

# NANOSTONE PTE. LTD.

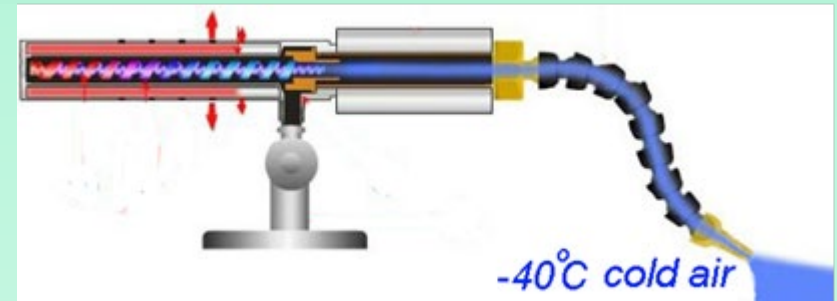
## VAIR Cold Air Gun

**Cold Air Gun** also called Tool Cooler or Adjustable Spot cooler, Tool Cooling System. Cold Air Gun uses a vortex tube to produce cold air at one end; hot air is exhausted as waste at the muffled hot end. The adjustable spot cooler can provide a precise temperature from room temperature (20°C) to -20°C.

### What is a Cold Air Gun?

Cold Air Guns use filtered compressed air (80-100 PSIG) and vortex tube technology to produce sub-zero air for industrial spot cooling. Compressed air enters into the vortex tube component of the Cold Air Gun. The vortex tube splits the compressed air into a cold and a hot stream of air. The hot air from the vortex tube is vented to the atmosphere after being muffled to reduce noise. Cold air enters into the muffler and then distributed through the hose distribution kit and onto the tool being cooled. Cold air machining eliminates mist coolants and heat-related parts growth while improving tool life, parts tolerance and surface finish quality.

Cold Air Guns can often replace costly mist coolants and certainly improves the quality and output of all types of dry machining operations from metals to plastics. Unit is low cost, no electricity, no moving parts and maintenance free.

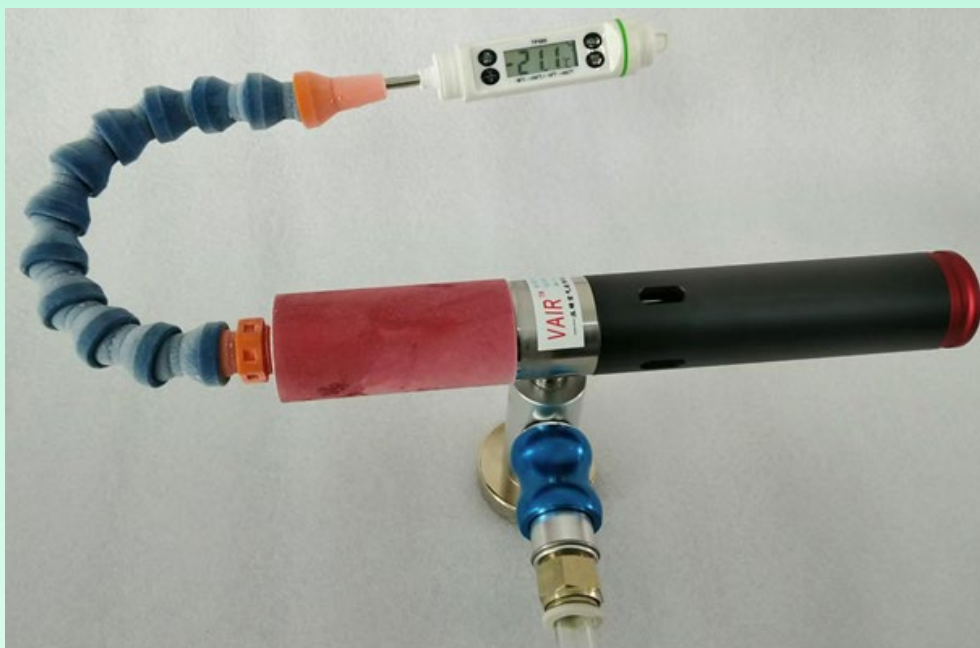




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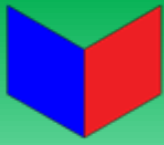
## Cold Air Gun Features and Benefits:

