NoPlasticSunday Air Press Injector Open Source

English Version

V.01
2022/04/22

Let's make together!

Since 2016 NoPlasticSunday has been researching and developing machinery and equipment for plastic recycling using Precious Plastics open source in Korea.

And in April 2022, We're open source our drawings and manuals of Air press injector v1 for free.

This document includes the necessary information about building an Air press injector by yourself.
Any attempts that this open source can be used in a variety of ways are welcome!

Contents

1. NoPlasticSunday Air press injector — 2
- Air press injector
- Why do we share it with everyone as an open source?
- Who can use this open source?
- How can I use it?
- CCL (Creative Commons Attribution)

2. How to use — 3
- Do you have any difficulties?
- Share your experience!
- finally! Have you finished the machine building?

3. Drawings — 4
- Air press injector
- Assembly (A)
- Assembly (B)
- Assembly (C)
- A-1: Base plate
- A-2: Pillar
- A-3: Pillar bracket
- B-1: Middle plate
- B-2: Cylinder support
- B-3: Cylinder
- B-4: Hopper
- B-5: Nozzle
- B-6: Heat cover
- C-1: Press block 1/2
- C-2: Press block 2/2
- C-3: Plunger
- C-4: Bracket 1
- C-5: Bracelet 2

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www.noplasticsunday.com
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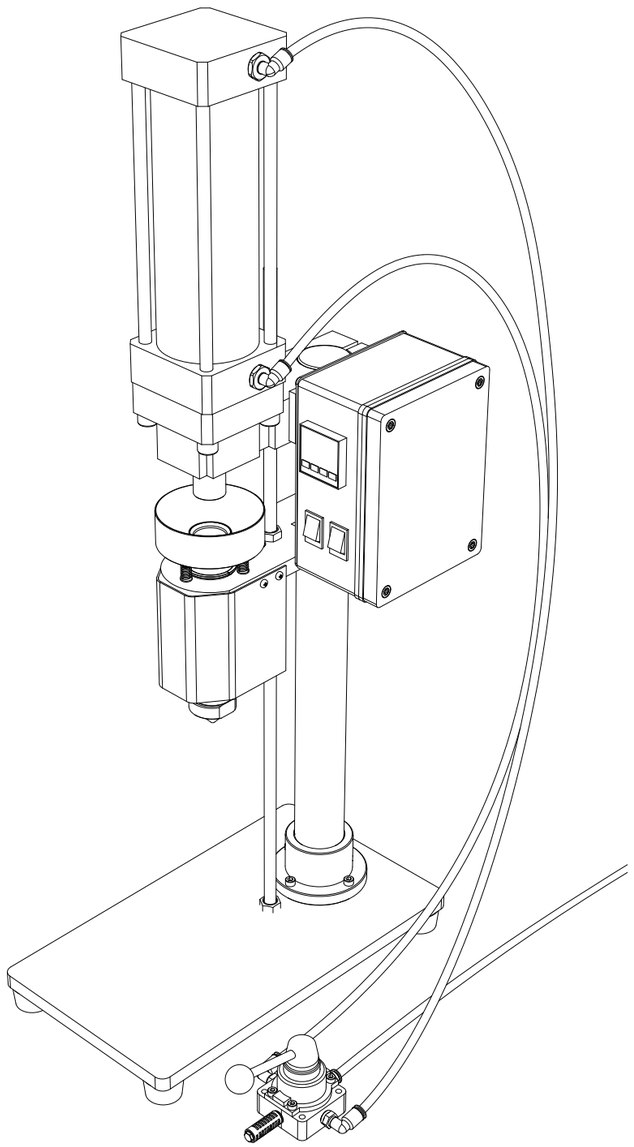
Air press injector open source by NoPlasticSunday®



Air press injector
Injector heats plastic flakes and injects them into a mold. To recycle plastics more effectively, we made the Air press injector that operated by air pressure. It's simple and well suited for creating production of small objects. You can operate the machine simply by switching the lever.

Why do we share it with everyone as an open source?
We've been trying to build a new plastic recycling system as a part of Precious Plastic. As we started the plastic recycling project using Precious Plastics open source, we believe that more people can join us through the sharing of plastic recycling technology!

Who can use this open source?
It's open to everyone who is interested in plastic recycling projects. We hope that sharing information will make it easier for anyone to get started with Precious Plastic. In particular, we support small projects that want to be part of Precious Plastic!

How can I use it?
You can build an Air Press Injector v1 by yourself. Sharing the open source with others, Please use it and spread it with better ideas! Any attempts that this open source can be used in a variety of ways are welcome!

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How to use

Do you have any difficulties?
Our drawings contain a lot of information necessary for machine building. If you have difficulties in understanding, you can consult with the experts around you. Or you can also chat in the Precious Plastic community.
In the community, People make and share their own tools and machines to tackle the plastic waste problem. You can get information about mechanical equipment and usage methods required for plastic recycling.

meet people on Discord
www.community.preciousplastic.com/academy

Share your experience!
What were the difficulties you faced while building the machine, and how could you solve it? Did you come up with a better idea for plastic recycling? Please share your results and process. Problems become easier when you share them with each other.

#noplasticsunday #preciousplastic

finally! Have you finished the machine building?
Please refer to our Air press injection machine manual. You can get some information about setup and run the machine.

Air press injector manual
https://bit.ly/3rId5Sh

We believe more people can join us through the sharing of plastic recycling technology.
Plastics that make our lives convenient became the real threat to life on earth. We create new value by recycling plastics.

We build
a Sustainable plastic recycling system.

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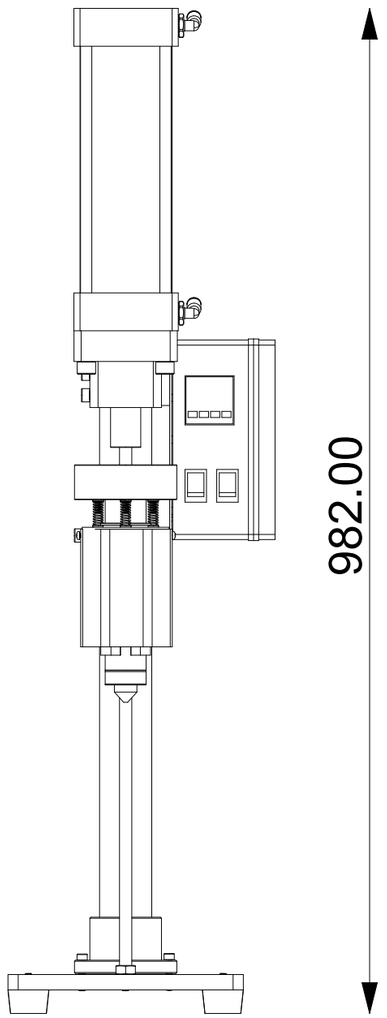

