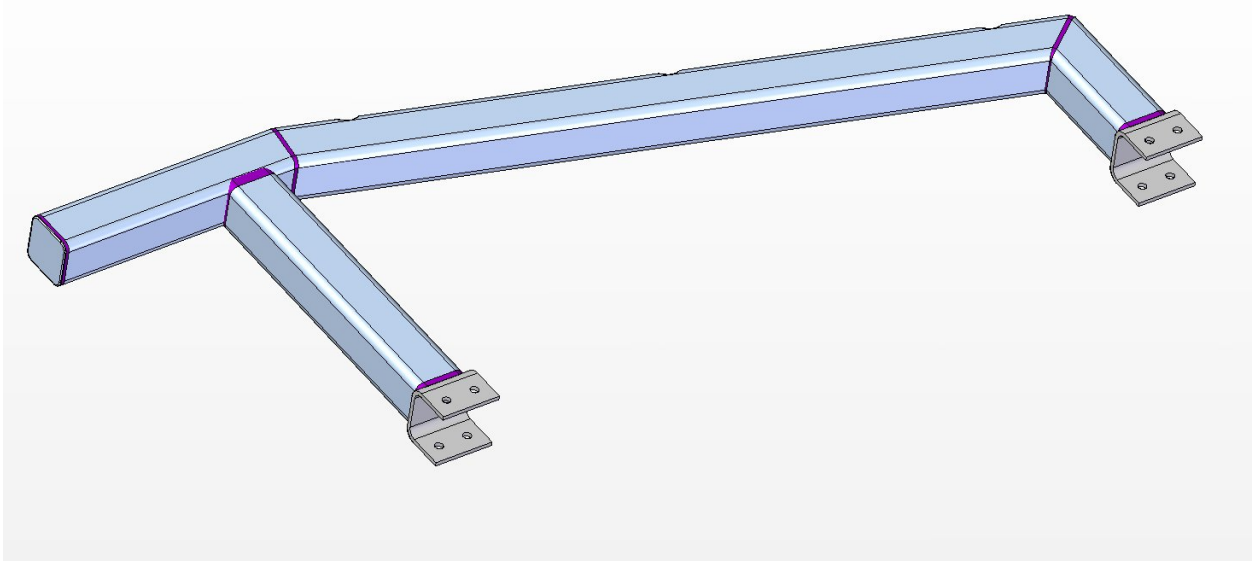

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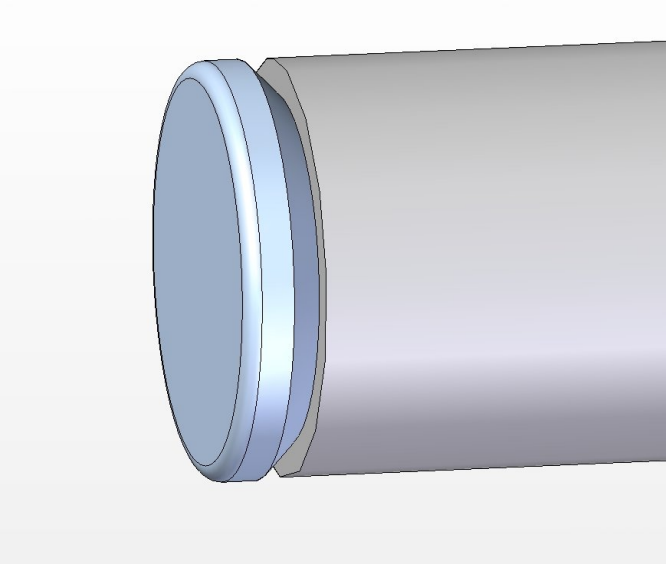

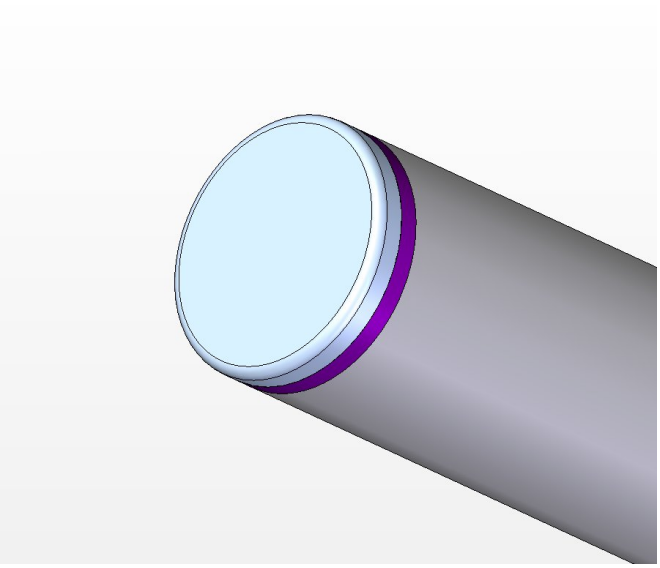

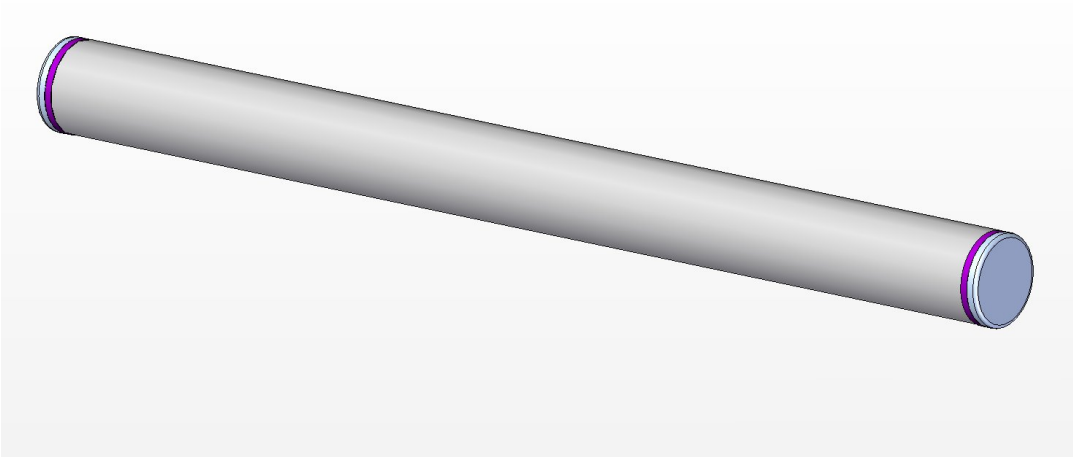

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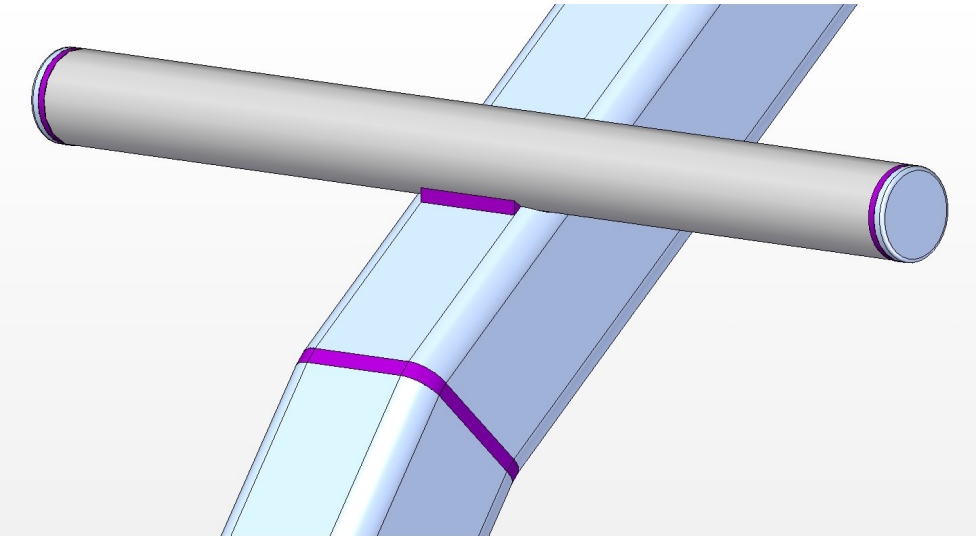