- No moving parts or electricity, low noise, quiet operation
- Compact and lightweight, Maintenance free
- Uses only filtered compressed air - no Freon required
- Avoid secondary parts cleaning after machining
- Single turns adjustable temperature for your specific application
- Eliminates the mess, expense and safety concerns of using mist coolants
- Increases dry machining speed up to 36%, Extends tool life up to 50%
- Reduces grinding wheel loading caused by overheating
- Cools parts to reduce normalization time and hold tight part tolerances
- Magnetic base for easy installation and "machine-to-machine" portability



## Cold Air Gun Specifications:

Air exits the cold end and is directed using adjustable flexible tubing to the point of use. The unit is portable using a magnetic base. Adjustable spot cooler produces a wide range of airflow and temperature by adjusting the knob at the hot end and changing the various generators supplied

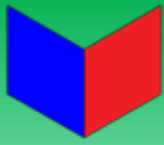


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## Cold Air Gun Specifications - S style Standard Cold Air Gun: (2-1)



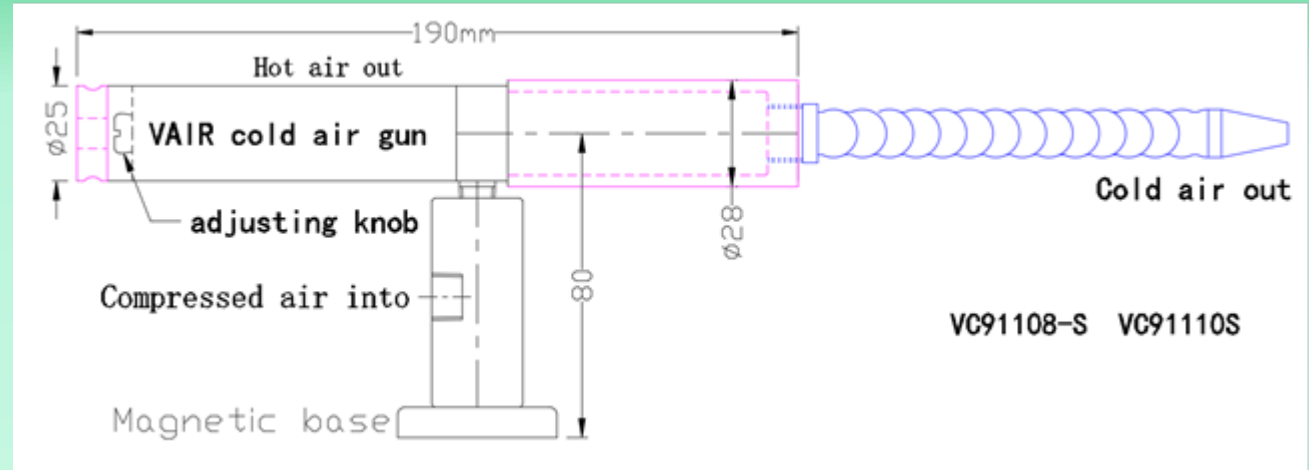
MODEL	Size	Maximum air Temperature Drop	Inlet Pressure	Air Consumption		Cold Capacity	
			Psi/Bar	Scfm	Slpm	BTU/Hr	Kcal/Hr
VC91108S	mini	↓-40°C~45°C	100/6.9	8	230	540	136
VC91110S	mini	↓-40°C~45°C	100/6.9	10	280	650	164
VC91115S	medium	↓-40°C~45°C	100/6.9	15	430	1000	252
VC91120S	medium	↓-40°C~45°C	100/6.9	20	580	1350	340
VC91125S	medium	↓-40°C~45°C	100/6.9	25	710	1700	428
VC91130S	medium	↓-40°C~45°C	100/6.9	30	850	2000	504
VC91135S	medium	↓-40°C~45°C	100/6.9	35	990	2400	605
VC91140S	medium	↓-40°C~45°C	100/6.9	40	1130	2800	706