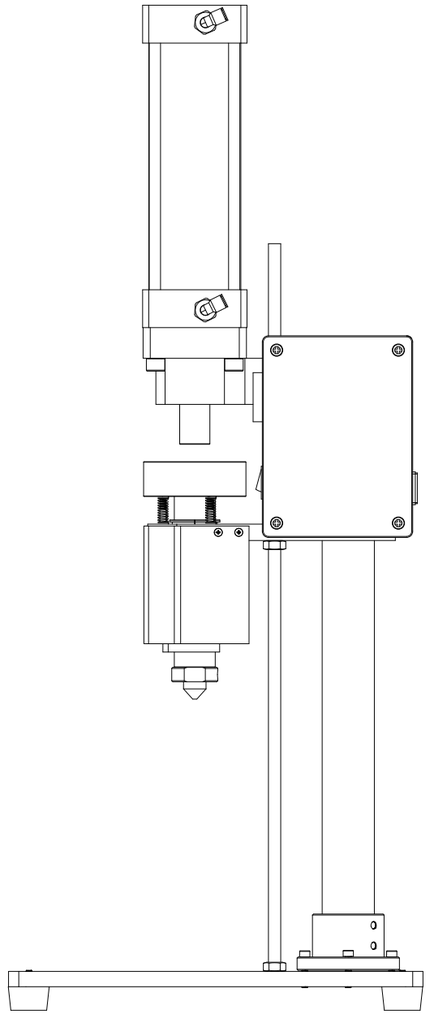

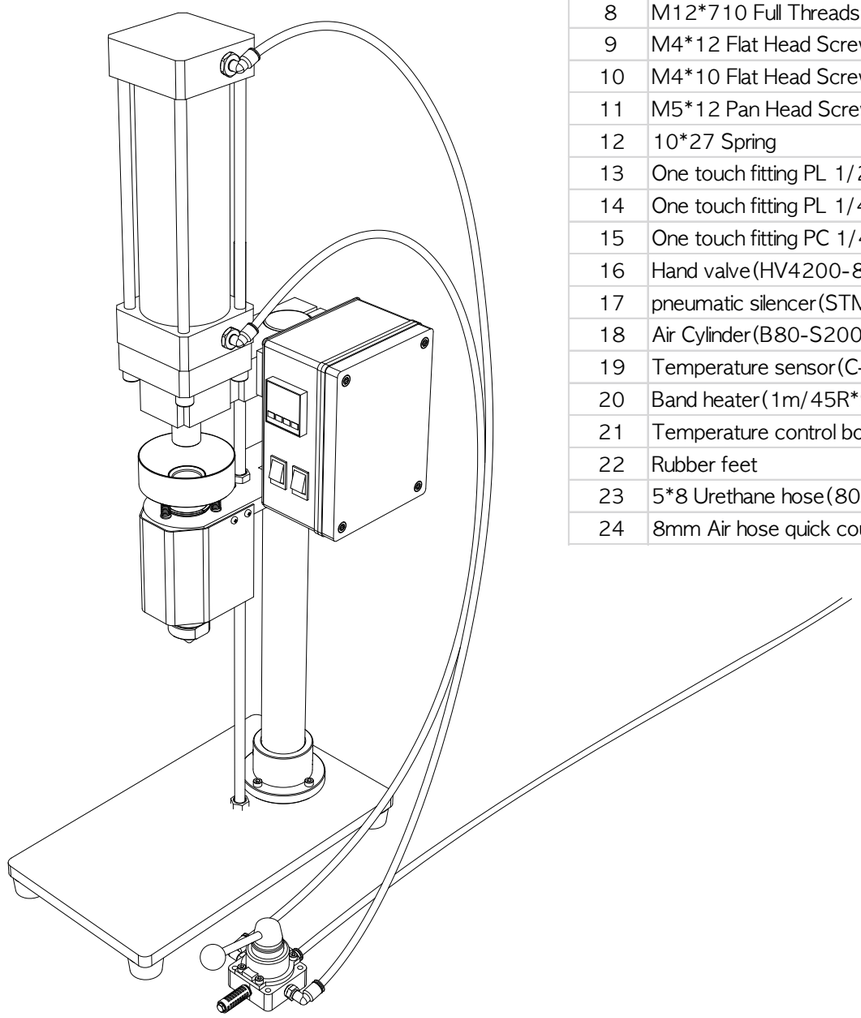

Part No.	Item	Quantity	Note
1	M6*30 Hex SocketHead Cap Screw	8	
2	M6*55 Hex SocketHead Cap Screw	3	
3	M8*55 Hex SocketHead Cap Screw	3	
4	M8*30 Hex SocketHead Cap Screw	4	
5	M8*8 Socket set screw	4	
6	M12*45 Hex SocketHead Cap Screw	4	
7	M12 Flange nut	5	
8	M12*710 Full Threads Bolt	1	
9	M4*12 Flat Head Screw	8	
10	M4*10 Flat Head Screw	4	
11	M5*12 Pan Head Screw	4	
12	10*27 Spring	3	
13	One touch fitting PL 1/2*8	2	
14	One touch fitting PL 1/4*8	2	
15	One touch fitting PC 1/4*8	1	
16	Hand valve(HV4200-8)	1	
17	pneumatic silencer(STM-02)	1	
18	Air Cylinder(B80-S200)	1	
19	Temperature sensor(C-A K/6mm)	1	
20	Band heater(1m/45R*95mm, 220v)	1	
21	Temperature control box	1	
22	Rubber feet	4	
23	5*8 Urethane hose(800/800/1000)M	1	
24	8mm Air hose quick coupler	1	

Title: Air press injector	Part no.: A to C	Doc. type: BOM	
Material: None	Release date: 2022.04.22	Version: Air press injector-v1	
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		Scale: 1/10	Sheet no.: 4 / 21

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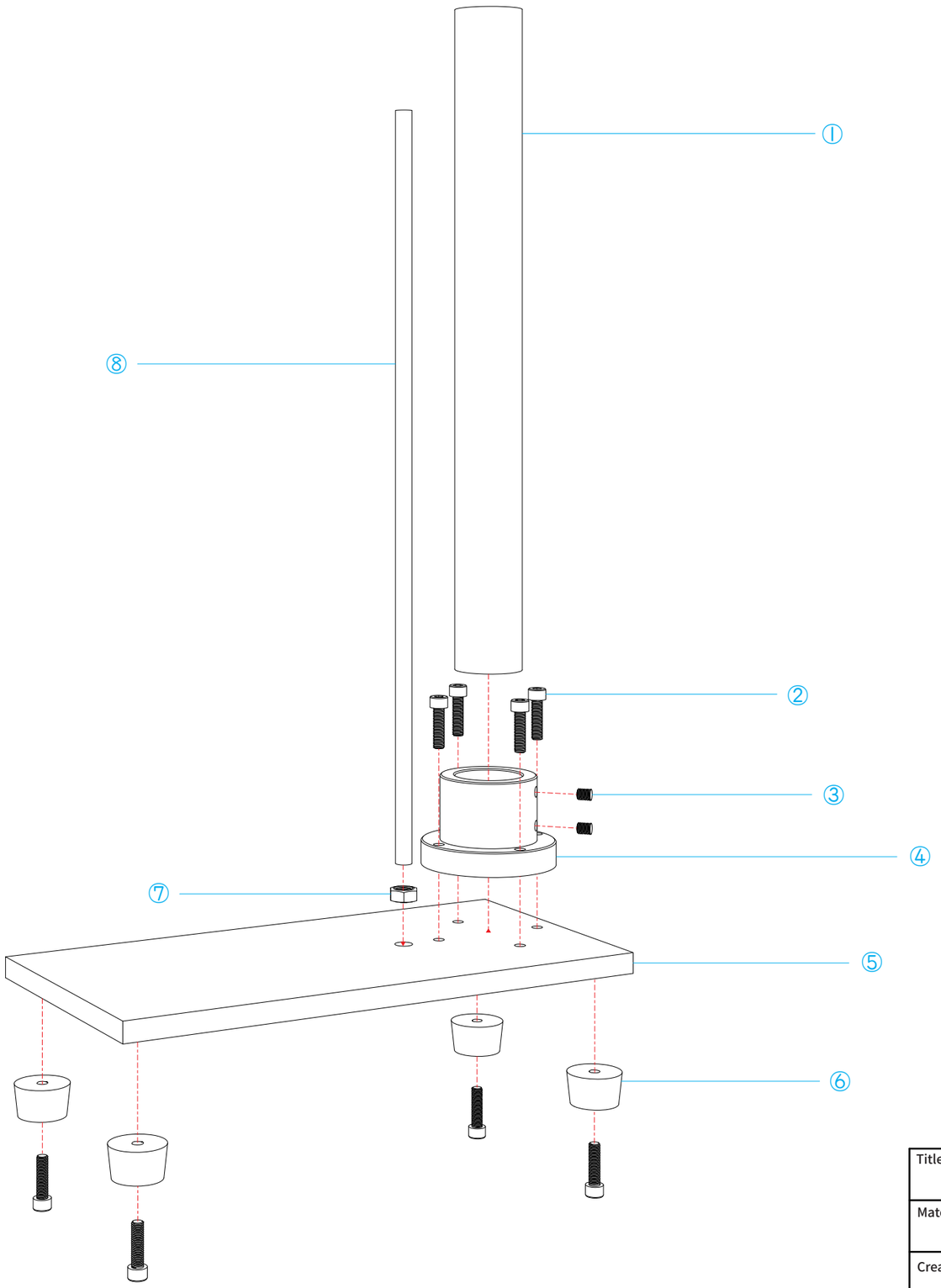
Part No.	Part name	Quantity	Note
1	A-2	1	
2	M6*30 Hex SocketHead Cap Screw	8	
3	M8*8 Socket set screw	4	
4	A-3	1	
5	A-1	1	
6	Rubber feet	4	
7	M12 Flange nut	1	
8	M12*710 Full Threads Bolt	1	



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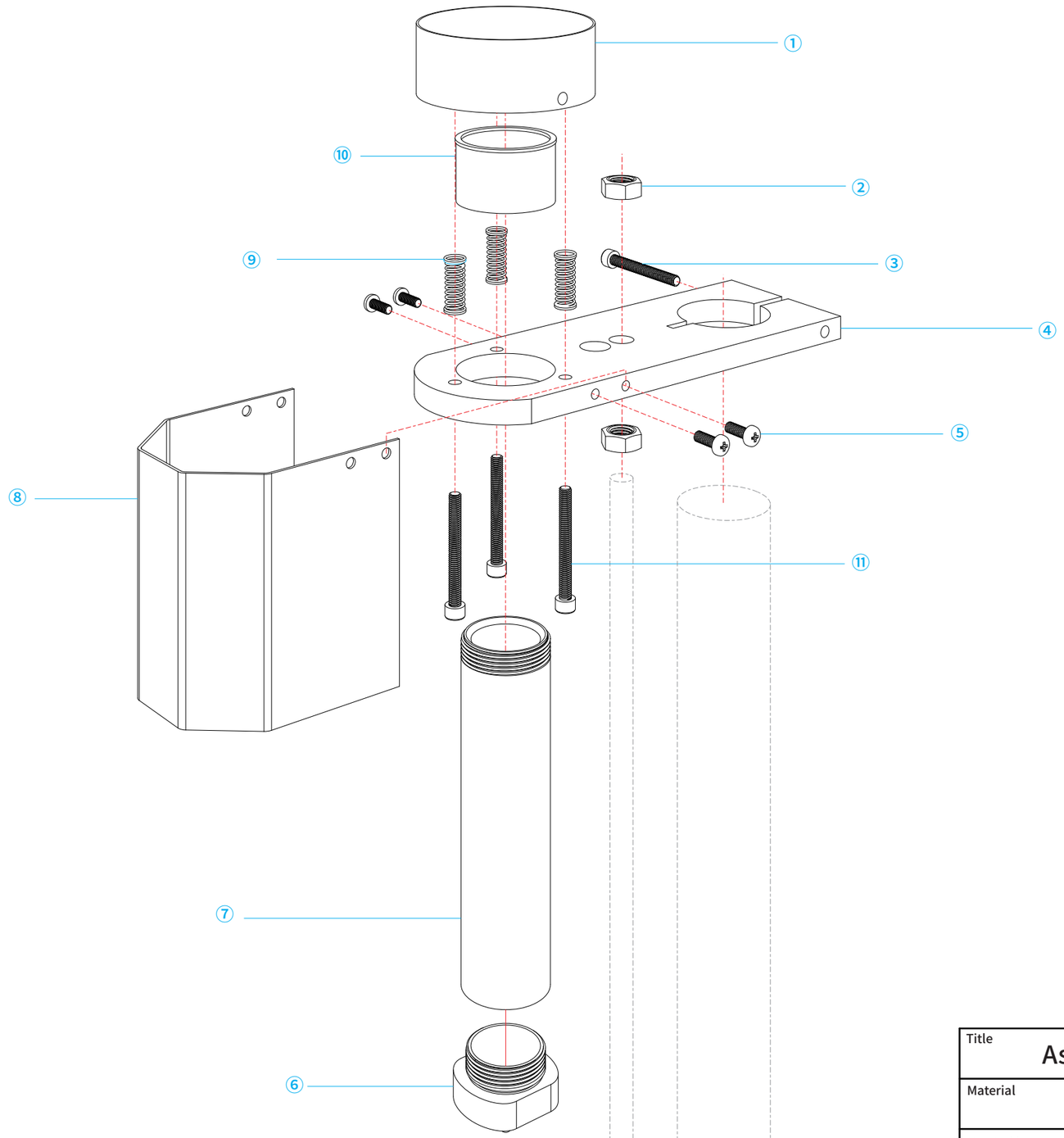