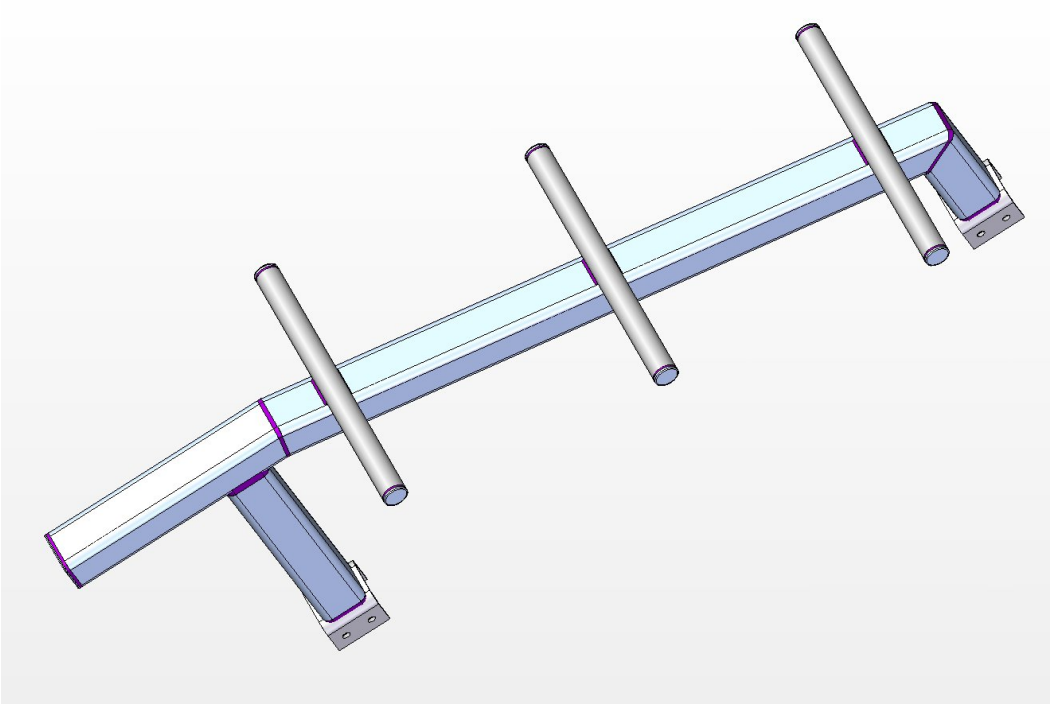

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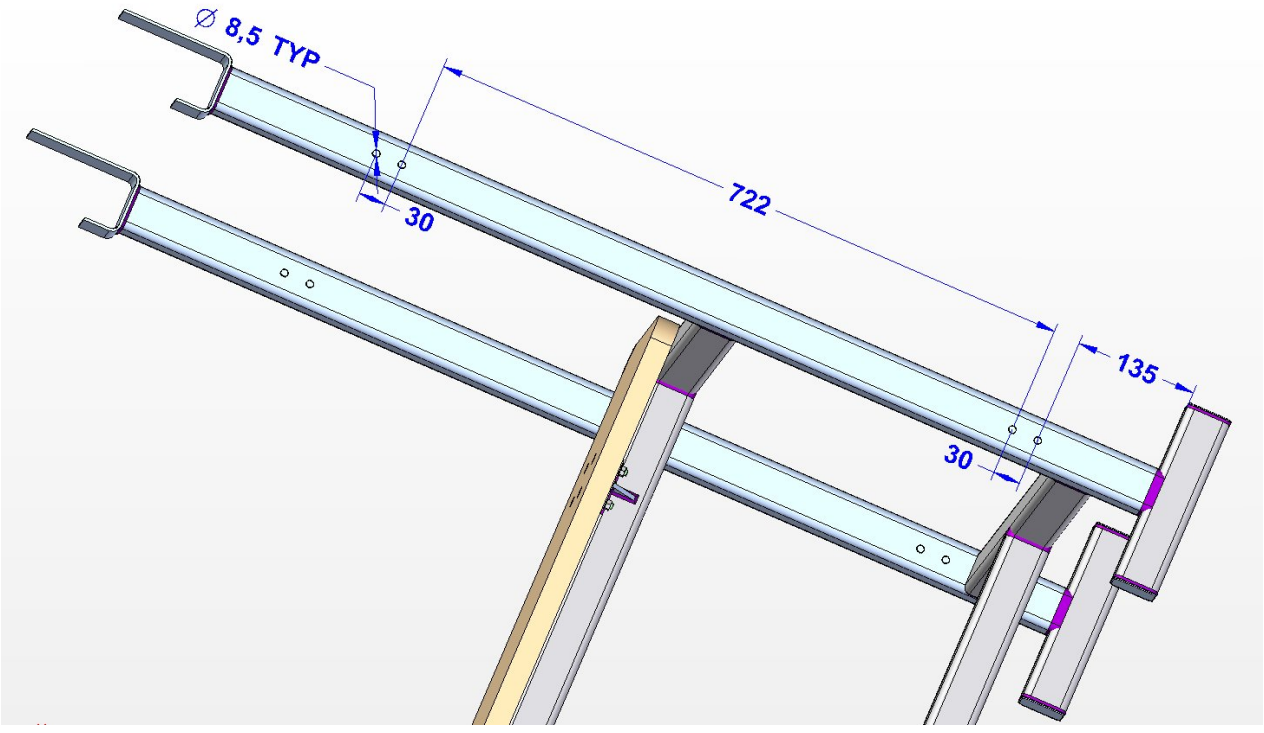

