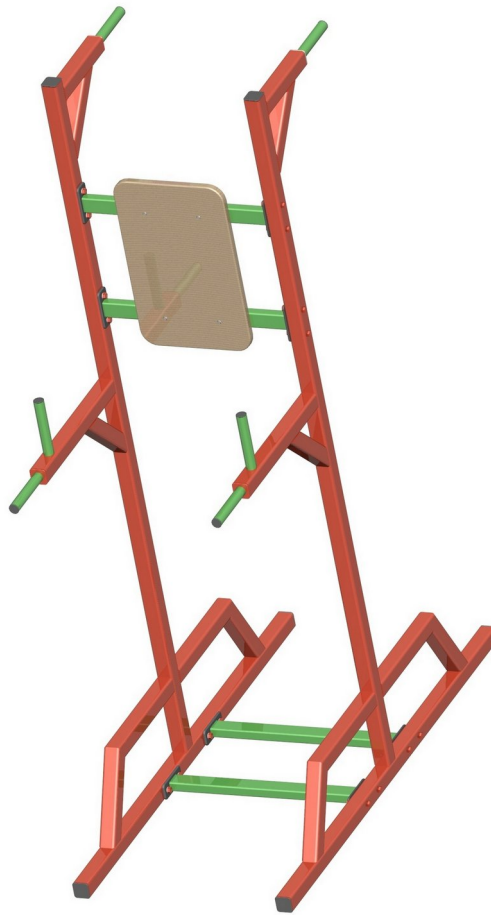


## Vertical knee raise chin dip station plan



Here you are offered a plan according to which you can make multifunctional piece of fitness equipment Vertical knee raise chin dip station. The vertical knee raise chin dip station is a self-standing piece of exercise equipment that you can use to practice at home or at a gym. This exercise machine does not require much space in the room and is always ready to serve you for exercising in privacy. We recommend that you fix it to the floor in some way.

It consists of chin up bars (also called chinning bars or pull up bars), knee raise parallel bars and dip bars, so that a number of exercises for the development of all the upper body muscles can be performed on one device. At the bottom of the device there is a footrest which is helpful for the start position. The vertical knee raise chin dip machine requires no extra weights or attachments - all you need is your own body because all exercises on this device are done in a vertical position so you get the resistance of body weight and gravity. Although it is not foreseen in our plan, you can additionally pad the arm rest and back support in order to improve the convenience of this device. Padded Arm rests and back support avoid strain on the lower back.

On the vertical knee raise chin dip station you can do exercises such as: the knee raise, hanging knee raise, chin ups (pull ups), dips and the like. The muscles developed on this device are: Chin ups (strengthens the back, lats, shoulders and biceps), dip bars (develop the chest and the triceps), knee raise (develop the iliopsoas muscles, abs and oblique).

#### Workout Tips

Prior to the vertical knee raise chin dip station workout, an easy warm-up and 10-15-minute stretching are recommended.

#### Knee raise workout:

- Step on the foot rests
- Put your arms on the arm rests, press the back against the back rest and let the legs hang.
- Work out leg raises, leg twists, and crunches.

You can also do the hanging knee raise on the chin up bars. To make it more comfortable, you can install a backrest on the other side of the device as well.

#### Hanging knee raise workout:

- hold onto a chin up bars with your arms and legs extended
- contract your abdominal muscles and lift your knees as high as possible
- Slowly lower your legs to return to the starting position

If you want to make the exercises harder, hold the dumbbell between the ankles.

#### How to chin ups (Pull ups):

- Grip a chin up bar (pull up bar) with your arms and legs extended
- Pull your body weight up until your chin is just barely above the bar.
- Lower yourself until your arms are straight
- Do another chin up

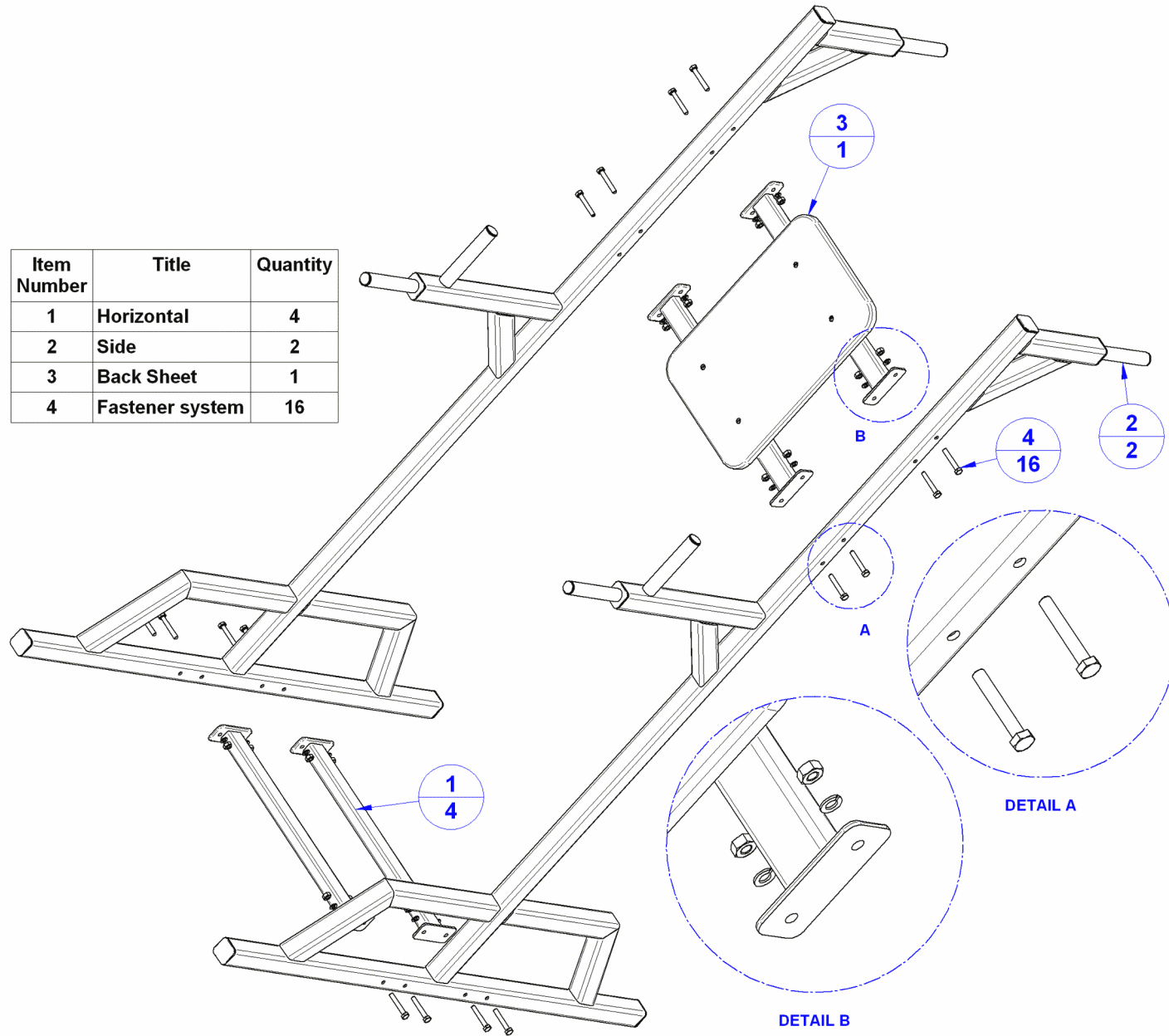
#### Dip bars workout:

- Put your hands on the dip bars and hold your arms straight
- lower your body as far as possible
- Then press the body up to the start position.

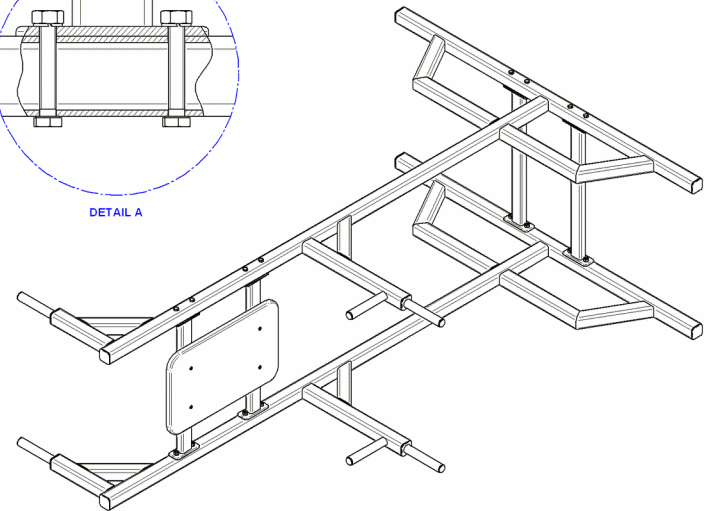
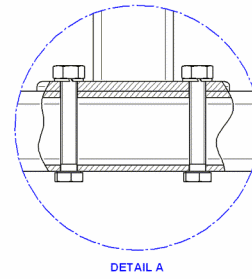
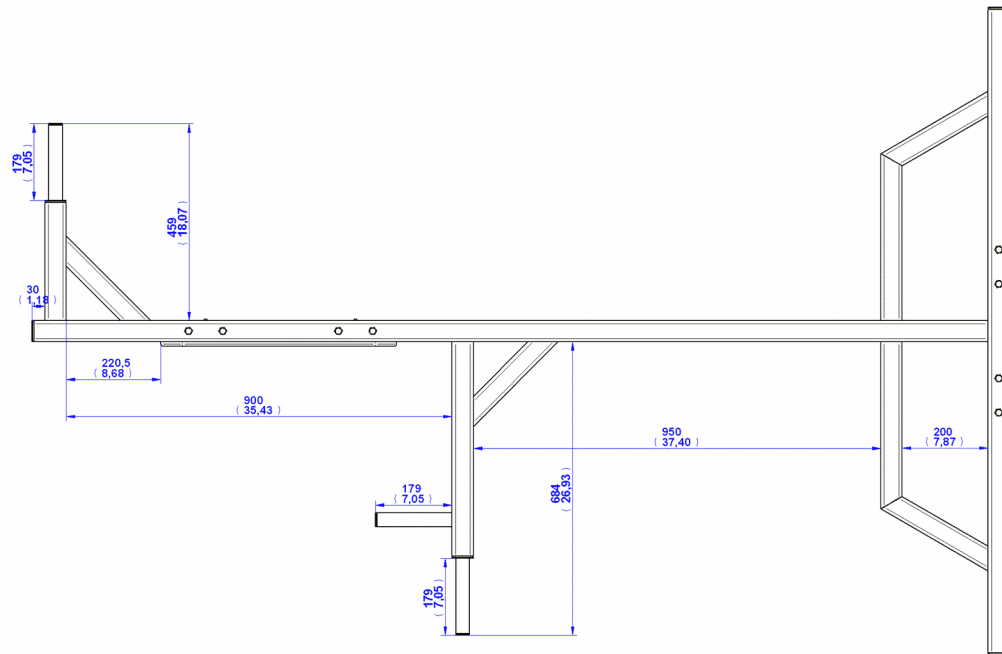
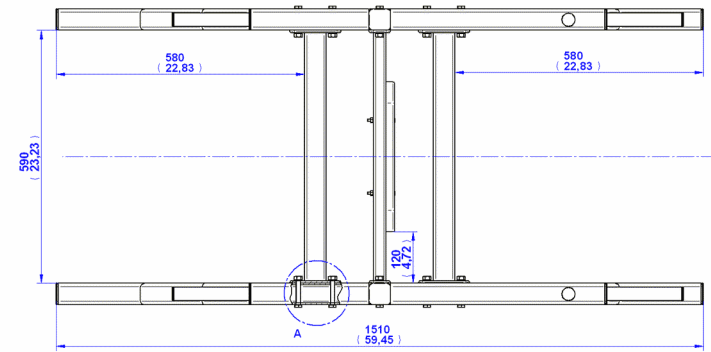
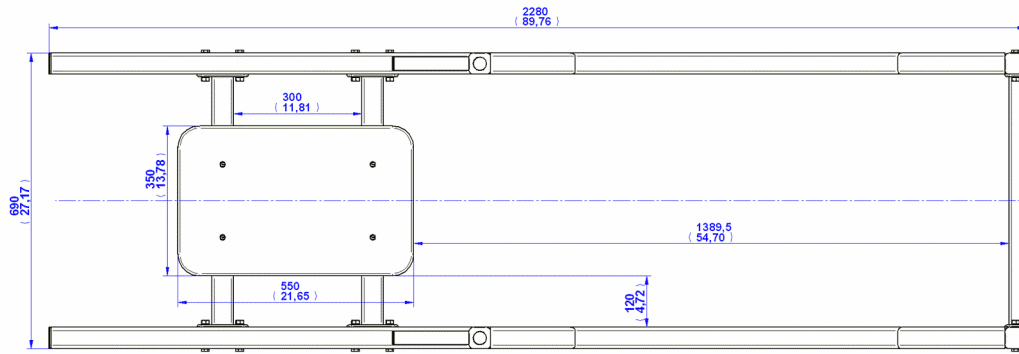
Do not feel frustrated at the beginning, as these are exercises that require a lot of strength. Be persistent, and in time your body will gradually master the exercises. If you have the basic tools for metalworking (angle grinder, drill, welding machine...) and some metalworking experience, the making of this device will prove to be very profitable. In a small space, in the corner of a room, you will have a universal exercise device aimed at the whole upper part of the body that replaces a large number of other devices whose total amount can be rather high, not to mention the large space occupied by all of them.

