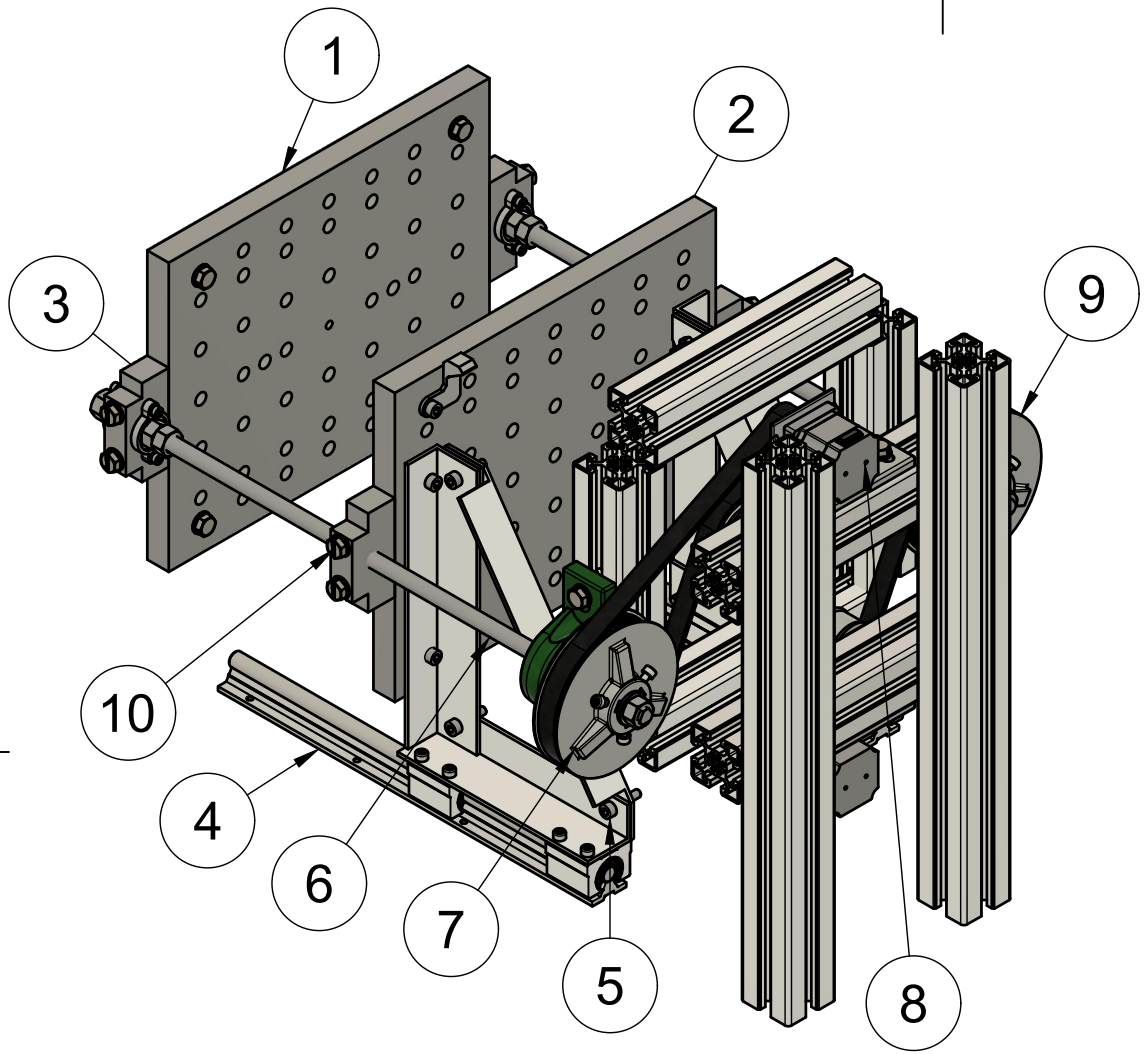
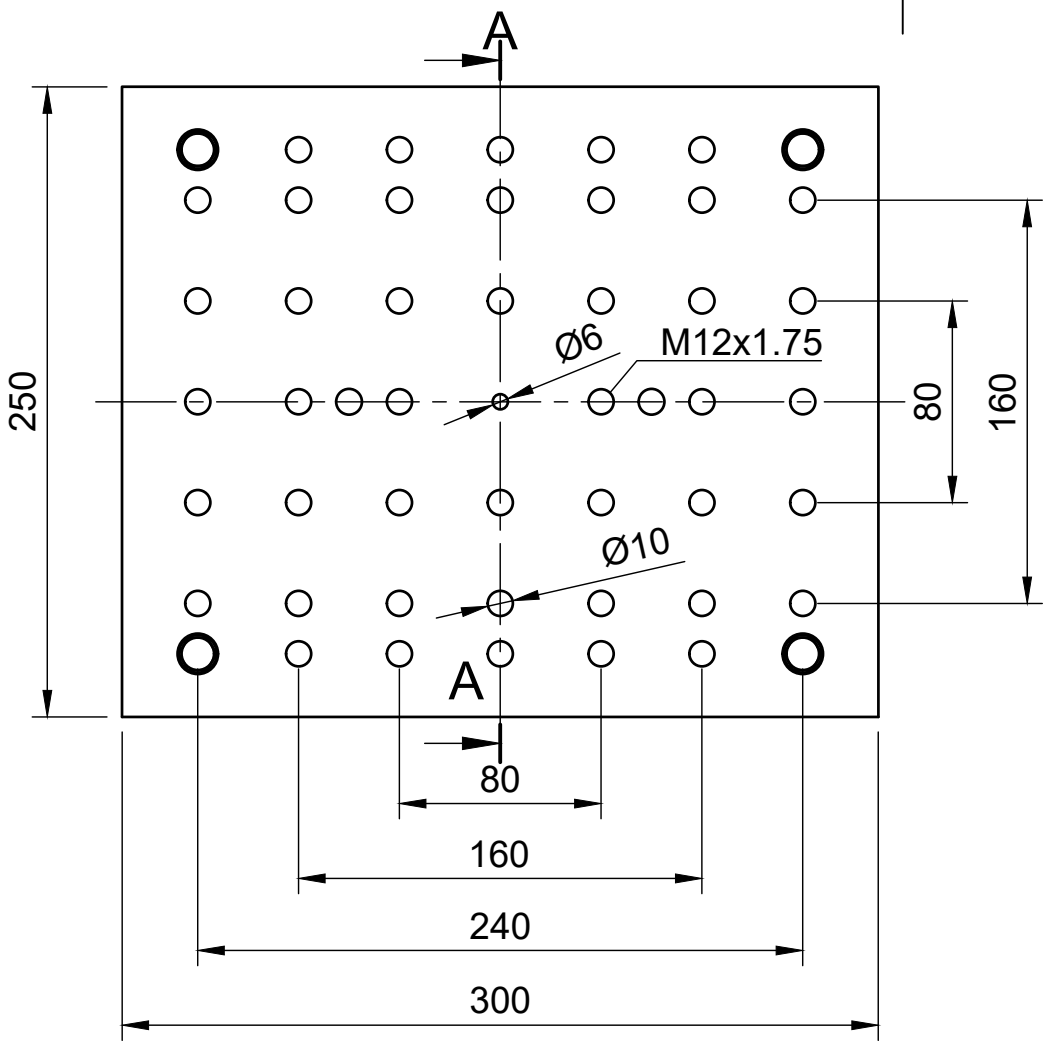
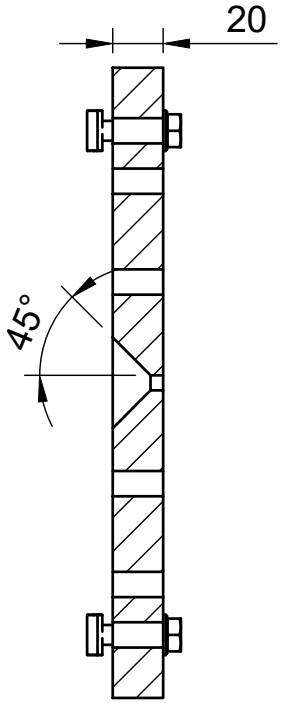