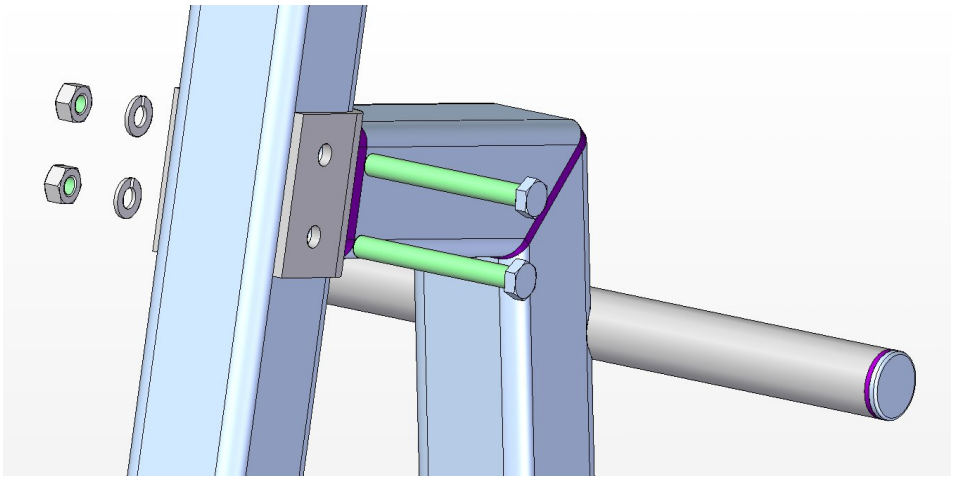

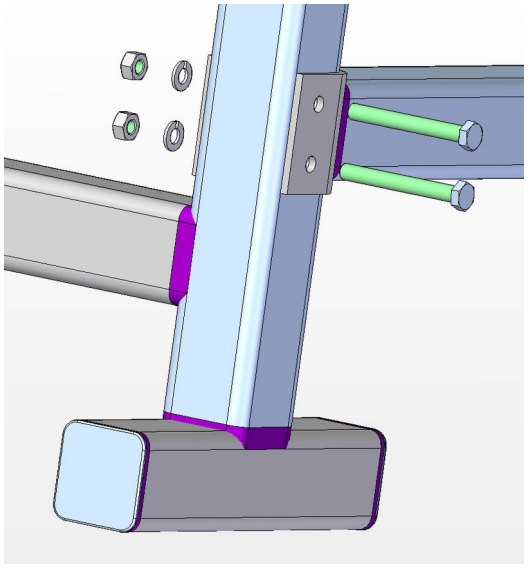

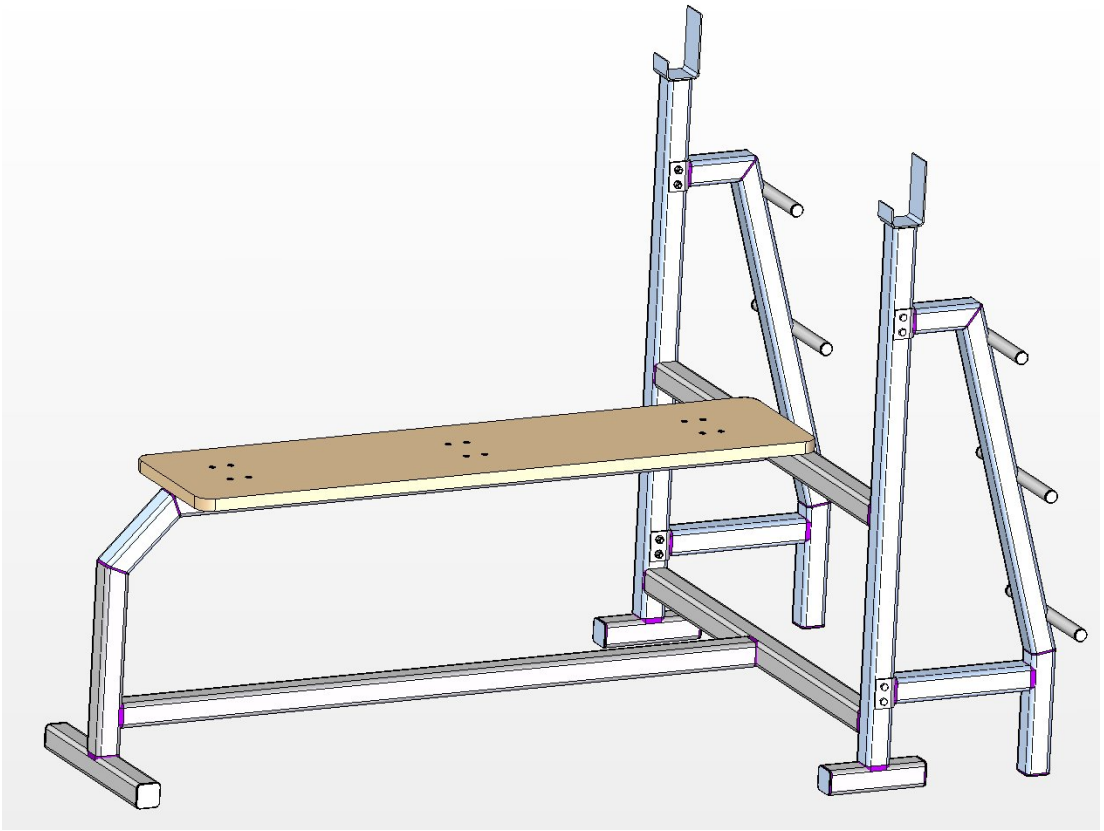

4 Leg developer sub-assembly

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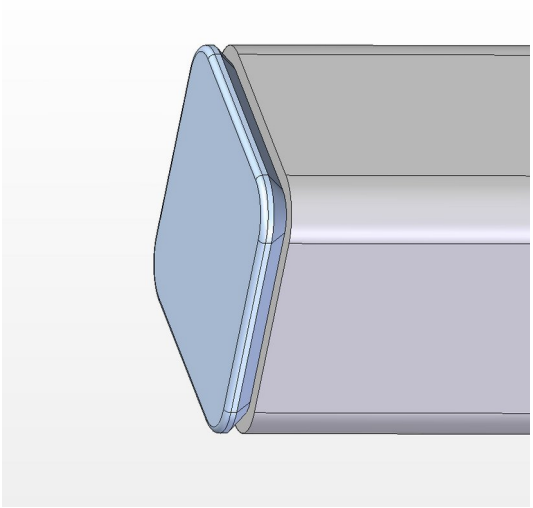

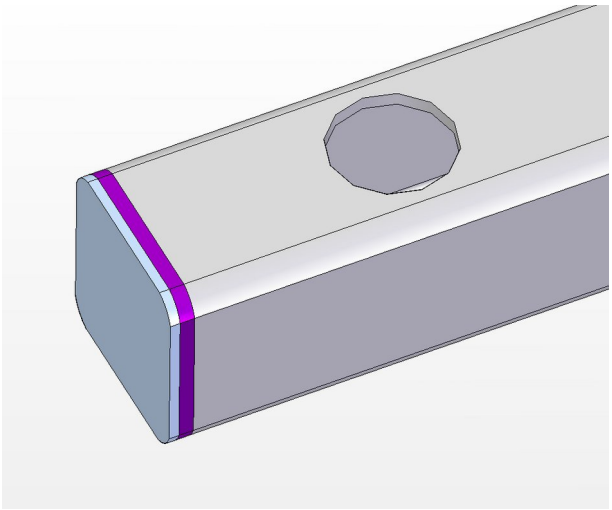

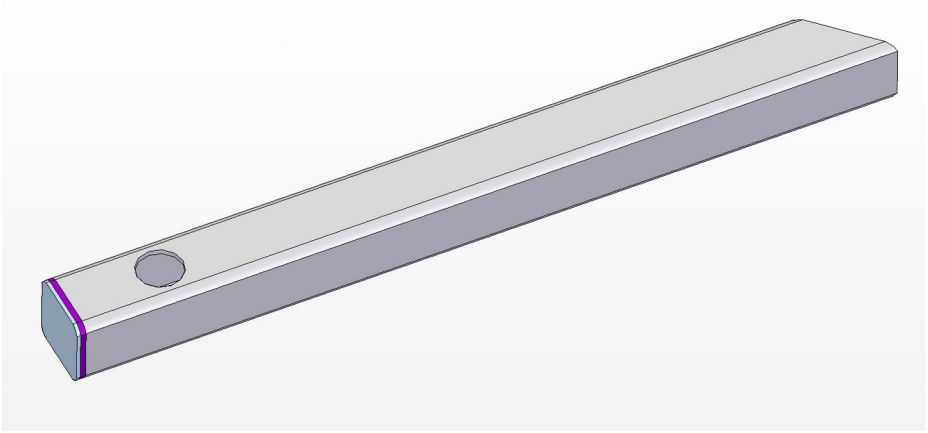

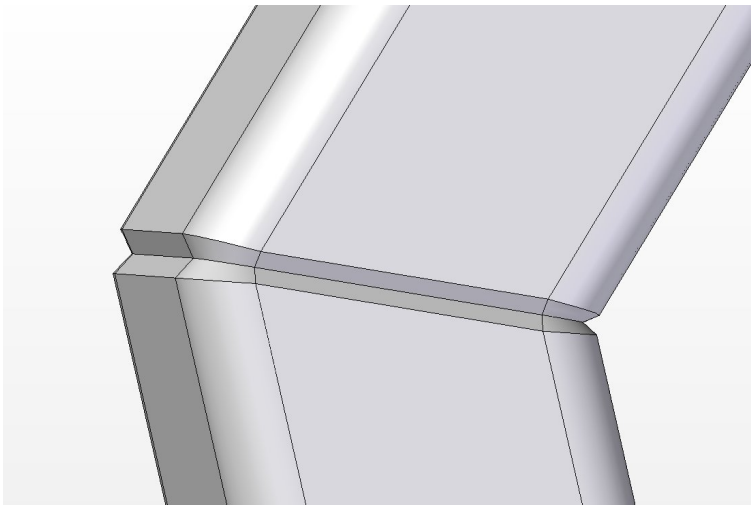

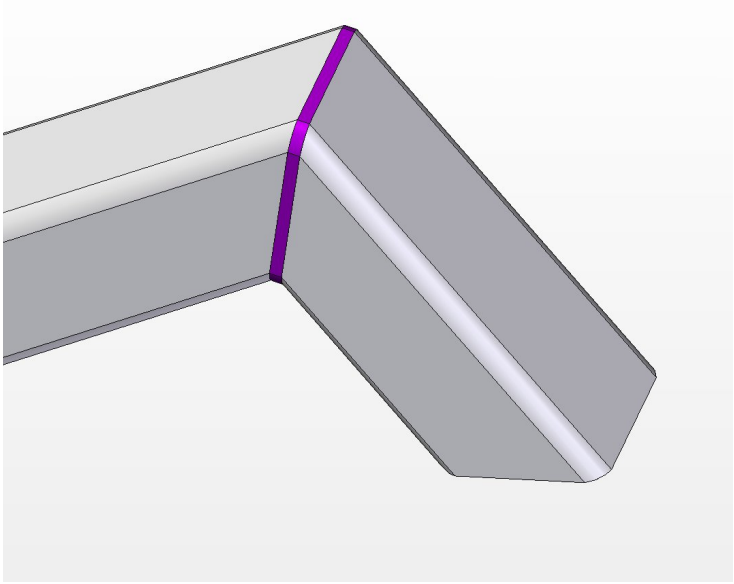

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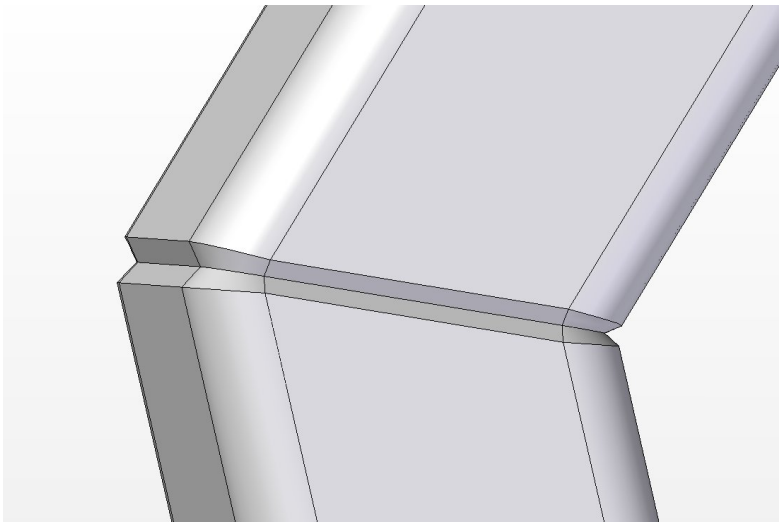