Part No.	Part name	Quantity	Note
1	B-4	1	
2	M12 Flange nut	2	
3	M8*55 Hex SocketHead Cap Screw	1	
4	B-1	1	
5	M4*12 Flat Head Screw	4	
6	B-5	1	
7	B-3	1	
8	B-6	1	
9	10*27 Spring	3	
10	B-2	1	
11	M6*55 Hex SocketHead Cap Screw	3	

Title: Assembly [B]	Part no.: B-1 to B-6	Doc. type: Assembly
Material: None	Release date: 2022.04.22	Version: Air press injector-v1
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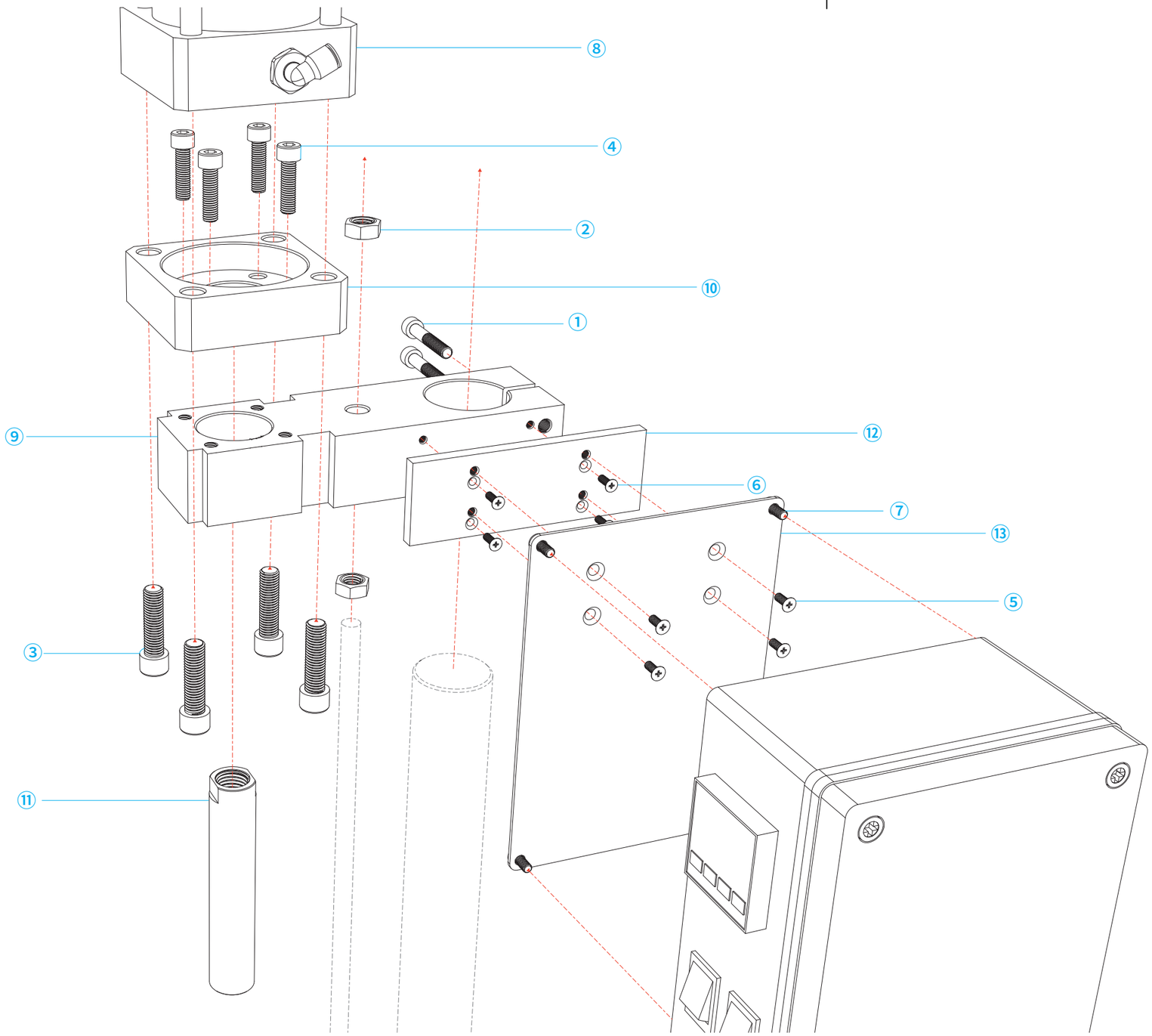

Part No.	Part name	Quantity	Note
1	M8*30 Hex SocketHead Cap Screw	2	
2	M12 Flange nut	2	
3	M12*45 Hex SocketHead Cap Screw	4	
4	M8*30 Hex SocketHead Cap Screw	4	
5	M4*10 Flat Head Screw	4	
6	M4*12 Flat Head Screw	4	
7	M5*12 Pan Head Screw	4	
8	Air Cylinder(B80-S200)	1	
9	C-1	1	
10	C-2	1	
11	C-3	1	
12	C-4	1	
13	C-5	1	

Title: Assembly [C]	Part no.: C-1 to C-5	Doc. type: Assembly	
Material: None	Release date: 2022.04.22	Version: Air press injector-v1	
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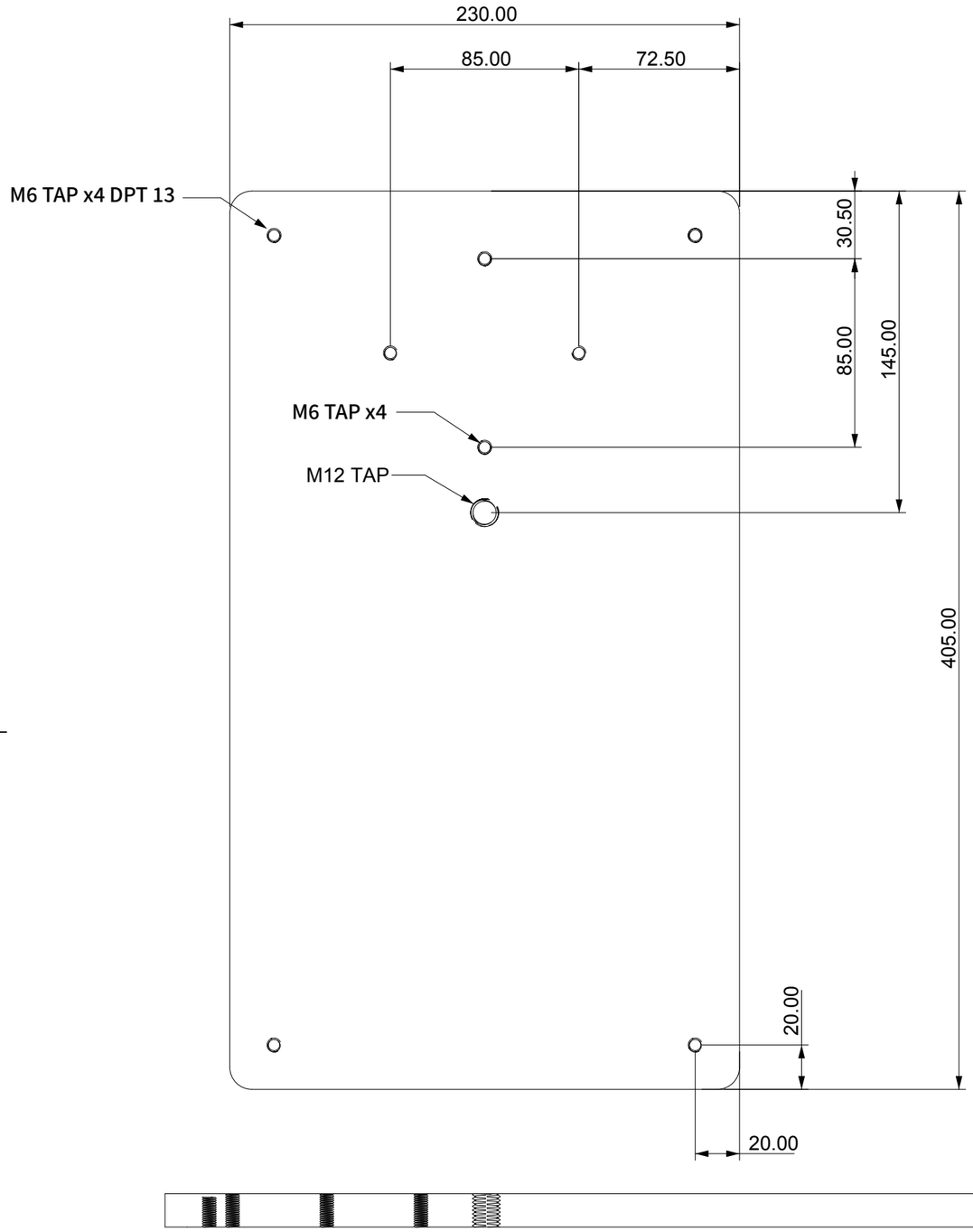

