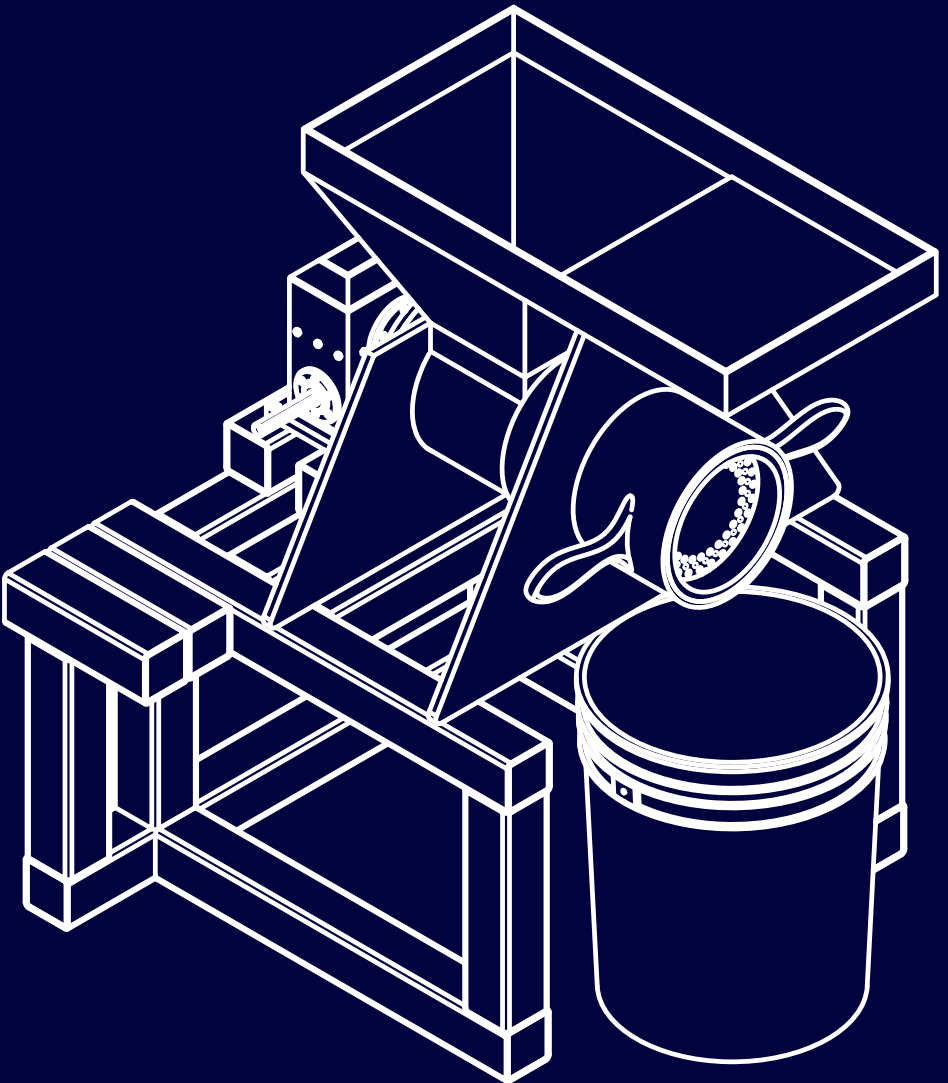


Pellet Machine

Construction guide



Dr Marcelo Precoppe
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December 2022

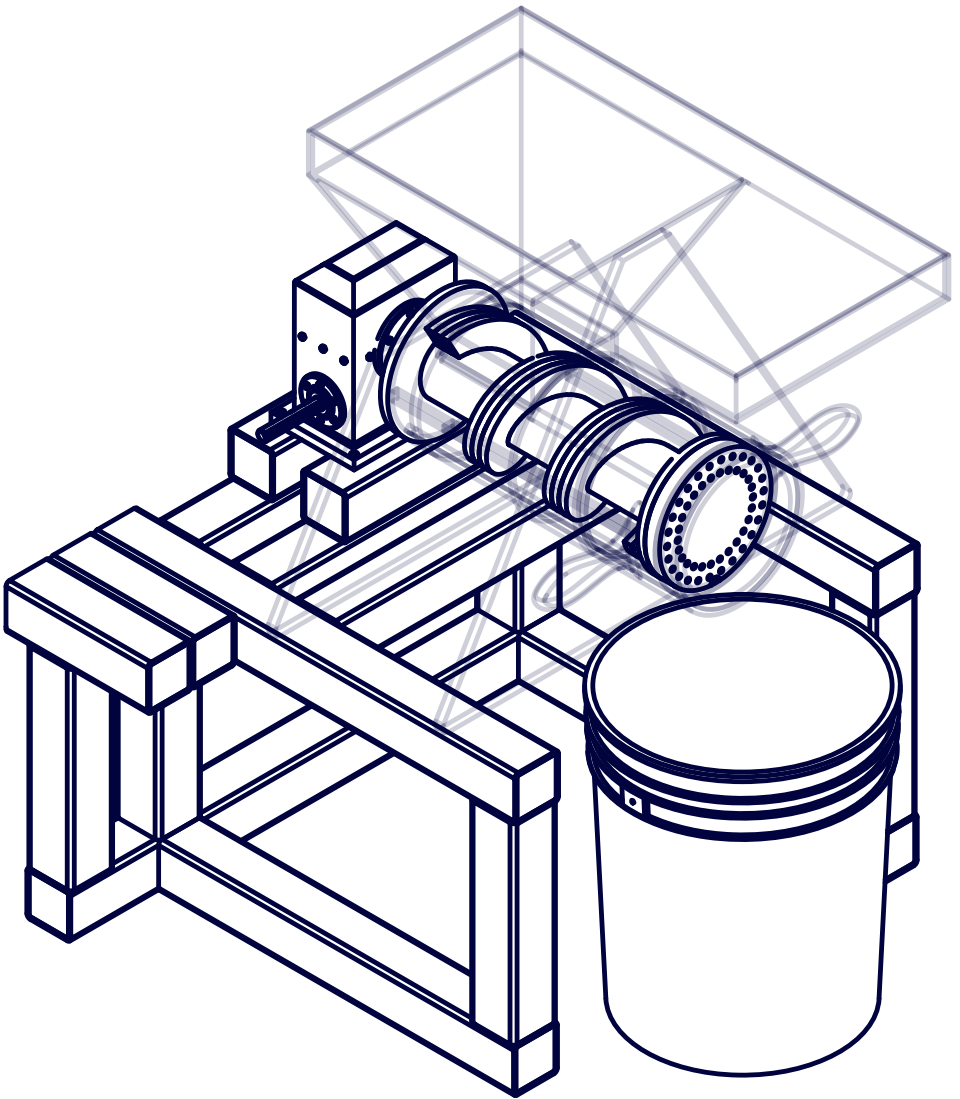


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Pellet Machine

This simplified pellet machine consists of a rotating screw firmly fitted inside a stationary cylinder.



Equipment overview

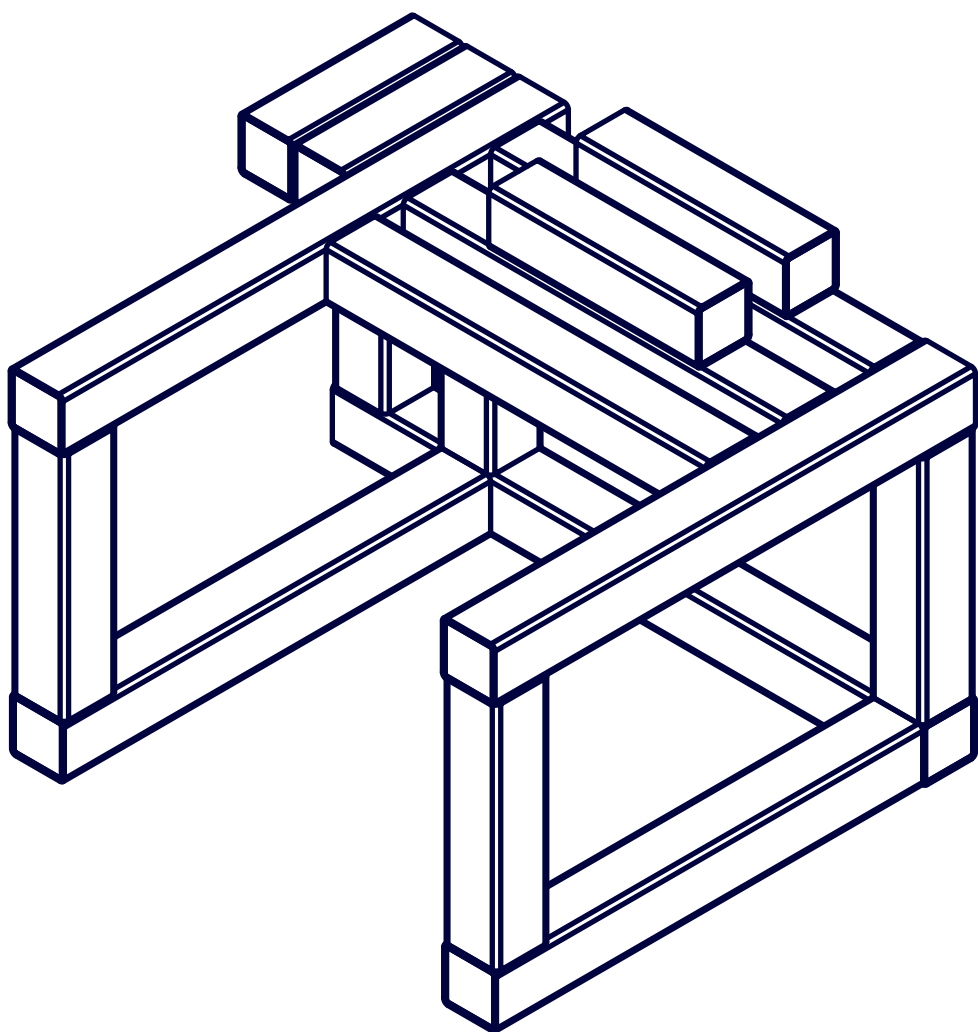


Equipment overview



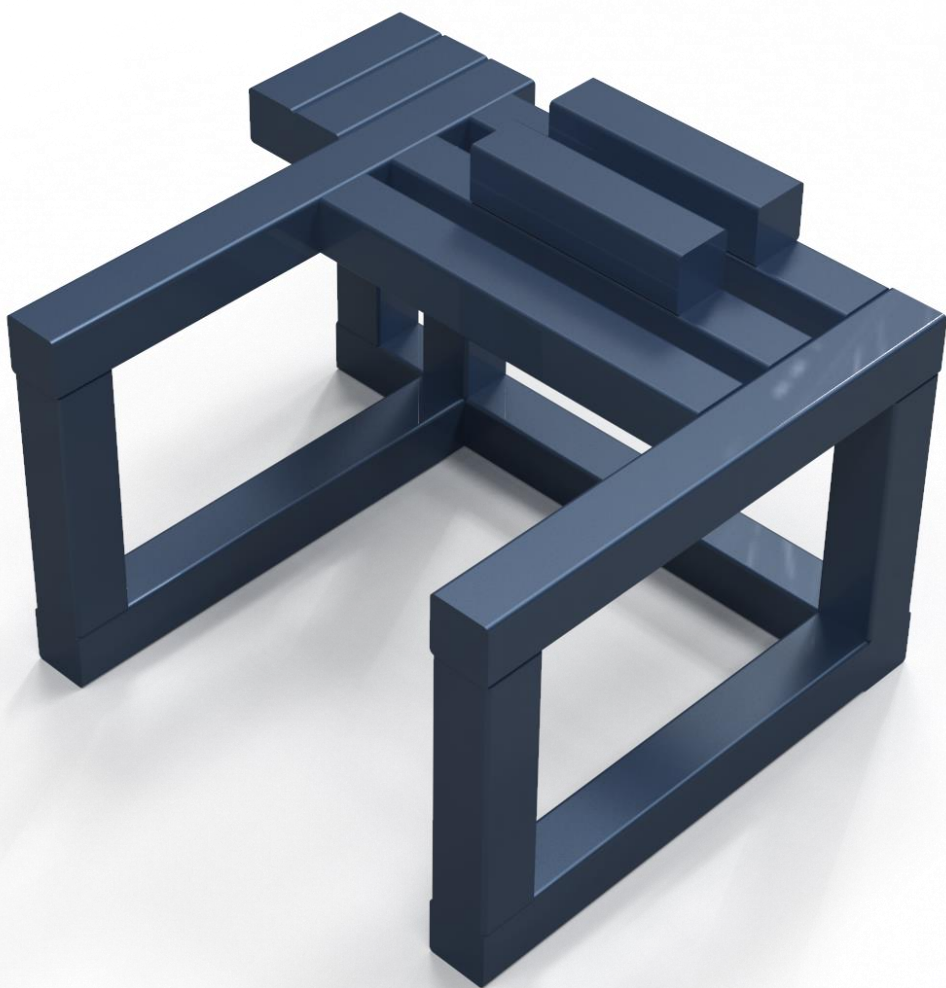
Pellet machine base

Constructed of 6.0 cm x 6.0 cm square mild steel tubing with 0.3 cm thick walls, or similar.