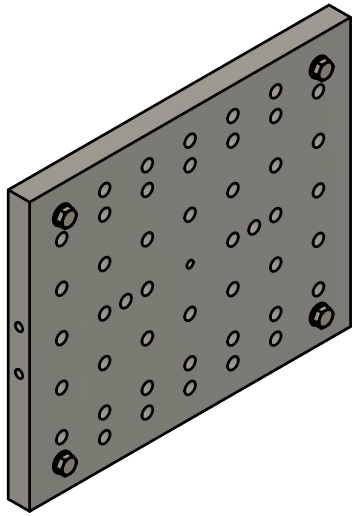
1 - stationary_platen
2 - movable_platen
3 - bearing_block
4 - linear_guide
5 - aluminum_frame
6 - M12x1.5_thread
7 - tooth_belt_pulley big
8 - NEMA17_and_mounting
9 - tooth_belt
10 - thread_block

Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by
		Document type	Document status
		Title clamp_mechanism overview	DWG No.
			Rev. / Date of issue / Sheet 1/11

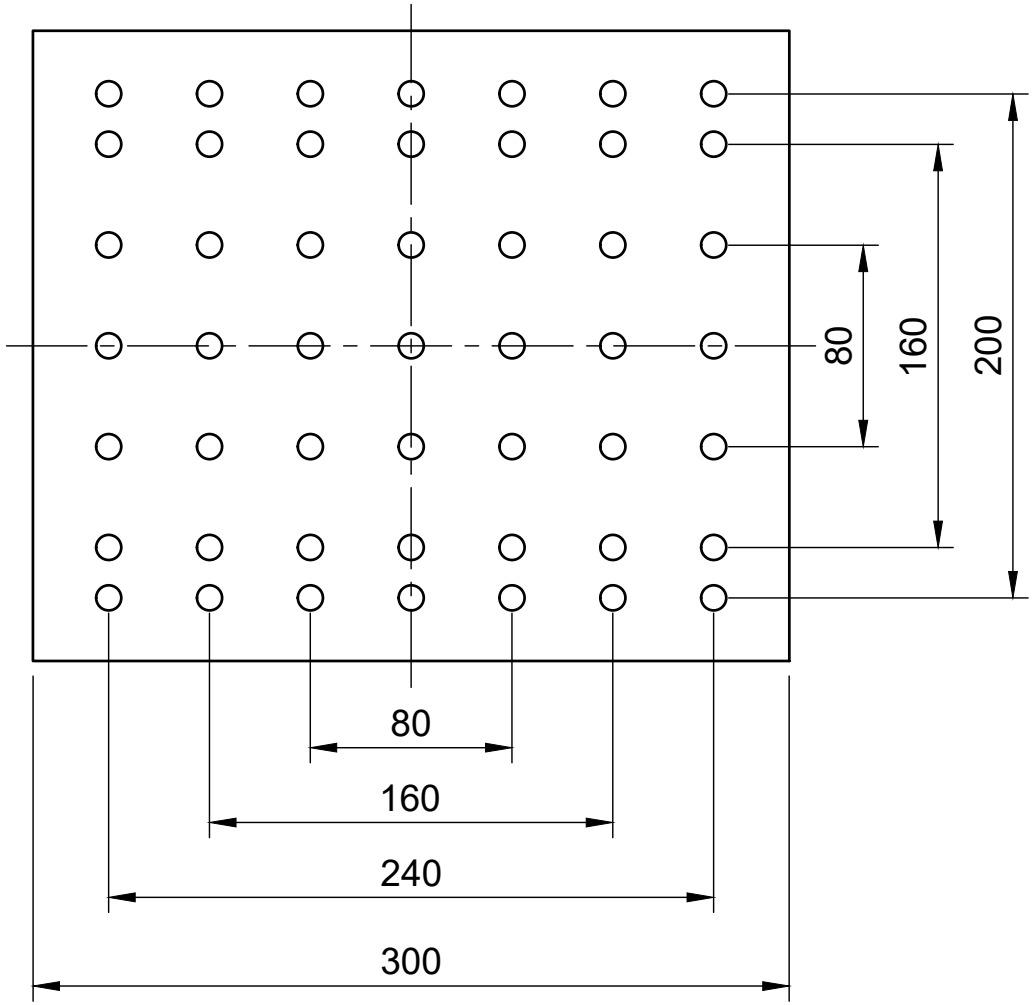


