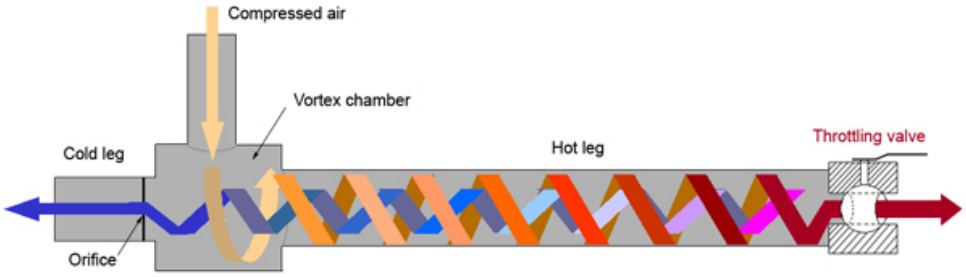
Model VT08-35
Vortex Tube
400 – 2500btu

Description:

A Vortex Tube is a device with no moving parts that will convert a stream of compressed air into two streams—one hot and one cold. A Vortex Tube offers instant cold or hot air and can produce cold air temperatures down to -45 deg C and hot air up to 125 deg C and available in capacities between 400btu and 2500btu.

How it works:

Compressed air is injected circumferentially into the tube at sonic speed and creates a cyclone (Vortex) spinning at a million revolutions per minute. Part of the air is forced to spin inward to the centre hole and travels up the long tube where a valve turns the spinning column (Vortex) of air inside itself. The inside column or Vortex of air gives up its heat to the outside vortex or column. The cold air is directed out the cold end of the Vortex Tube and the hot air is exhausted out of the other end of the Vortex Tube. The temperature and air flow is controllable with the adjusting knob and the air pressure.



Applications	Benefits and Features
• Cool Machining Operations	• Reliable - No Moving Parts
• Cool Electrical Cabinets	• Maintenance Free
• Cool Mould Tooling	• Stainless Steel Construction
• Cool Sewing Needles	• Uses No Electricity
• Cool Workers	• Instant Cooling - Controllable
• Test Thermostats	• No Freon
• Cool CCTV Cameras	• Compact and Light Weight
• Set Hot Glue Operations	• Low Cost
• Cool Gas Samples	
• Cool Moulds and Dies	

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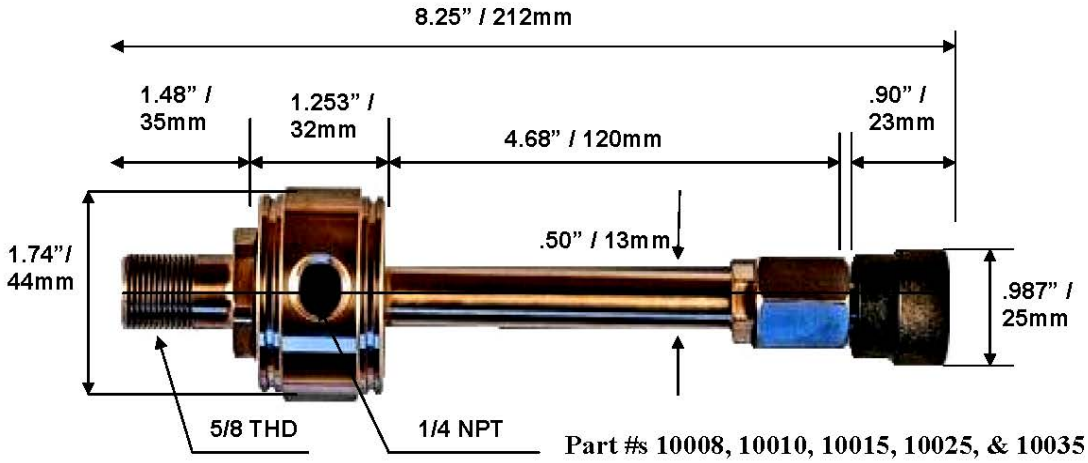
For GSM/SMS Controllers, Universal A/C Control Systems, Remote Controls, Condensate Pumps and Vortex Tube Panel Coolers

Vortex Tube Dimensions
Inches and Millimeters



Part #s 10008, 10010, 10015, 10025, & 10035

Part # 10007

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Specifications:

Model	Description	Inlet Press	Air Consumption	Watt	Btu/h	Kcal/h
CF08	S/Steel Vortex Tube	700kpa	225l/min	125	400	100
CF10	S/Steel Vortex Tube	700kpa	282l/min	190	600	150
CF15	S/Steel Vortex Tube	700kpa	423l/min	285	900	230
CF25	S/Steel Vortex Tube	700kpa	704l/min	480	1500	380
CF35	S/Steel Vortex Tube	700kpa	986l/min	795	2500	630

Performance

The Cold Fraction is the percentage of the total air flow that comes out as cold air.

		Cold Fraction						
Inlet Press	Deg C	20%	30%	40%	50%	60%	70%	80%
140Kpa	Temp Drop	17.3	16.3	13.4	10.7	7.0	2.8	1.8
	Temp Increase	9.4	4.2	3.2	10.7	18.4	28.1	42.3
280Kpa	Temp Drop	31.8	29.9	27.3	22.9	17.3	11.4	4.0
	Temp Increase	4.8	1.8	11.2	22.9	33.8	47.2	64.6
410Kpa	Temp Drop	40.2	38.8	34.3	29.0	23.1	16.1	7.5
	Temp Increase	3.6	4.4	15.1	29.0	40.1	56.2	76.2
550Kpa	Temp Drop	47.3	44.6	39.1	33.5	27.4	19.0	10.1
	Temp Increase	3.3	6.7	17.8	33.5	45.6	62.4	82.9
700Kpa	Temp Drop	53.5	48.7	44	38.0	30.3	22.2	12.0
	Temp Increase	2.3	7.8	19.6	38.0	48.9	66.2	89.0

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