# Subassembly List

Item Number	Title	Quantity
1	Horizontal	4
2	Side	2
3	Back Sheet	1
4	Fastener system	16

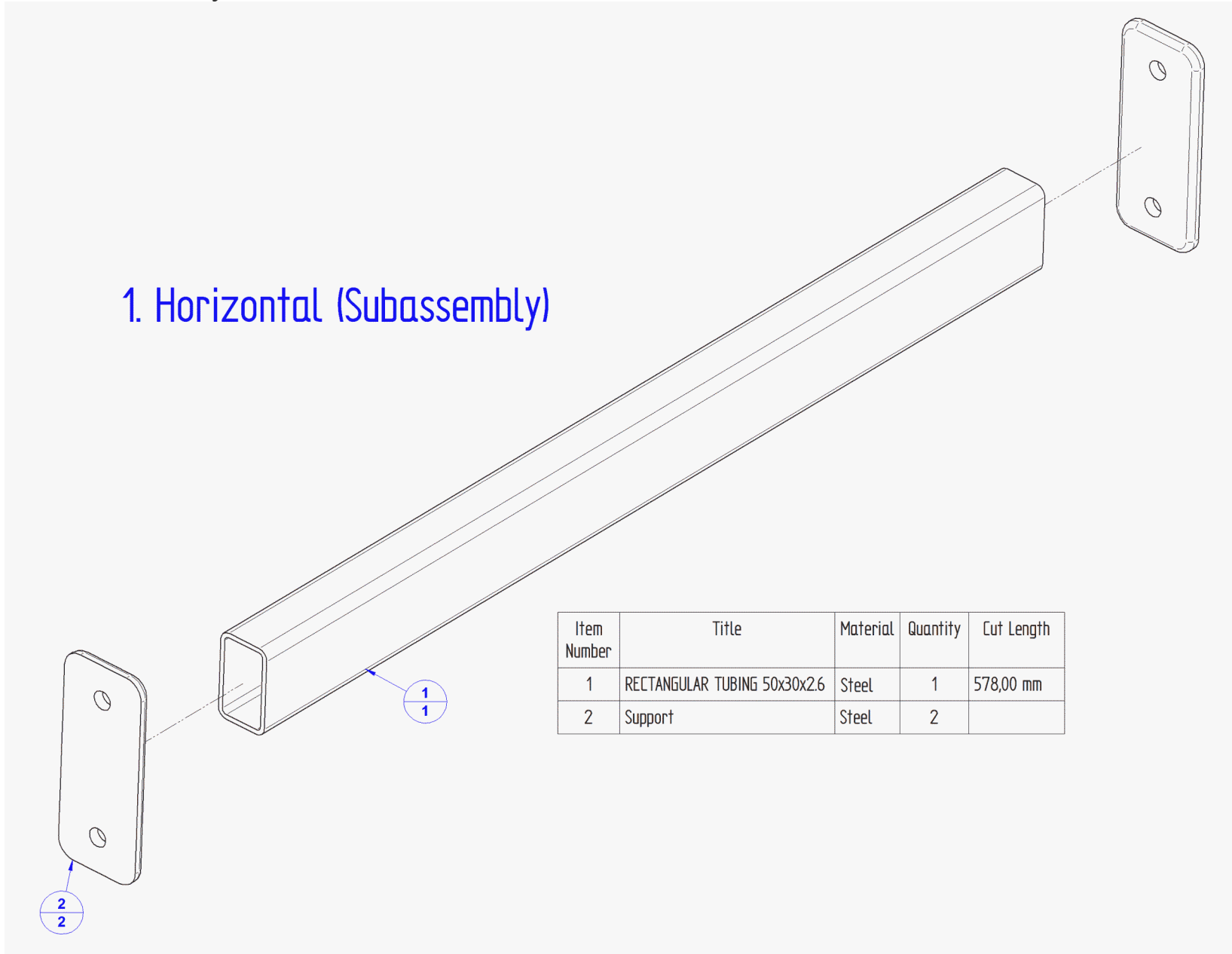


# Assembly Drawing

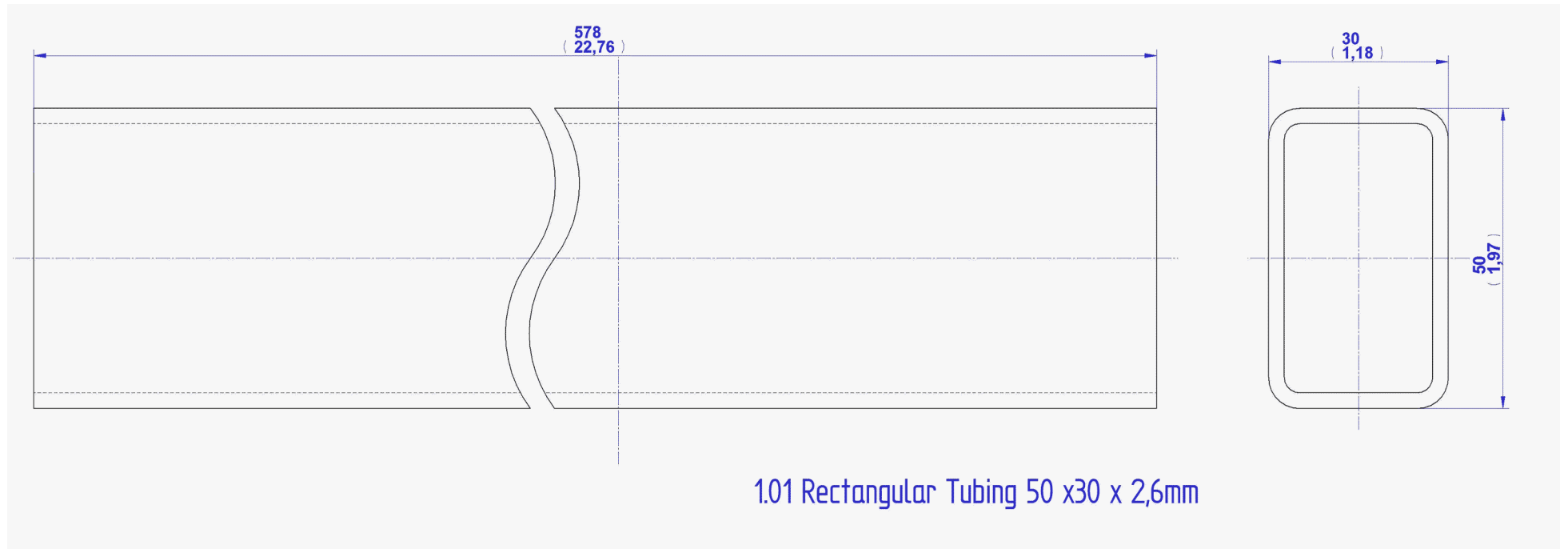


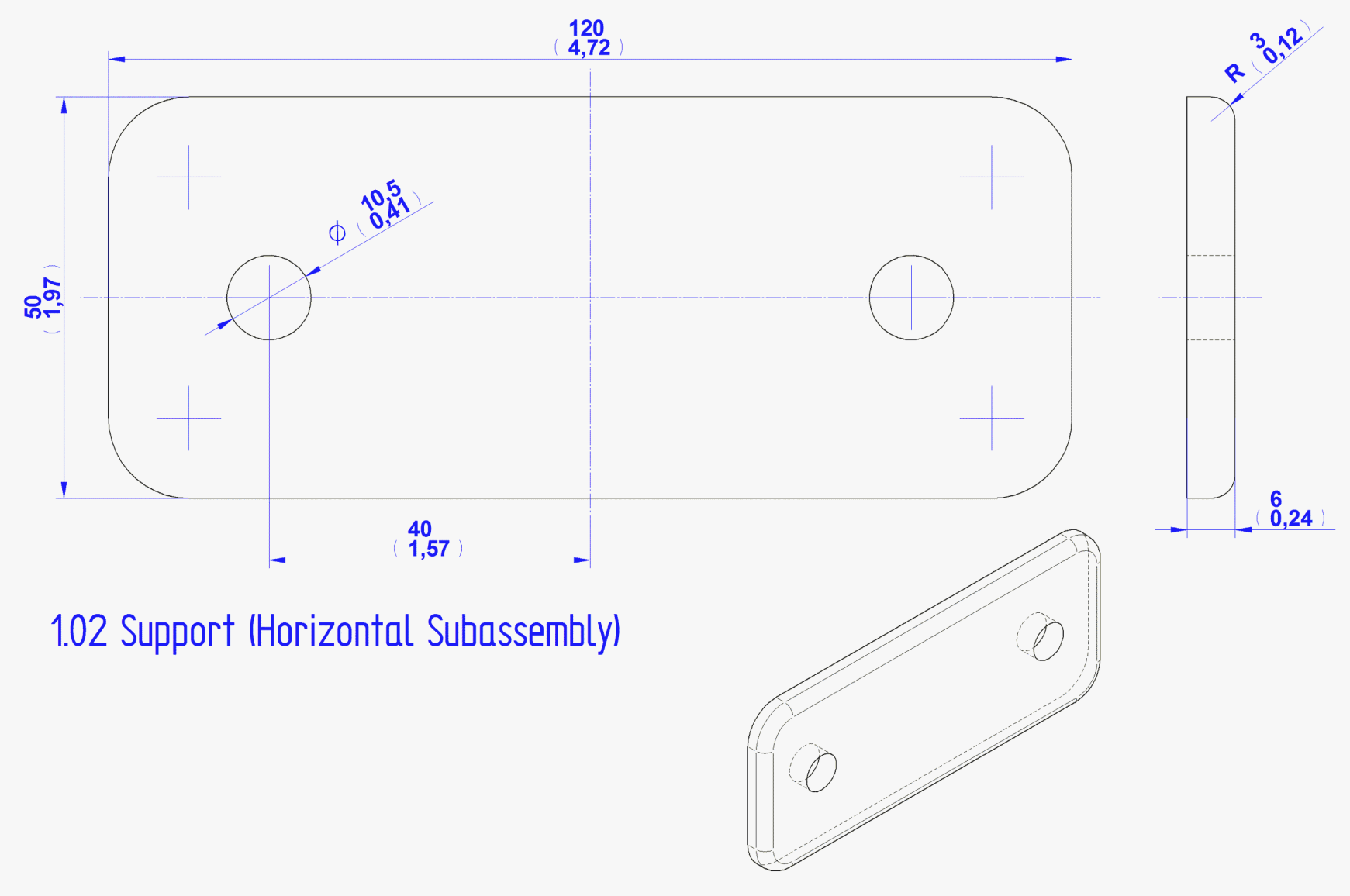
### 1. Horizontal Subassembly – Parts List

## 1. Horizontal (Subassembly)



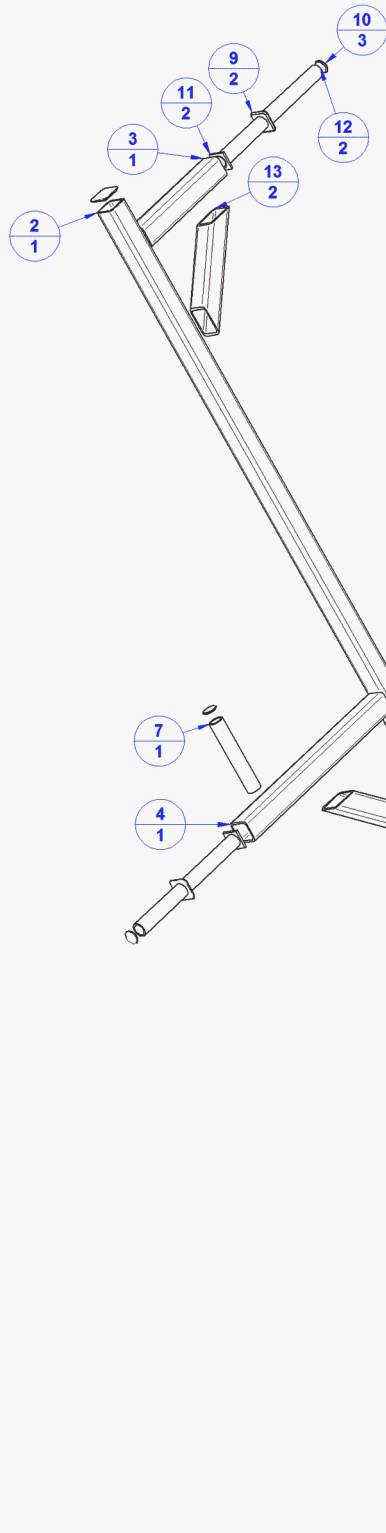
Item Number	Title	Material	Quantity	Cut Length
1	RECTANGULAR TUBING 50x30x2.6	Steel	1	578,00 mm
2	Support	Steel	2	





1.02 Support (Horizontal Subassembly)

## 2. Side Subassembly – Parts List



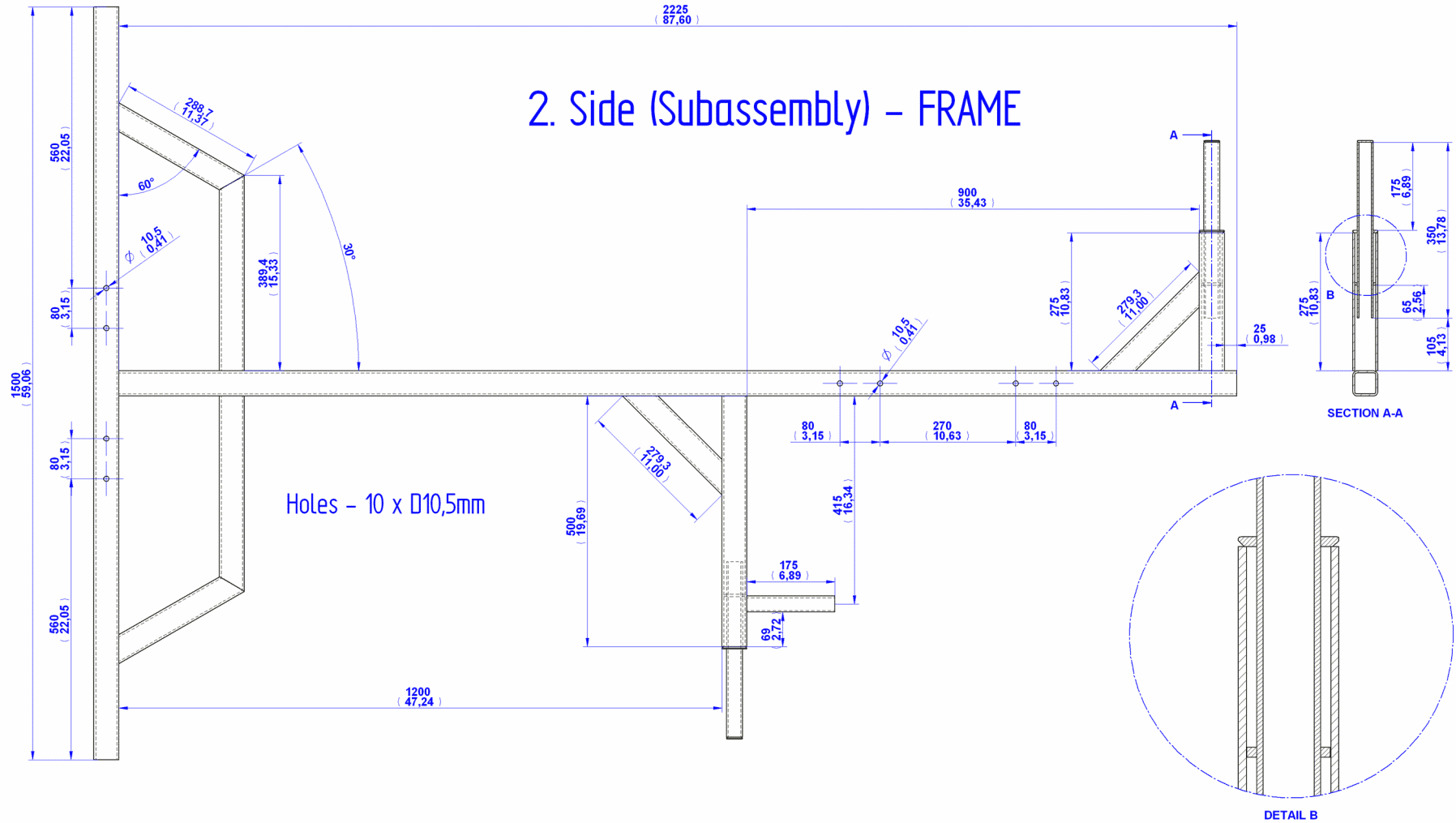
Item Number	Title	Material	Quantity	Cut Length
1	SQUARE TUBING 50x50x4	Steel	1	1500,00 mm
2	SQUARE TUBING 50x50x4	Steel	1	2675,00 mm
3	SQUARE TUBING 50x50x4	Steel	1	275,00 mm
4	SQUARE TUBING 50x50x4	Steel	1	500,00 mm
5	SQUARE TUBING 50x50x4	Steel	2	389,43 mm
6	SQUARE TUBING 50x50x4	Steel	2	288,68 mm
7	Round Tubing D31,8 x 3,2mm	Steel	1	175,00 mm
8	Cover 50x50mm	Steel	3	
9	Cover 50x50mm with Hole	Steel	2	
10	cover 31,8mm	Steel	3	
11	Limiter	Steel	2	
12	Round Tubing D31,8 x 3,2mm	Steel	2	350,00 mm
13	SQUARE TUBING 50x50x4	Steel	2	279,00mm