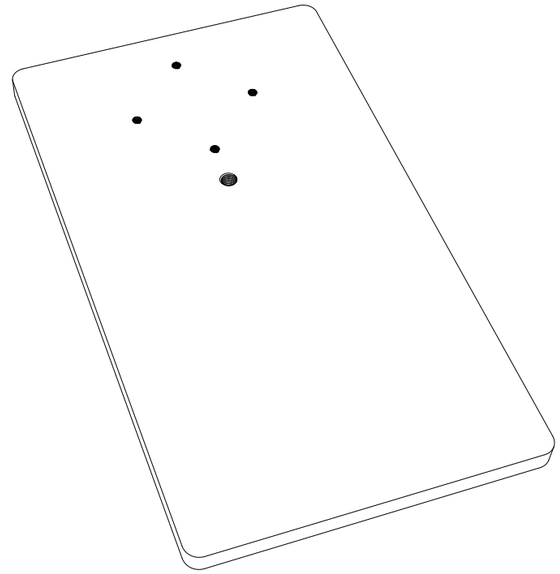

Title: Base plate	Part no.: A-1	Doc. type: Part	
Material: Steel	Release date: 2022.04.22	Version: Air press injector-v1	
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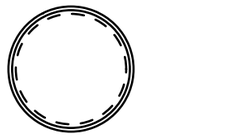

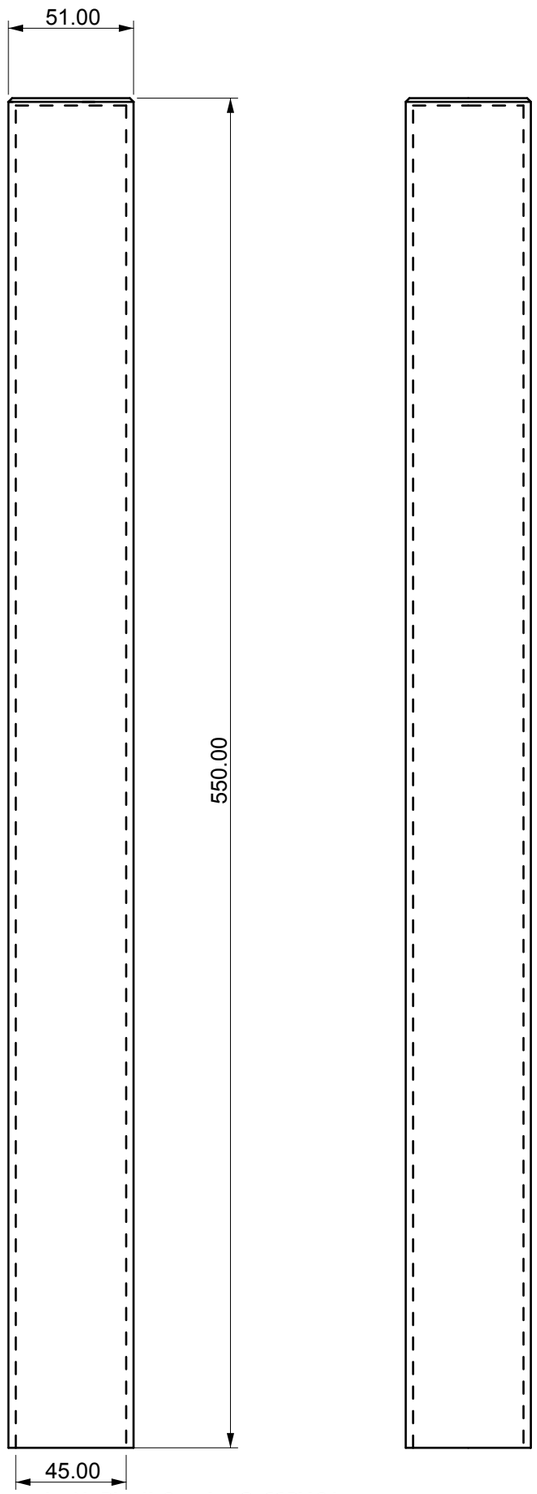

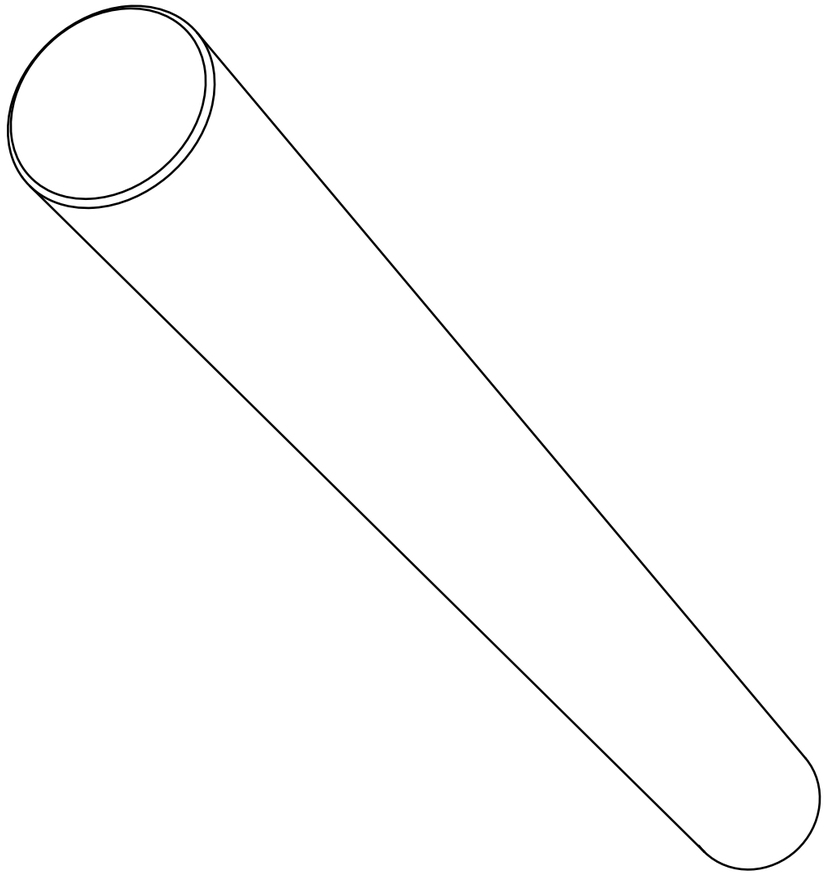

Title: Pillar		Part no.: A-2		Doc. type: Part	
Material: Aluminium		Release date: 2022.04.22		Version: Air press injector-v1	
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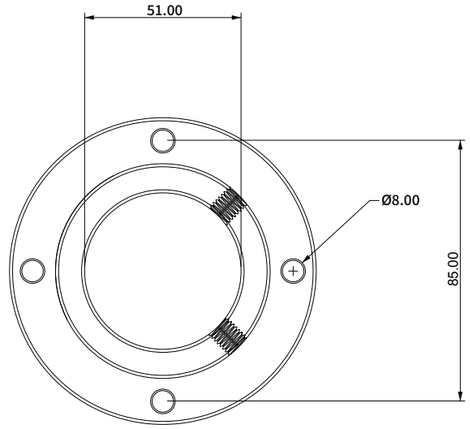

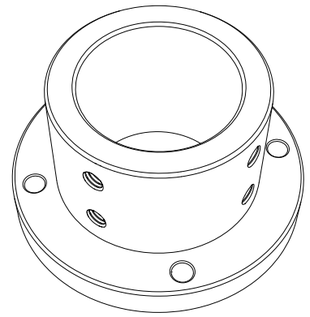

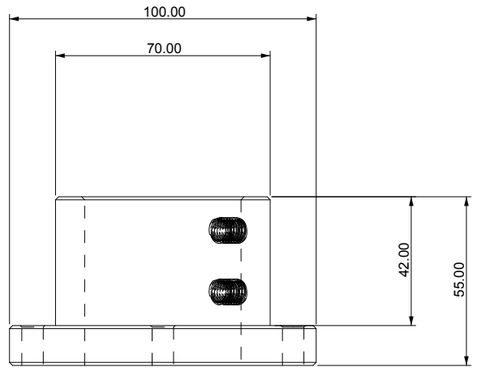

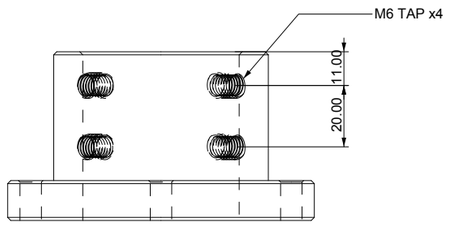

Title: Pillar bracket	Part no.: A-3	Doc. type: Part	
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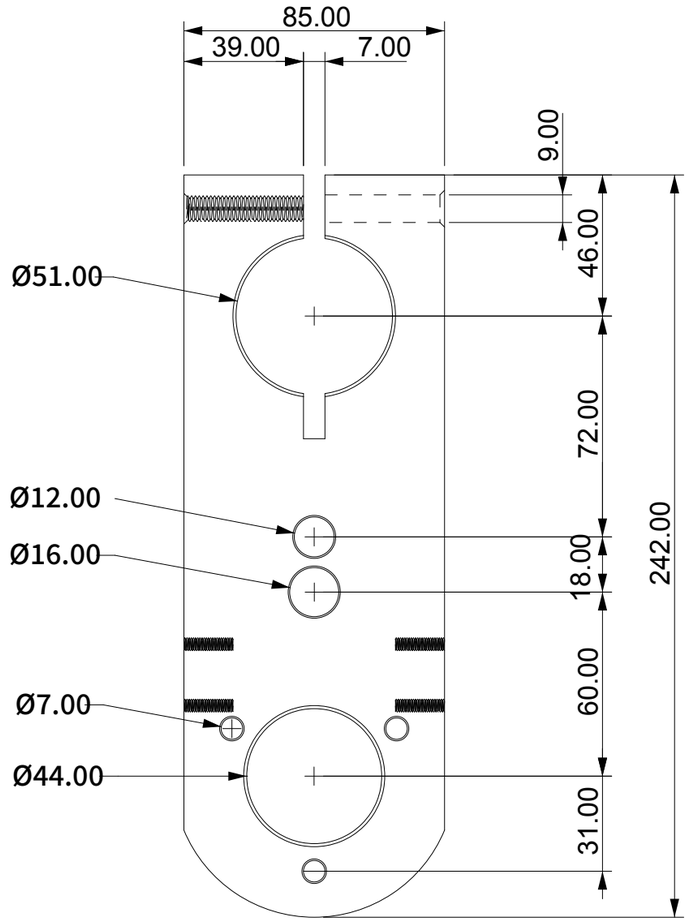