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VC91108S and VC91010S Mini Cold Air Gun size:

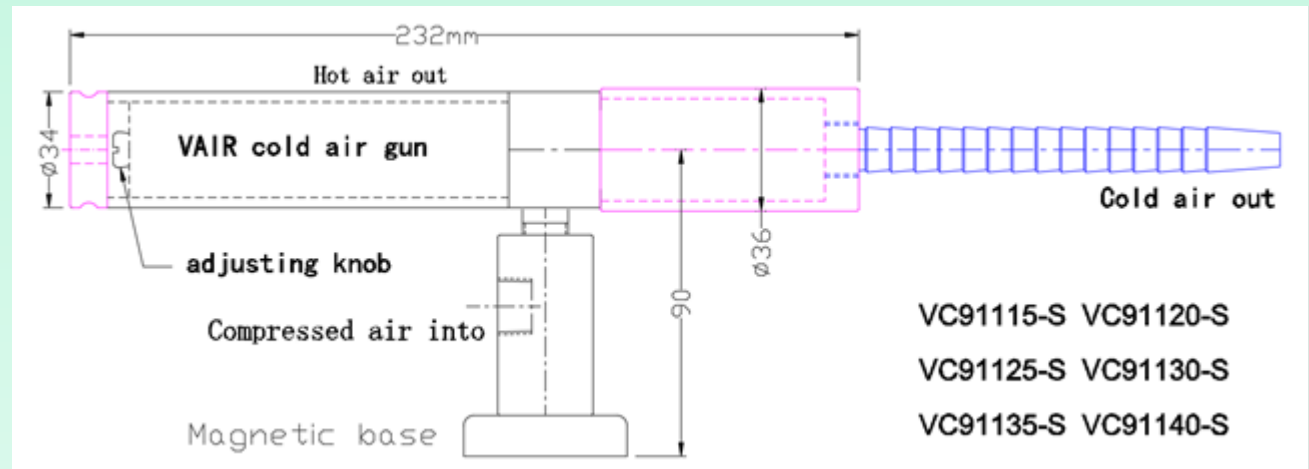
(2-2)



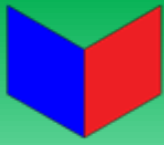
VC91108-S VC91110S

VC91115S, VC91120S, VC91125S, VC91130S, VC91135S and VC91140S:

Cold Air Gun size:



VC91115-S VC91120-S  
VC91125-S VC91130-S  
VC91135-S VC91140-S



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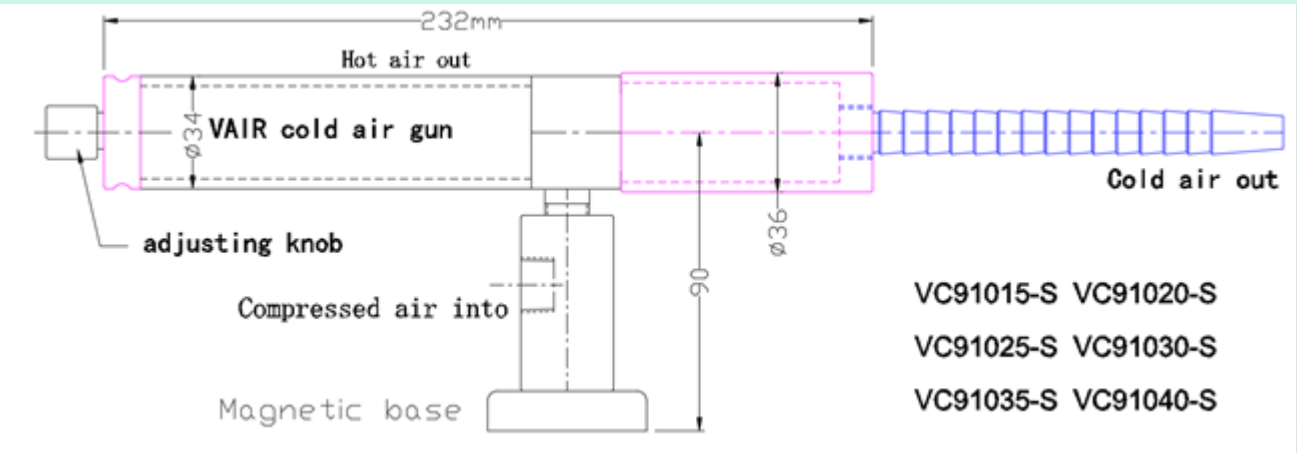
## S style Adjustable Cold Air Gun (1-1)