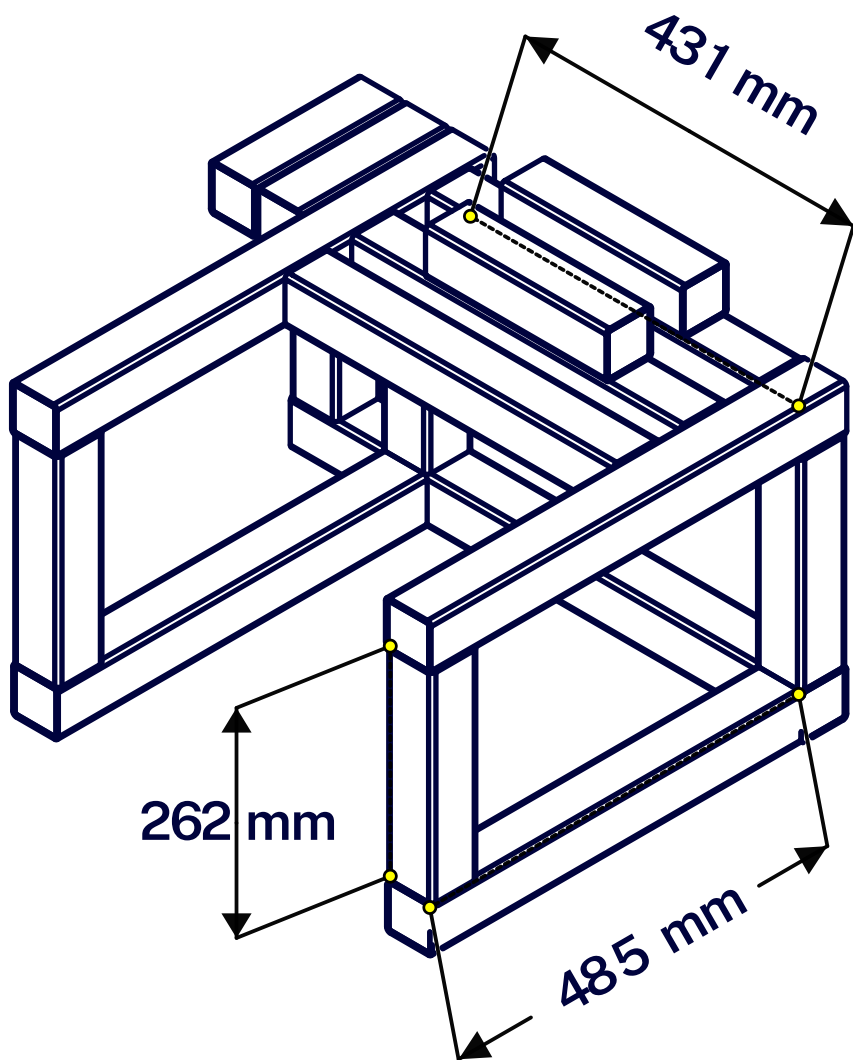


Pellet machine base

Coated with corrosion-resistant paint.