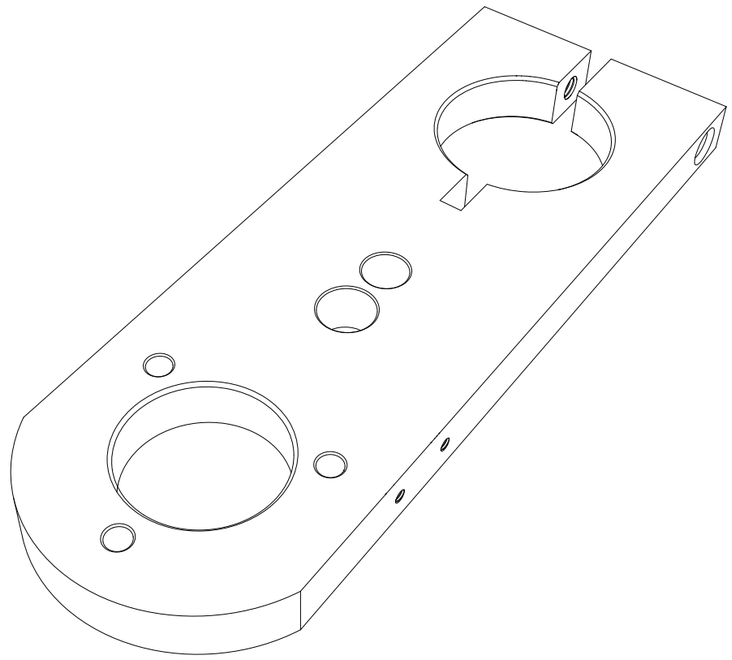

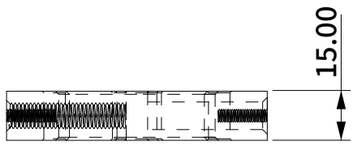

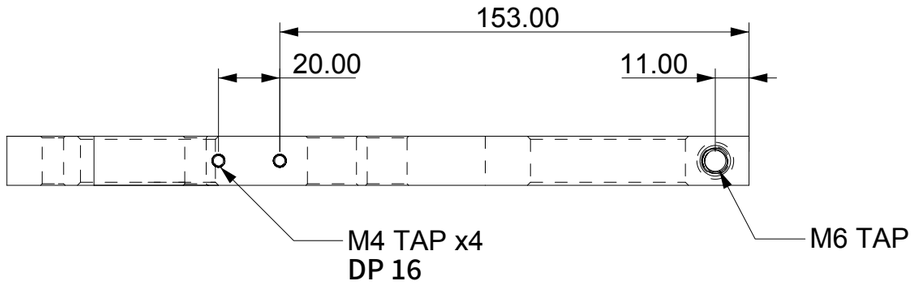

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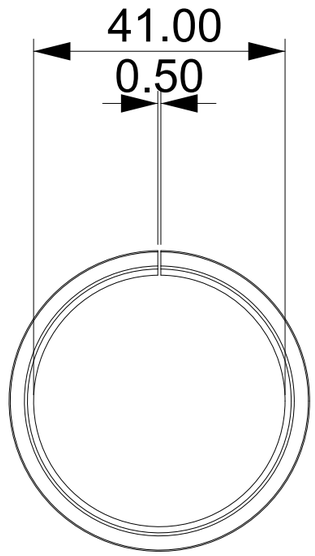

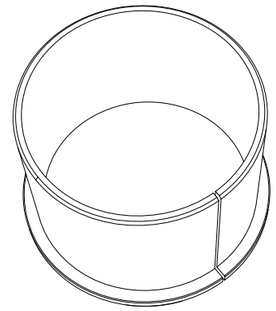

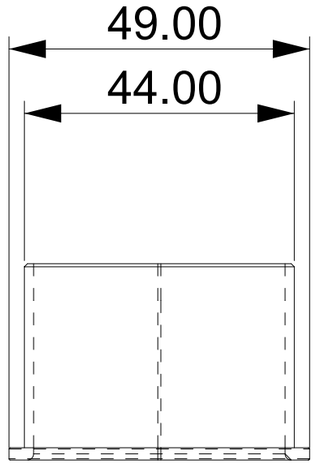

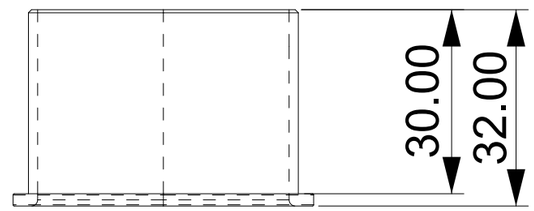

Title: Cylinder support	Part no.: B-2	Doc. type: Part	
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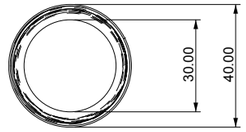

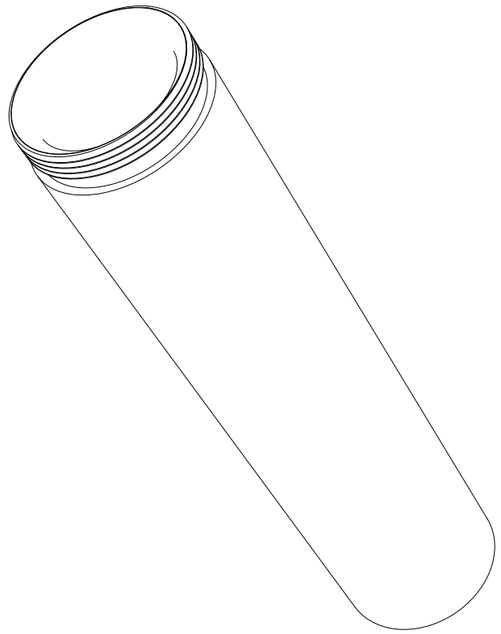

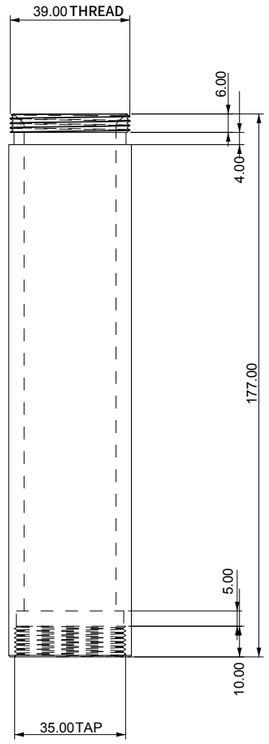

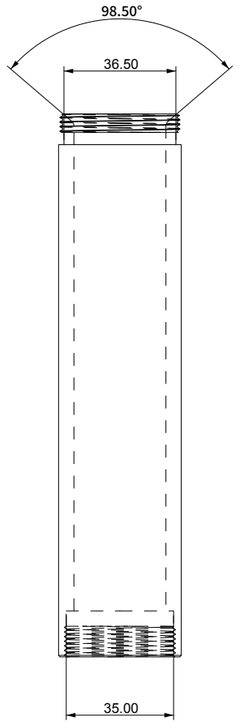

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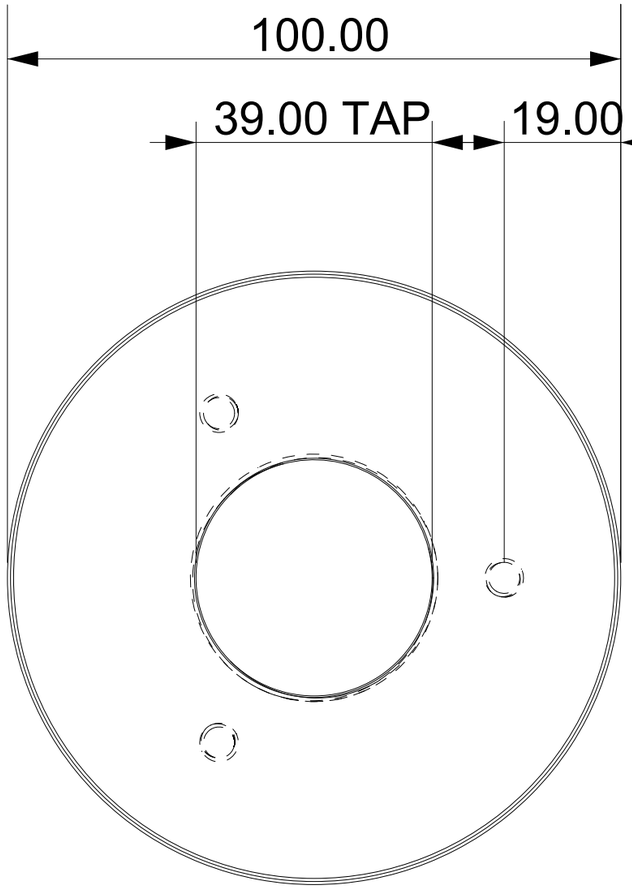