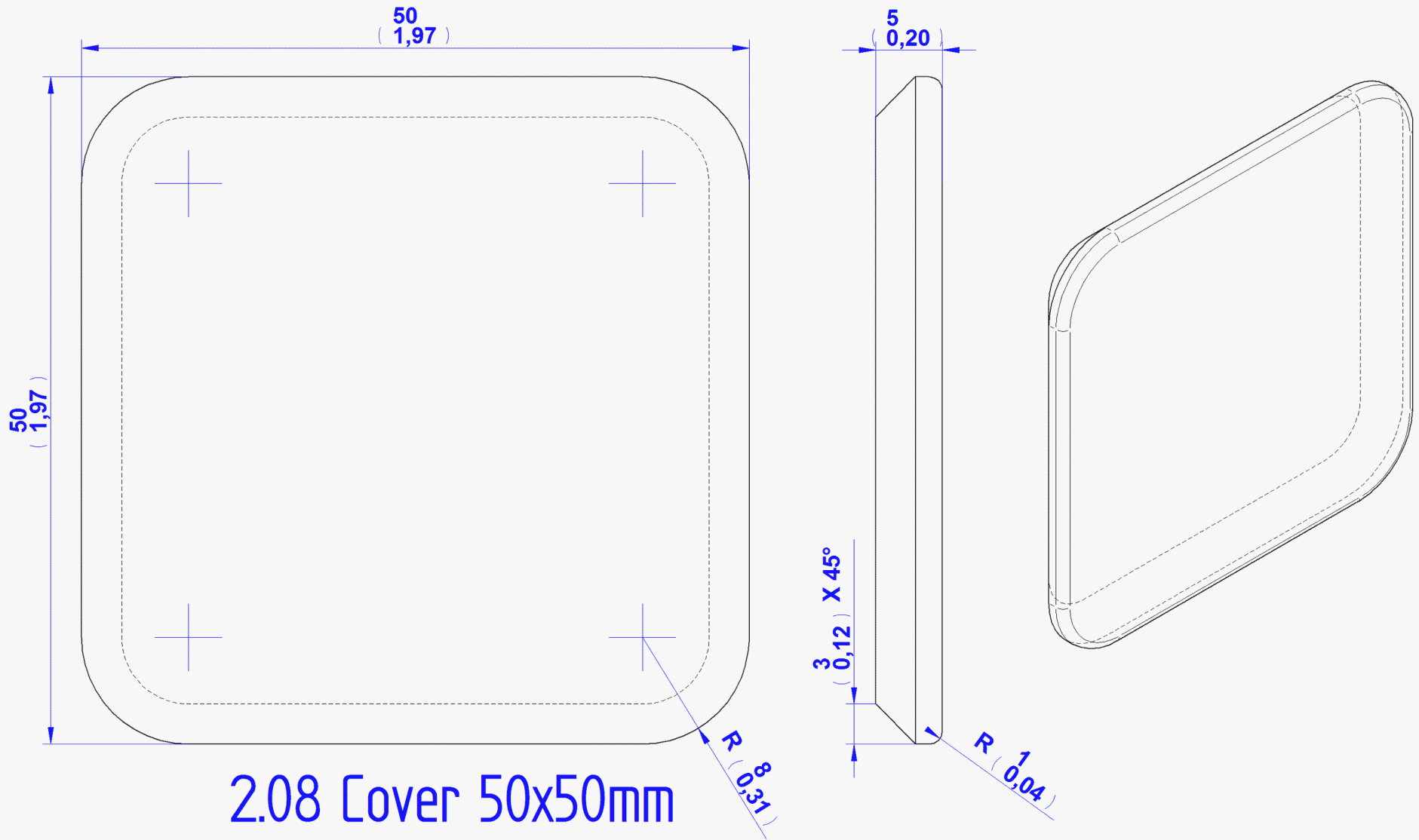
## 2. Side (Subassembly)

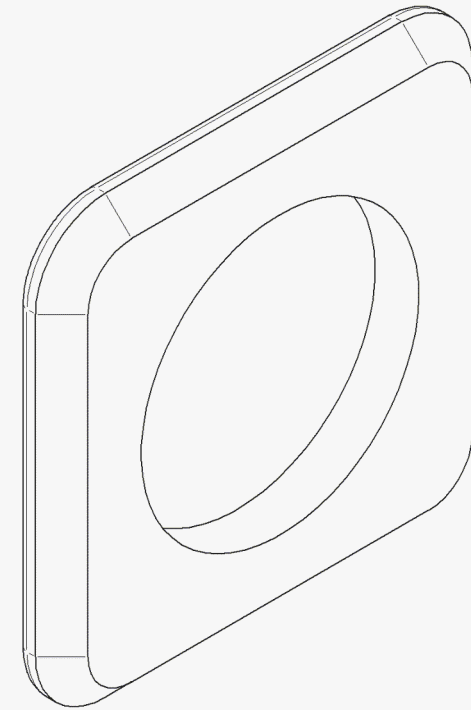
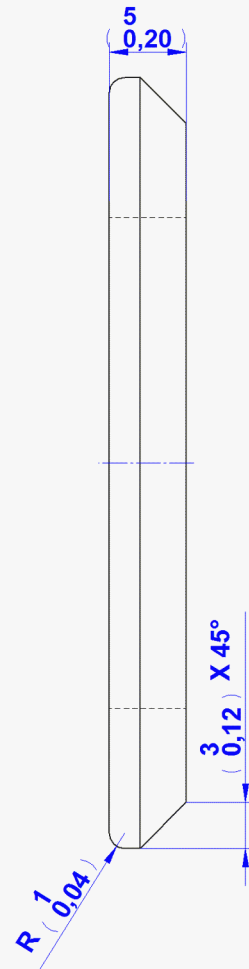
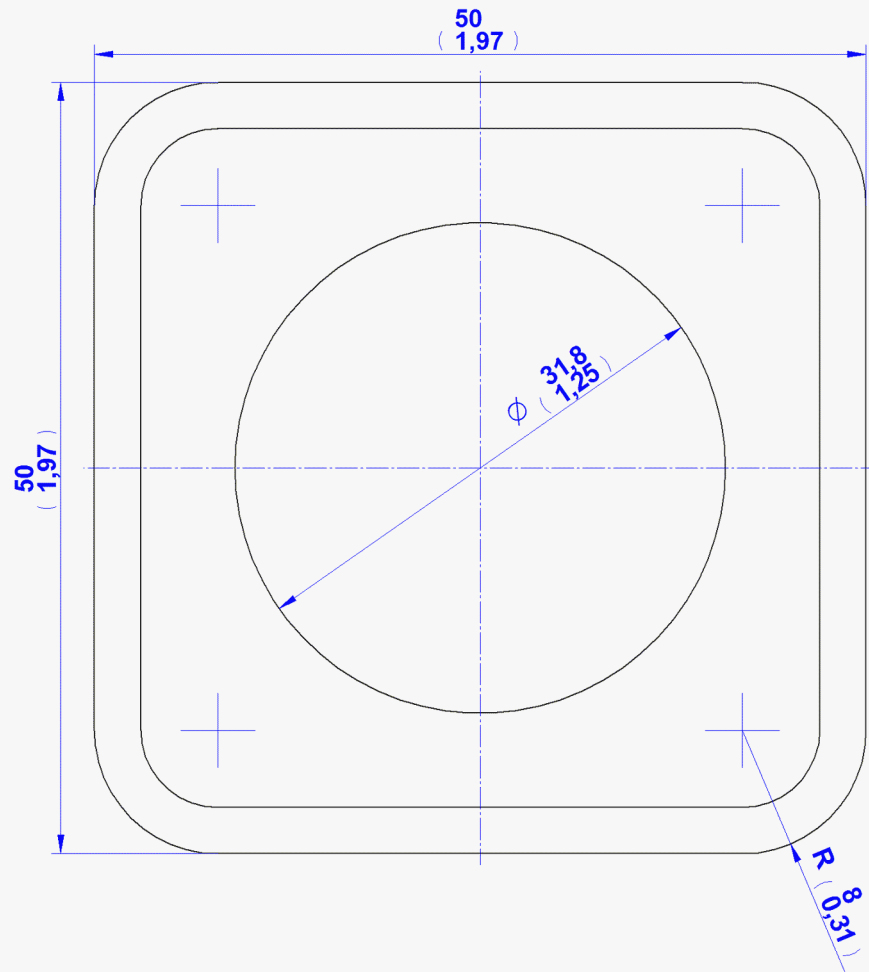


Frame Parts

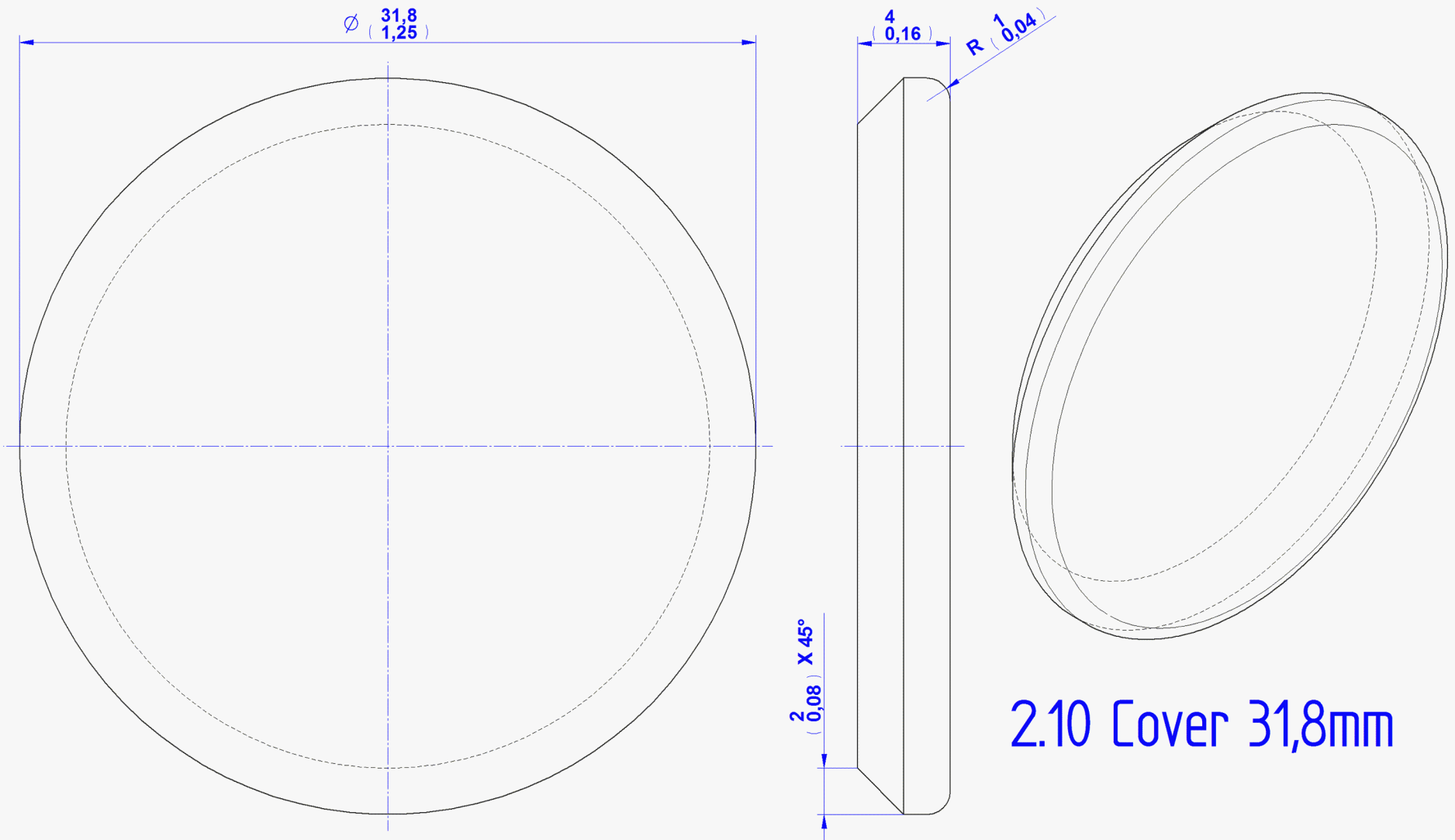
## 2. Side (Subassembly) – FRAME



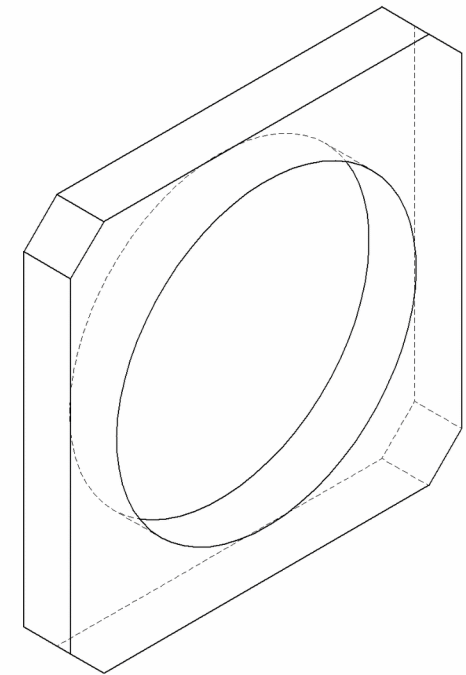
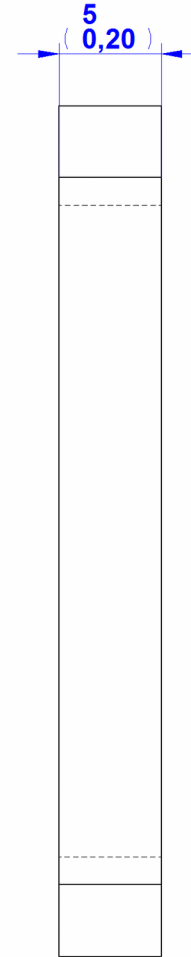
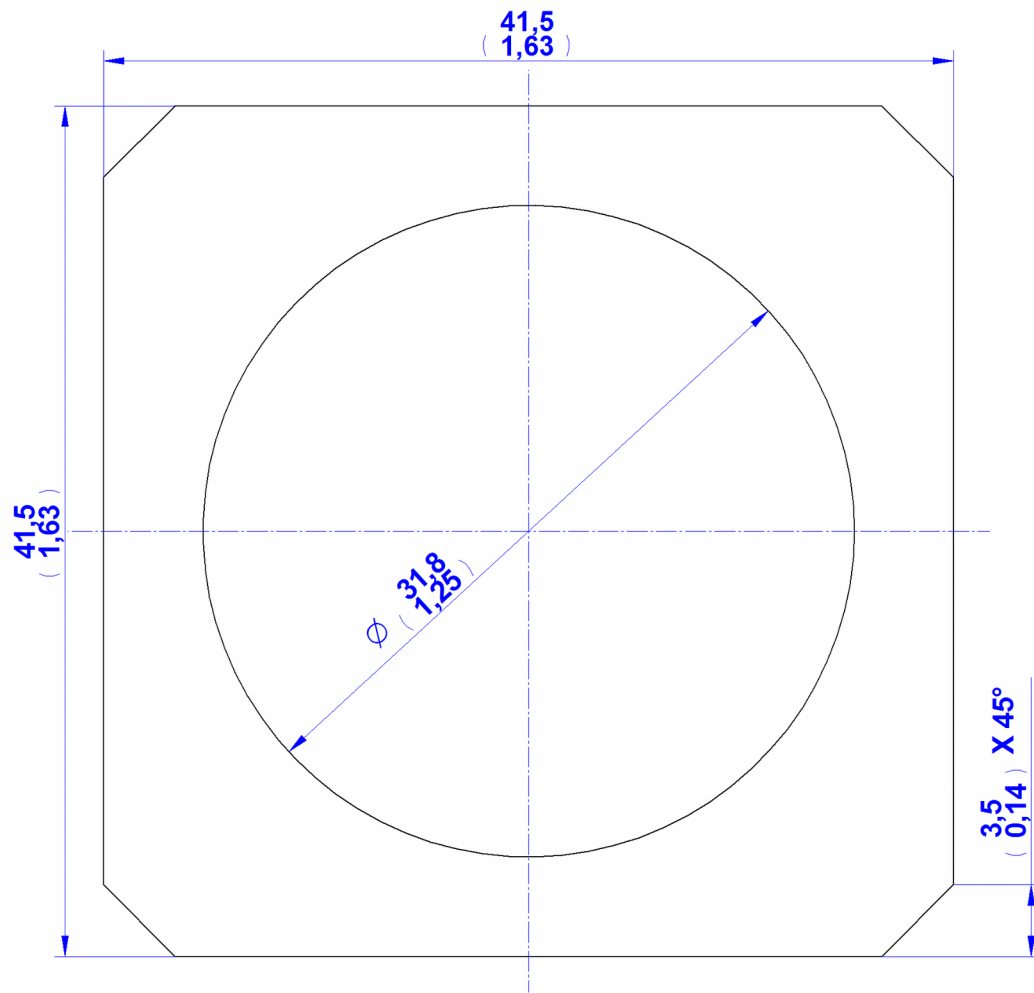