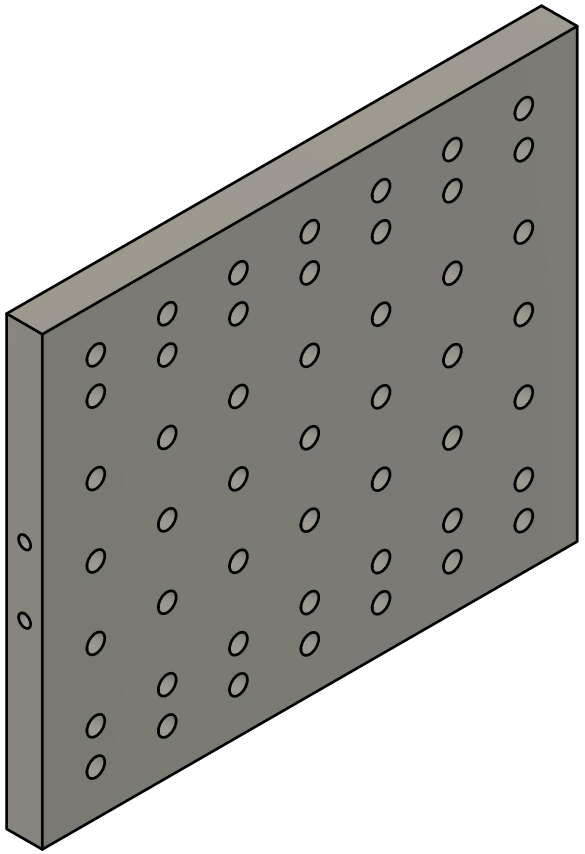


A-A

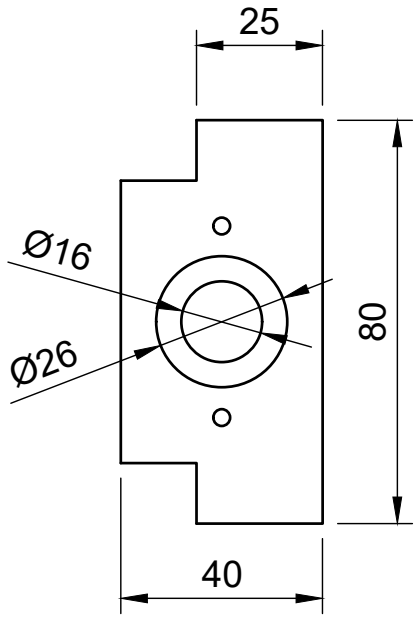


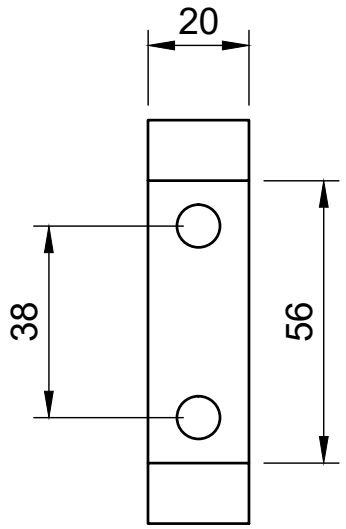
Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 1 - stationary_platen	DWG No.	
			Rev. / Date of issue	Sheet 2/11

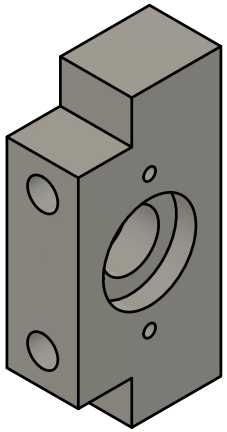




Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 2 - movable_platen	DWG No.	
			Rev. / Date of issue	Sheet 3/11