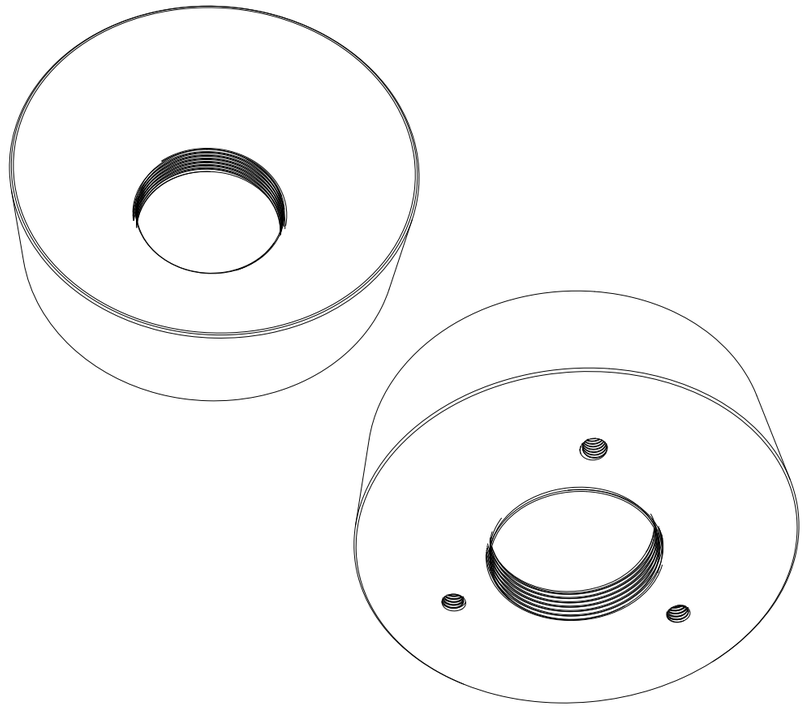

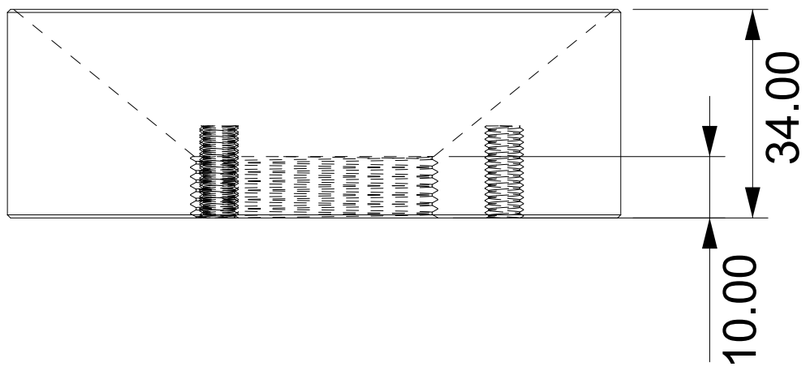

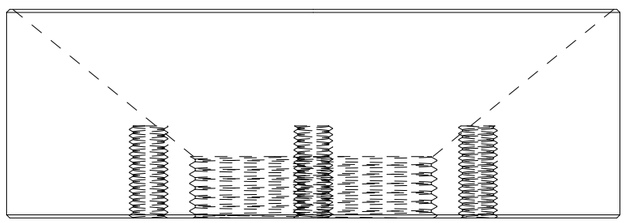

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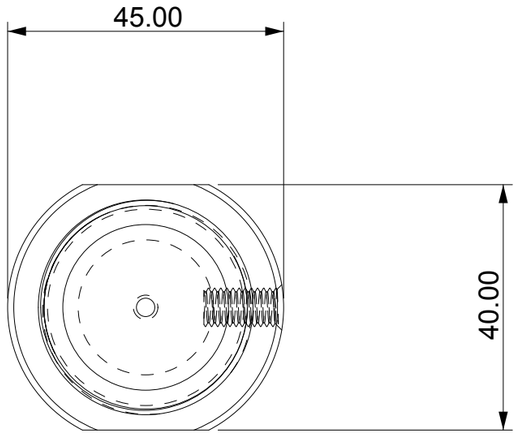

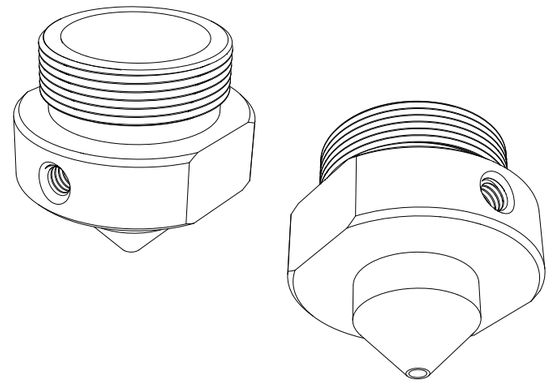

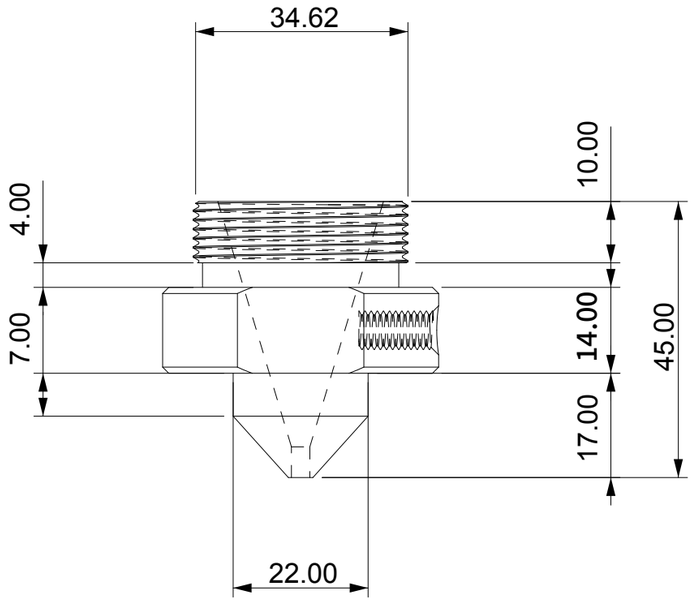

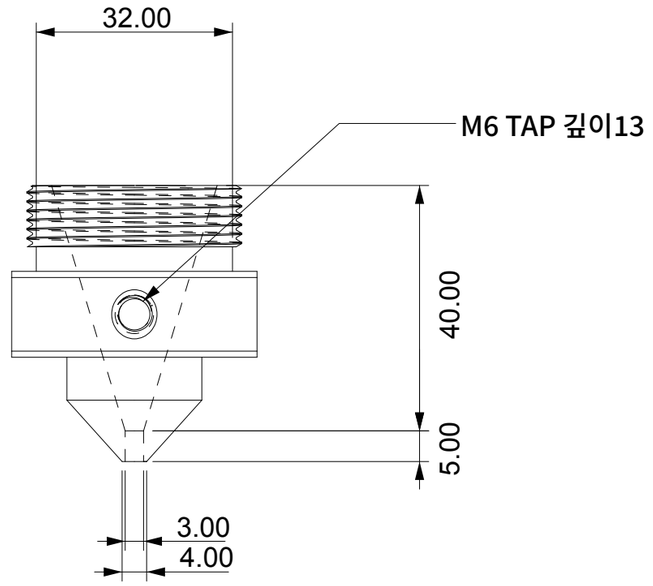

Title: Nozzle	Part no.: B-5	Doc. type: Part	
Material: Steel	Release date: 2022.04.22	Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com		Sheet: A3	Unit: mm
		Scale: 1/1	Sheet no.: 15 / 21

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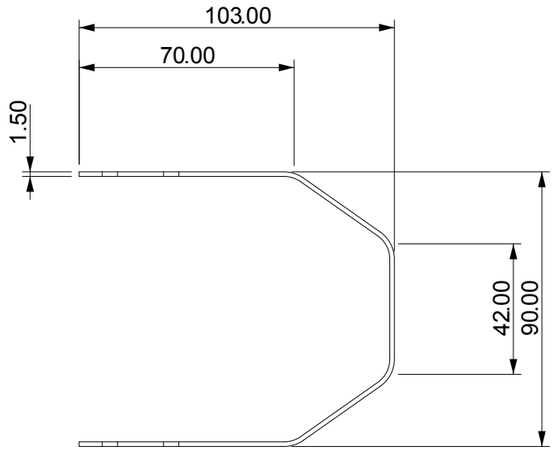

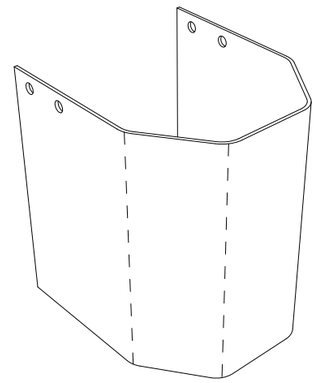

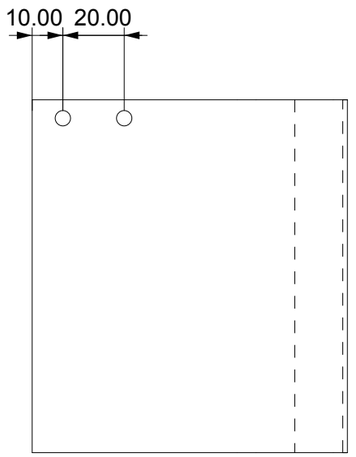

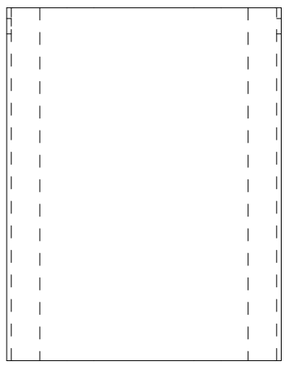

Title: Heat cover		Part no.: B-6		Doc. type: Part	
Material: Aluminium		Release date: 2022.04.22		Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com				Sheet: A3	Unit: mm
				Scale: 1/2	Sheet no.: 16 / 21

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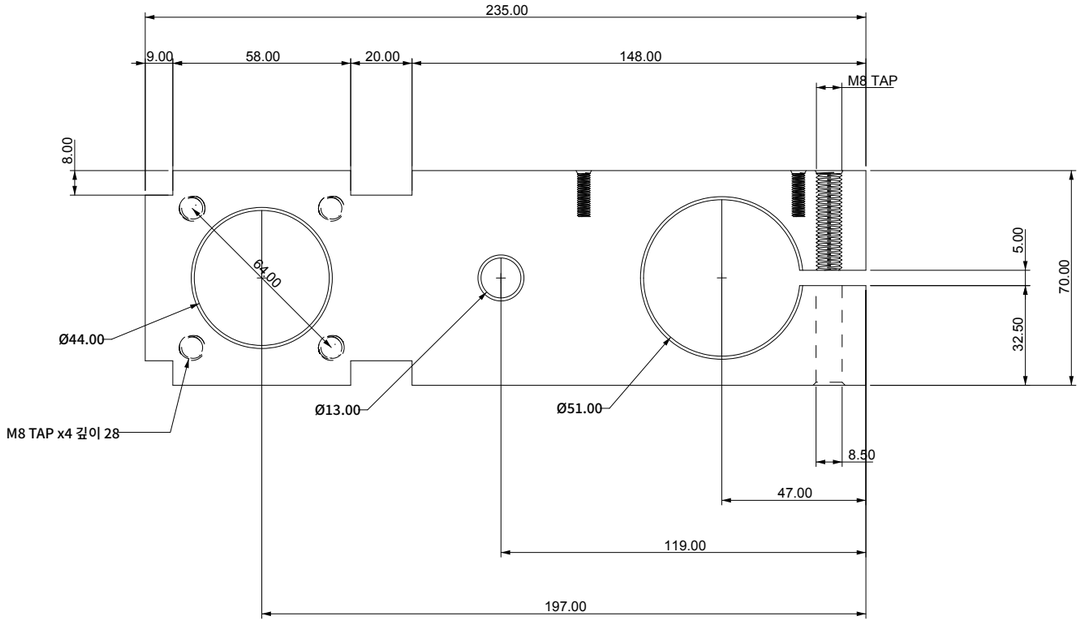