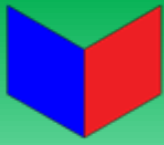


MODEL	Size	Maximum air Temperature Drop	Inlet Pressure	Air Consumption		Cold Capacity	
			Psi/Bar	scfm	slpm	BTU/Hr	Kcal/Hr
VC91015S	medium	↓-40°C~45°C	100/6.9	15	430	1000	252
VC91020S	medium	↓-40°C~45°C	100/6.9	20	580	1350	340
VC91025S	medium	↓-40°C~45°C	100/6.9	25	710	1700	428
VC91030S	medium	↓-40°C~45°C	100/6.9	30	850	2000	504
VC91035S	medium	↓-40°C~45°C	100/6.9	35	990	2400	605
VC91040S	medium	↓-40°C~45°C	100/6.9	40	1130	2800	706

VC91015S ,VC91020S,VC91025S,VC91030S,VC91035S and VC91040S:

Cold Air Gun Size



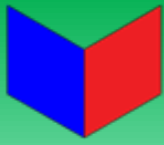


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**M style Adjustable** stainless steel Cold Air Gun  
(2-1)



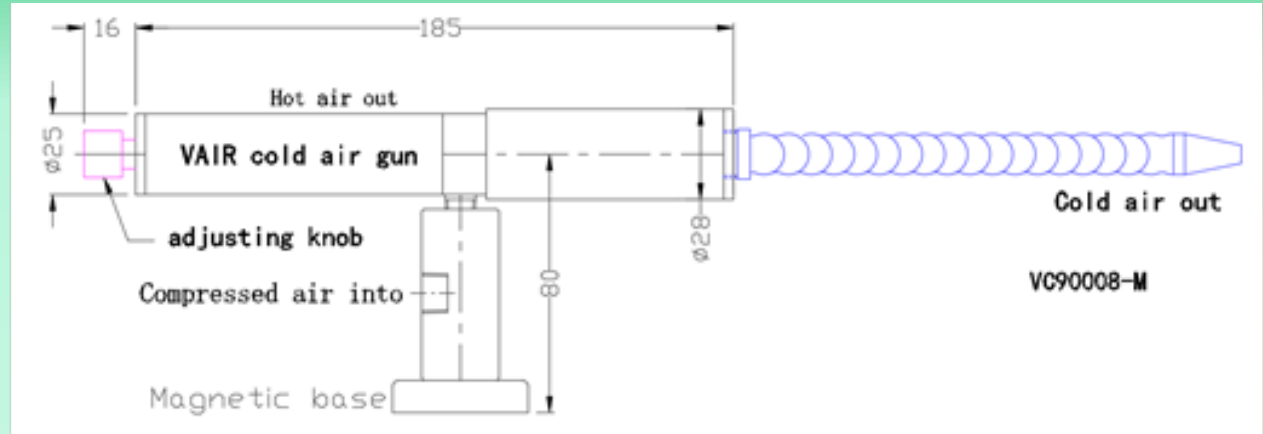
MODEL	Size	Temperature Drop	Inlet Pressure	Air Consumption		Cold Capacity	
			Psi/Bar	scfm	slpm	BTU/Hr	Kcal/Hr
VC90008M	mini	↓-40°C~50°C	100/6.9	8	227	560	141
VC90010M	medium	↓-40°C~50°C	100/6.9	10	280	700	176
VC90015M	medium	↓-40°C~50°C	100/6.9	15	430	1100	277
VC90020M	medium	↓-40°C~50°C	100/6.9	20	580	1400	353
VC90025M	medium	↓-40°C~50°C	100/6.9	25	710	1750	441
VC90030M	medium	↓-40°C~50°C	100/6.9	30	850	2100	529
VC90035M	medium	↓-40°C~50°C	100/6.9	35	990	2450	618
VC90040M	medium	↓-40°C~50°C	100/6.9	40	1130	2850	718