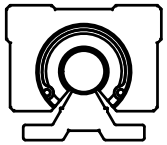


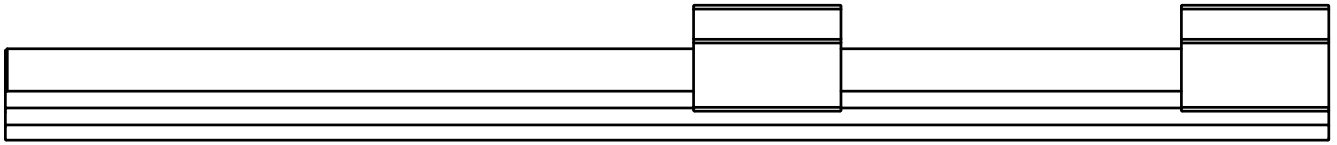


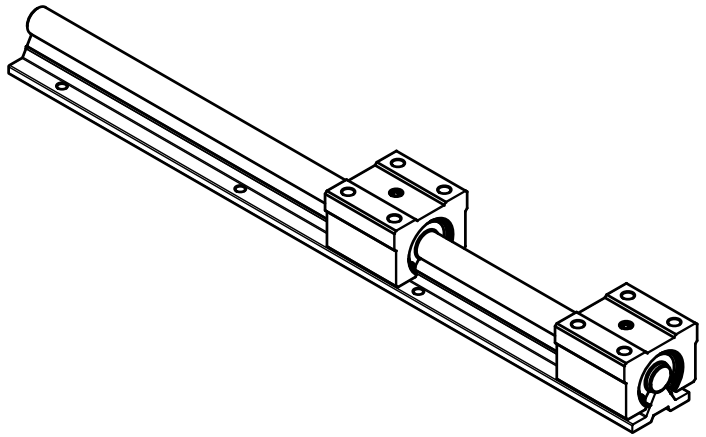


Holds the bearings and transmits the clamping force through the bearings to the stationary platen. bearings are on both sides for being able to push, as to pull.

Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 3 - bearing_block	DWG No.	
			Rev. / Date of issue	Sheet 4/11







On these guides the movable platen rolls back and forth in order to close and open the mould.

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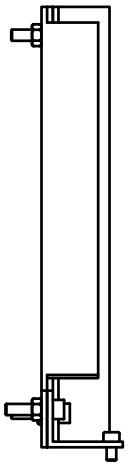
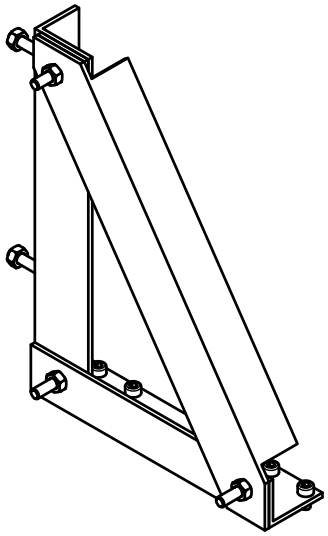
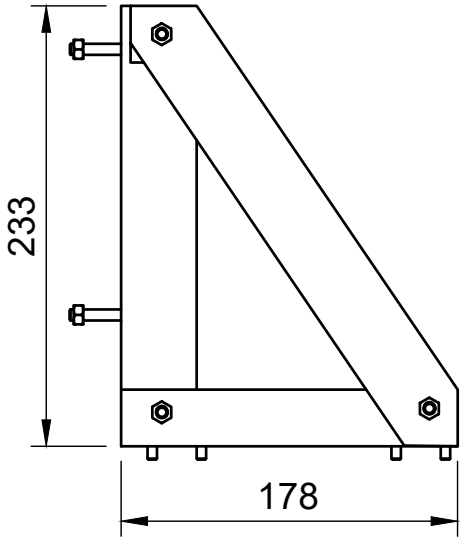
		Document type	Document status	
		Title clamp_mechanism 4 - movable_platen	DWG No.	
			Rev.	Date of issue / Sheet 5/11

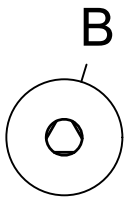


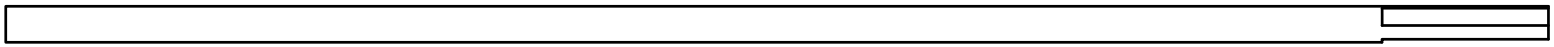


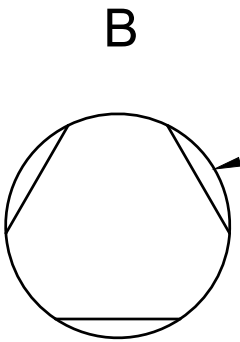


The actual sizes arent really important. The profiles need to give a solid fixture to the movable platen. This can have different type of shapes, it just needs to fulfill this function.

