

Cutting list

Part nr.	3D-file Name	Type	Material	Qty 3 config.	Vacuum Forming	Metal bending	Injection molding	Base	Length to cut
1.1	20x80 mm buis v3	round 20x16mm	Steel/RVS	2			2		80mm
1.2	20x140 mm buis v3	round 20x16mm	Steel/RVS	4	2	2			140mm
1.3	20x200 mm buis v3	round 20x16mm	Steel/RVS	2			2		200mm
1.4	Piston v3/top part	round 25x28mm	Steel/RVS	1			1		25mm
1.5	Bolt m10 215 metal bending	M10 Threated Rod	Steel/RVS	2		2			215mm
1.6	Bold m10 235 vacuumforming	M10 Threated Rod	Steel/RVS	2	2				235mm
1.7	Bolt m10 380 injectionmoulding	M10 Threated Rod	Steel/RVS	2			2		380mm
1.8	Linear actuator holder v3	M10 Threated Rod	Steel/RVS	2		2	2		210mm
1.9	Piston v3	12mm Rod	Steel/RVS/Aluminium	1			1		98mm
1.10	Expanded steel v3	Expanded metal sheet	Steel/RVS/Aluminium	1	1				110mm
1.11	PVC pipe straight 32 v3	PVC tube 32mm	PVC	1				1	100mm
1.12	Nozel holder base v3/body5	Acrylic tube 80x74	Acrylic	1			1		46mm

3D printing

Part nr.	3D-file Name	Type	Material	Qty 3 config.	VF	MB	IM	Base	Production file name
2.1	Clamp 6 v3	3D-print	PLA or high temp resin	2	2				2.1 Clamp 6 v3.STL
2.2	Insert 2 v3	3D-print	PLA	16	4	8	4		2.2 Insert 2 v3.STL
2.3	M10 Nut ring v2	3D-print	PLA	6	2	2	2		2.3 M10 Nut ring v2.STL
2.4	Metal bending top mould v3	3D-print	PLA	1		1			2.4 Metal bending top mould v3.STL
2.5	Metal bending bottom mould v3	3D-print	PLA	1		1			2.5 Metal bending bottom mould v3.STL

CNC milling/Lathe

Part nr.	3D-file Name	Type	Material	Qty 3 config.	VF	MB	IM	Base	Production file
3.1	Vacuum plastic frame v3	-	HPL	2	2				3. HPL parts.STEP
3.2	Vacuum bed holder v3 v7		HPL	1	1				3. HPL parts.STEP
3.3	Nozell holder top v3		HPL	1			1		3. HPL parts.STEP
3.4	Nozel holder base v3		HPL	1			1		3. HPL parts.STEP
3.5	Mould holder v3		HPL	1			1		3. HPL parts.STEP
3.6	Kapje front		HPL	1				1	3. HPL parts.STEP
3.7	Kapje back		HPL	1				1	3. HPL parts.STEP

3.8	Nozzle/body1	Injection molding nozzle	Aluminium	1			1		3. HPL parts.STEP	
3.9	Carabiner/Bottom mould	Bottom mold	Aluminium	1			1		3.9 Bottom mold.STEP 3.9 Bottom mold Drawing.PDF	
3.10	Carabiner/Topmould	Top mold	Acrylic	1			1		3.10 Top mold.STEP 3.10 Top mold Drawing.PDF	

Bought parts

Part nr.	3D-file Name	Search name	Material	Qty 3 config.	VF	MB	IM	Base	Store	Order link
4.1	M10 Flange nut	M10 Flange nut	Steel	8		8	8		Hardware store	https://www.ama
4.2	M10 nut	M10 nut	Steel	6	2	2	2		Hardware store	https://www.horn
4.3	M10 Welding nut	M10 cap nut	Steel	2				2	Hardware store	https://www.horn
4.4	M4 bolt flat 20	M4 flat head bolt x 20	Steel	8				8	Hardware store	https://www.horn
4.5	M4 rivet nut	M4 rivet nut	Steel	8				8	Hardware store	https://www.ama
4.6	M6 Wing bolt x 20	M6 Wing bolt x 20	Steel	4			4		Hardware store	https://www.horn
4.7	M8 Hex 55	M6 Bolt hex 55	Steel	3			3		Hardware store	https://no.rs-onlin
4.8	M6 Wingnut	M6 Wing nut	Steel	3			3		Hardware store	https://www.horn
4.9	PVC 90 32 v3	PVC tube 90 deg. 32mm	PVC	1				1	Hardware store	https://www.horn
4.10	Nozzle/body3	Rock wool	Rock wool	1			1		Hardware store	https://www.horn
4.11	N/a	Draad 1.5^m2	N/a	1				1	Electramat	https://www.elekt
4.12	N/a	Plug	N/a	1			1		Electramat	https://www.elekt
4.13	DC House 150mm Lineaire actuator	Linear actuator stroke 150mm	N/a	1		1	1		Aliexpress	https://www.aliex
4.14	12v dc/230v AC 5A v3	AC/DC converter 12V	N/a	1				1	Aliexpress	https://nl.aliexpre
4.15	Nozzle/body2	PTC element 230v 270+ deg.	N/a	1			1		Aliexpress	https://nl.aliexpre
4.16	DC connector v3	DC Power Jack Socket 5,5 x 2,	N/a	1				1	Amazon	https://www.ama
4.17	C14 chassis socket v3	C14 chassis socket	N/a	1				1	Amazon	https://www.ama
4.18	Button 3 way v3	3 Way switch	N/a	1				1	Amazon	https://www.ama
4.19	N/a	Springs 40mm x ID 6mm	Steel	1			1		Amazon	https://www.ama
4.20	N/a	Heat gun	N/a	1	1				LIDL/Second hand	https://www.lidl.n
4.21	N/a	Vacuum cleaner	N/a	1	1				Second hand	

Lasercut + press brake

Part nr.	3D-file Name	Type	Material	Qty 3 config.	VF	MB	IM	Base	File name
5.1	Linear actuator holder v3/body 4	40x40x2 square tube	Steel/RVS	1		1	1		5.1 Top Tube.STEP 5.1 Top Tube Drawing.PDF
5.2	Linear actuator holder v3/body 1	40x40x2 square tube	Steel/RVS	1		1	1		5.2 Bottom Tube.STEP 5.2 Bottom Tube Drawing.PDF
5.3	Gelijder v3	30x30 U-profile	Steel/RVS	1		1			5.3 Press brake top.STEP 5.3 Press brake top Drawing.PDF

5.4	Gelijder bottom mold holder v3	30x30 U-profile	Steel/RVS	1	1			5.4 Press brake bottom.STEP	
								5.4 Press brake bottom Drawing.PDF	
5.5	bottom plate	Sheet metal	Steel/RVS	1				5.5 Metal bending.STEP	
								1 5.5 Metal bending Drawing.PDF	
5.6	Base plate sheet metal v3	Sheet metal	Steel/RVS	1				5.6 Metal bending.STEP	
								1 5.6 Metal bending Drawing.PDF	