2.09 Cover 50x50mm with hole

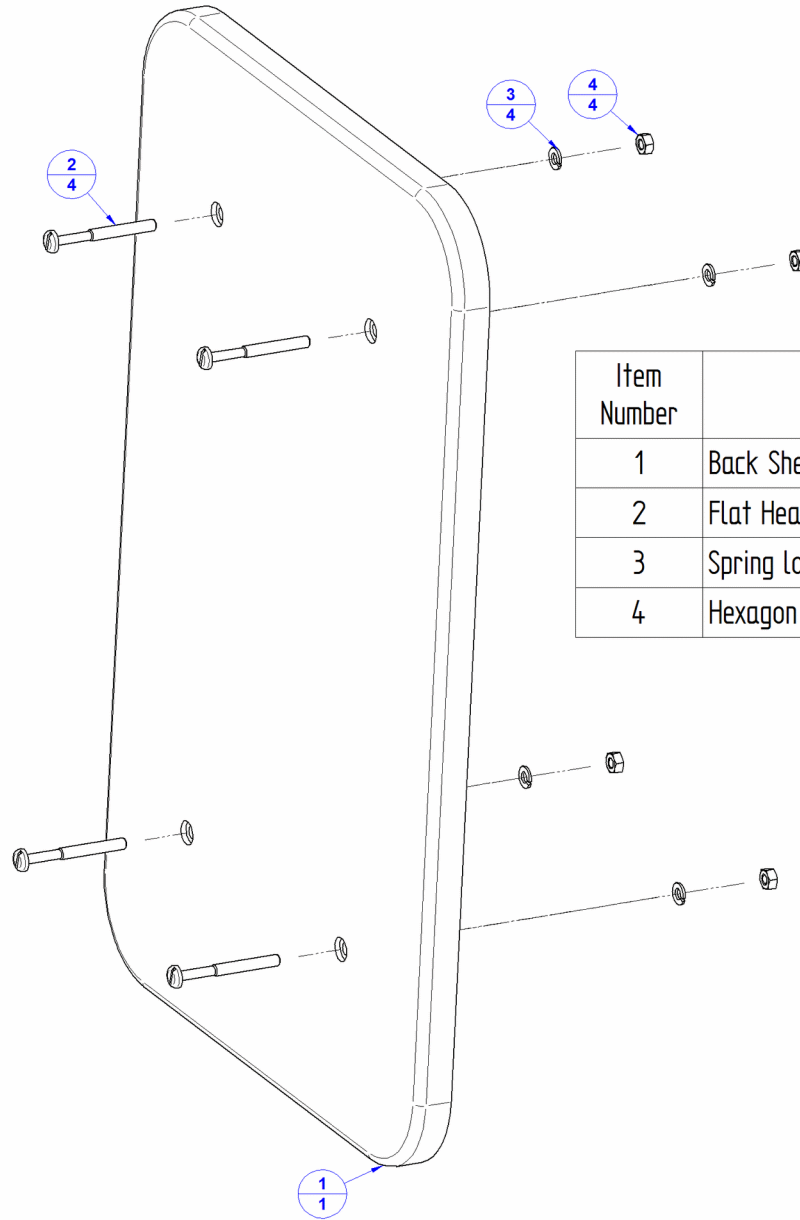


2.10 Cover 31,8mm



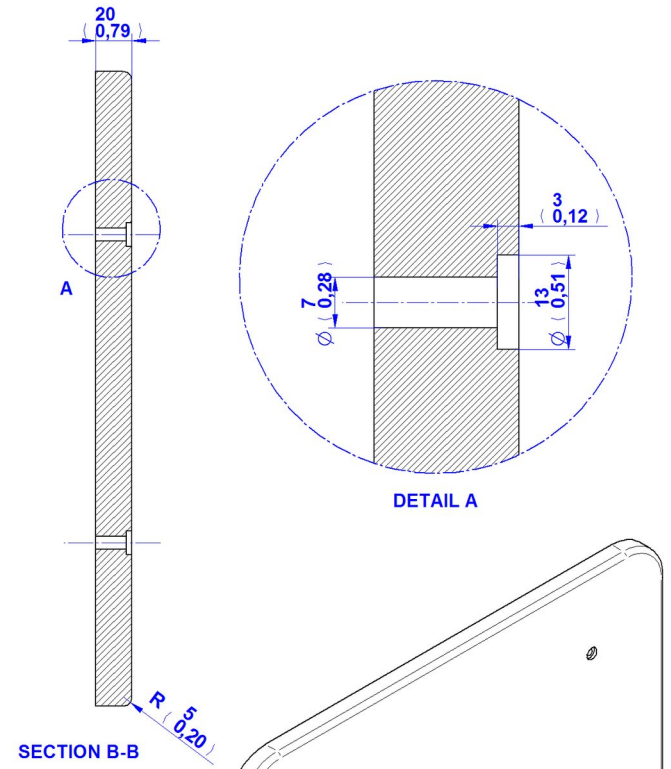
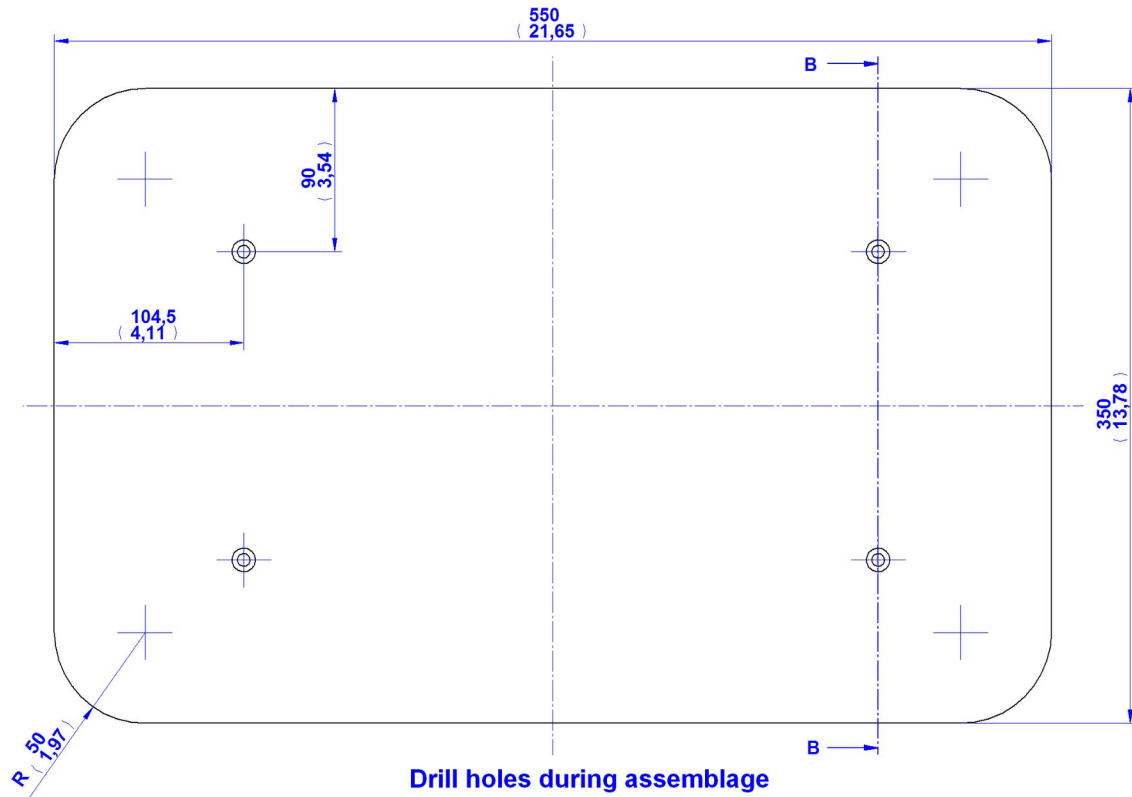
2.11 Limiter

### 3. Back Sheet Subassembly – Parts List

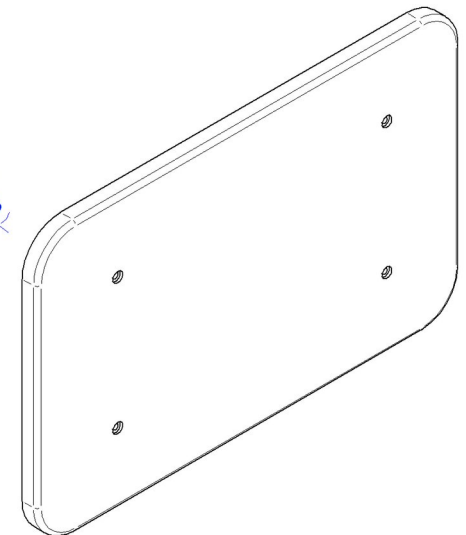


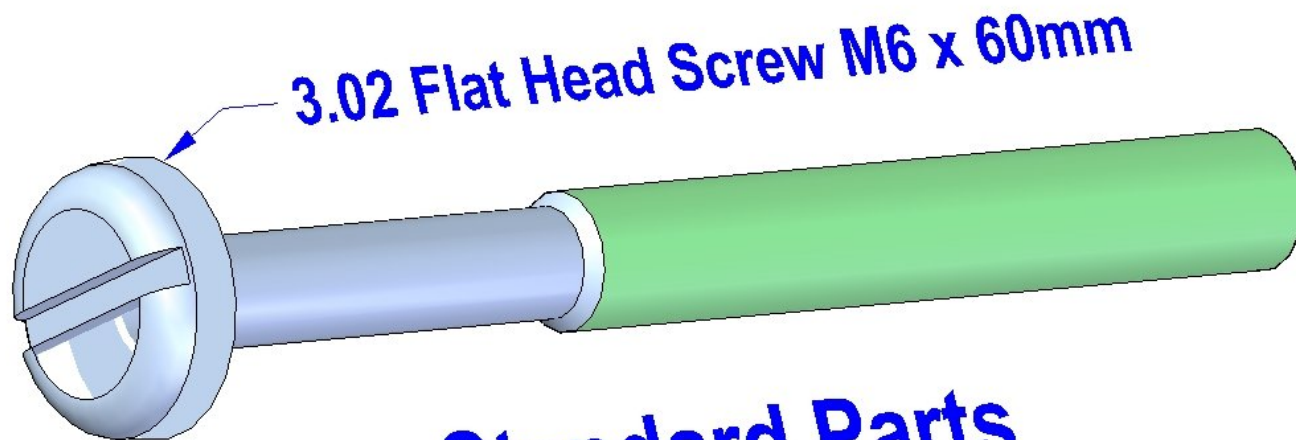
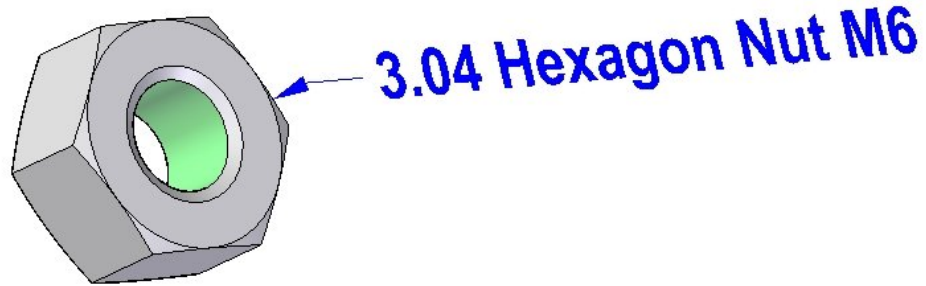
Item Number	Title	Material	Quantity	Category
1	Back Sheet	Wood	1	
2	Flat Head Screw M6 x 60	Steel	4	Standard Part
3	Spring lock washer 6	Steel	4	Standard Part
4	Hexagon nut M6	Steel	4	Standard Part