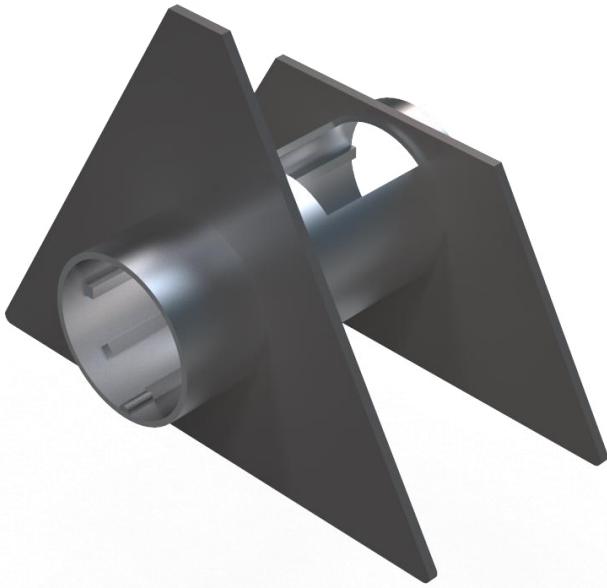
Pellet machine base



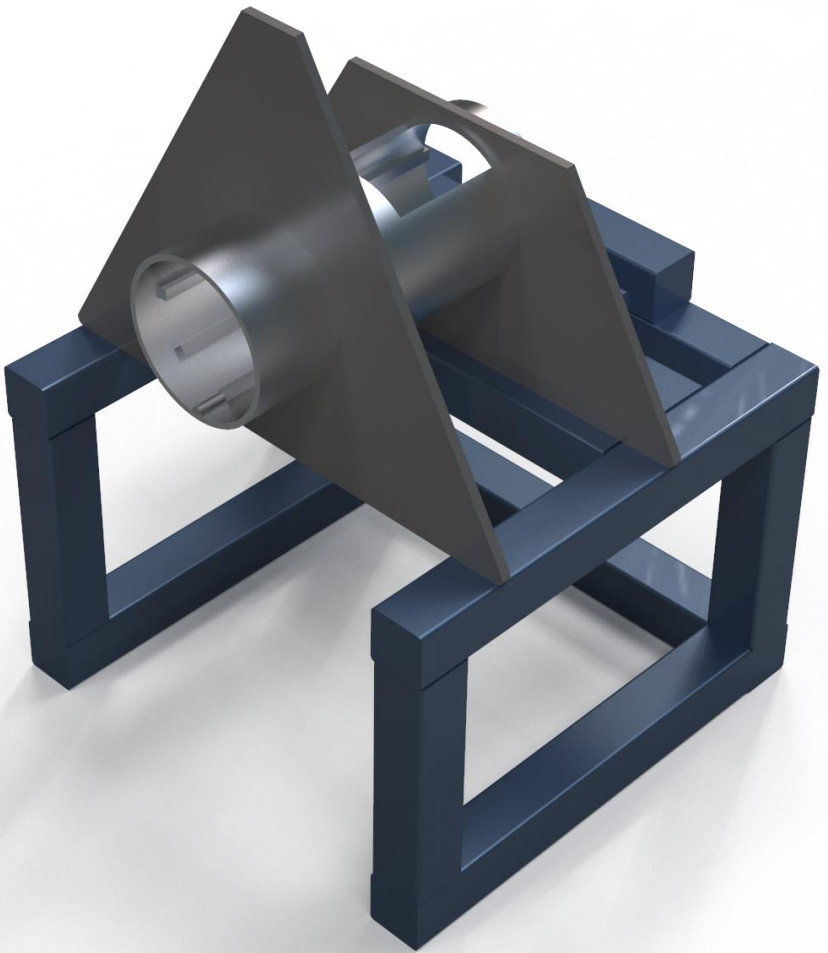
Cylinder support



Cylinder support

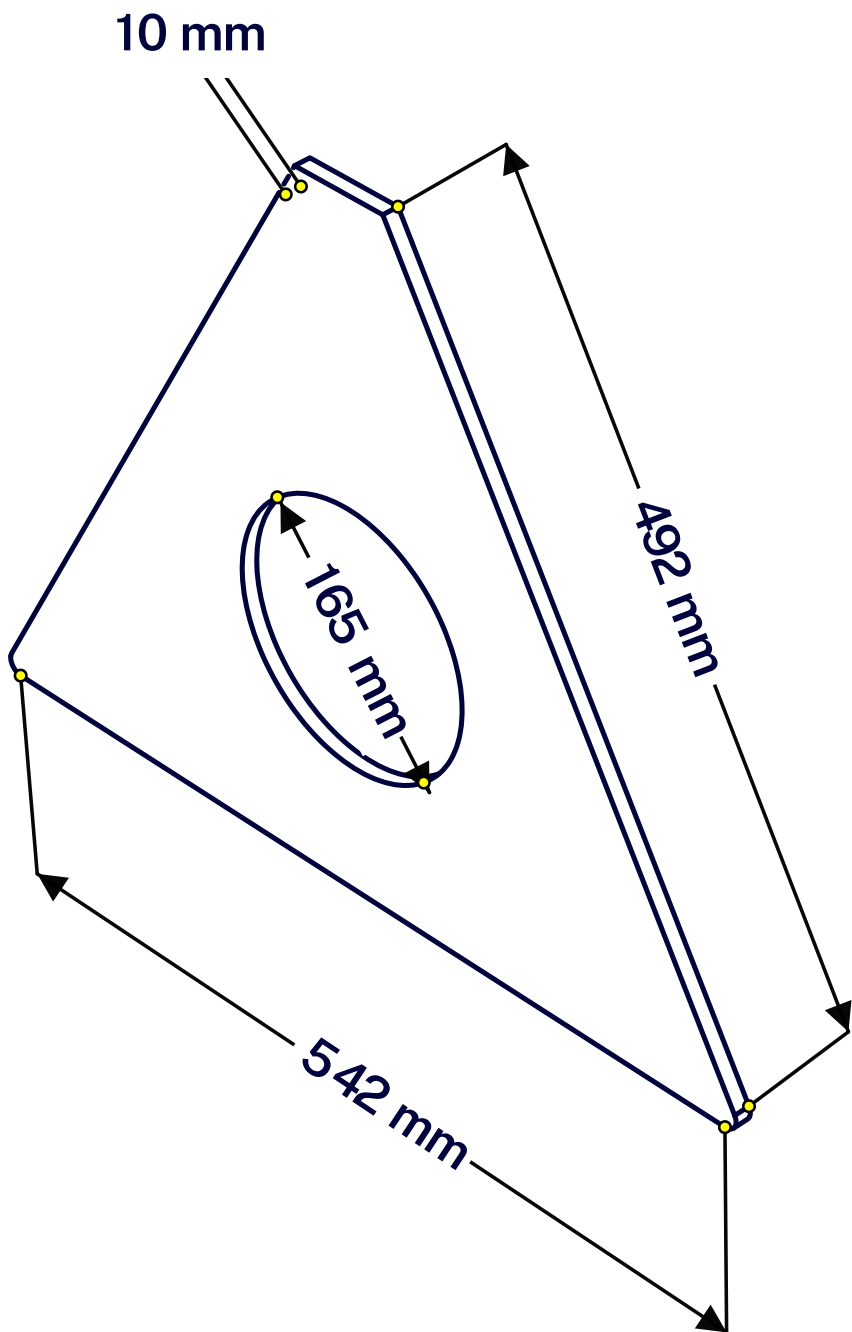


Cylinder support

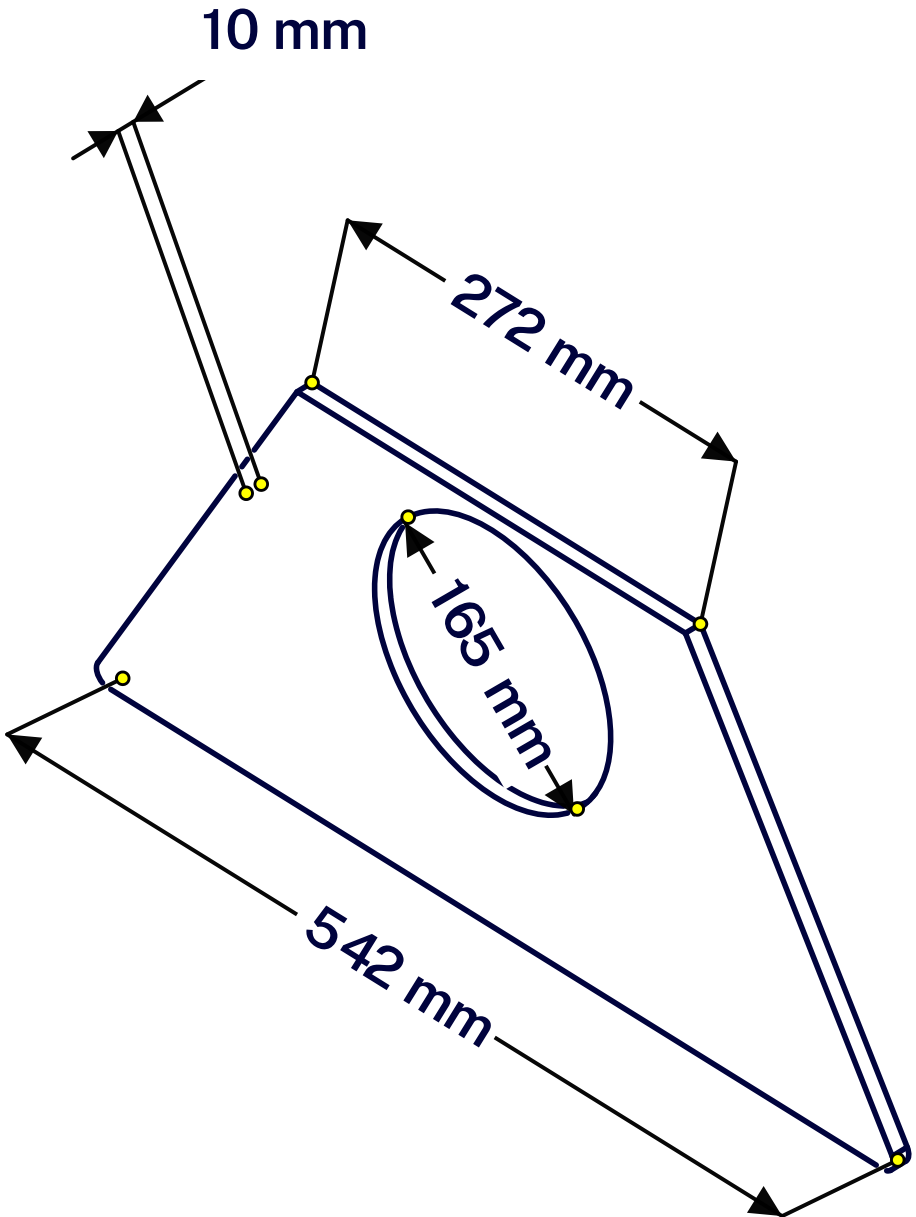


Cylinder support

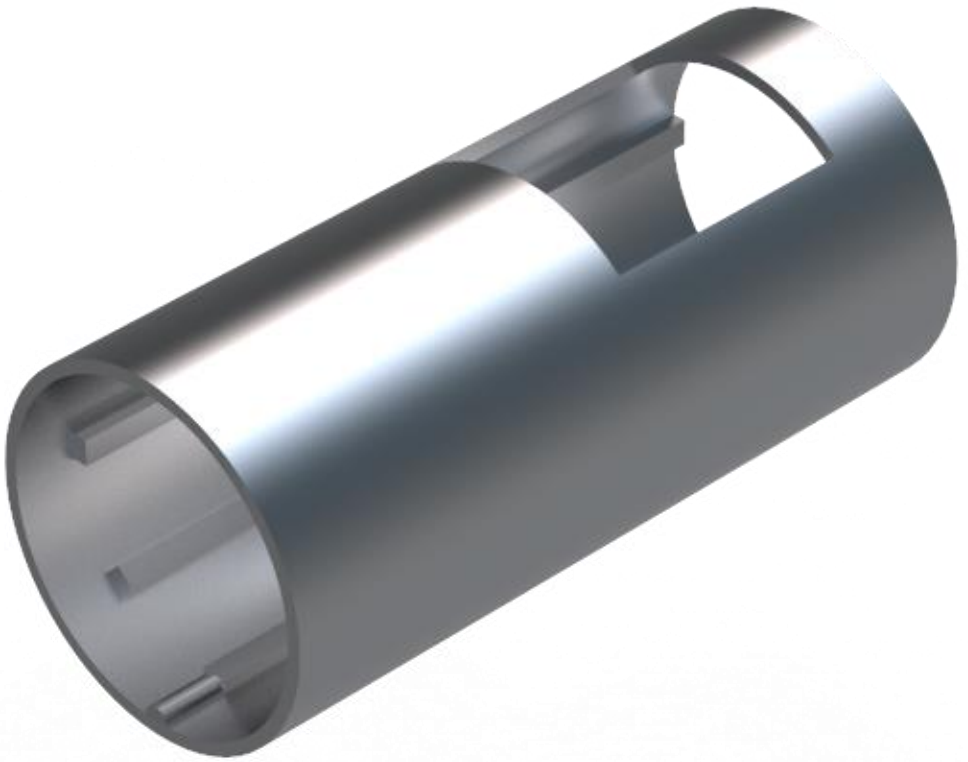
