

Pressure Control System

The term "Pressure Control System" (PCS) refers to the assembly between the engine and the run tank. Small brackets will be used to mount the plumbing system (ball valves, pipes etc.) inside the four support legs. Two CNC cut disks are used to mount the engine and run tank on each side.

Materials

Aluminum 7075-T6 is used for the CNC cut parts, 6082-T6 for the tube and steel for the standard components.

Development

The CAD was developed with Autodesk Fusion 360. All the bolts, washers, nuts and other various off-the-shelf components follow the ISO metric standards.

Run tank

The run tank is designed for an operating pressure of 55bar with a total volume of 8.6 lt and a safety factor of 2.5.

Materials

A 6082-T6 aluminum tube is used as the wall with two CNC cut bulkheads from 7075-T6 aluminum as the top and bottom. Steel bolts are used in order to attach the tube to the bulkheads.

Development

The development is done with Autodesk Fusion 360.