### 3. Back Sheet (Subassembly)



3.01 Back Sheet

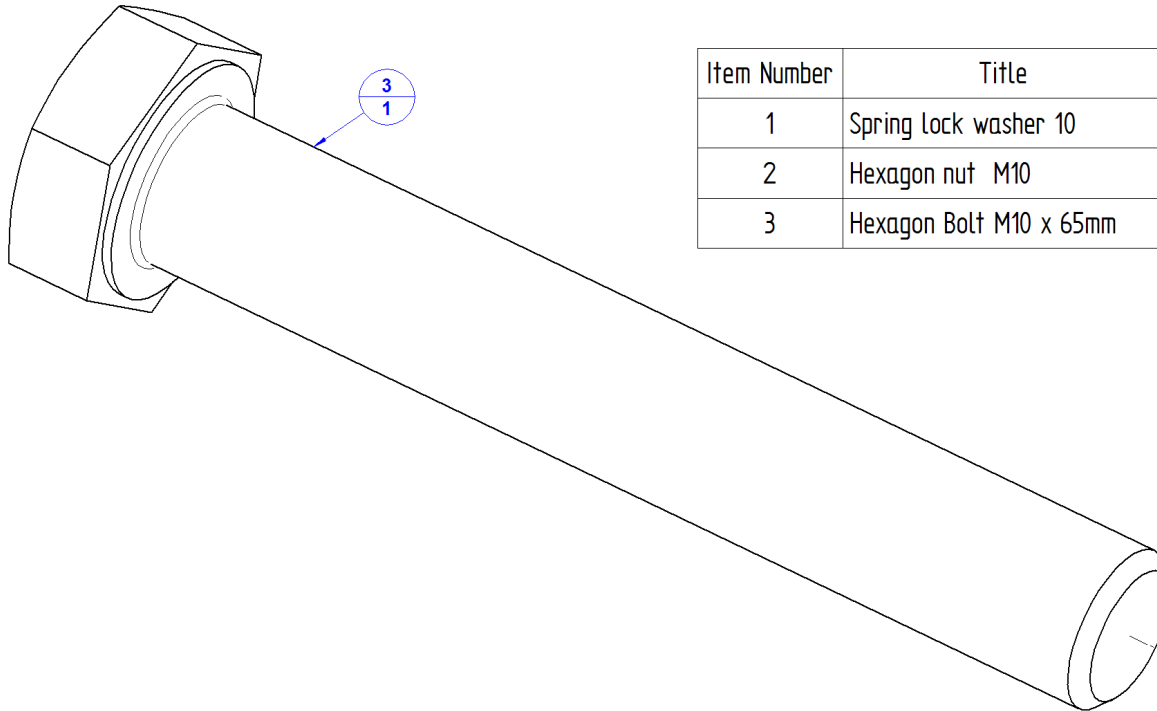




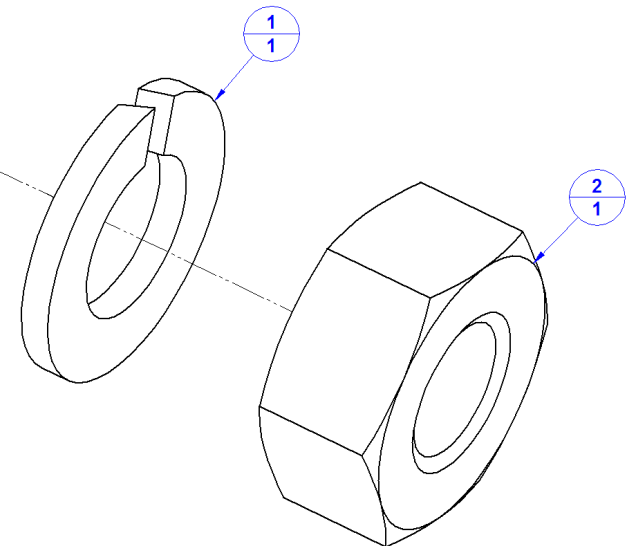
**Standard Parts**



#### 4. Fastener System Subassembly – Parts List



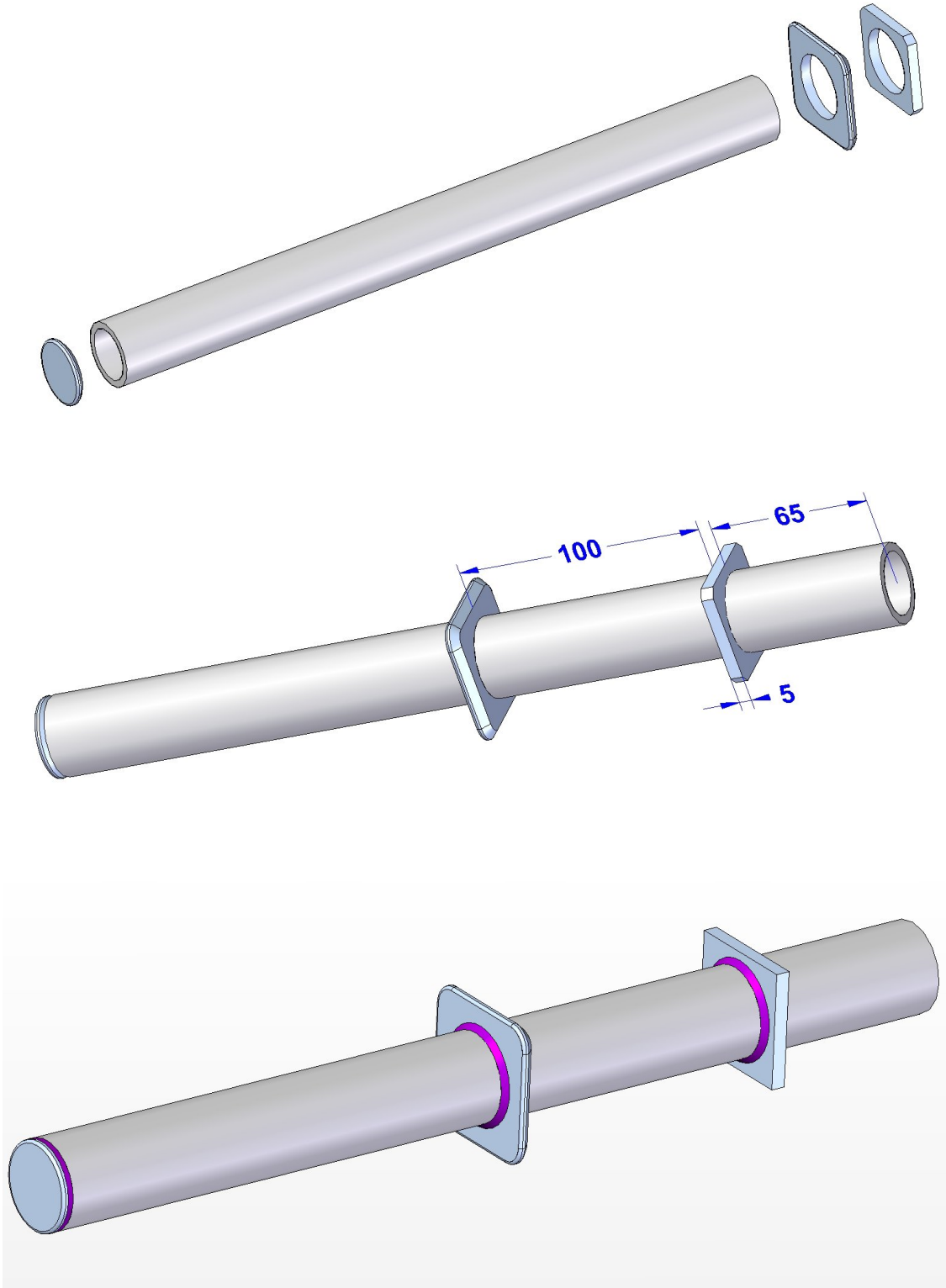
Item Number	Title	Material	Quantity	Category
1	Spring Lock washer 10	Steel	1	Standard Part
2	Hexagon nut M10	Steel	1	Standard Part
3	Hexagon Bolt M10 x 65mm	Steel	1	Standard Part



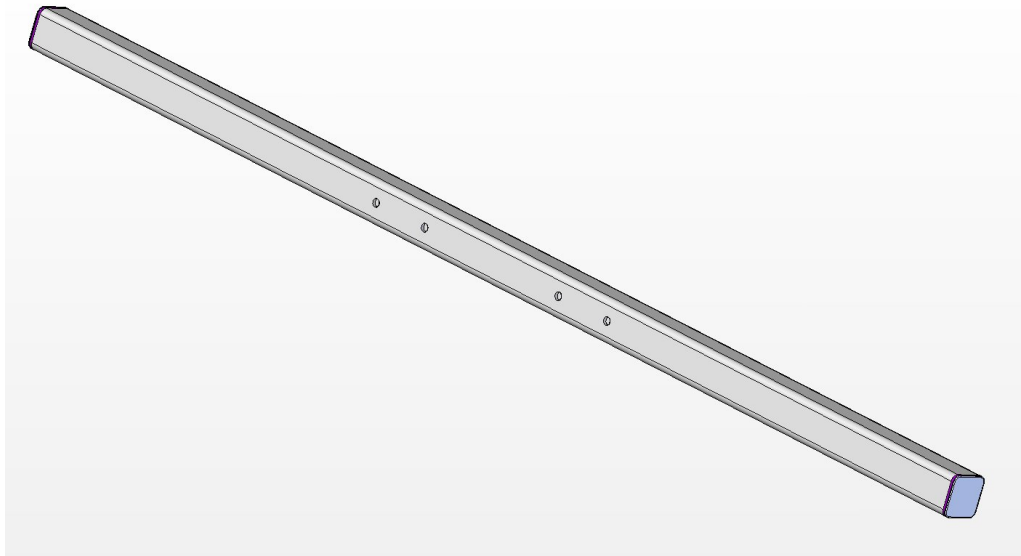
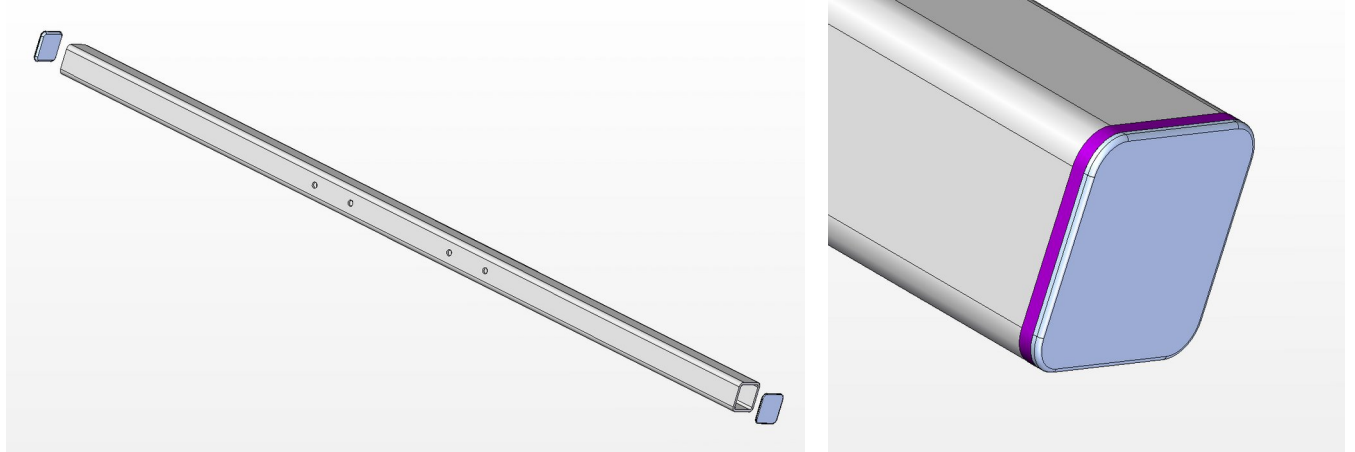
## 4. Fastener System (Subassembly)

## Assemblage images

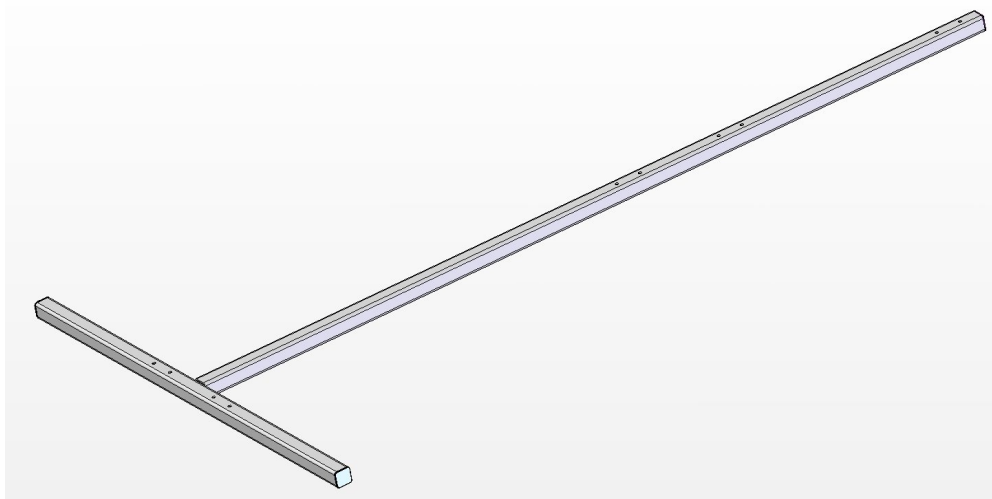
1.

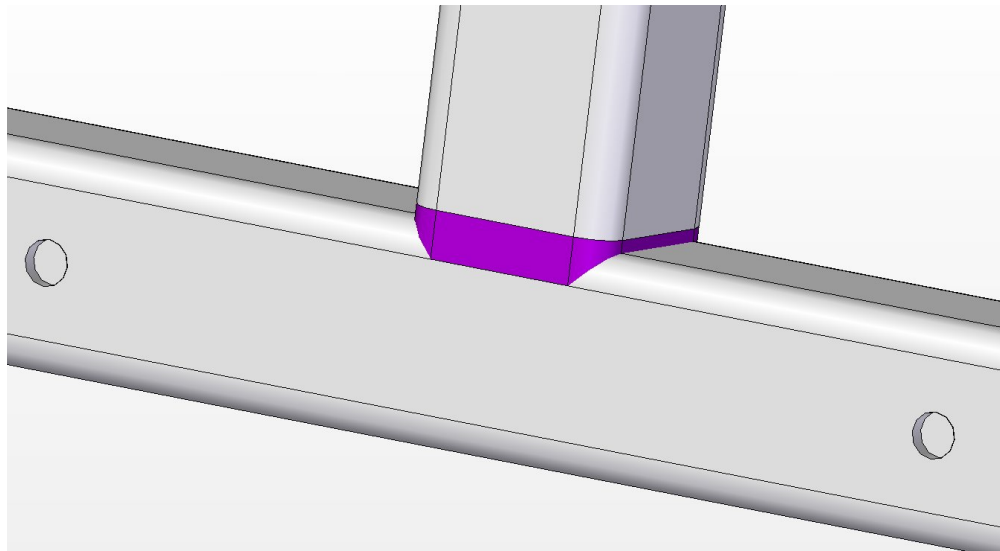


2.

