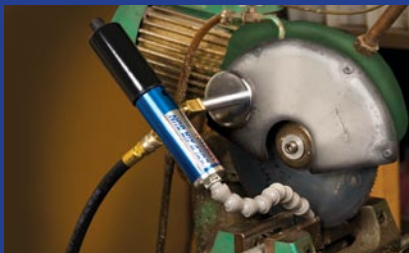


# COLD AIR GUNS

Adjustable Temperatures to -30°F



611-1

**NEW!**

## Frost Free Versatile Spot Cooling for Machining & More

Cold Air Guns use filtered compressed air and vortex tube technology to produce sub-zero air for numerous industrial spot cooling applications. With no moving parts to wear out, the internal vortex tube converts factory compressed air into a cold air stream, producing temperatures down to as much as -30°F. Cold Air Guns are used in various industrial processes, fabrication, assembly and packaging as a versatile spot cooling device.

- Widely used in milling, drilling, turning and other metalworking operations
- Machining of plastics, composites, wood and other materials
- Surface grinding, drill and tool sharpening
- Cooling molds and molded pieces
- CNC routers, blades and band saws
- Spot cooling of parts and assemblies
- Industrial sewing and textiles
- Setting hot melts and adhesives
- Thermal testing sensors
- Cooling welds and solders

### Increase dry machining speeds up to 36% and extend tool life up to 50%

Most popular applications involve cooling during the machining of metals, plastics, wood, rubber, ceramics and other materials. Cold air machining outperforms mist coolants and substantially increases tool life and feed rates on dry machining operations. The effective cooling from a Cold Air Gun can eliminate heat-related parts growth while improving parts tolerance and surface finish quality.

### Model 610 Adjustable Cold Air Gun System Available now in 900, 1500 and 2500 BTUH

Our most popular and versatile model is ideal for a wide range of machining operations and other spot cooling needs. The Cold Air Gun's easily adjustable temperature and airflow settings and instant on/off capability makes it simple to adapt its cold air output to the application.

- Eliminates the mess, expense and safety concerns of using mist coolants
- Cools parts to reduce normalization time and hold tight part tolerance
- Avoid secondary parts cleaning after machining
- Single turn adjustable temperature for your specific application
- Magnetic base for easy "machine to machine" portability
- Frost free models eliminate frost and condensation on directable outlet nozzle

### Features...

- Exceptionally reliable – no moving parts
- Produces cold air to 100°F (55.6°C) below inlet air temperature
- Quiet operation – meets OSHA noise specifications
- Uses only filtered compressed air
- No refrigerants – no EMI/RFI interference
- Low pressure air output helps clear chips and dust