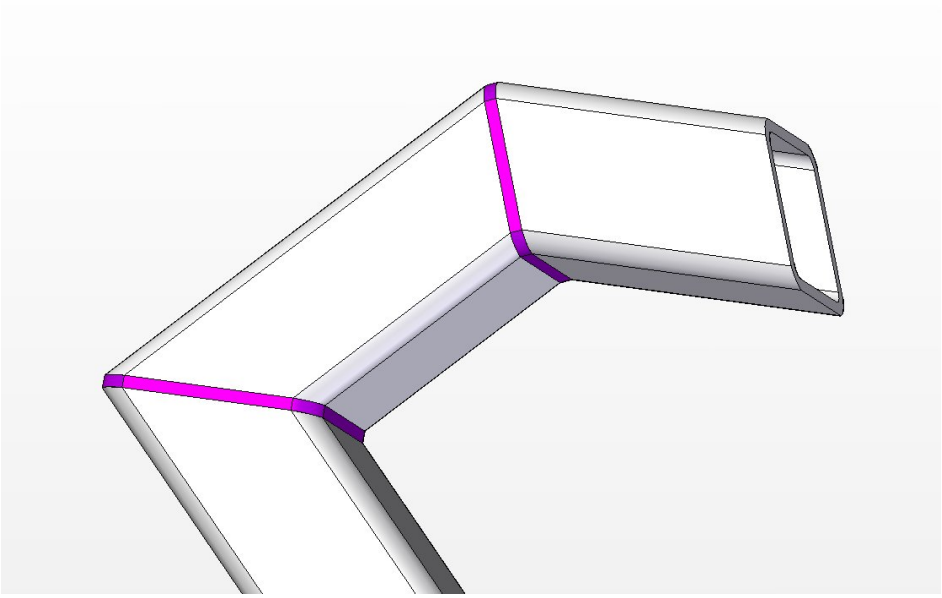

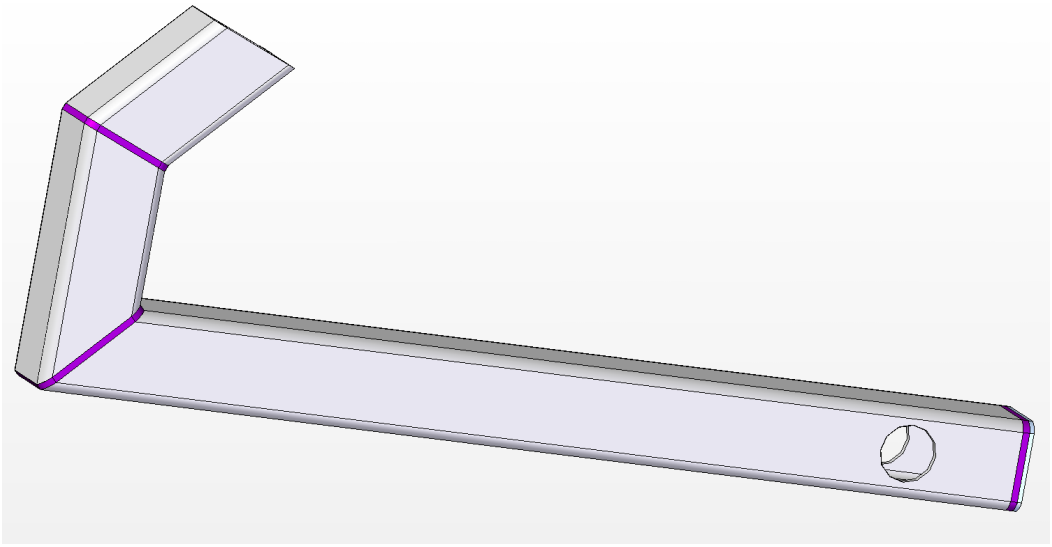

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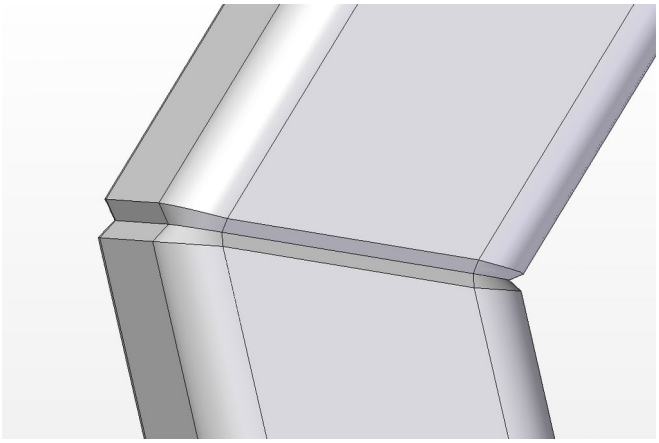