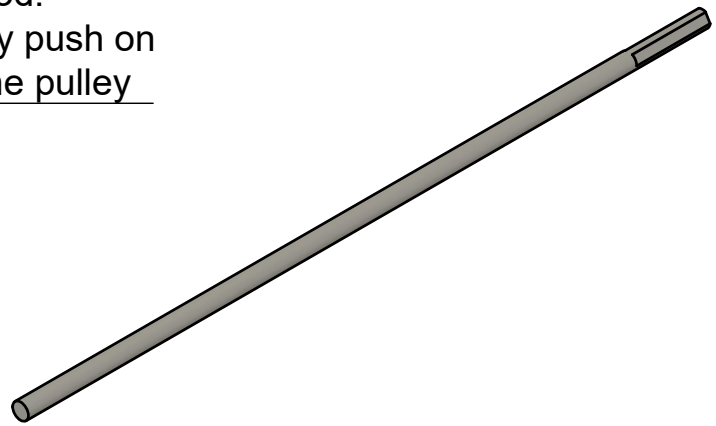
Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 5 - aluminum_frame	DWG No.	
			Rev. / Date of issue	Sheet 6/11



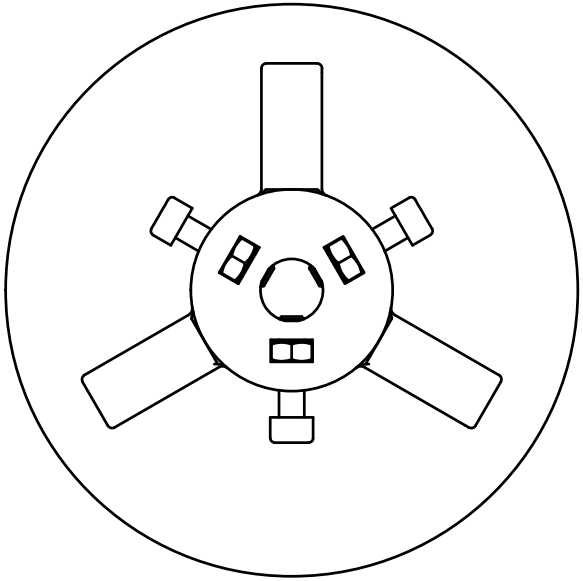


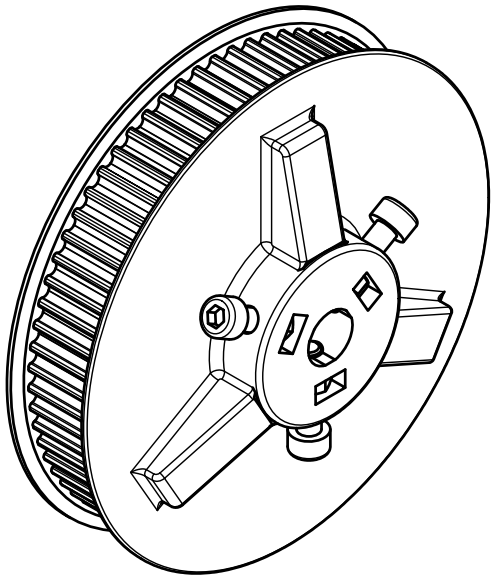


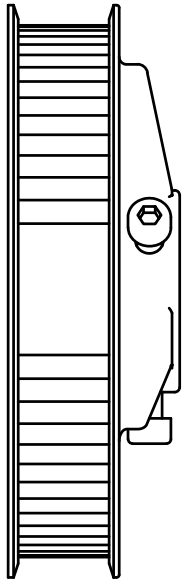
1 mm is milled down have a flat surface at the end of the rod.
The screws from the pulley push on these surfaces to clamp the pulley



Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 6 - M12x1.5_thread	DWG No.	
			Rev. / Date of issue	Sheet 7/11

