

### **The Objective:**

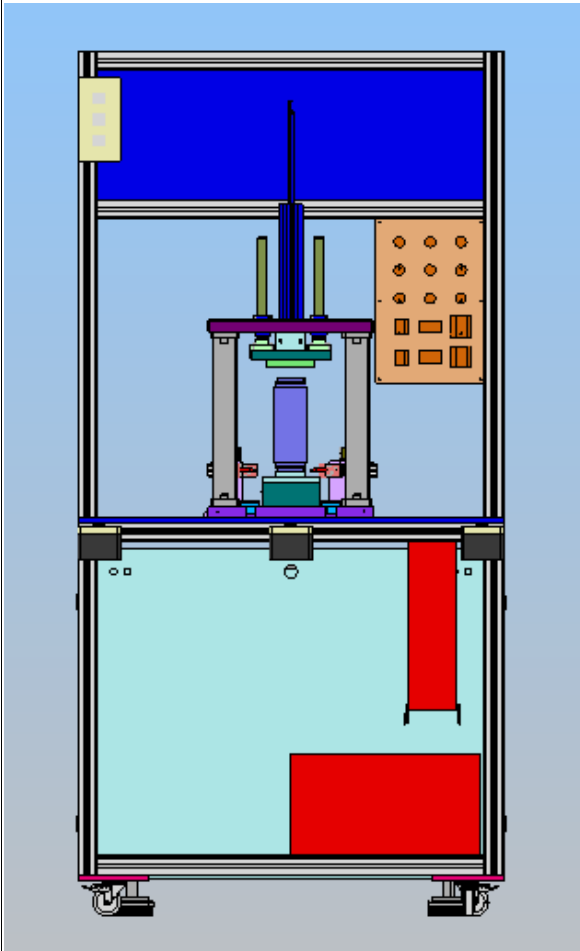
The customer had to perform an inline leak test for braided flex exhaust flexible couplers. The required cycle time of the machine was  $\leq 15$  sec. The component pass or fail decision has to be taken based on customer specification.

### **The Challenges:**

The Challenge in the project was to detect pressure drop of **0.005 MPA** with the tolerance of **0.00001 MPA** when the pressure is held at **0.1 MPA**. The detection cycle was **6.5 seconds** in order to reach the cycle time of less than 15 seconds for a component.

### **The Solution:**

We gave the solution that could detect the leak by checking pressure drop of **0.005 MPA** with the tolerance of **0.00001 MPA**. At the end of operation the machine was able to give pass / fail decision. Based on pass or fail machine will do the marking with green and red dots with permanent marker on the components.



**The Outcome:** Customer was able to test the critical component with high precision. Their cycle time and productivity increased, while the biggest impact was on quality. The 100% quality testing was done which reduced their business risk. The customer placed a repeat order for their China operations.