Constructed of ¼" thick mild steel (or similar) and coated with corrosion-resistant paint.



Cylinder support

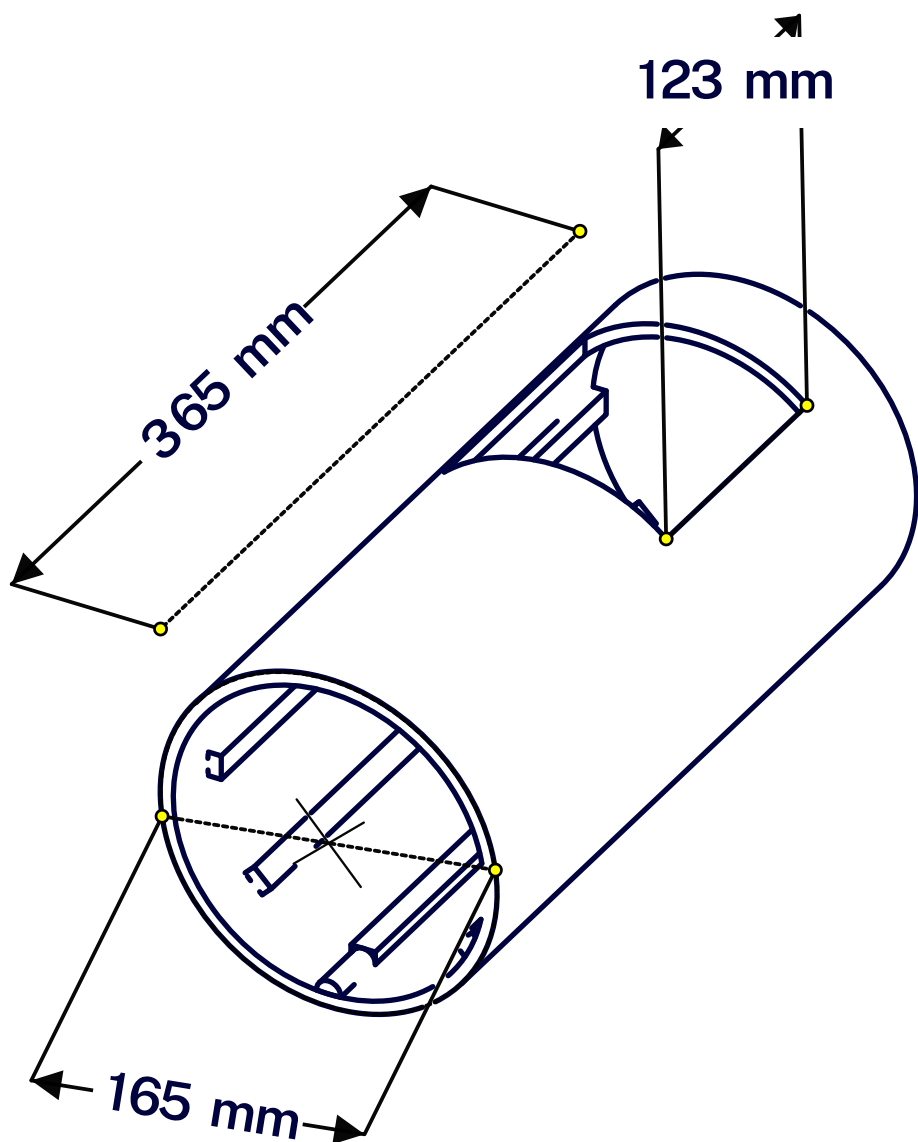


Stainless steel cylinder

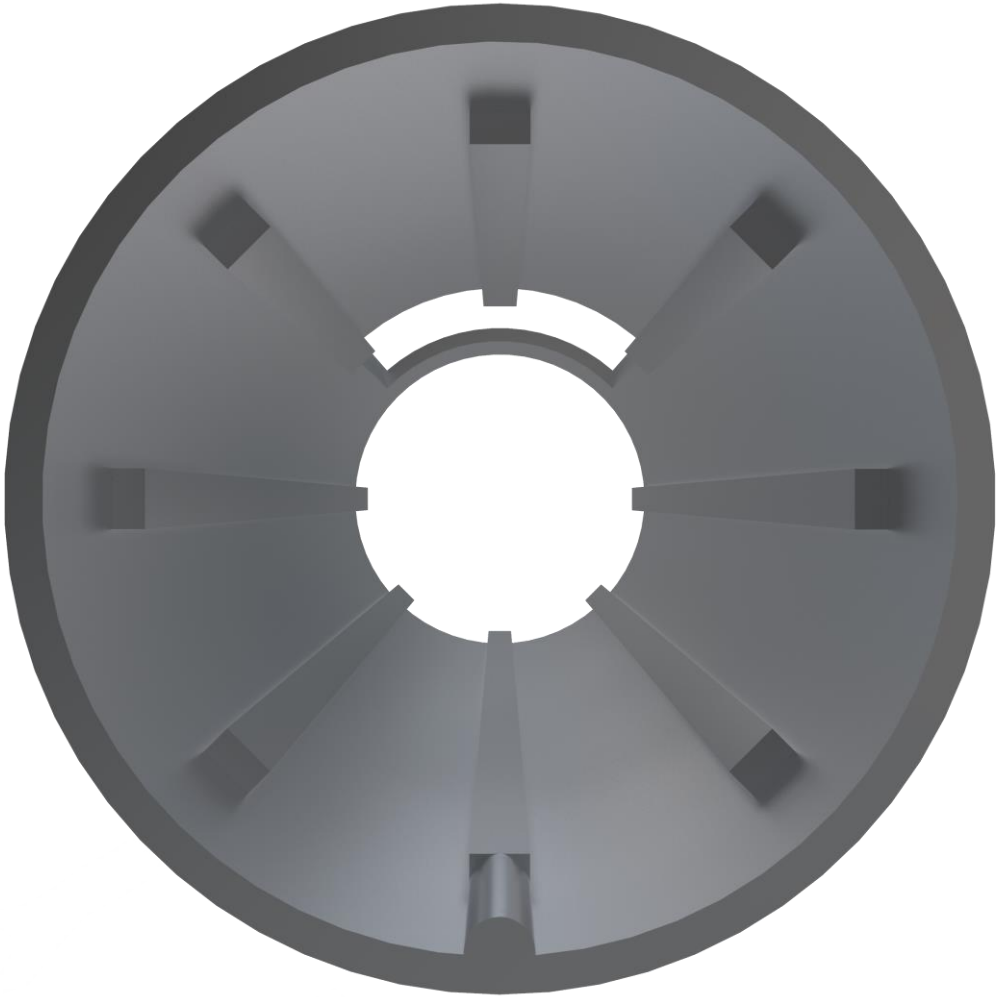


Stainless steel cylinder

Constructed with ¼" thick wall or similar.