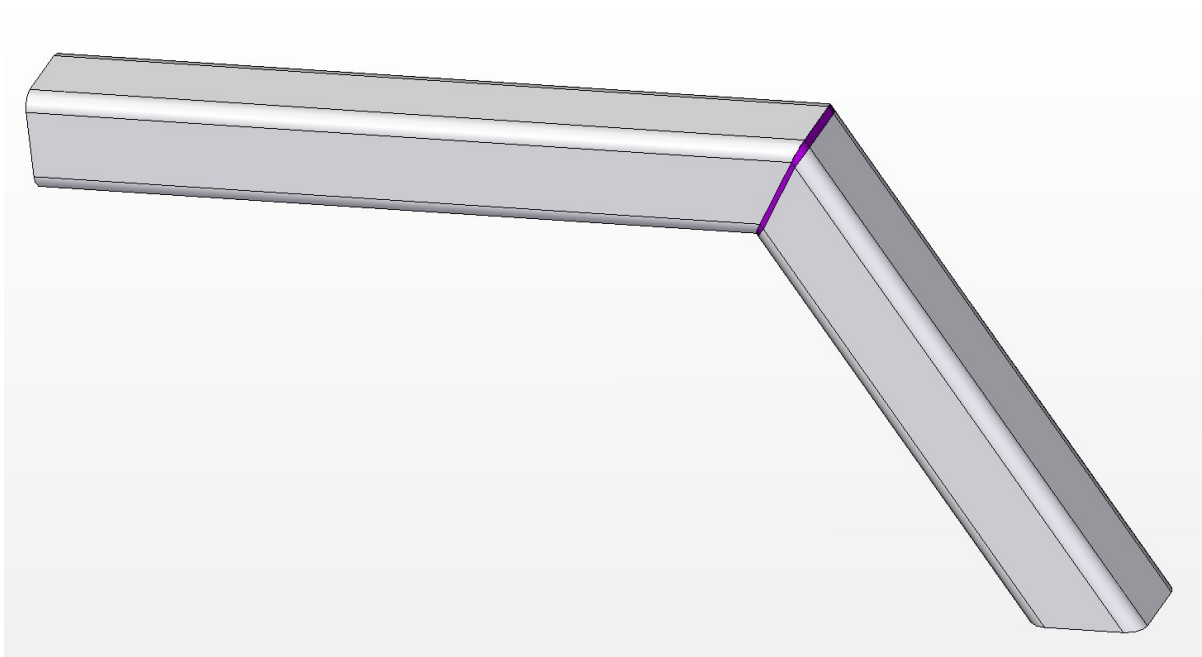
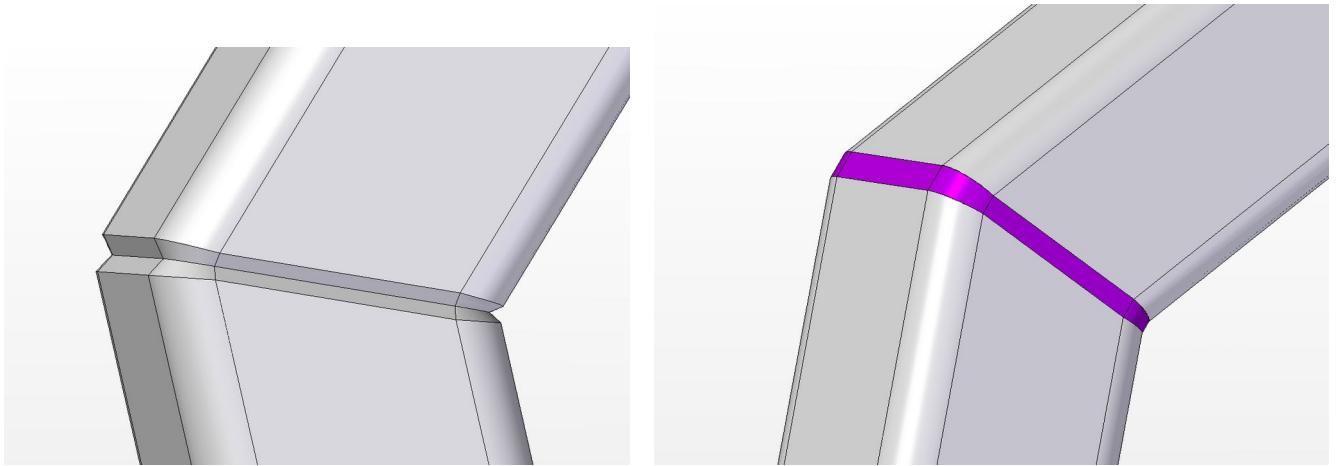


3.

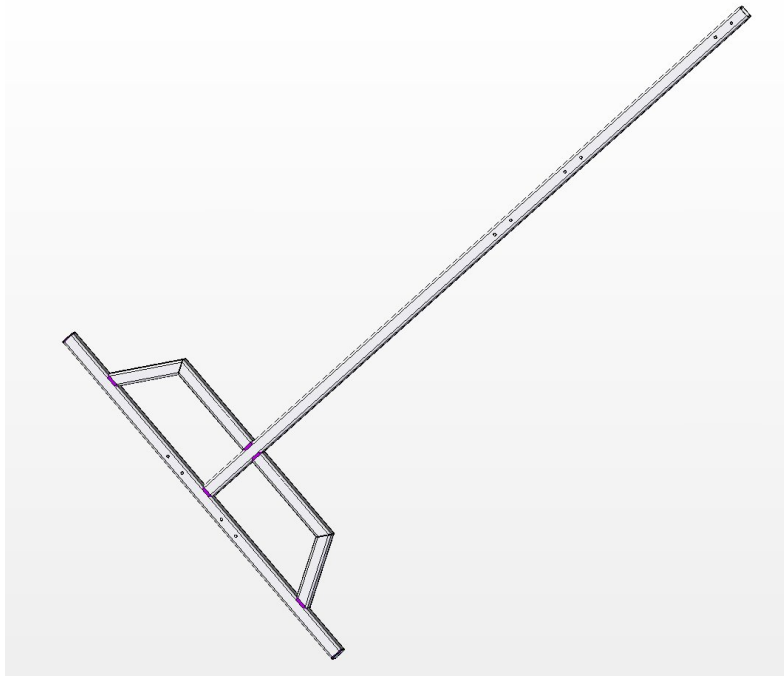
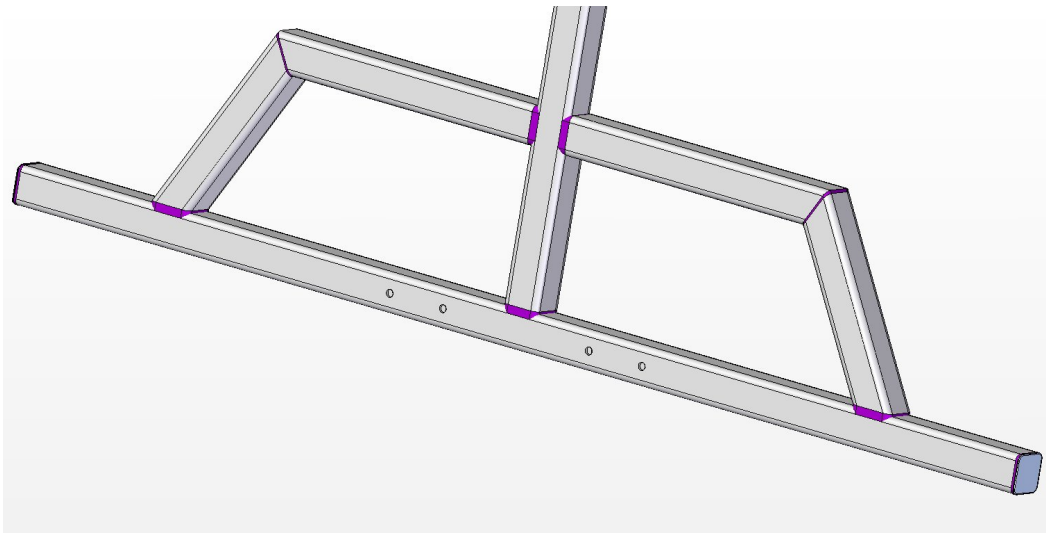
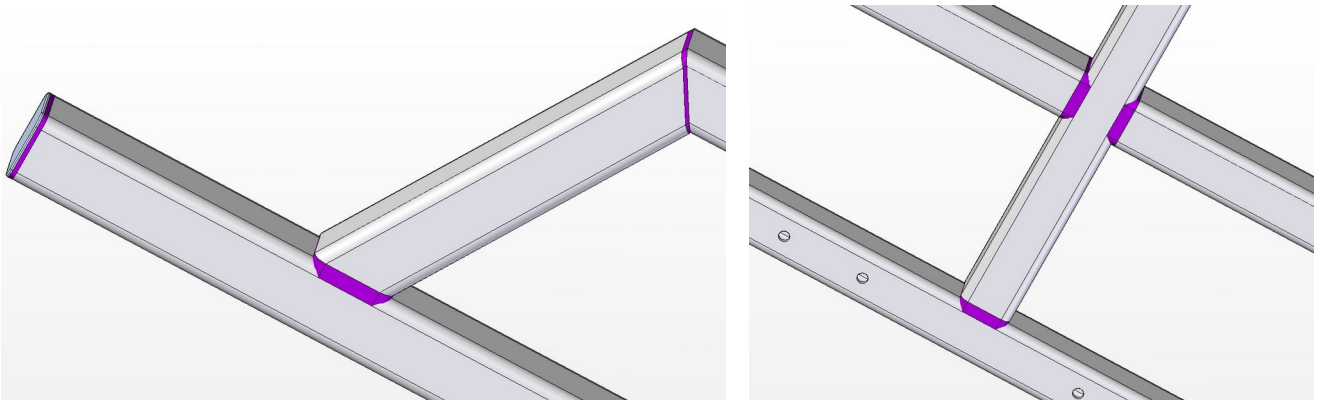




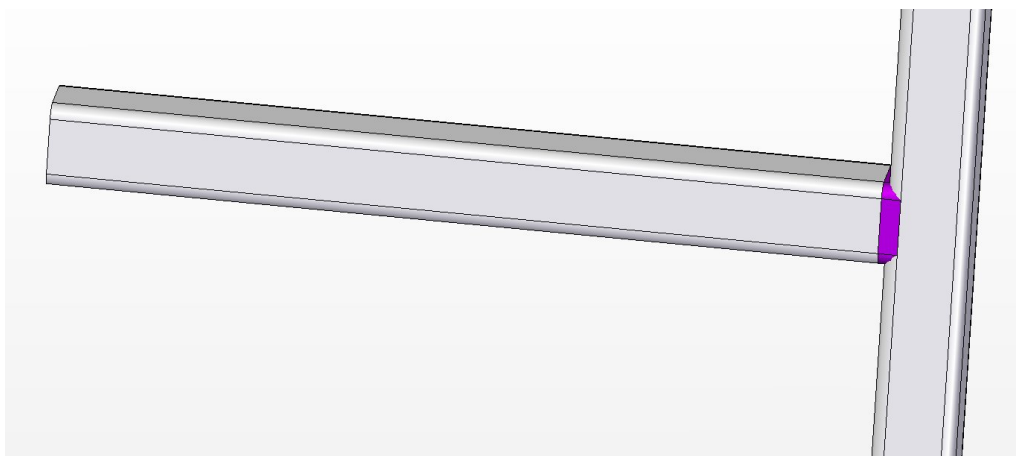
4.



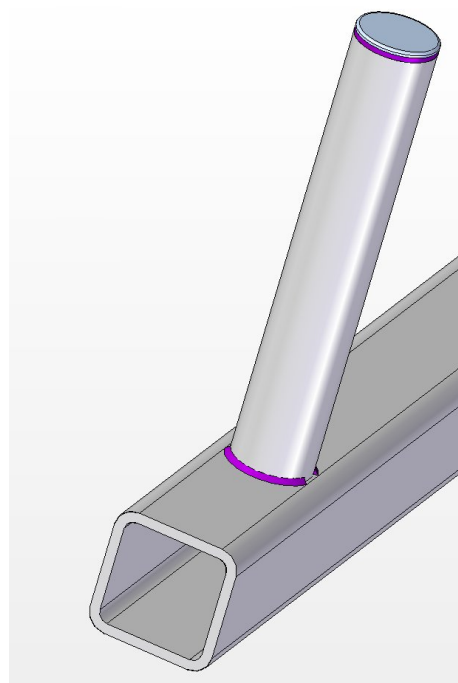
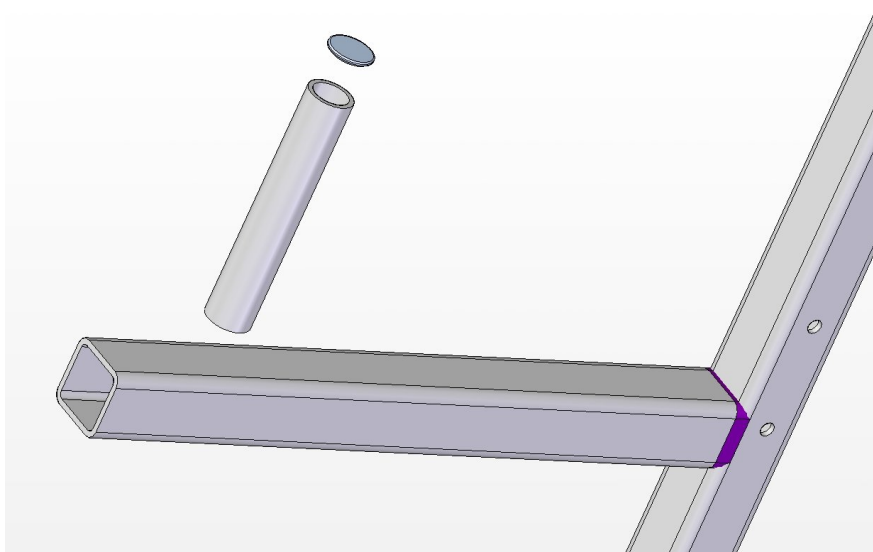
5.

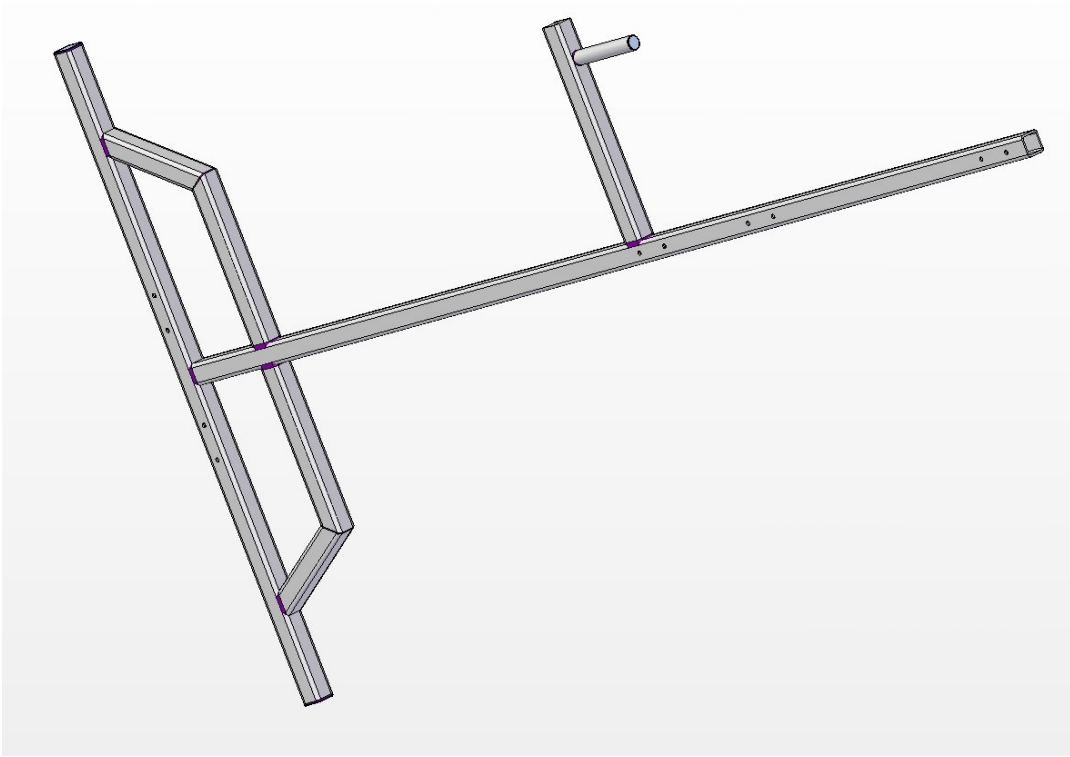


6.