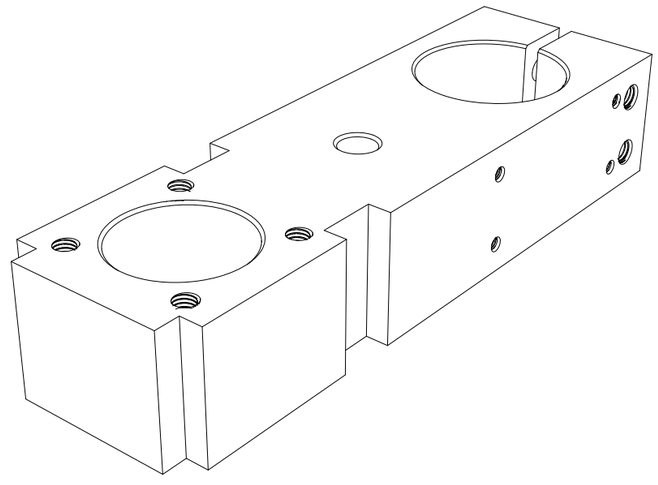

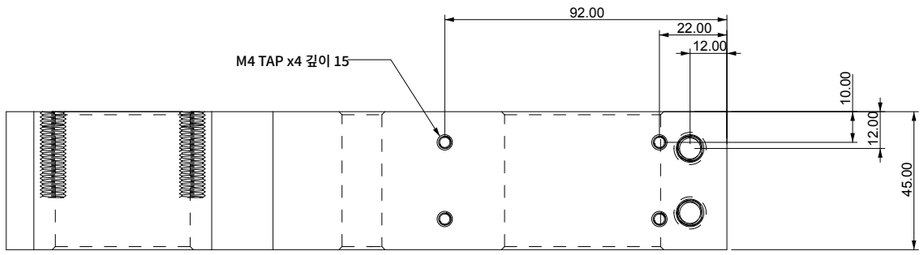

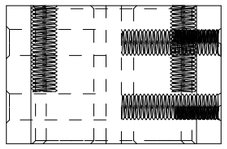

Title: Press block 1/2	Part no.: C-1	Doc. type: Part	
Material: Aluminium	Release date: 2022.04.22	Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com		Sheet: A3	Unit: mm
		Scale: 1/2	Sheet no.: 17 / 21

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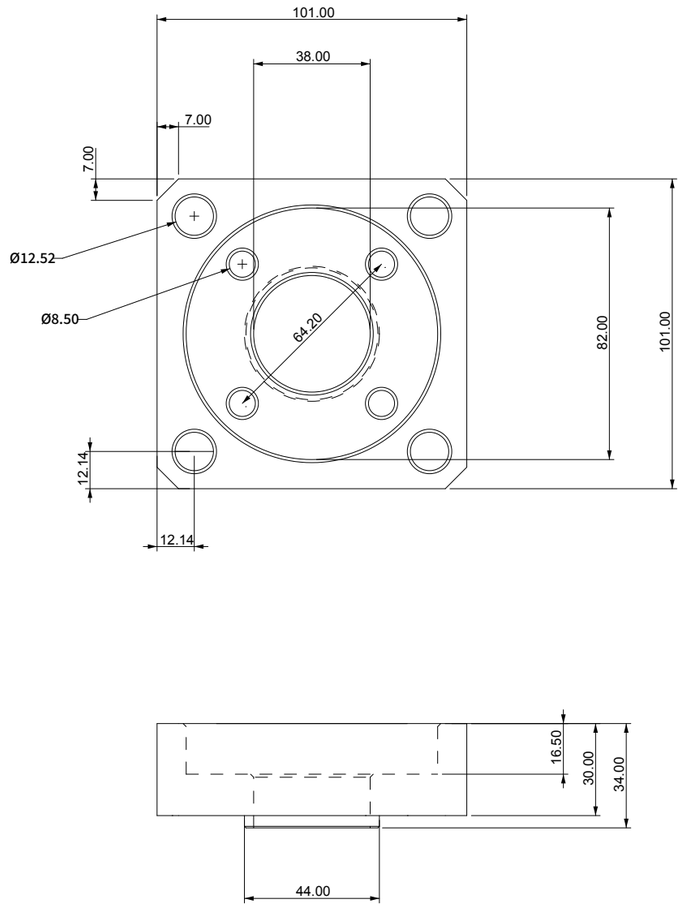

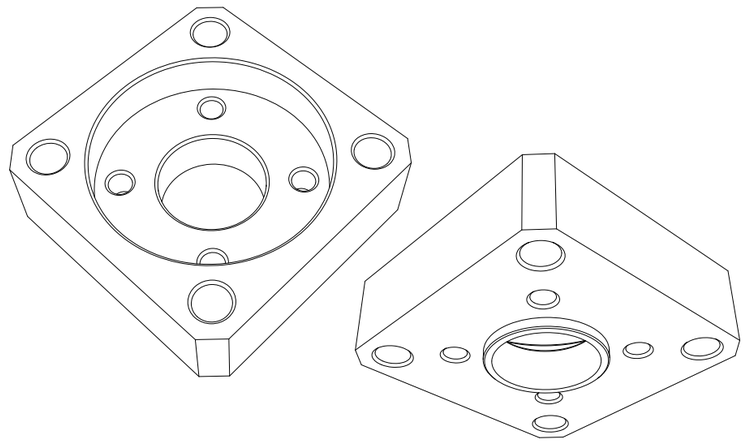

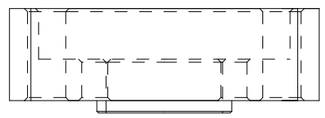

Title: Press block 2/2	Part no.: C-2	Doc. type: Part	
Material: Aluminium	Release date: 2022.04.22	Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com		Sheet: A3	Unit: mm
		Scale: 1/2	Sheet no.: 18 / 21

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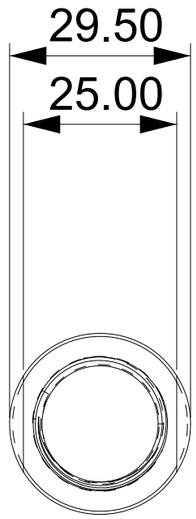