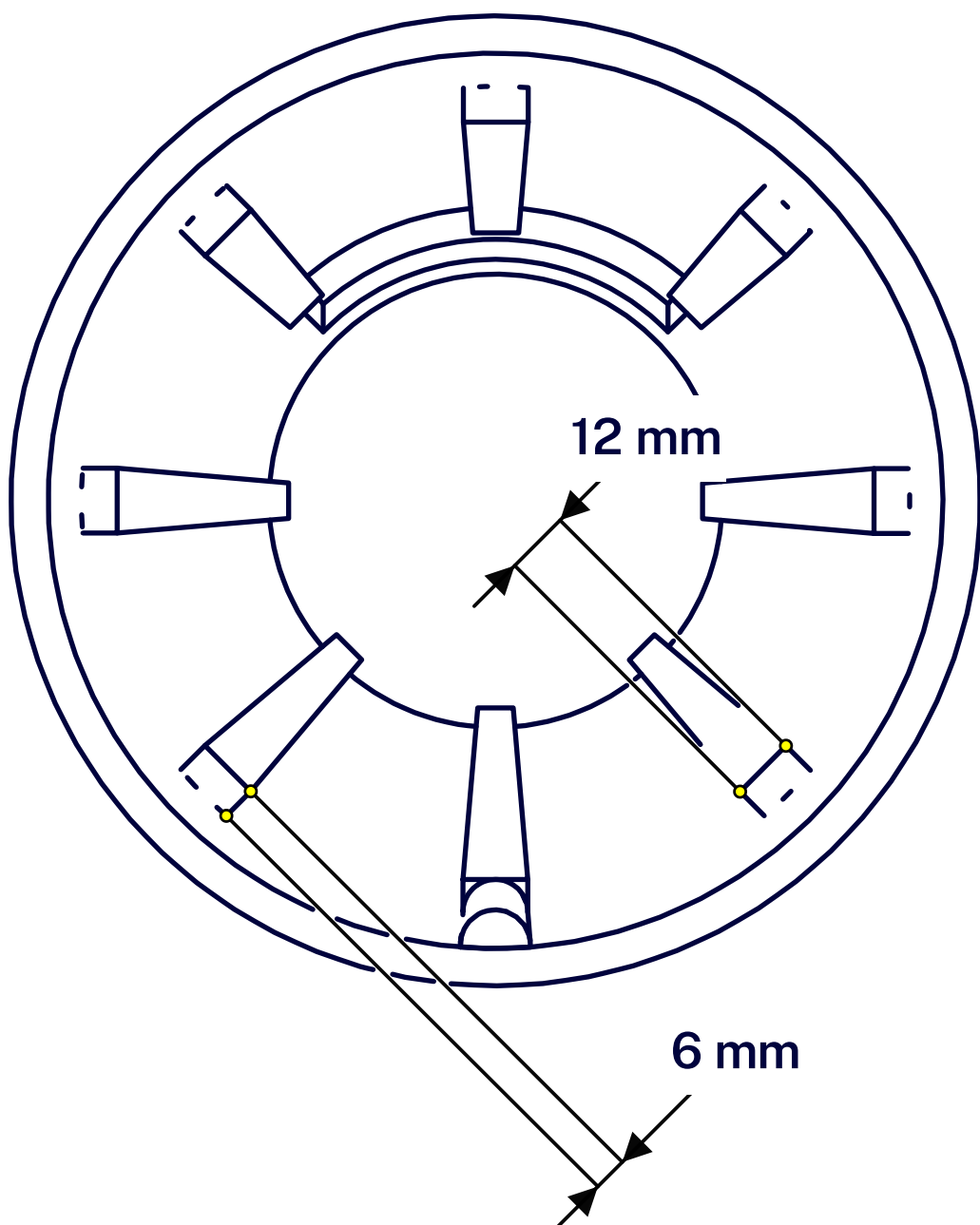


Cylinder grooves



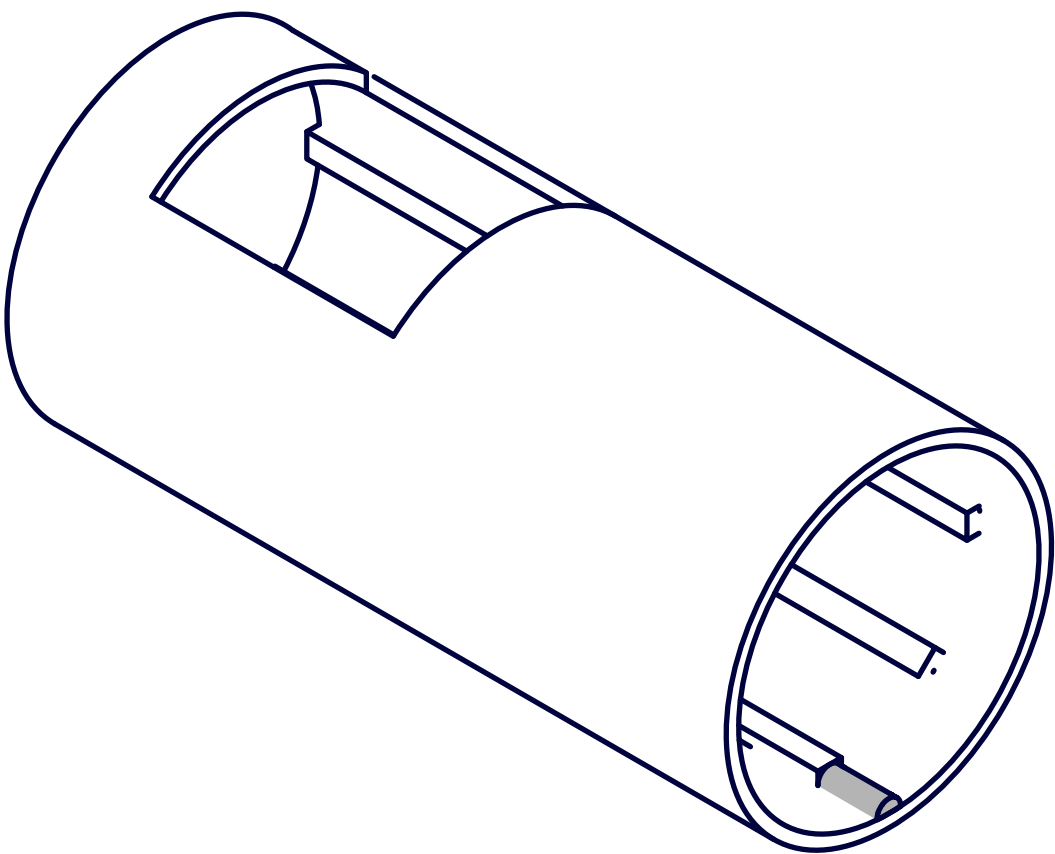
Cylinder grooves

Constructed of ¼" thick stainless steel, or similar.



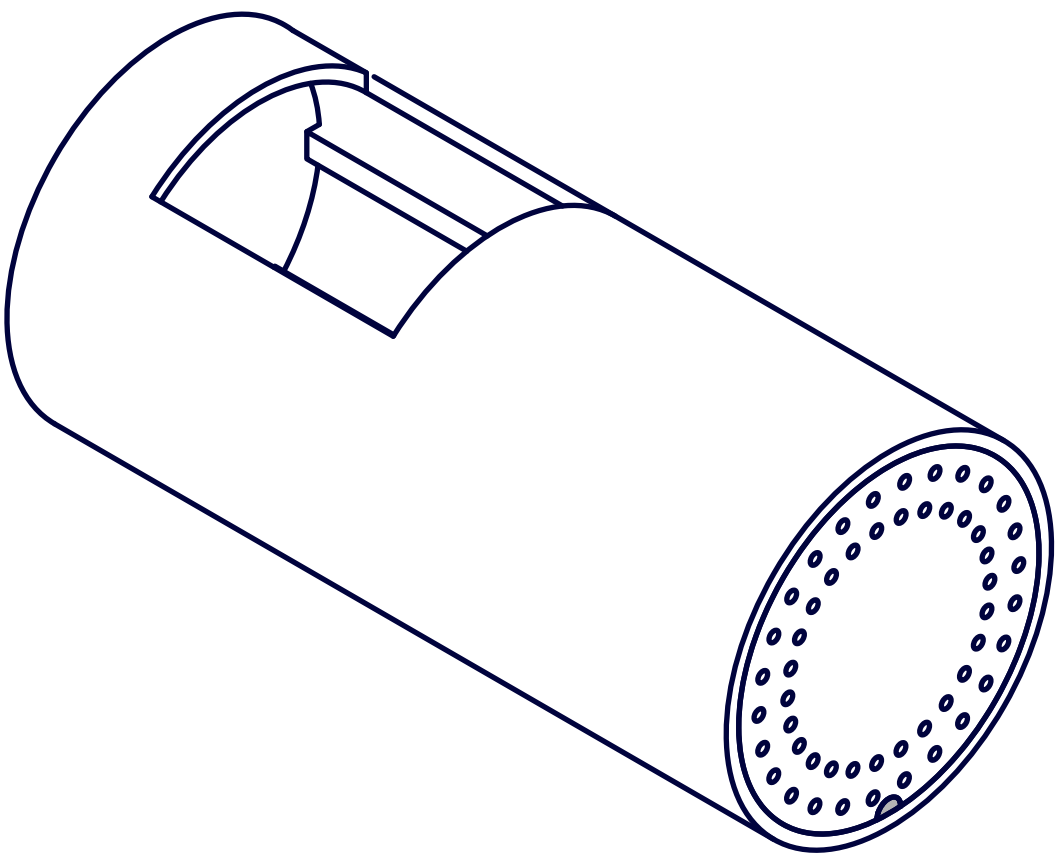
Guide for the mesh

Constructed with stainless steel.



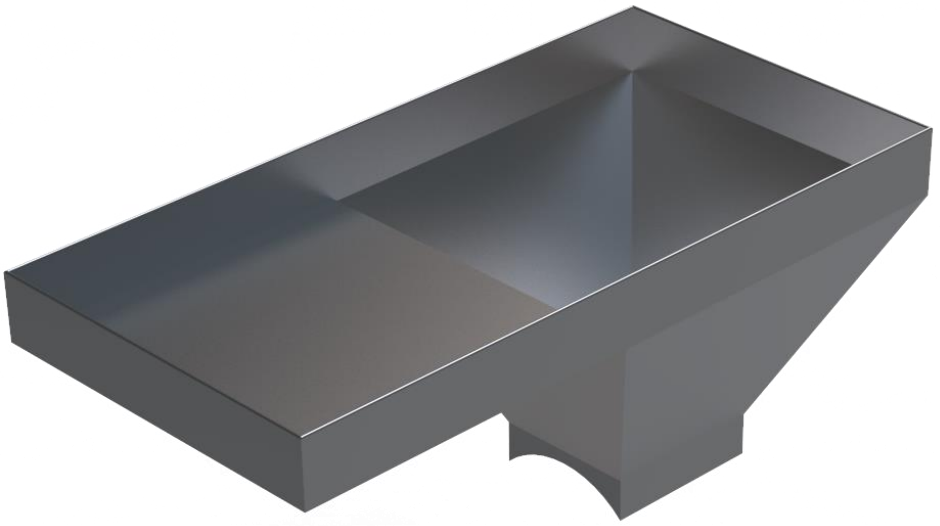
Guide for the mesh

It prevents the mesh from rotating.