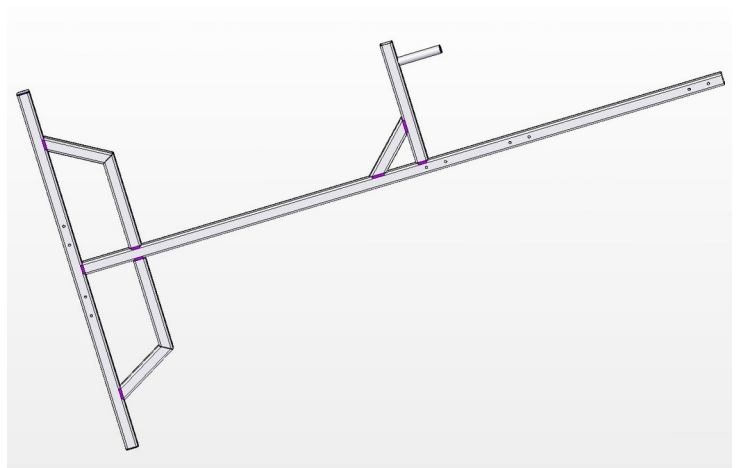
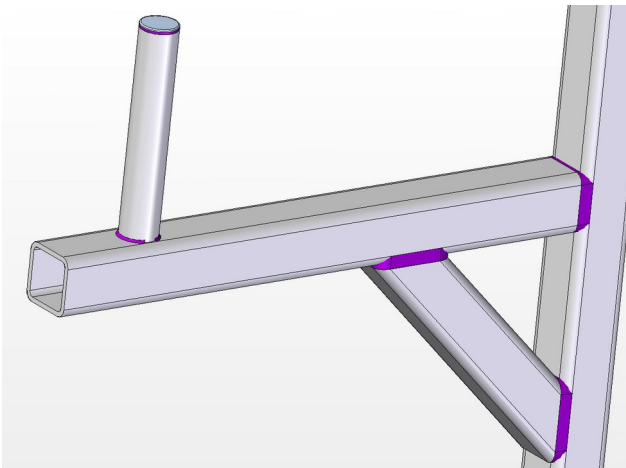


7.

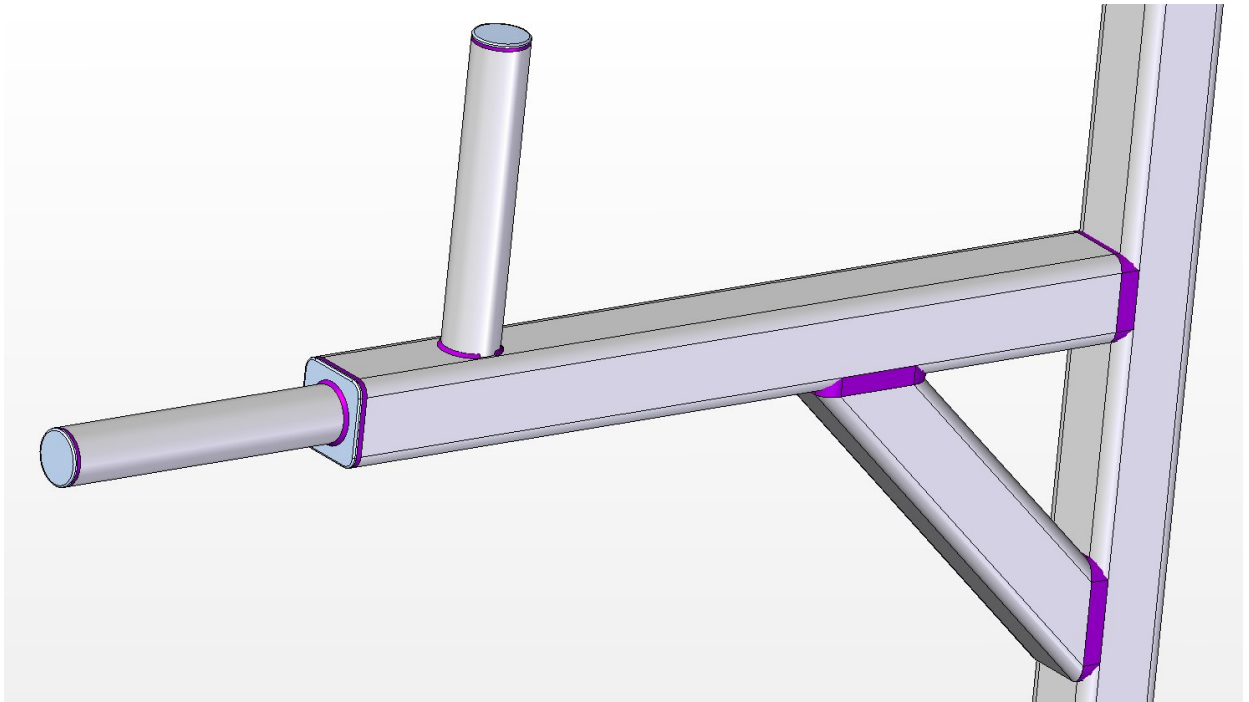
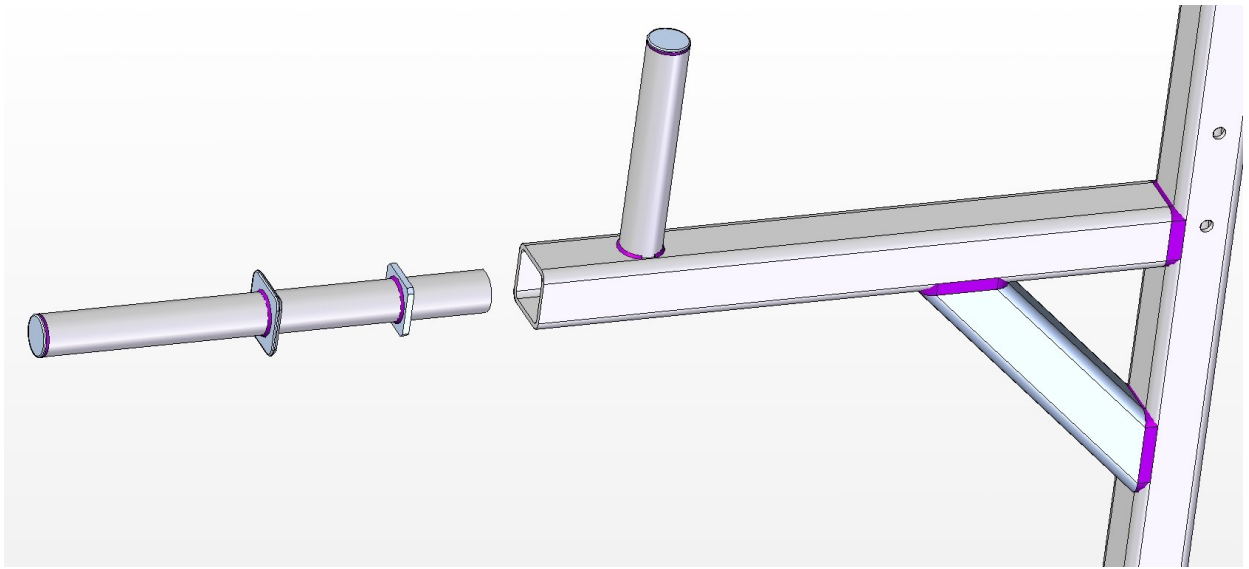




8.

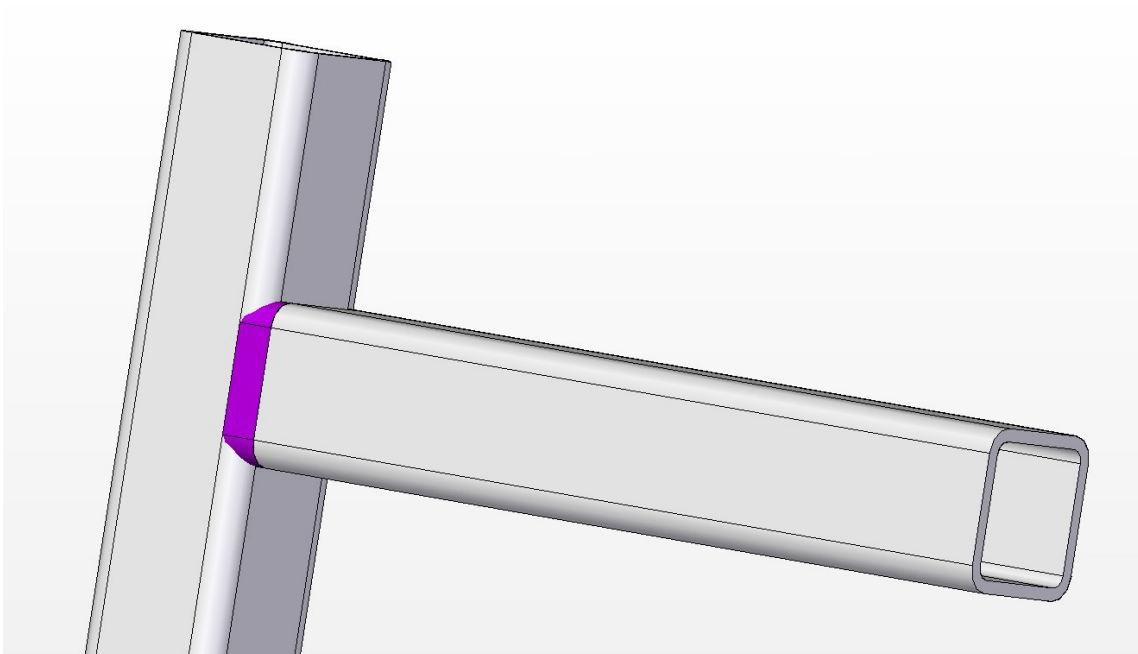


9.

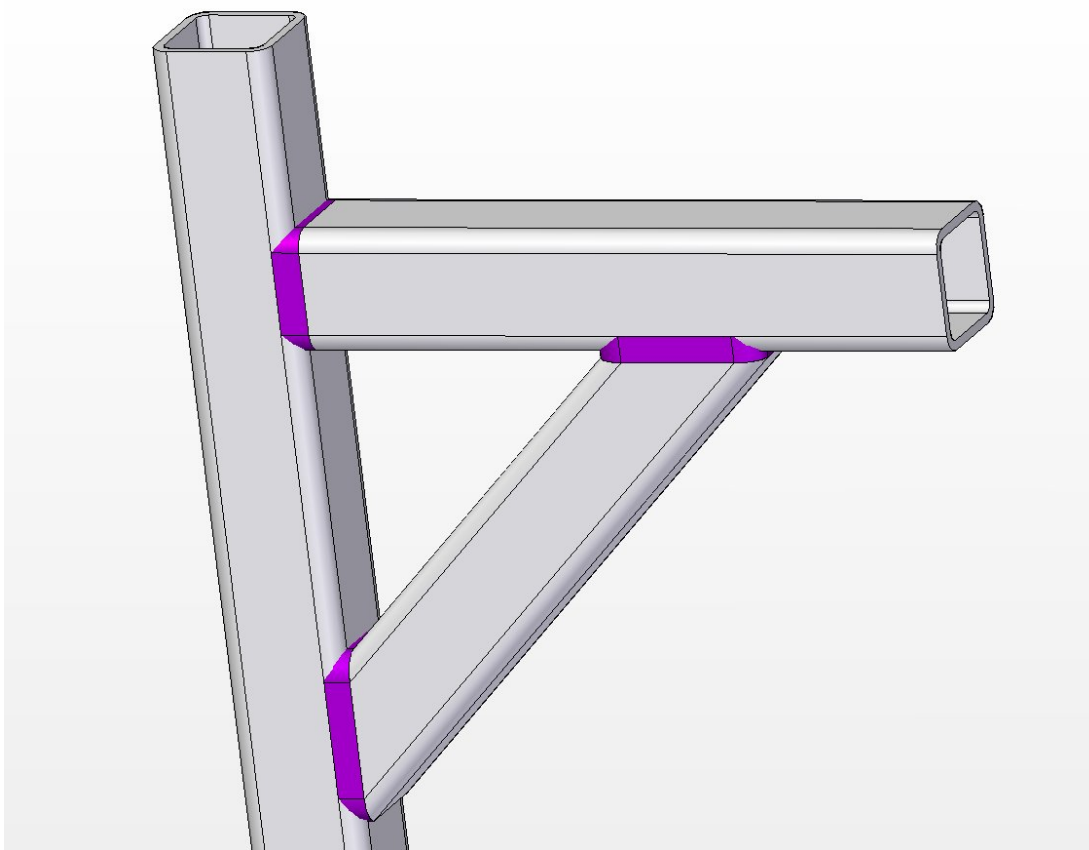




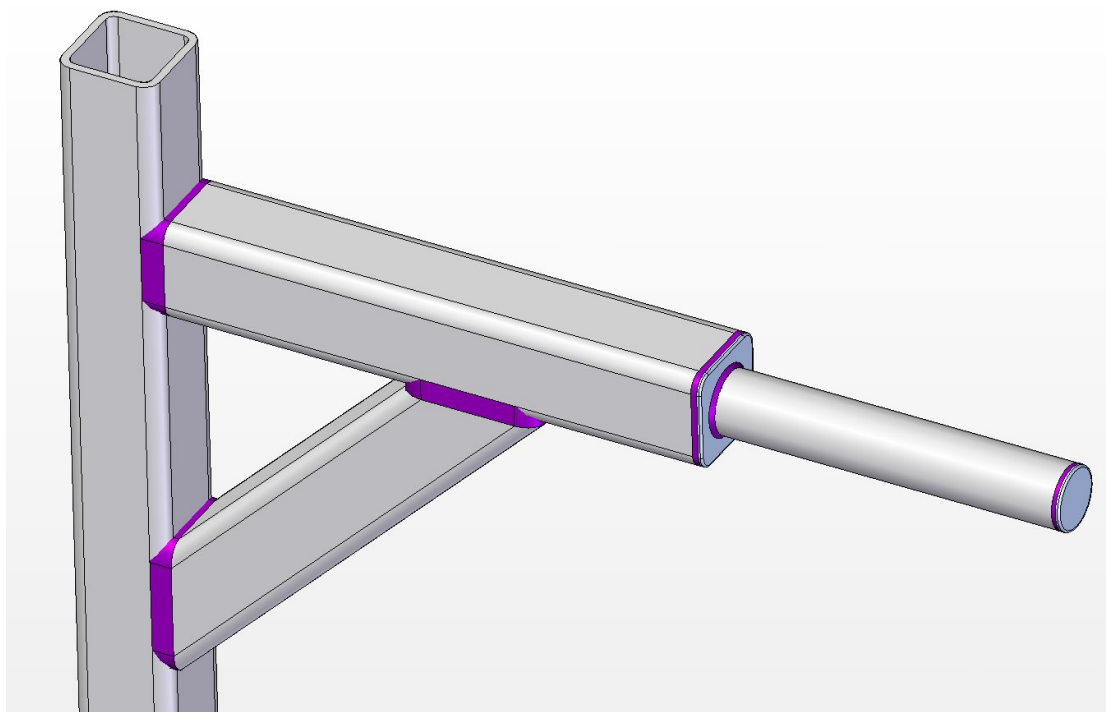
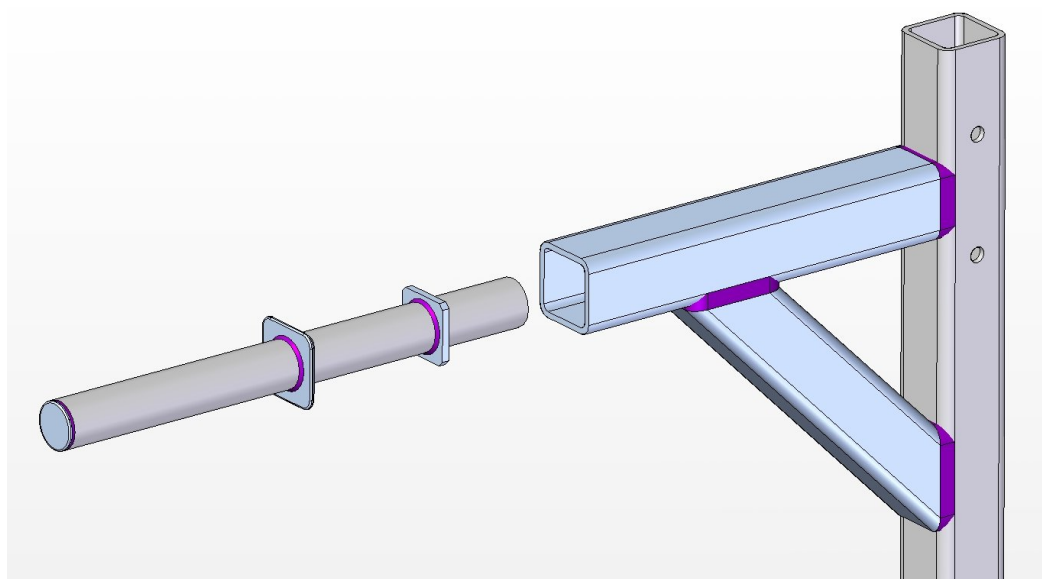
10.