# NANOSTONE PTE. LTD.

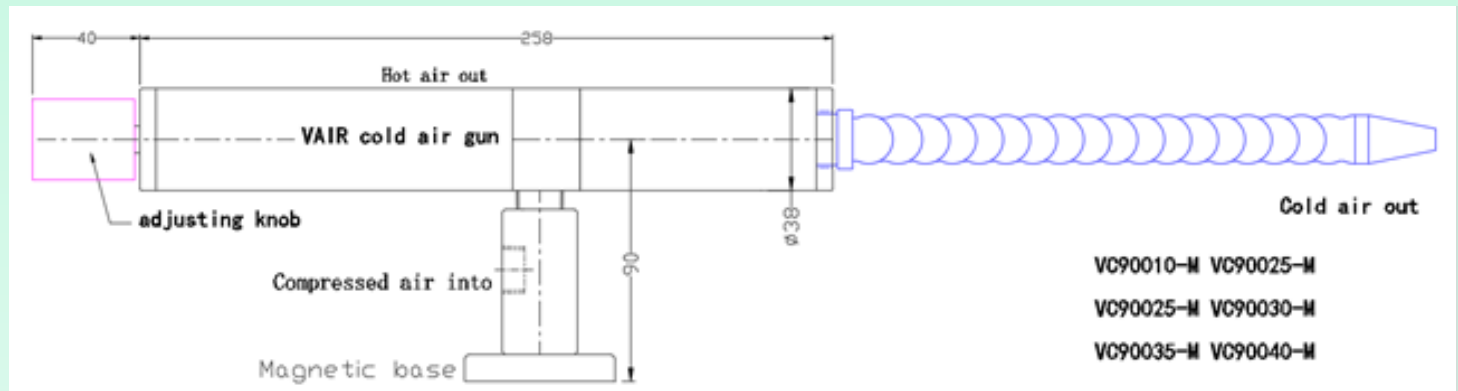
VC90008M Mini Cold Air Gun size

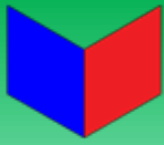
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VC90010M, VC90015M, VC90020M, VC90025M, VC90030M, VC90035M and VC90040M:

Cold Air Gun size





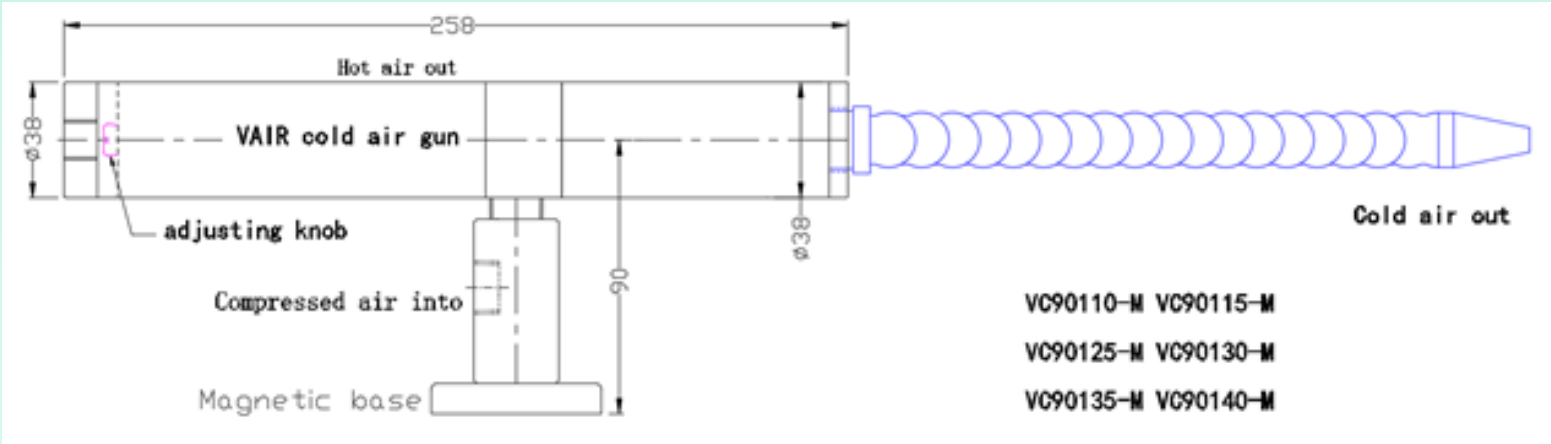
# NANOSTONE PTE. LTD.