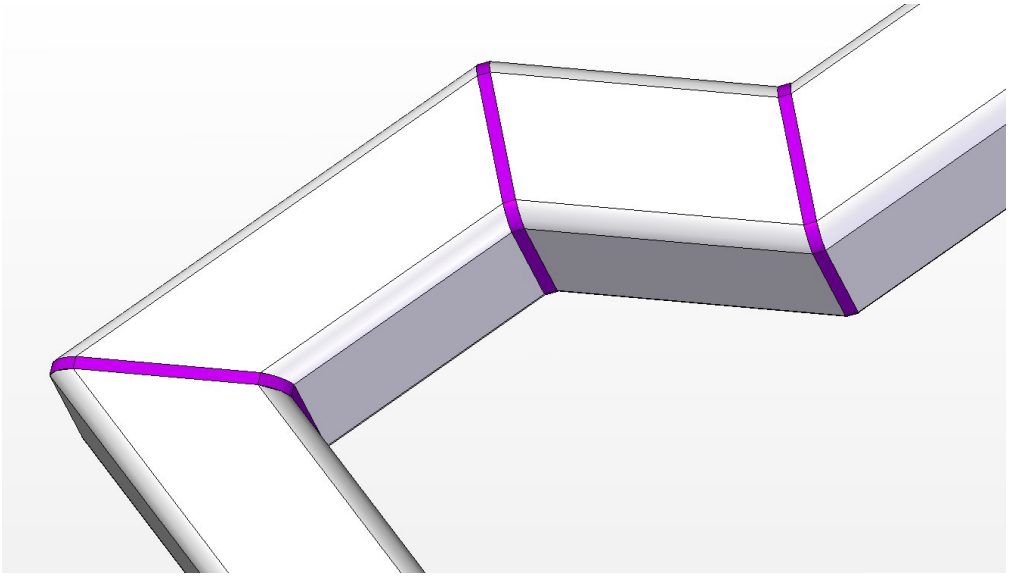

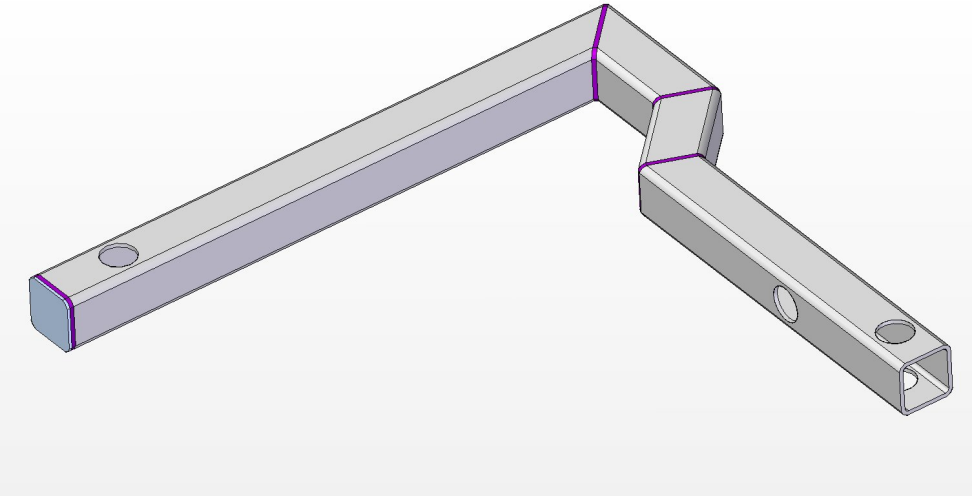

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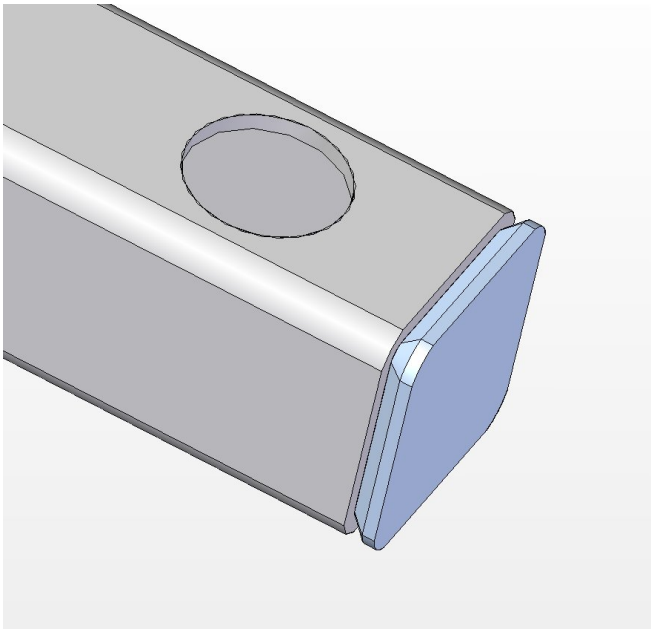

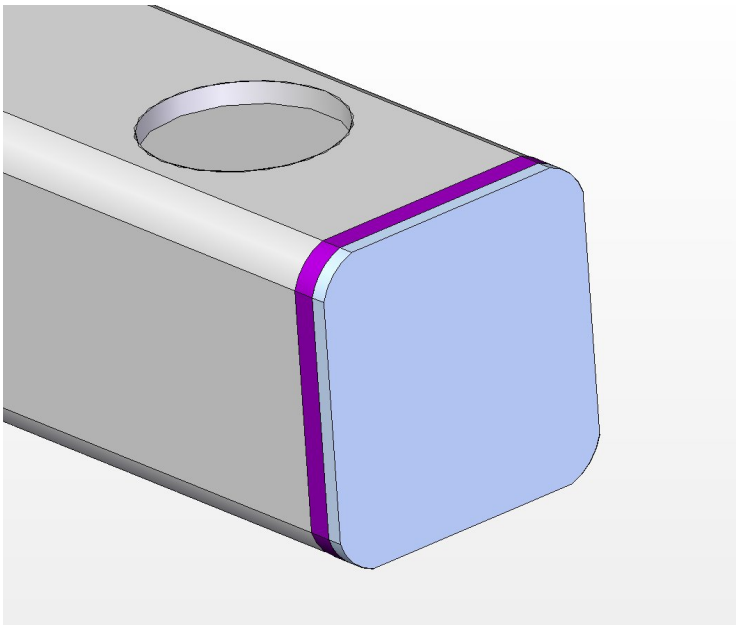

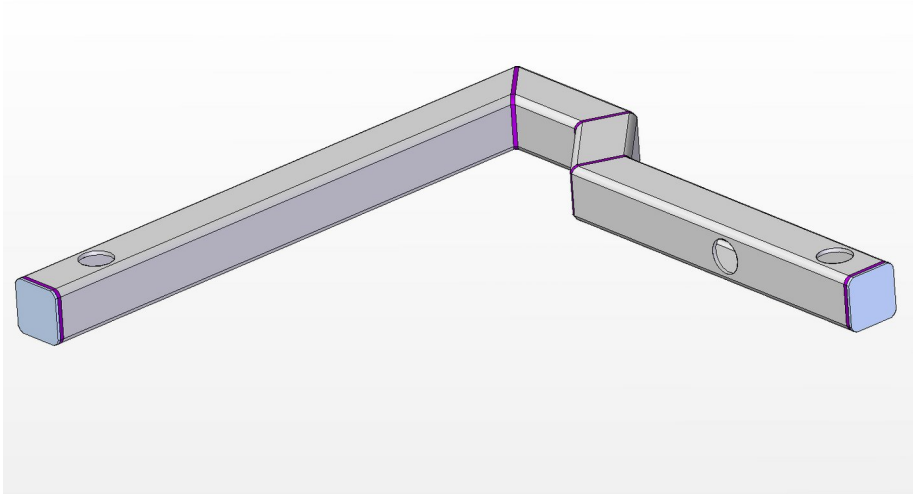

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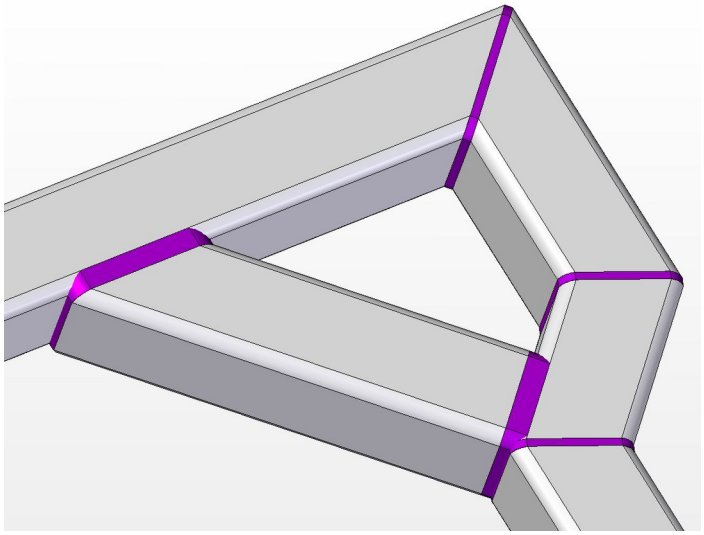

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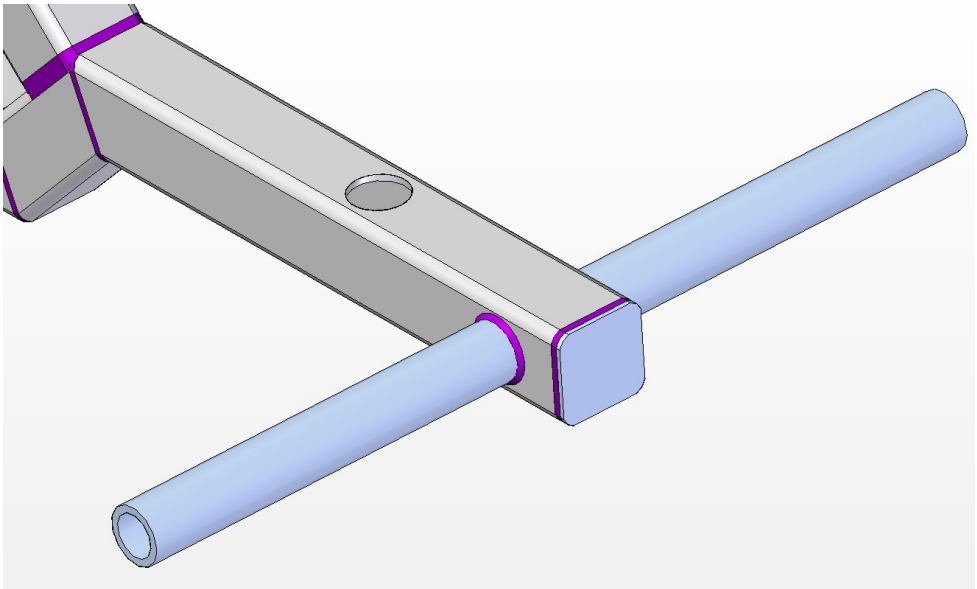

