

## 6. Performance Analysis of a Nylon Made Vortex Tube:

This study was done on a vortex tube fabricated out of nylon. Compressed air of different pressure was pushed through inlet port. Then temperature was recorded from the hot and cold end.



Fig: Design of a Vortex Tube.

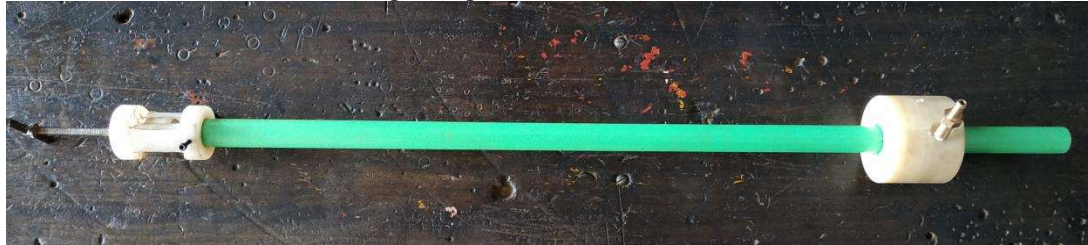


Fig: Fabrication of a Vortex Tube.

### Results:

Pressure of the inlet compressed air and temperature of inlet, hot end and cold end was analyzed. The analyzed data is given in below table.

Inlet Pressure (bar)	Inlet Temperature (°C)	Hot End Temperature (°C)	Cold End Temperature (°C)
2	26.9	33.4	23.5
3	26	37.5	18.3
4	21.8	40.1	10.1
5	18.1	43	4.9

Table: Data Obtained from Vortex Tube.