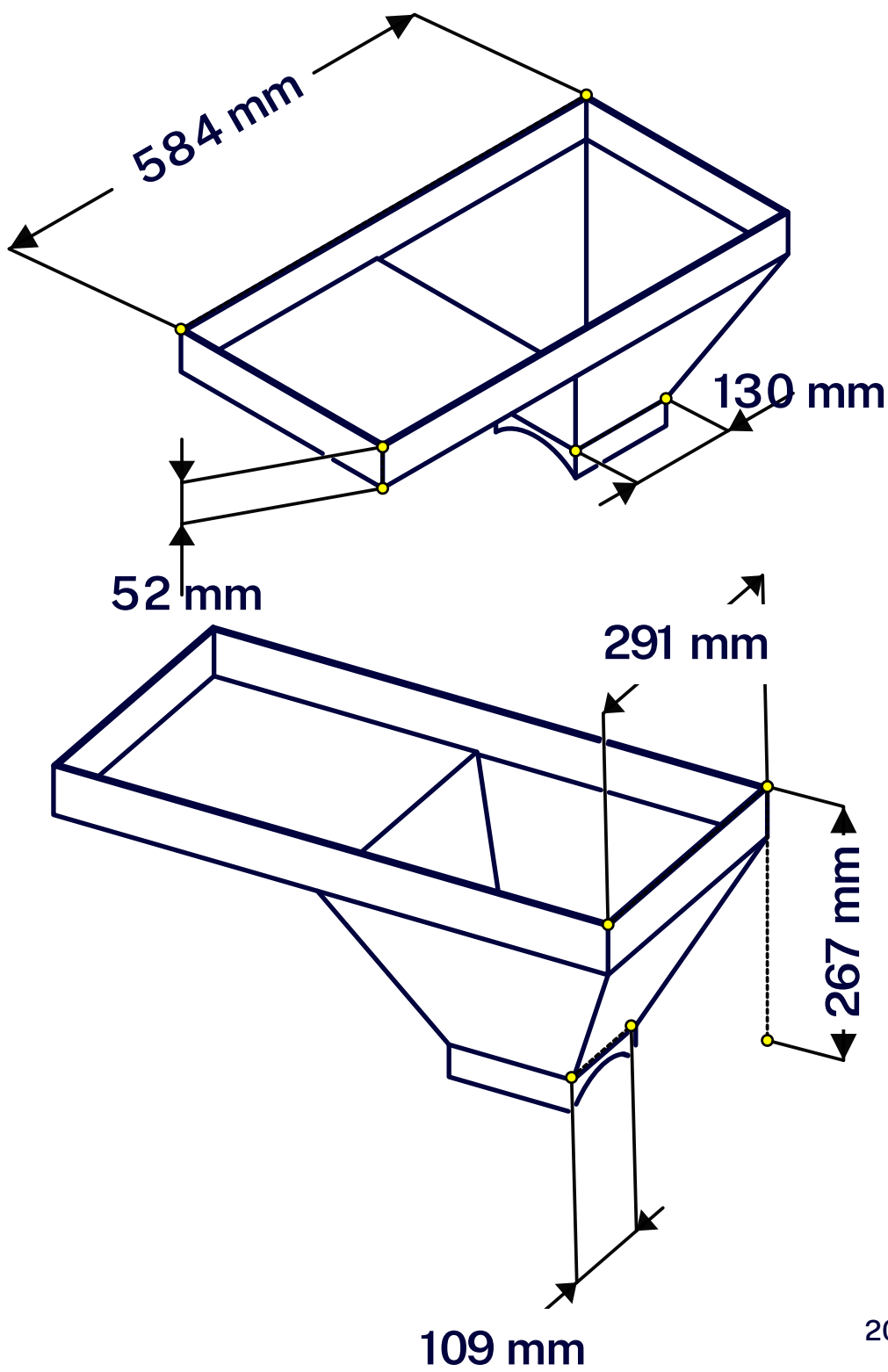


Material hopper

Constructed with 0.3 cm thick stainless steel.

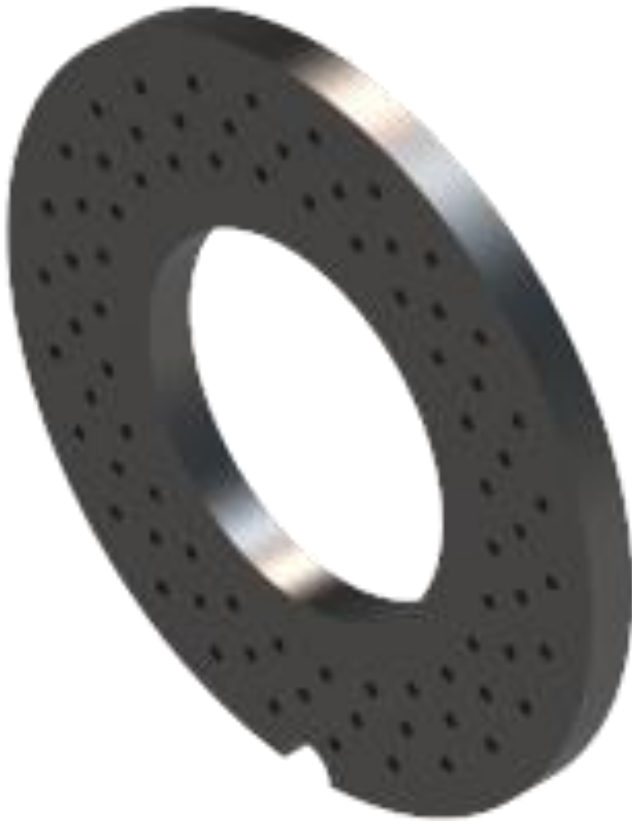


Material hopper



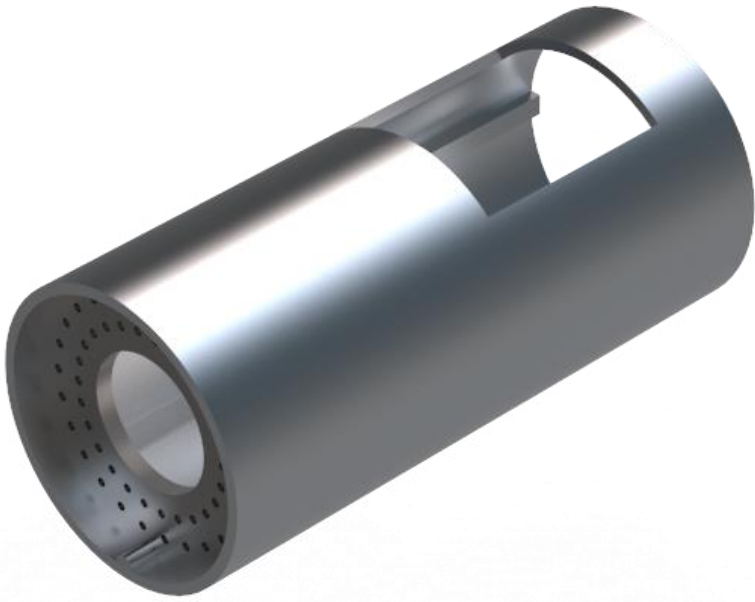
Mesh for small feed

The first mesh supports the screw.



Mesh for small feed

The first mesh supports the screw.



Mesh for small feed

The first mesh supports the screw.



Mesh for small feed

Second mesh provides strength.



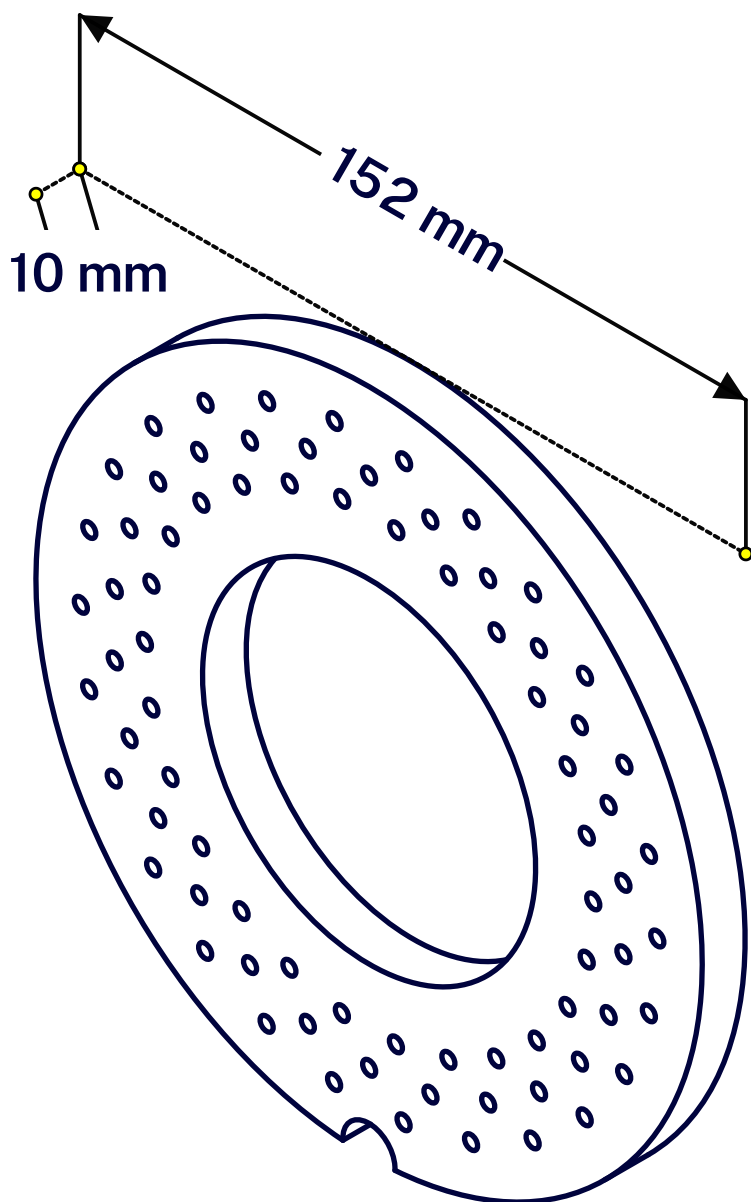
Mesh for small feed

Second mesh provides strength.



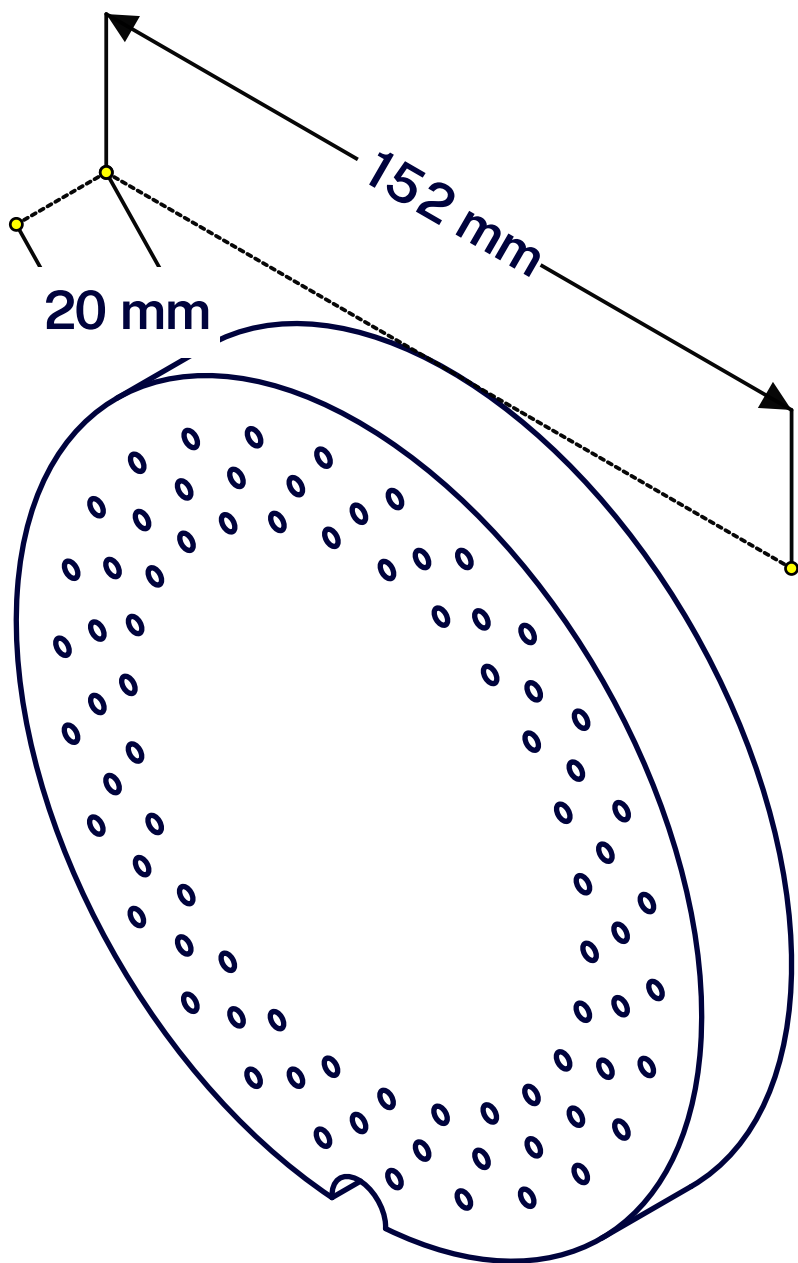
Mesh for small feed

First mesh is built with 10 mm thick stainless steel.



Mesh for small feed

Second mesh is built with 20 mm thick stainless steel.