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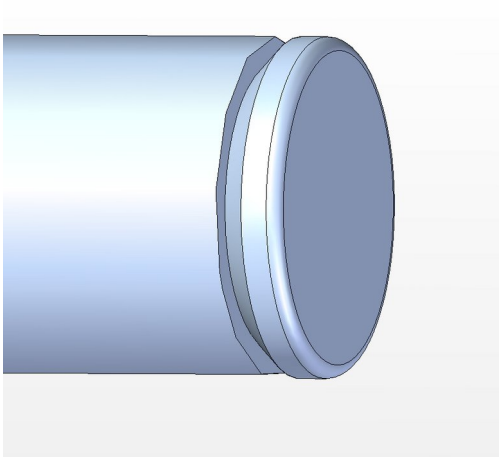

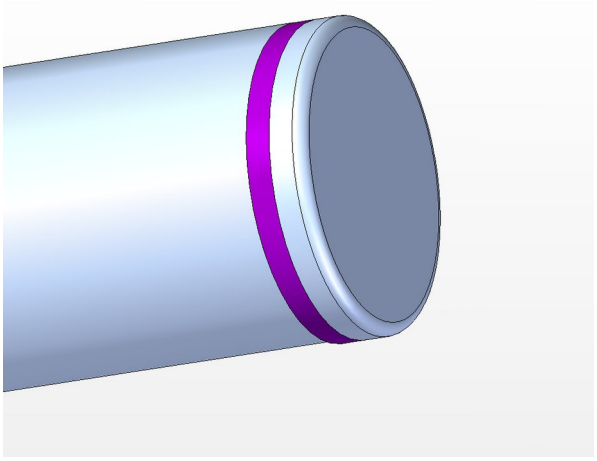

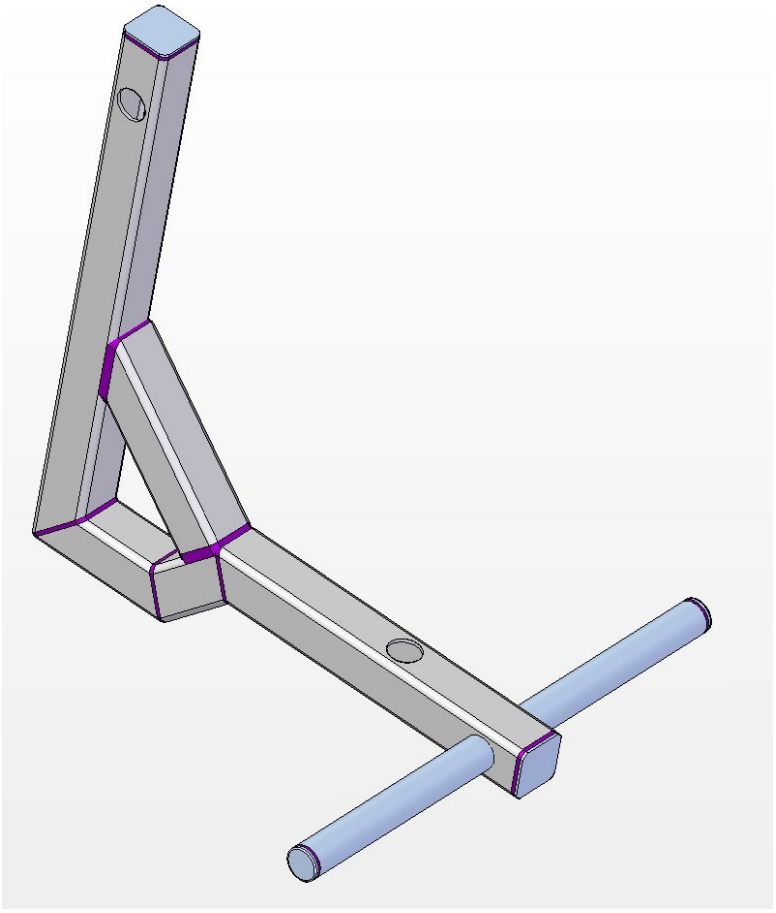

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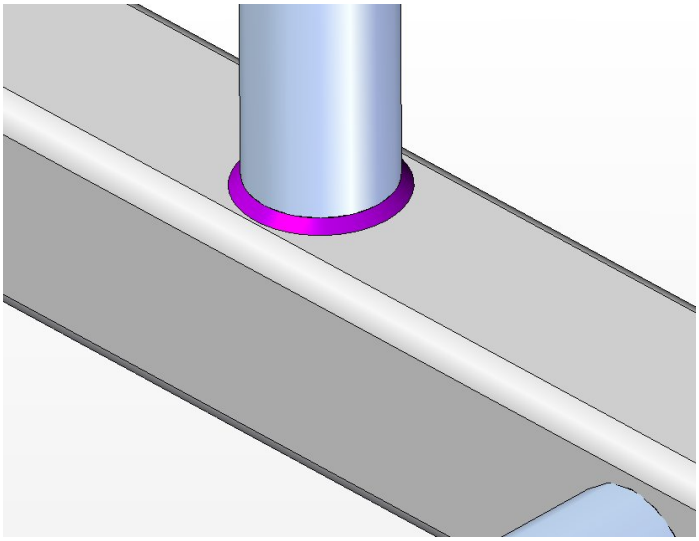

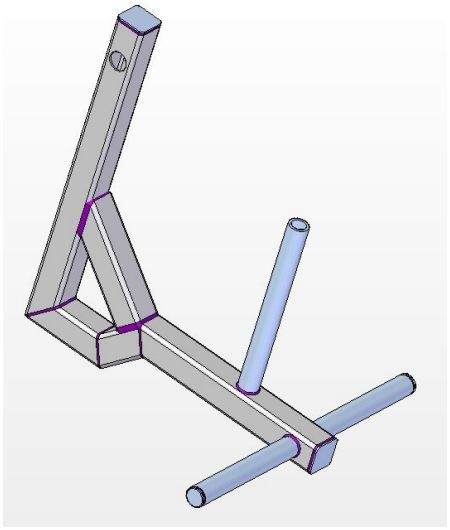

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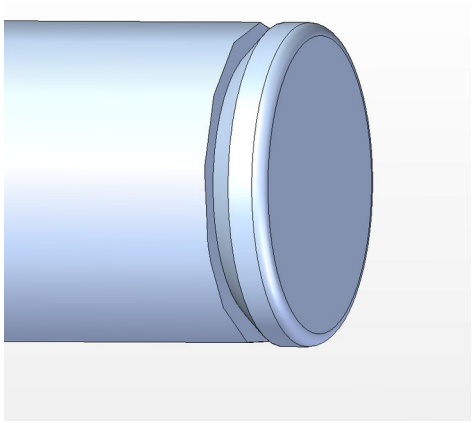

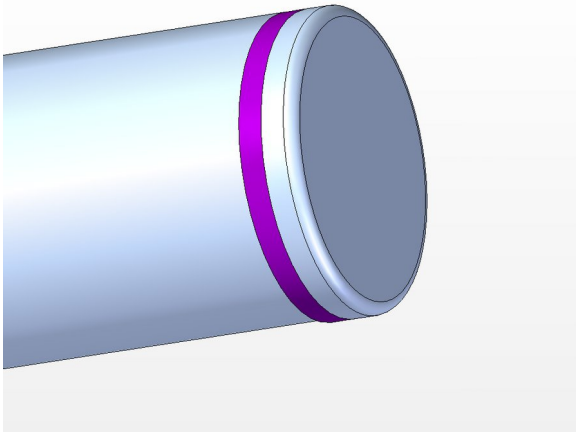

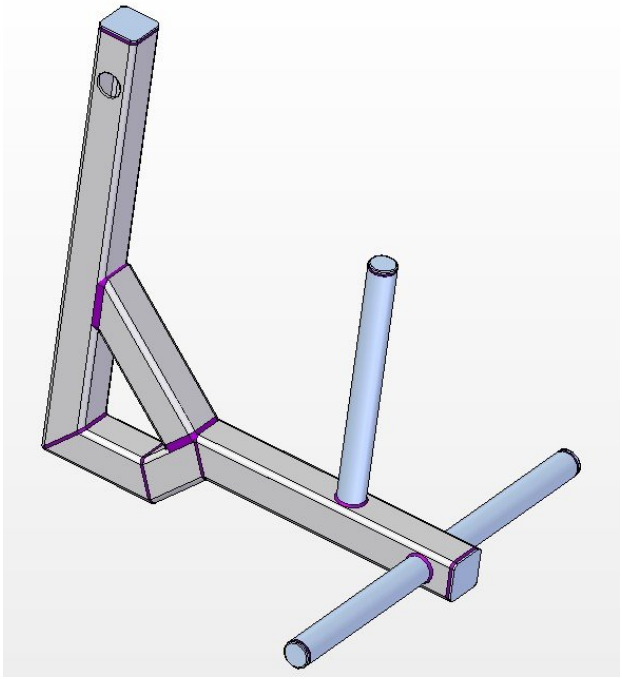

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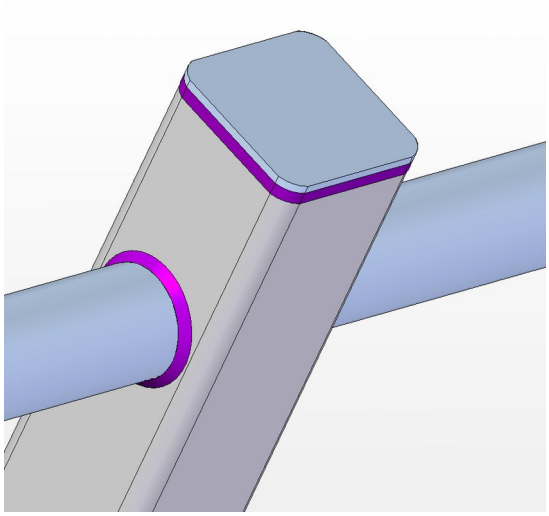