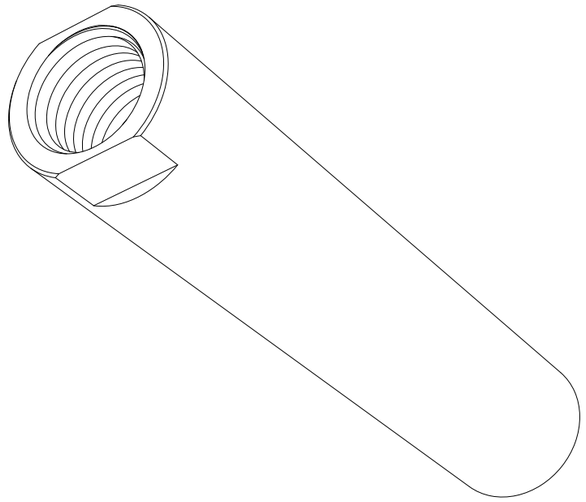

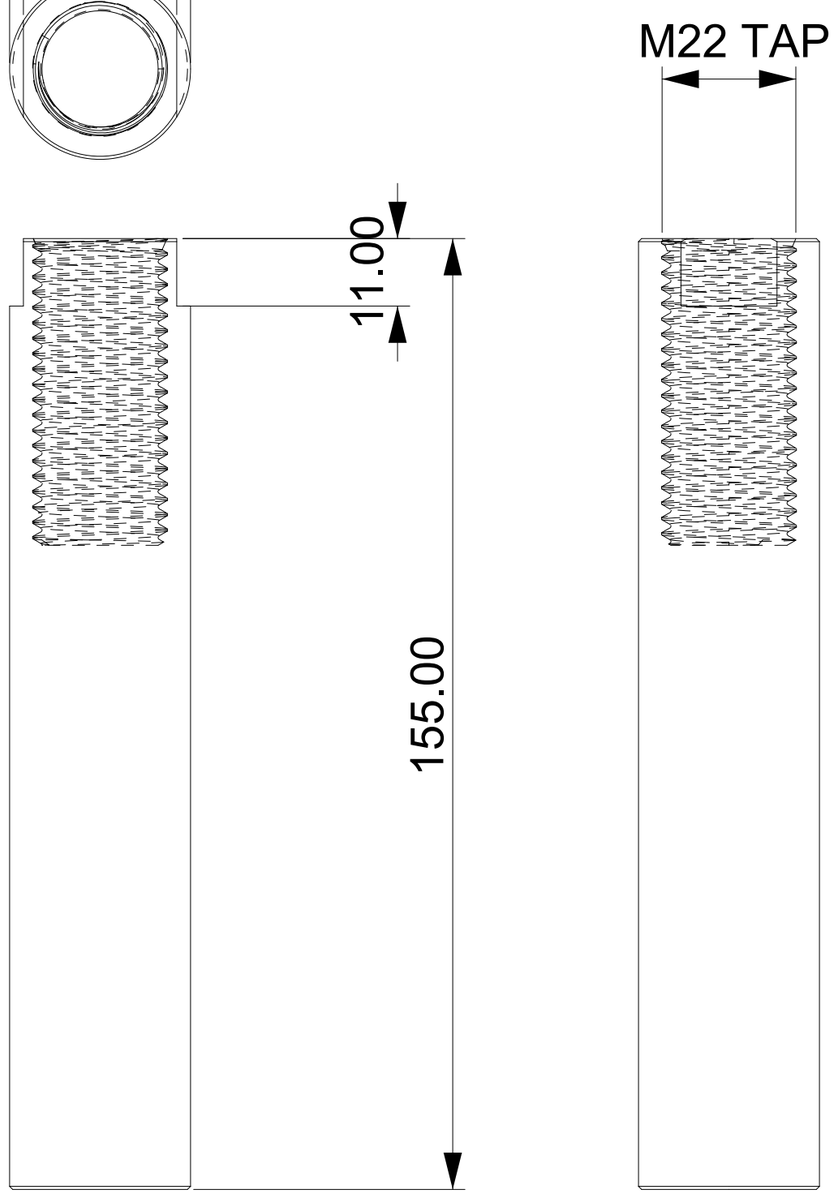

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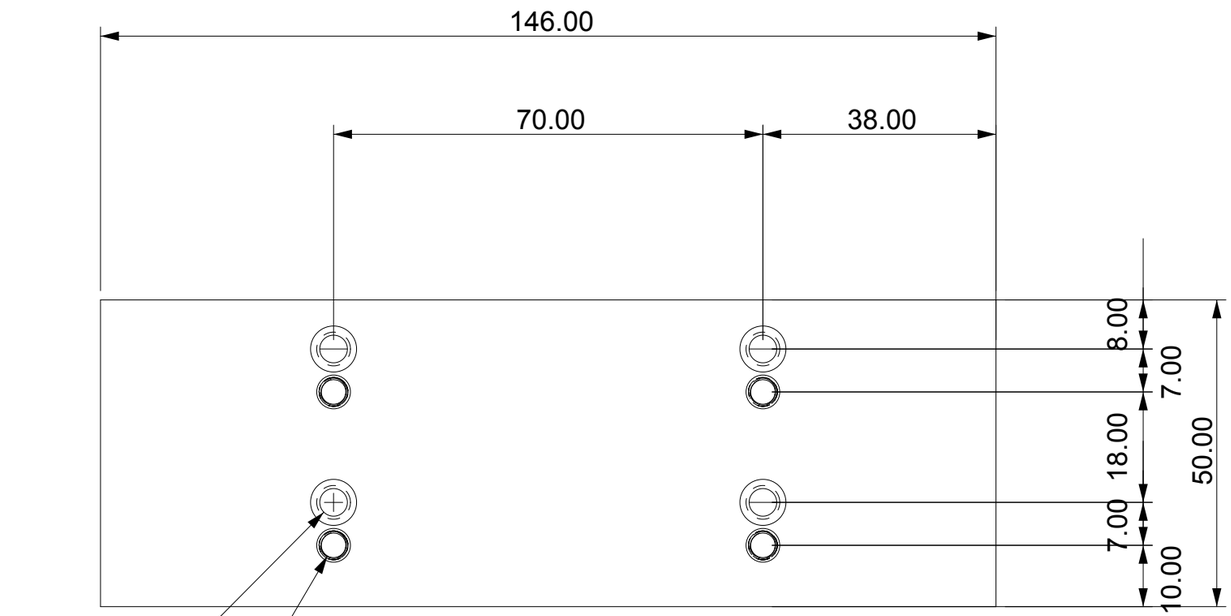
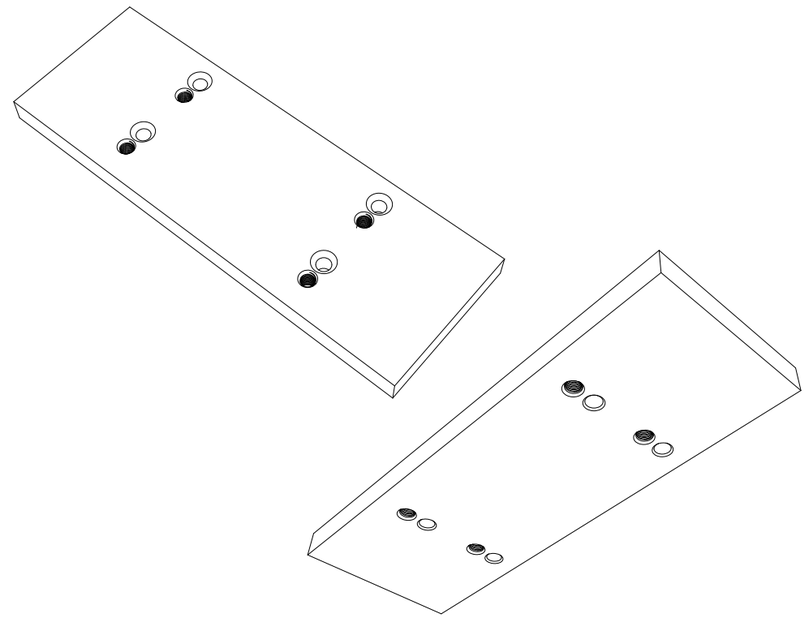
Title: Plunger	Part no.: C-3	Doc. type: Part	
Material: Steel	Release date: 2022.04.22	Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com		Sheet: A3	Unit: mm
		Scale: 1/1	Sheet no.: 19 / 21





Title: Bracket 1	Part no.: C-4	Doc. type: Part
Material: Aluminium	Release date: 2022.04.22	Version: Air press injector-v1
Created by: NoPlasticSunday® www.noplasticsunday.com	Sheet: A3 / Unit: mm	
	Scale: 1/1	Sheet no.: 20 / 21

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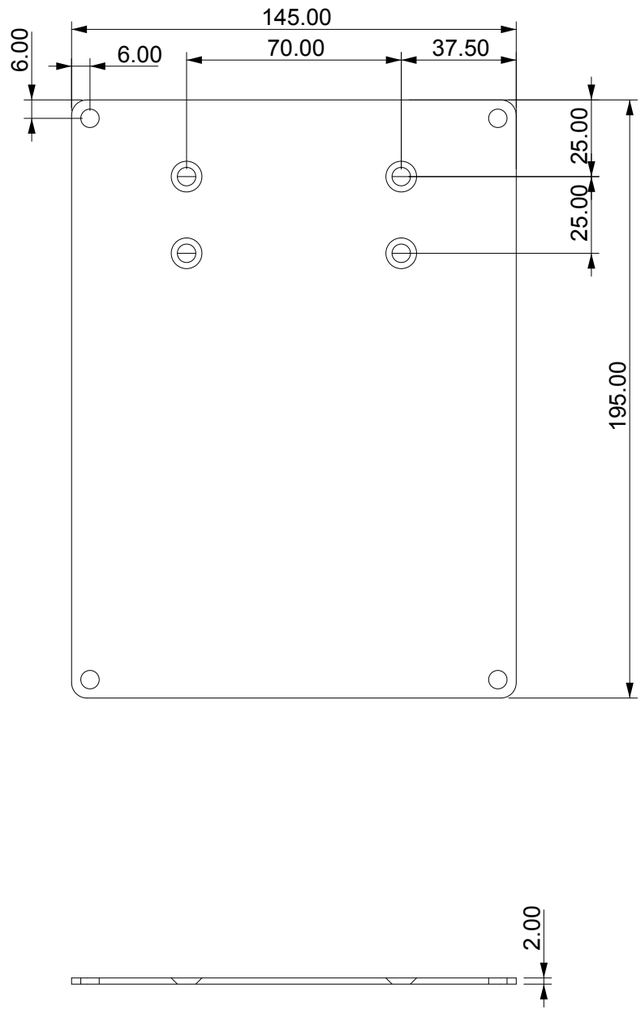

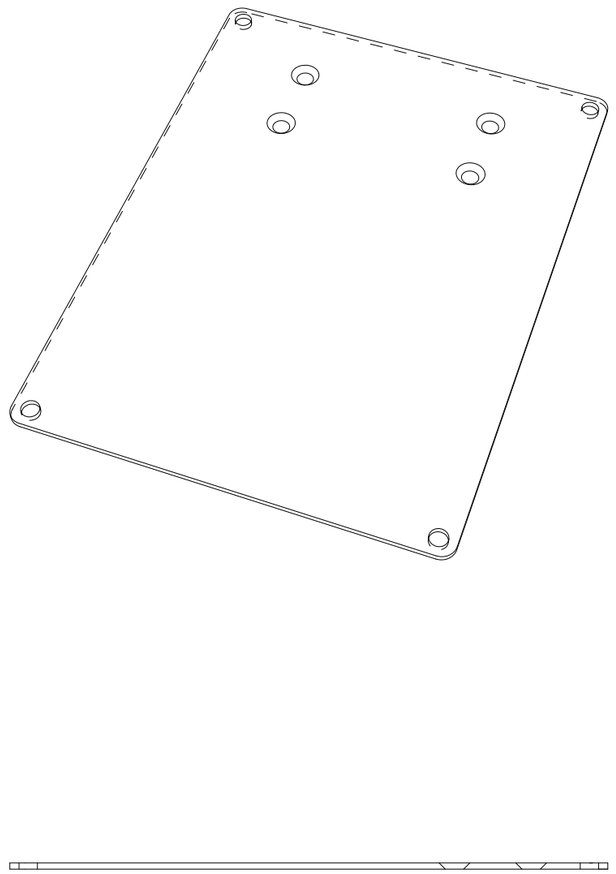

Title: Bracket 2	Part no.: C-5	Doc. type: Part	
Material: Aluminium	Release date: 2022.04.22	Version: Air press injector-v1	
Created by: NoPlasticSunday® www.noplasticsunday.com		Sheet: A3	Unit: mm
		Scale: 1/2	Sheet no.: 21 / 21

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