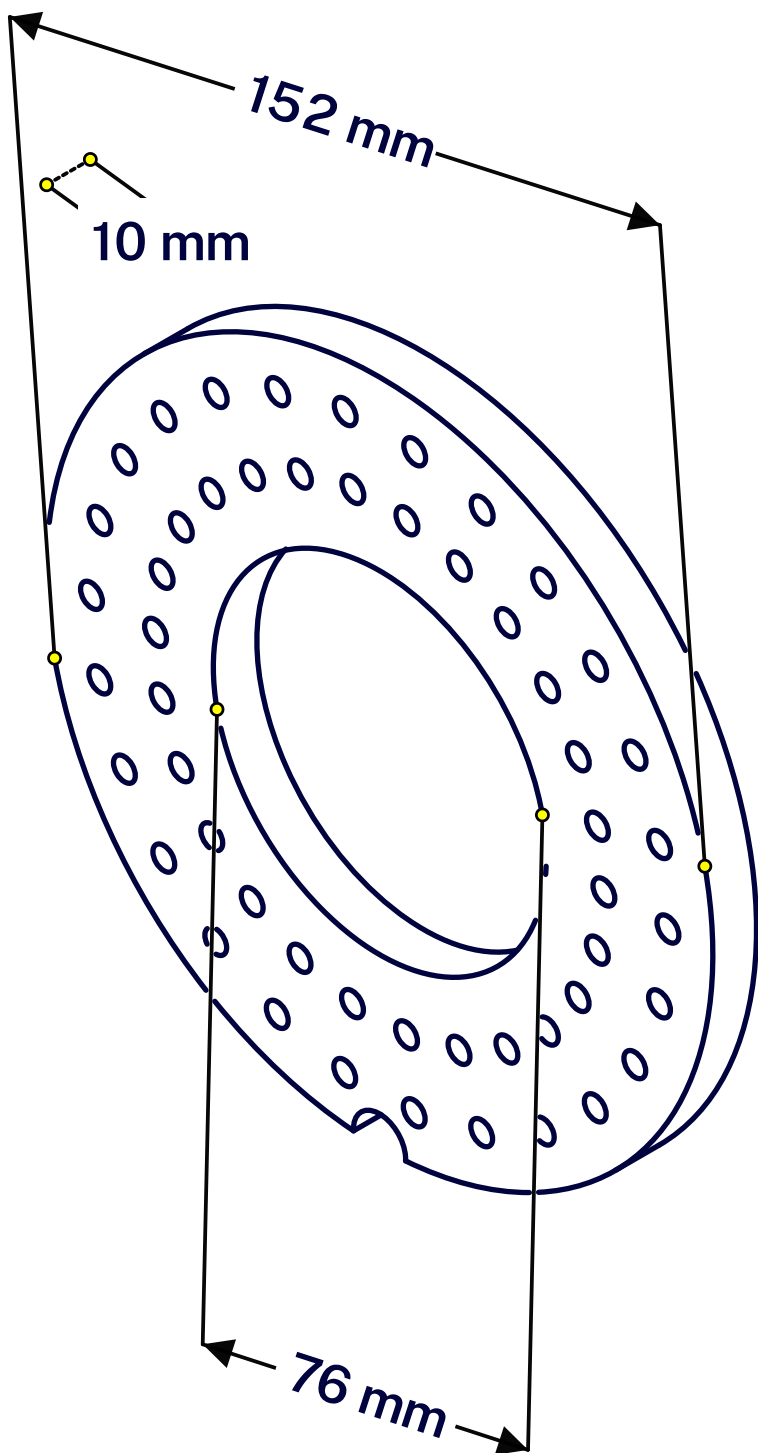
Mesh for large feed

First mesh



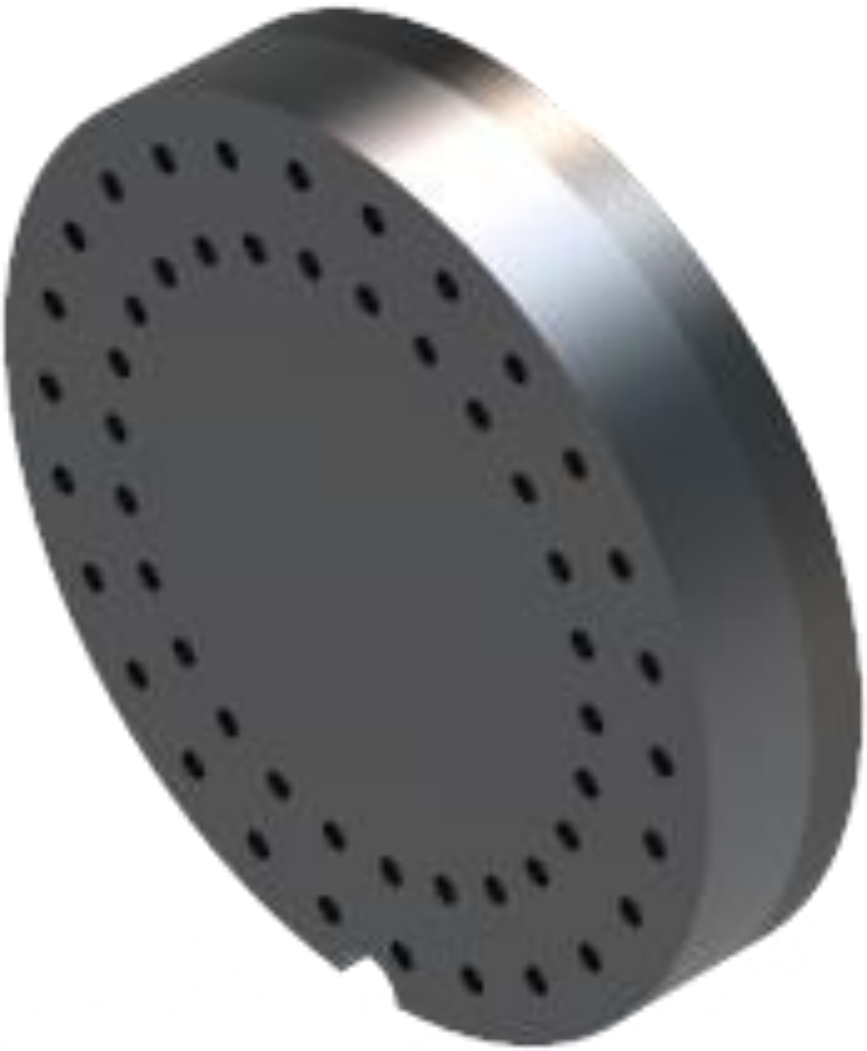
Mesh for large feed

First mesh



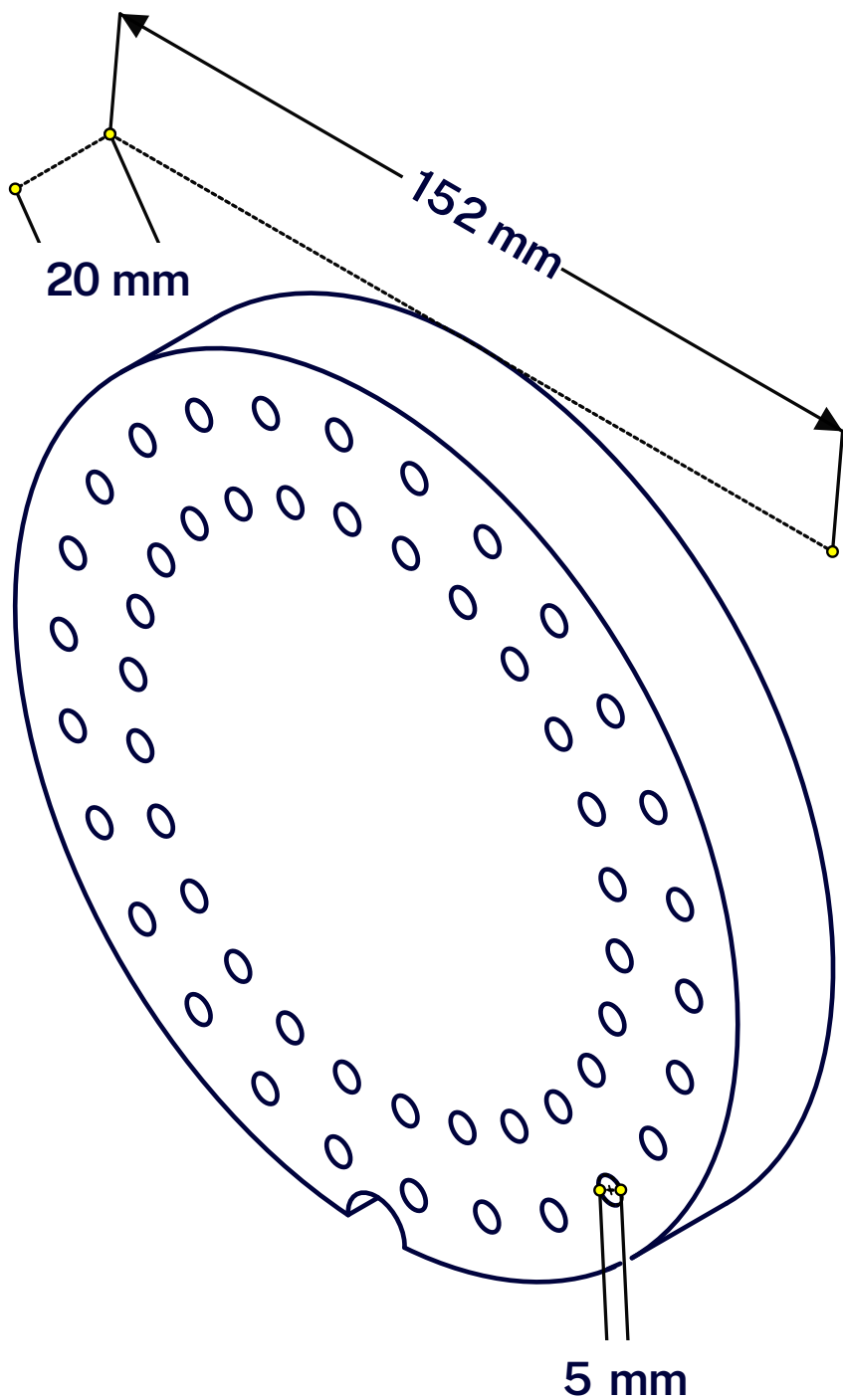
Mesh for large feed

Second mesh



Mesh for large feed

Second mesh



Holder for the meshes

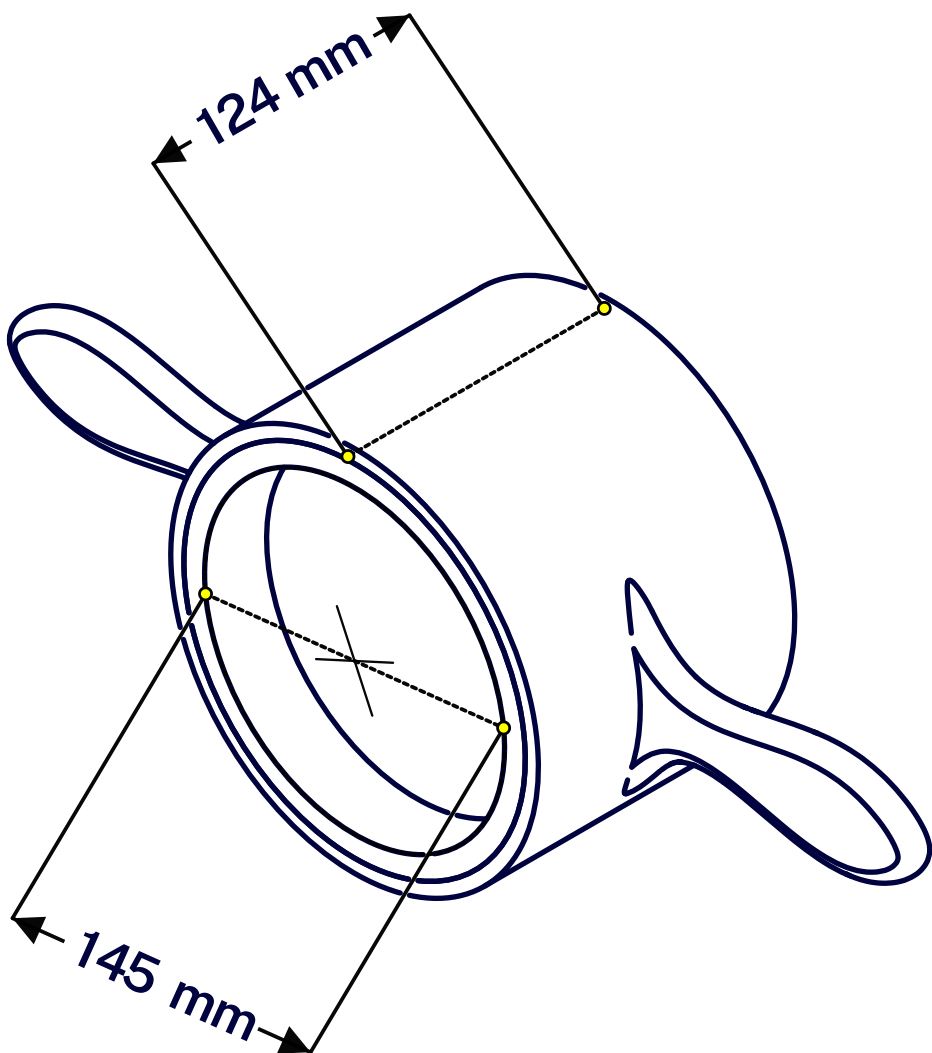


Holder for the meshes



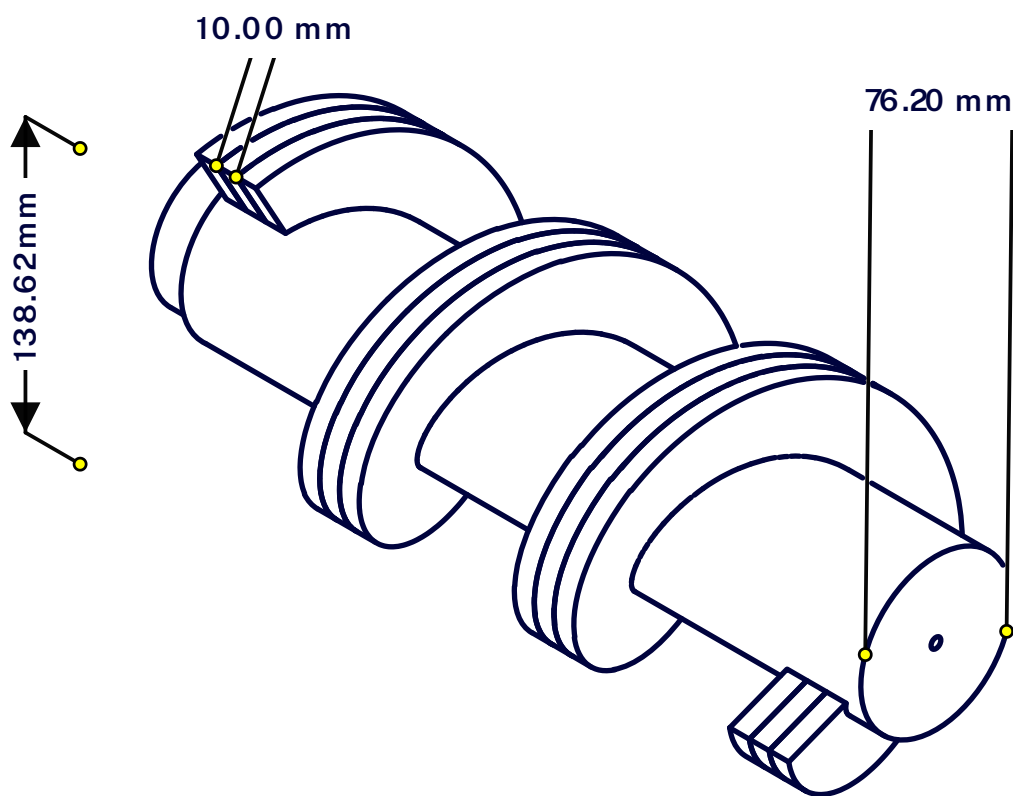
Holder for the meshes

Constructed of $\frac{1}{4}$ " thick mild steel and coated with corrosion-resistant paint. It screws into the cylinder.

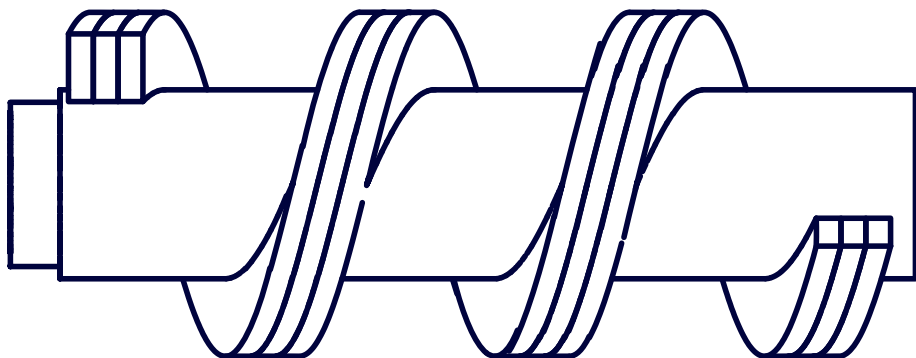
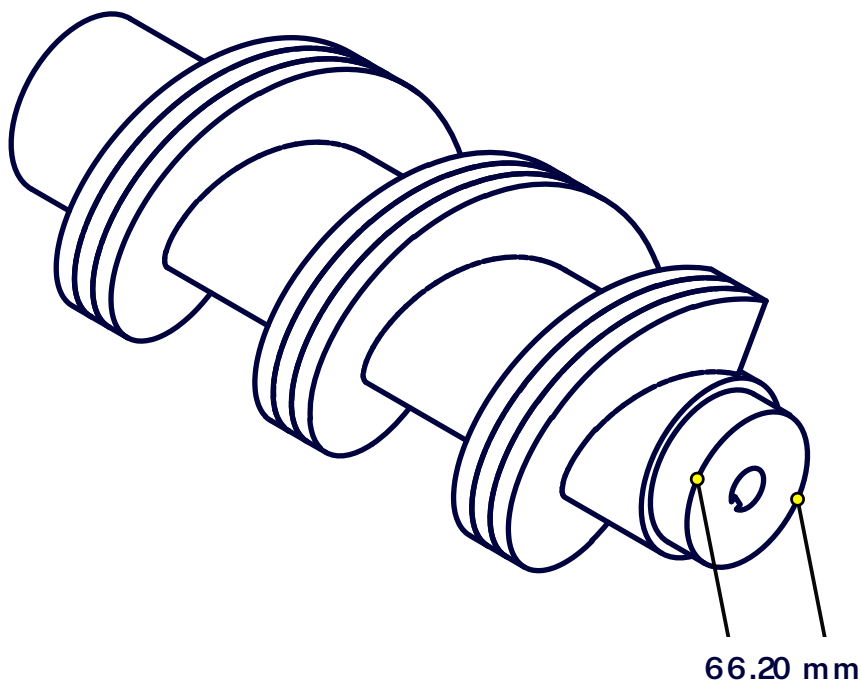


Reinforced screw

Constructed with stainless steel.