Ours dry  
& frost free

Competitors  
frost & condensation



1-800-836-7472  
iscenclosurecooling.com

# VORTEC TUBE PRODUCT LINE

## NEW Frost Free Cold Air Gun

610-1, 620-1, 630-1, 611-1, 621-1, 631-1 Cold Air Guns only



610, 620, 630, 611, 621, 631 Cold Air Gun Systems



608 Mini CAG System



OPTIONS

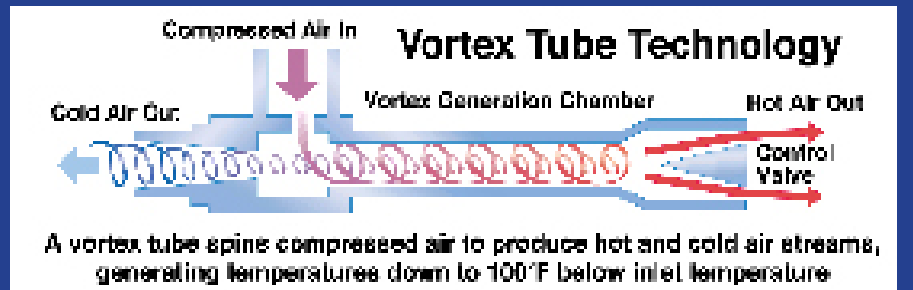


Cold Air Gun Models		Description	Air Consumption scfm / slpm	Max. Cooling Capacity BTUH / kCal/hr
<b>NEW!</b> Frost Free Model No.	Standard Model No.			
-	608-1	Mini Cold Air Gun only	8 / 226	400 / 101
-	608	Mini Cold Air Gun System	8 / 226	400 / 101
611-1	610-1	Cold Air Gun only	15 / 425	900 / 227
611	610	Cold Air Gun System	15 / 425	900 / 227
621-1	620-1	Cold Air Gun only	25 / 708	1500 / 378
621	620	Cold Air Gun System	25 / 708	1500 / 378
631-1	630-1	Cold Air Gun only	35 / 991	2500 / 630
631	630	Cold Air Gun System	35 / 991	2500 / 630

Cold Air Gun Systems include the Cold Air Gun, magnetic mounting base and a 5 micron auto-drain compressed air filter.

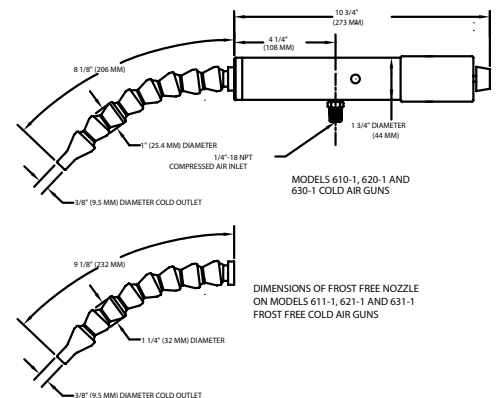
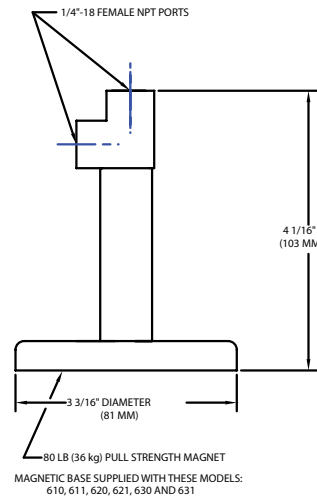
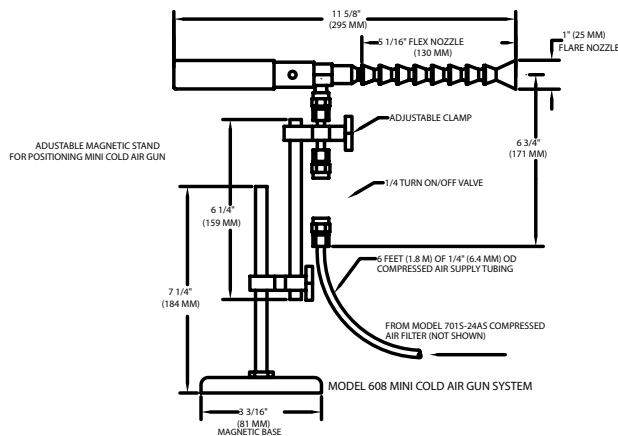
Available accessories: #608-30 Dual Outlet Flex Nozzle for 608 models, #610-30 Dual Outlet Flex Nozzle for 610, 620 and 630 models.

(Air Consumption and Cooling Capacity values at 100 psig (6.9 bar) operating pressure.)



**How Cold Air Guns Generate Frigid Air**  
Fluid (air) that rotates around an axis (like a tornado) is called a vortex. A Vortex Tube creates cold air and hot air by forcing compressed air through a generation chamber, which spins the air at a high rate of speed (1,000,000 RPM) into a vortex. The high-speed air heats up as it spins along the inner walls of the Tube toward the control valve. A percentage of the hot, high speed air is permitted to exit at the valve. The remainder of the (now slower) air stream is

forced to counterflow up through the center of the high-speed air stream in a second vortex. The slower moving air gives up energy in the form of heat and becomes cooled as it spins up the tube. The chilled air passes through the center of the generation chamber finally exiting through the opposite end as extremely cold air. Vortex tubes generate temperatures down to 100°F below inlet air temperature. The control valve located in the hot exhaust end can be used to adjust the temperature drop and rise for all Vortex Tubes.



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