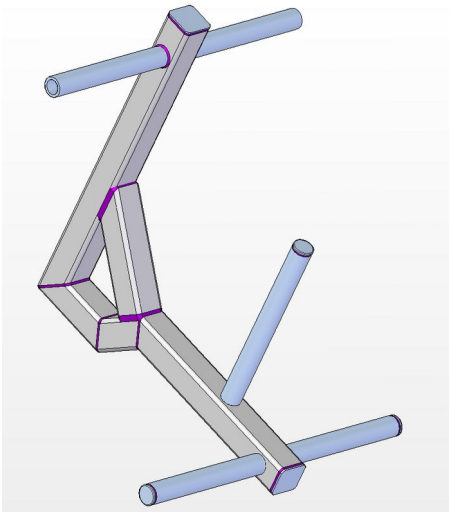

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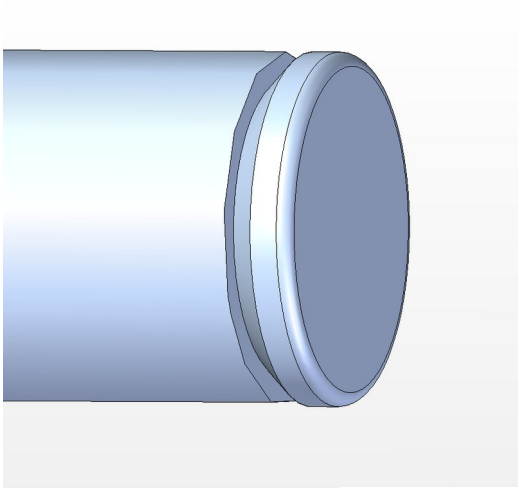

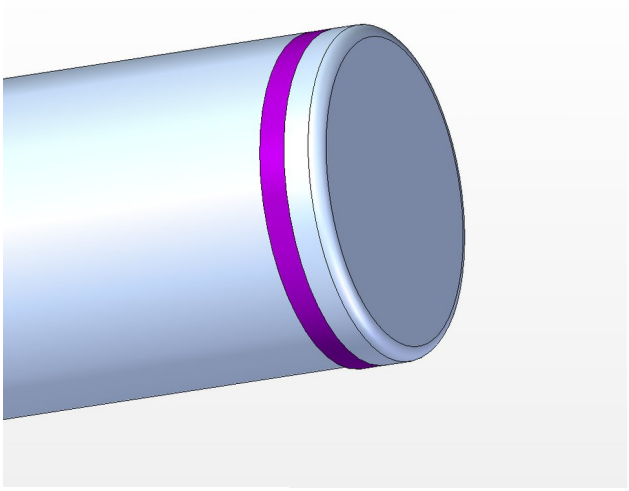

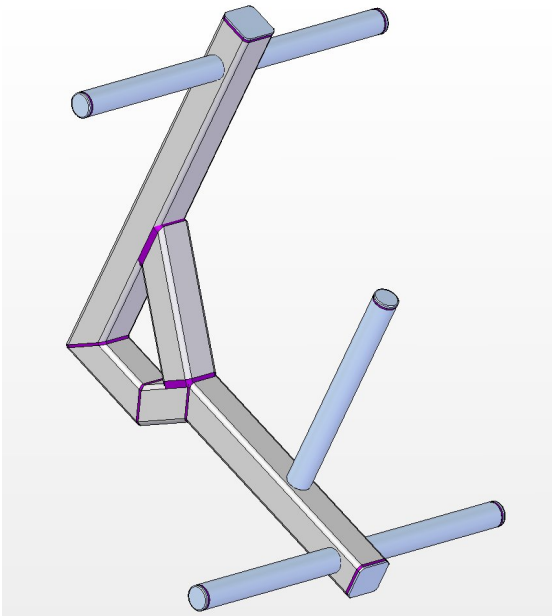

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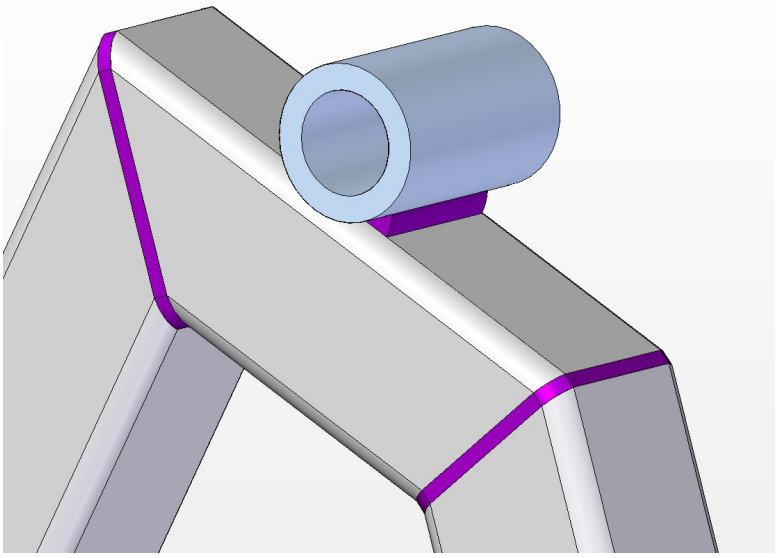

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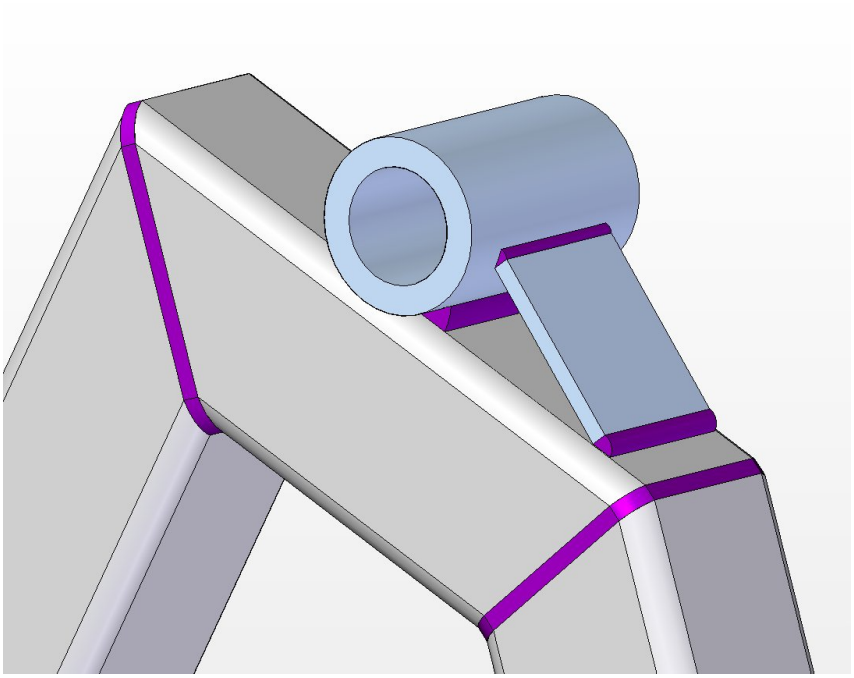