## M style stainless steel Cold Air Gun (1-1)



MODEL	Size	Maximum air Temperature Drop	Inlet Pressure	Air Consumption		Cold Capacity	
			Psi/Bar	scfm	slpm	BTU/Hr	Kcal/Hr
VC90110M	medium	↓-40°C~50°C	100/6.9	10	450	700	176
VC90115M	medium	↓-40°C~50°C	100/6.9	15	430	1100	277
VC90120M	medium	↓-40°C~50°C	100/6.9	20	580	1400	353
VC90125M	medium	↓-40°C~50°C	100/6.9	25	710	1750	441
VC90130M	medium	↓-40°C~50°C	100/6.9	30	850	2100	529
VC90135M	medium	↓-40°C~50°C	100/6.9	35	990	2450	618
VC90140M	medium	↓-40°C~50°C	100/6.9	40	1130	2850	718

VC90110M,VC90115M ,VC90120M,VC90125M,VC90130M,VC90135M and VC90040M:  
Cold Air Gun size







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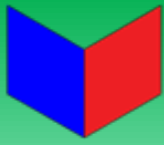
## **Cold Air Gun's Uses:**

Always use clean, dry compressed air. A manual filter is supplied with every system to insure dry air. 5-micron filters are selected in Cold Air Gun Systems. If oil is a major problem in the compressed air line, an oil removal filter is also recommended. The temperature of the air can be controlled by reducing the pressure using either a regulator or manual shut-off valve. Flexible hose is used to direct the air to where cooling is required. A magnetic base allows for portability and easy mount of the unit to the machine.

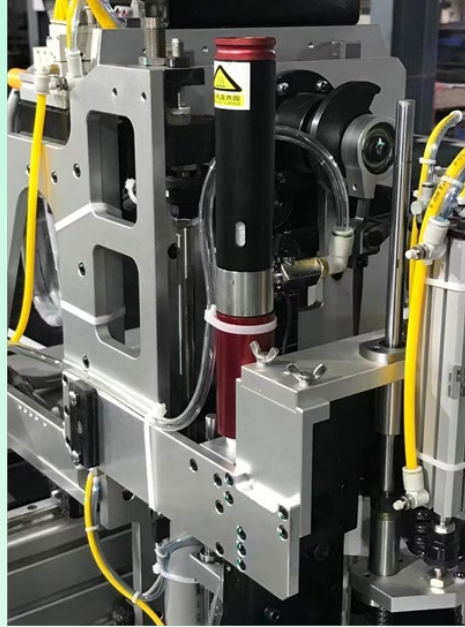
## **Cold Air Gun Applications:**

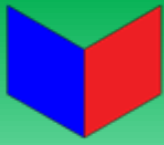
Cold Air Guns are used in various industrial processes, fabrication, assembly and packaging as a versatile spot cooling device. Cold Air Guns provide effective cooling for most dry machining of metals, plastics, wood, rubber, ceramics and other materials, allowing increases in feed rates and extending tool life.

- Widely used in milling, drilling, turning and other metalworking operations
- Spot cooling of parts molds and assemblies
- Machining of plastics, composites, wood and other materials
- CNC routers, blades and bands saws
- Surface grinding, drill and tool sharpening
- Industrial sewing and textiles
- Setting hot melts and adhesives
- Cool Electronic component



# NANOSTONE PTE. LTD.





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