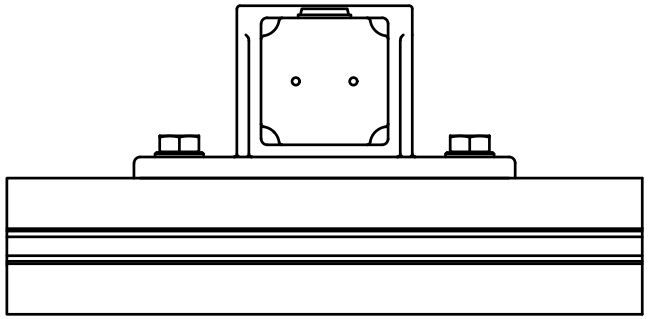


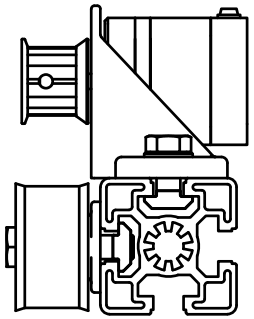


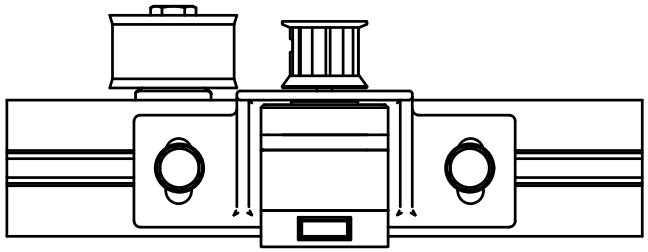


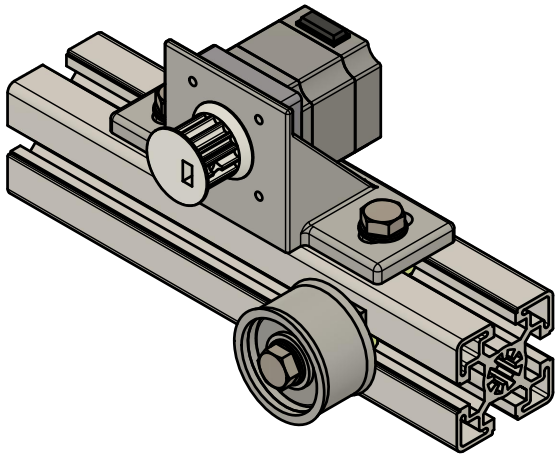
The screws fix the pulley on the thread and transmit the torque. Therefore it is adjustet do be strong enough when 3d printed.

Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by
		Document type	Document status
		Title clamp_mechanism 7 - big_pulley	DWG No.
			Rev. / Date of issue / Sheet 8/11