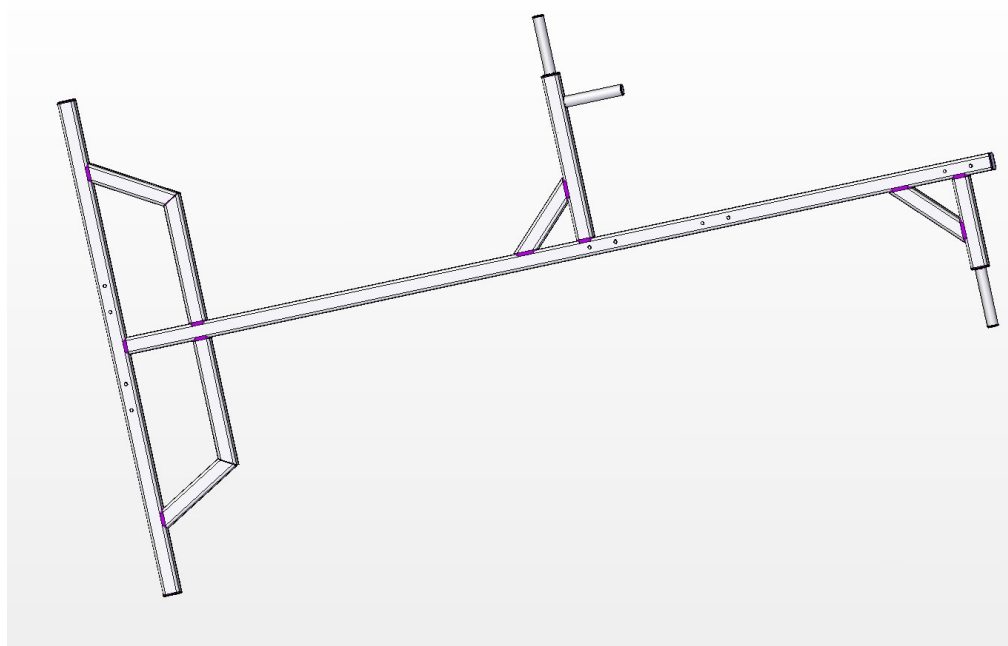
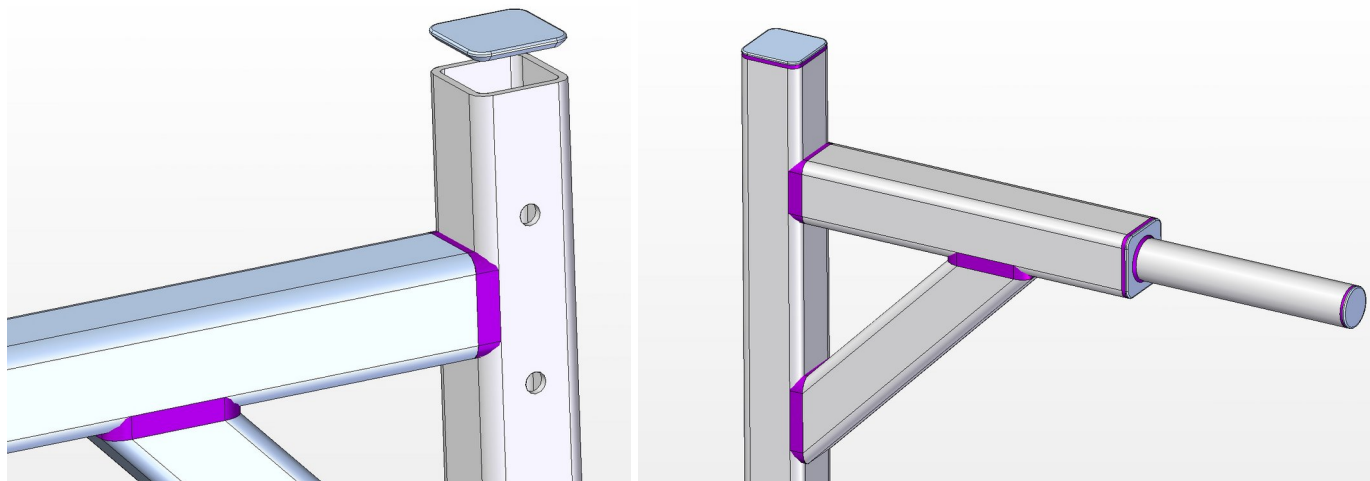
11.



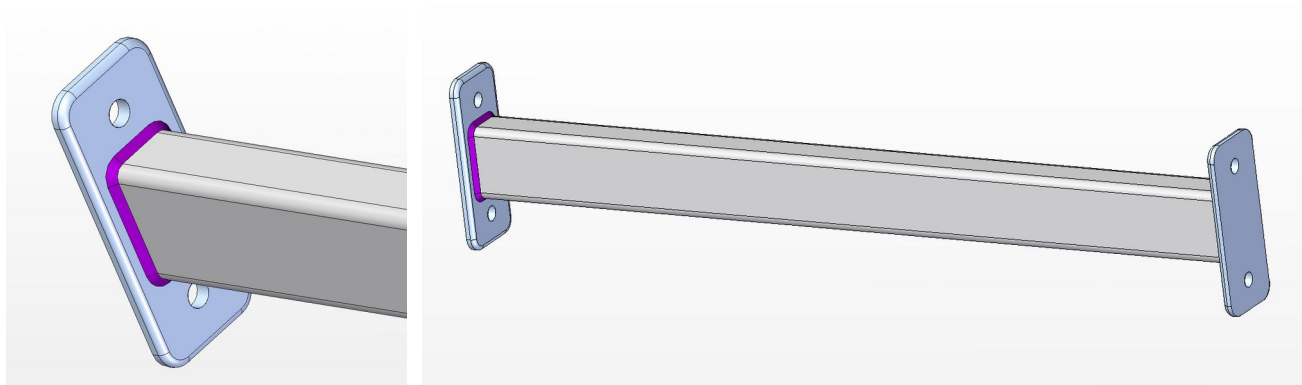
12.

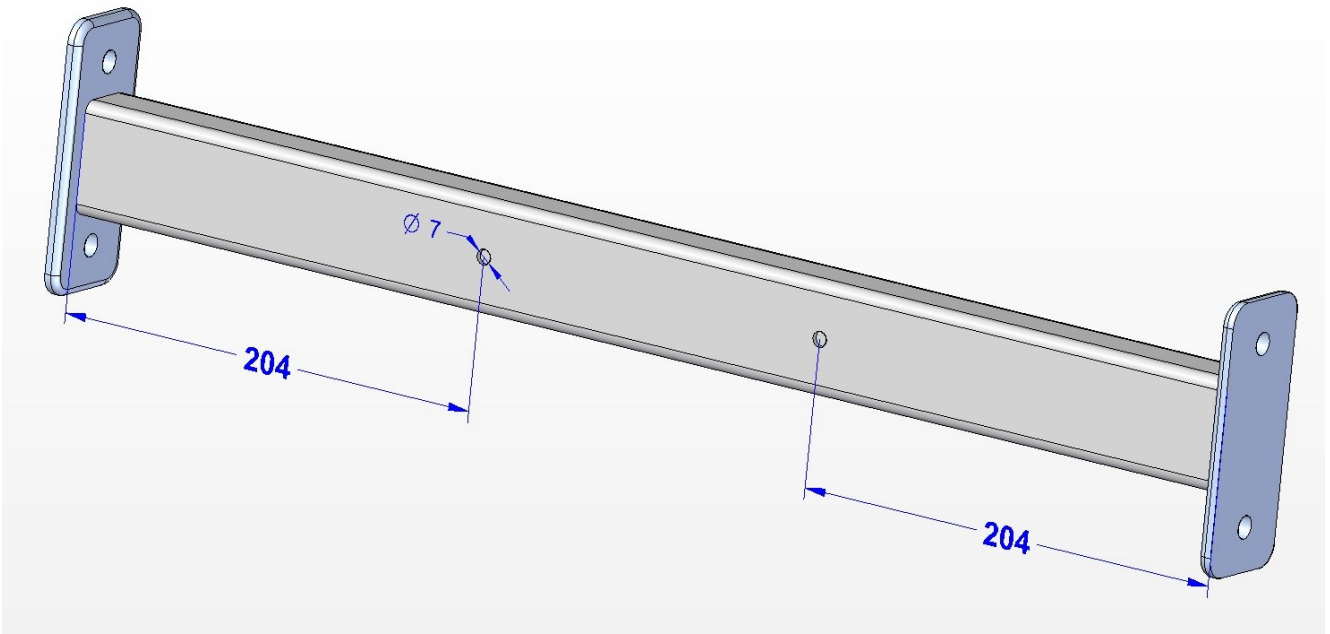


13.

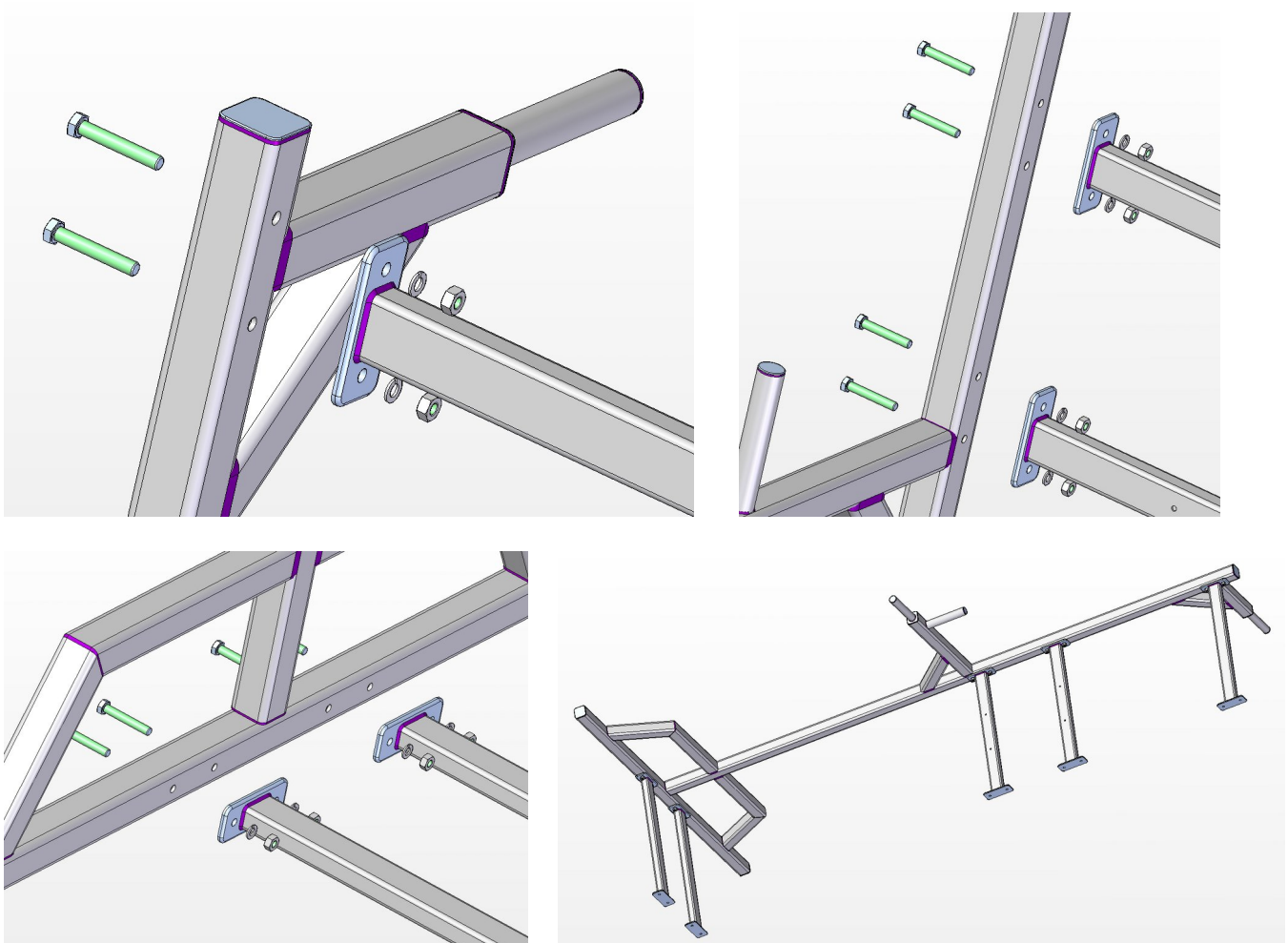


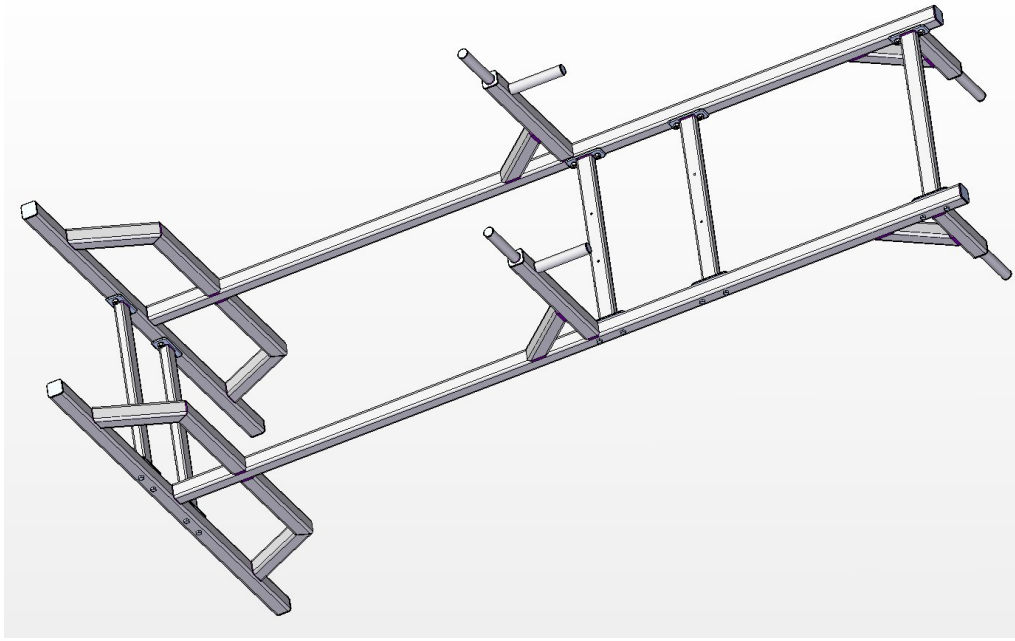
14.





15.





16.