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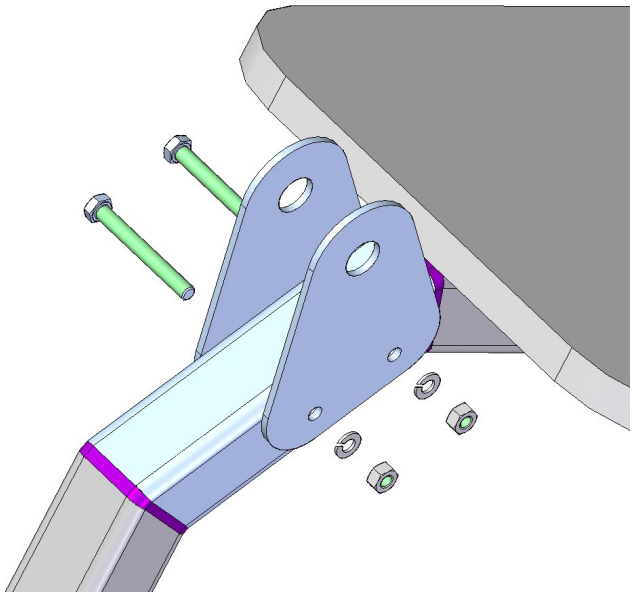

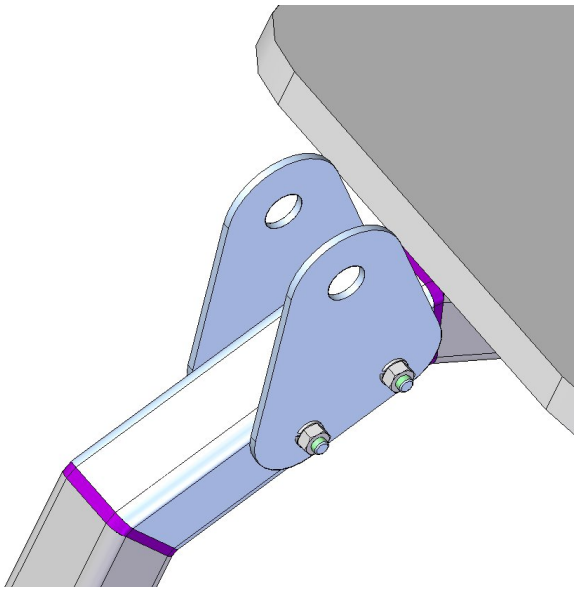
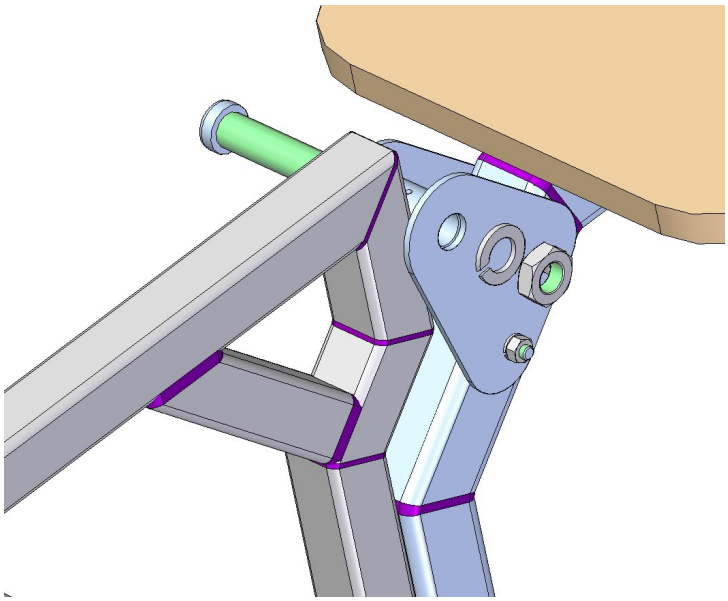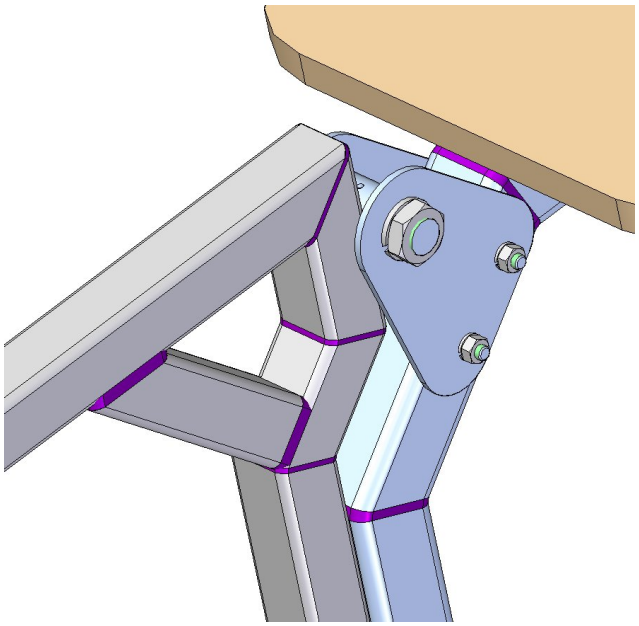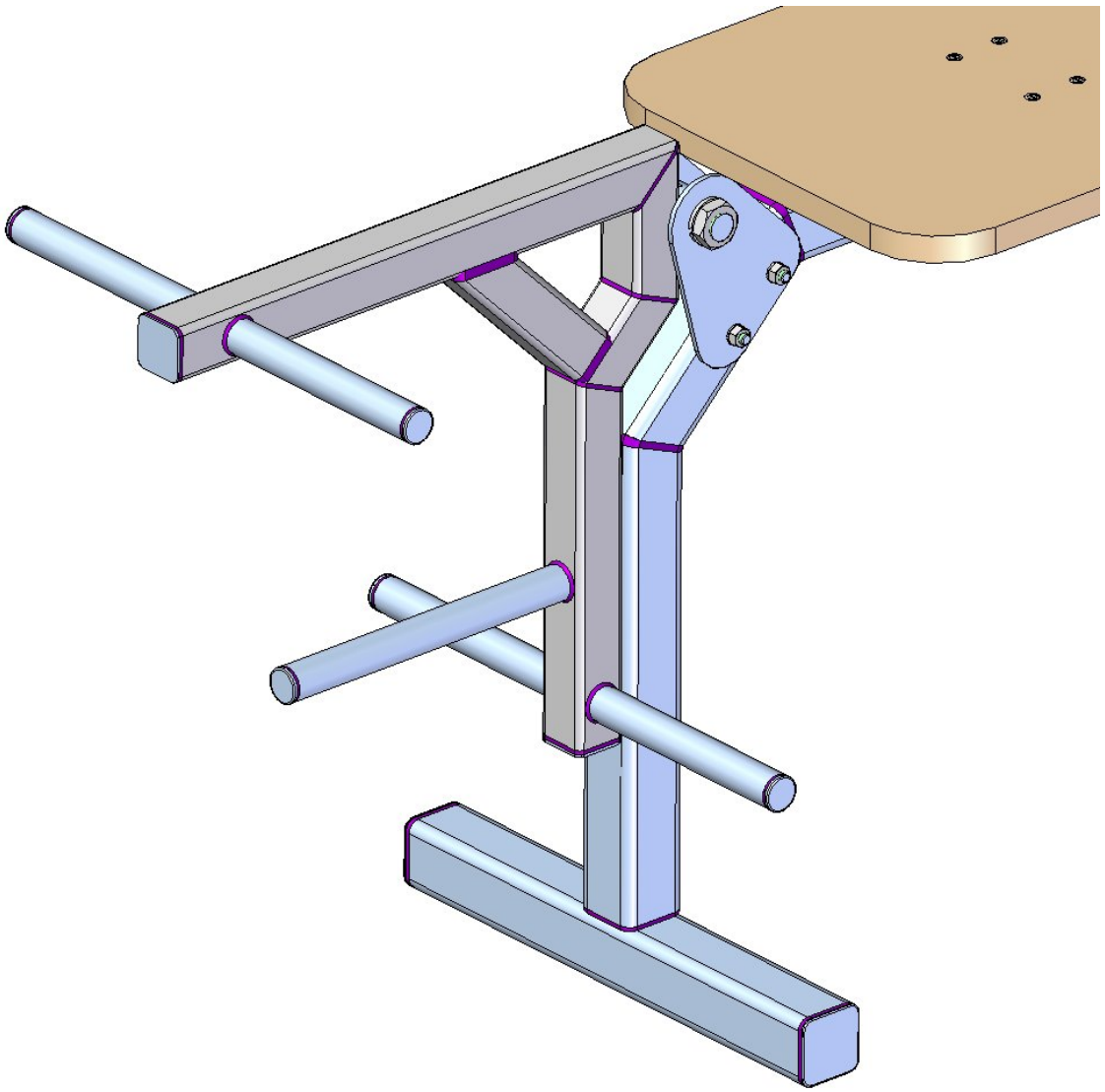
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