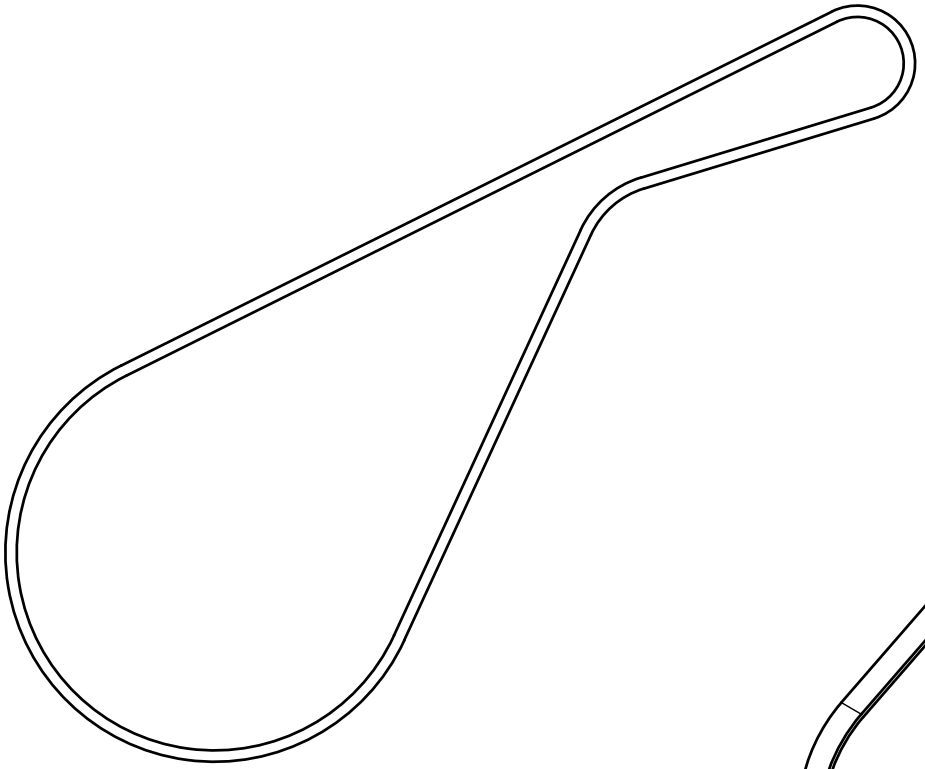


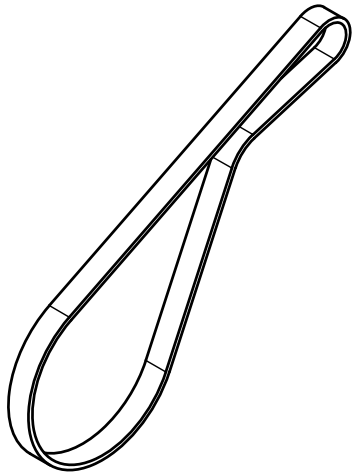




The motors make the threads rotate. The pulleys used for that get tentioned by the bearing mounted to the alu profile.

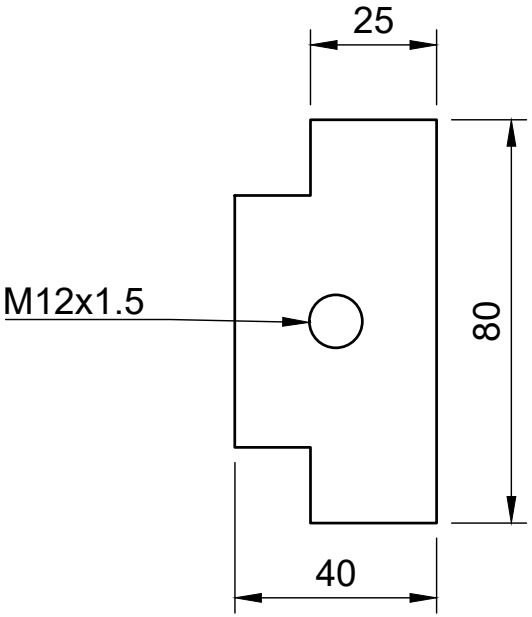
Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 8 - NEMA17_and_mounting	DWG No.	
			Rev. / Date of issue	Sheet 9/11

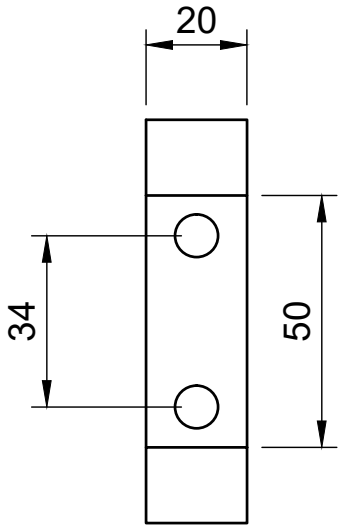


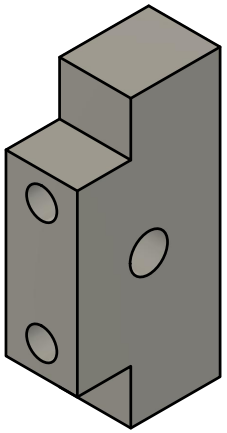


It is not visible on the blueprint, but the pulley used is with teeth. When built in, one side of the pulley is tentioned to increase the Umschlingungswinkel especially at the small pulley

Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 9 - tooth_belt	DWG No.	
			Rev. / Date of issue	Sheet 10/11







This part creates a linear movement out of the rotational movement of the thread. It transmits the force to the clamping movable platen

Dept.	Technical reference	Created by Manuel Maeder 13.10.2020	Approved by	
		Document type	Document status	
		Title clamp_mechanism 10 - thread_block	DWG No.	
			Rev. / Date of issue	Sheet 11/11