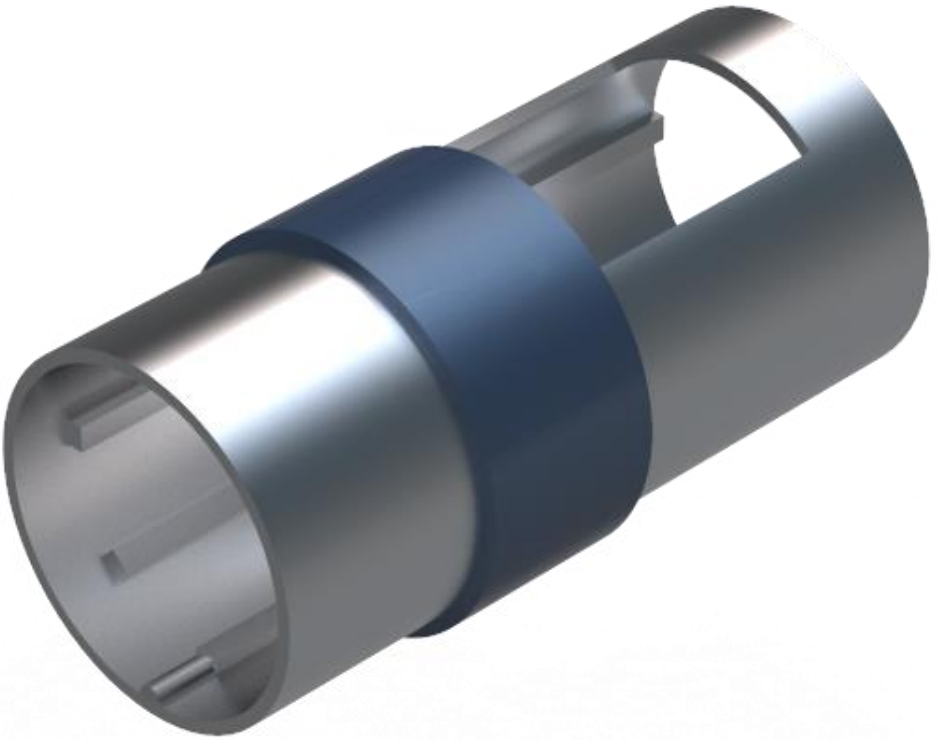
Reinforced screw



Cylinder reinforcement

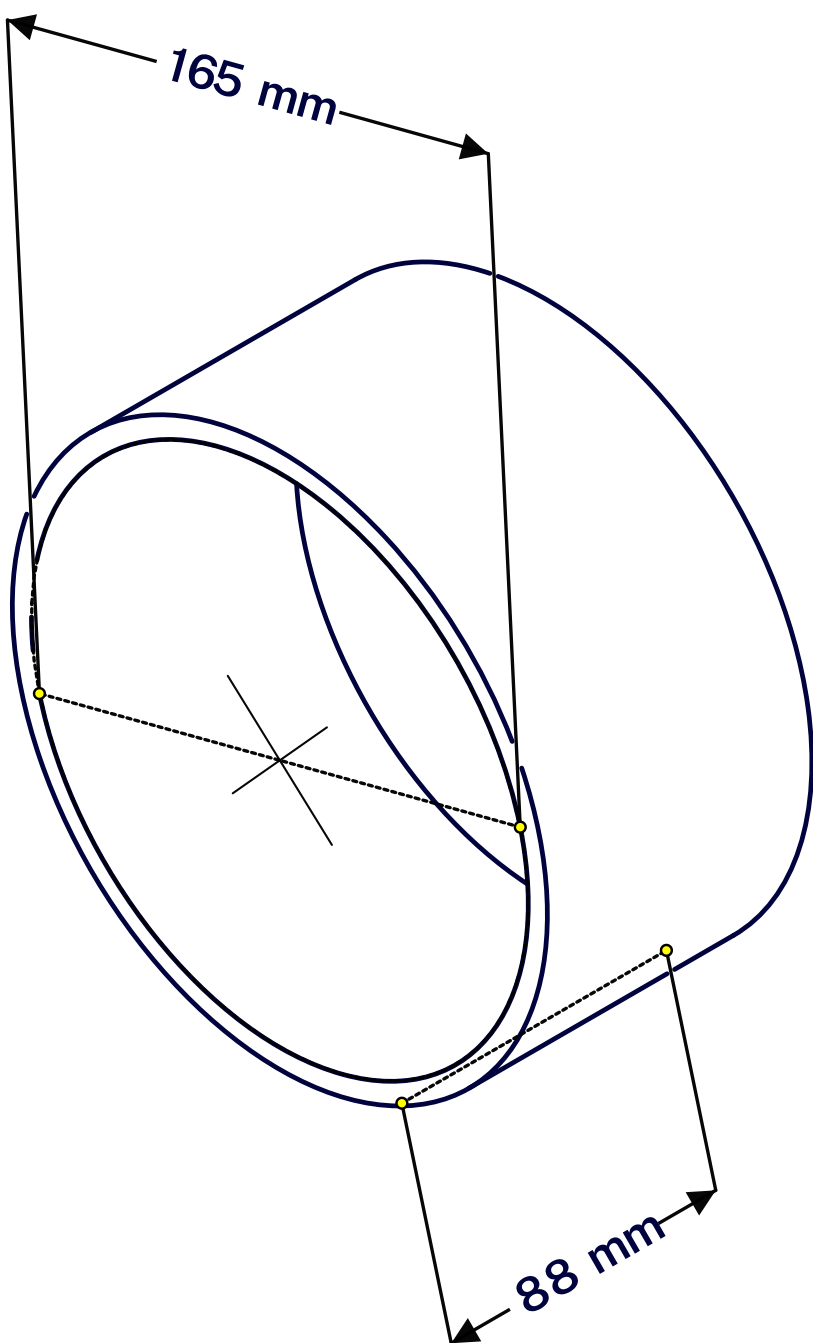


Cylinder reinforcement



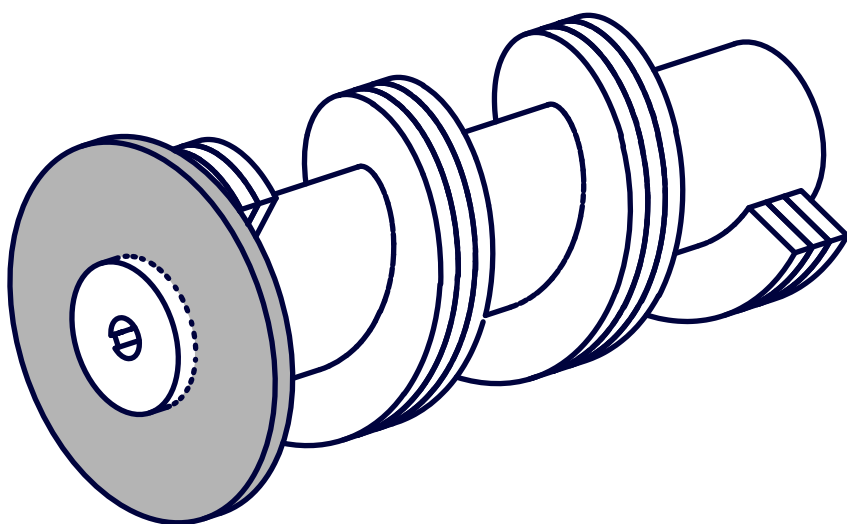
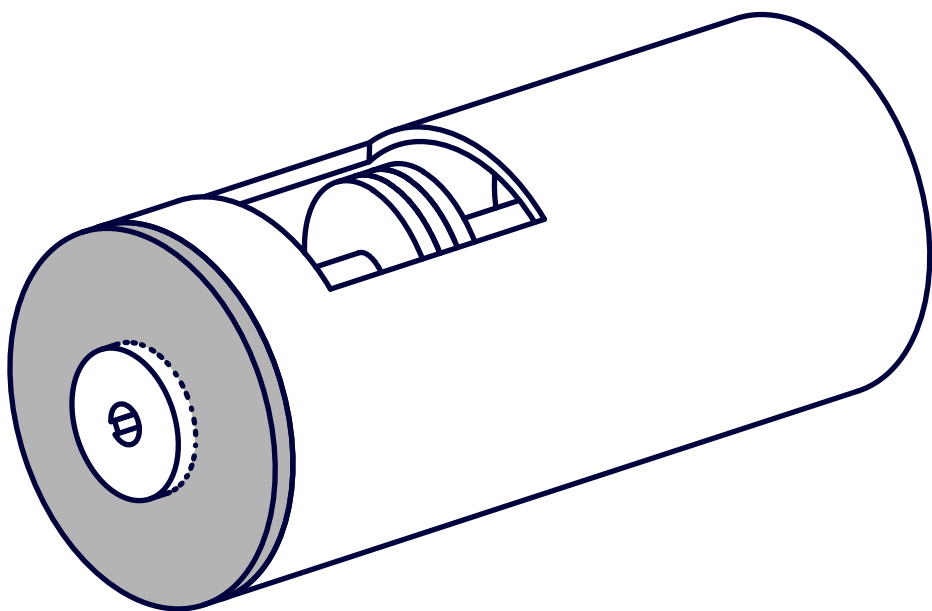
Cylinder reinforcement

Constructed of ¼" thick mild steel, or similar, and coated with corrosion-resistant paint.



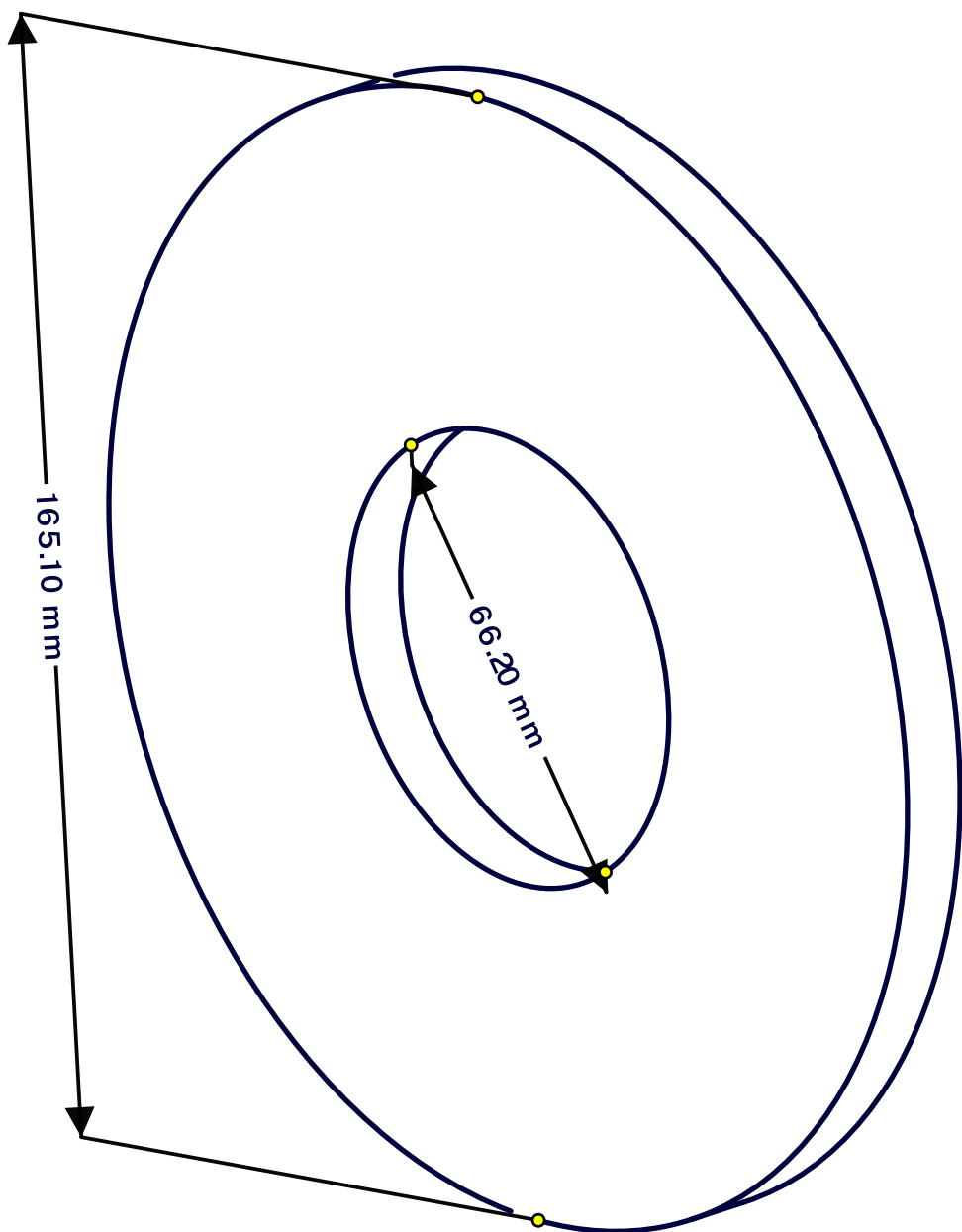
Cylinder back disk

Keeps screw in place.



Cylinder back disk

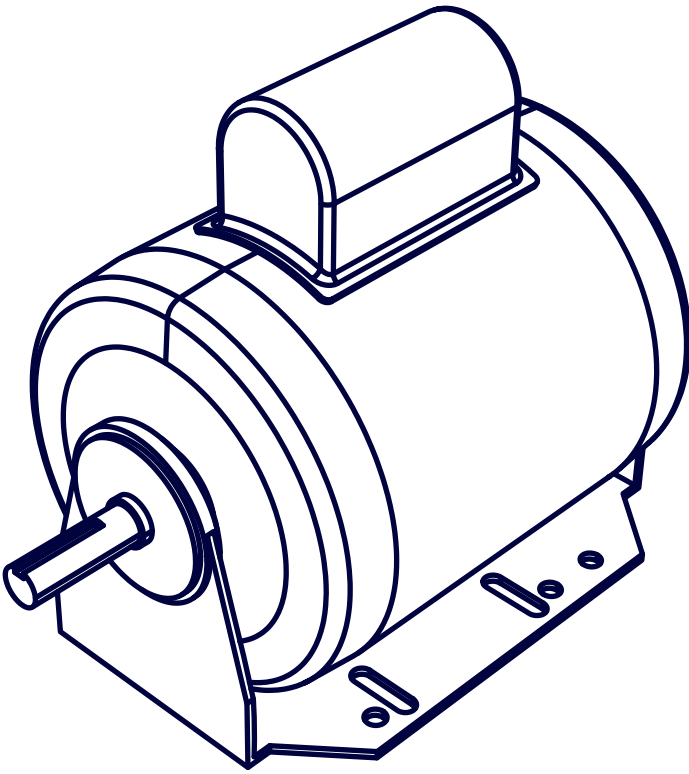
Made with 10 mm thick stainless steel.



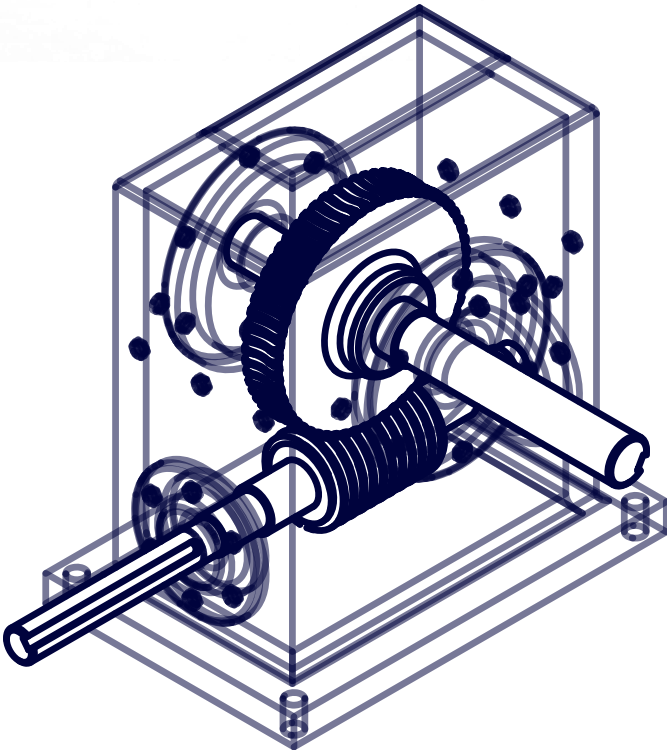
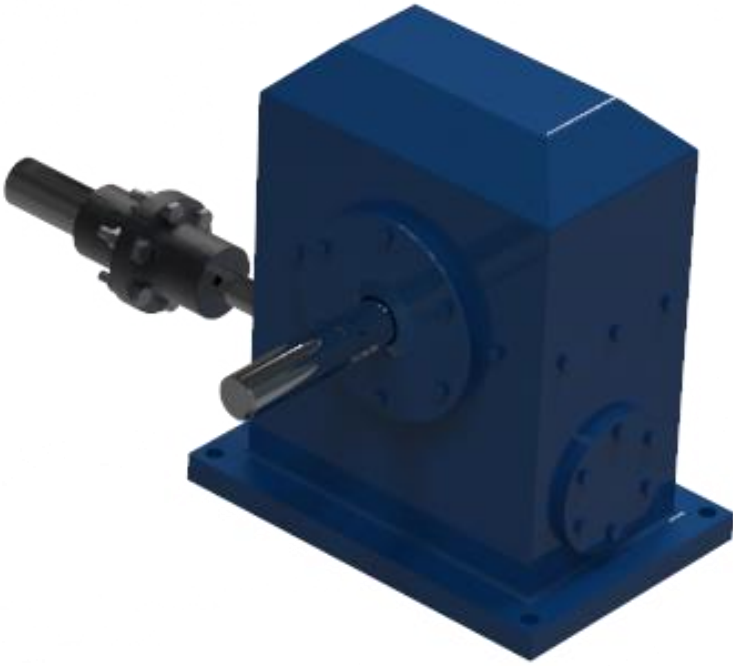
Single phase AC motor

Power: 1 ½ hp

Speed: 1725 rpm



60:1 speed reducer



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<https://a360.co/3HnSR9d>



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