

AiRTX STAINLESS STEEL AIR GUNS

*Sub-Freezing Air for Dry Machining and Spot Cooling Industrial Processes —
Reliable, Non-Toxic, Non-Polluting, No Residue, Low Cost*

COOLING

Adjustable Models Now Available

Model 60015

Most Popular

Model 60051

Adjustable

Model 60061

DualPoint Adjustable

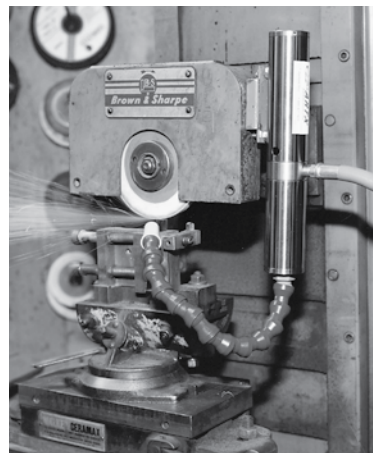
Model 60071

Aluminum

- ▲ **The Air Gun** produces temperatures approximately 75°F (41°C) below your compressed air temperature, providing residue-free, subfreezing air for dry machining or spot cooling industrial processes, tests, etc.
Several models to fit any job requirement

Ready-to-Use System

- Just plug in air line, aim it, go to work
- Instant on/off
- Muffled for quiet, efficient operation around workers
- Maintenance-free, no moving parts
- Lightweight, low-cost
- Uses standard factory air, with variable flow rates of 10, 15, 25, and 35 cfm up to 2800 BTU/H cooling capacity



▲ Model 60015 at work

The Stainless Steel Air Gun — Cooling and Heating

The Stainless Steel Air Gun is an applied Vortex Tube to accommodate factory compressed air supplies. The range of temperature from the Stainless Steel Cold Gun is a 75°F (41°C) @80 psi drop from the incoming ambient air supply to a 140°F (77°C) increase of the compressed air supply. Since compressed air supply temperature is very close to the ambient, a 75°F day would yield a cold stream of air from the AiRTX Air Gun of 0°F (-18°C).

A Ready-to-Use, Portable Cold-Air Source

The Air Gun is your portable cold-air source for improving dry machining operations or spot-cooling a wide range of industrial processes.

Using only compressed air, the Air Gun produces a stream of cold air 75°F (41°C) below your compressed air temperature @ 80 psi.

It's clean, convenient — put the gun where you need it, using the magnetic base — aim the cold air stream onto your work with the flexible hose — go to work!

The Air Guns are heavy-duty, built for the rigors of factory-floor service. Made of heavy-gauge Stainless Steel, they are precision-machined, assembled and tested under strict quality control. They will never pit or rust when subjected to coolants, water, or other corrosive materials.

Advantages of the Airtx Portable Air Gun

- No liquids, ozone-depleting chemicals or residue
- Increase feeds, speeds and quality
- Eliminates liquid coolant cost, contamination, skin irritation, mess on walls/floors/machines
- Finishes the job with a clean, dry part
- Improves tool life, production rates, finish and tolerances
- Eliminates microcracking and burning
- Reduces wheel loading and dressing

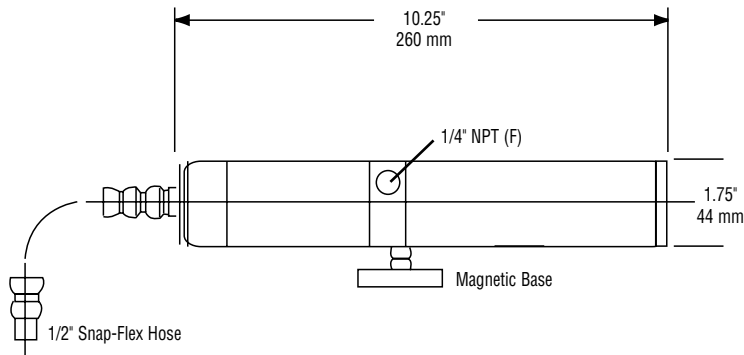
Use Them For:

- Ideal for tool-room cutter grinders or production milling/drilling/grinding/tapping
- Perfect for tapping operations
- Air-cooled dry machining for metals, composites, plastic, rubber, wood
- Cool solders, hot melts, adhesives
- Thermo-test electronic components, circuit boards and thermostats
- Shrink-fit parts
- Cool mold tooling, ultrasonic devices
- Cool needles to prevent thread breakage and heat cracking on synthetic threads

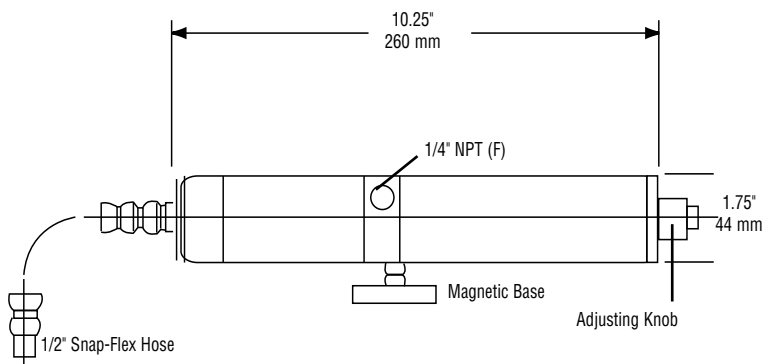
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E-mail Us at
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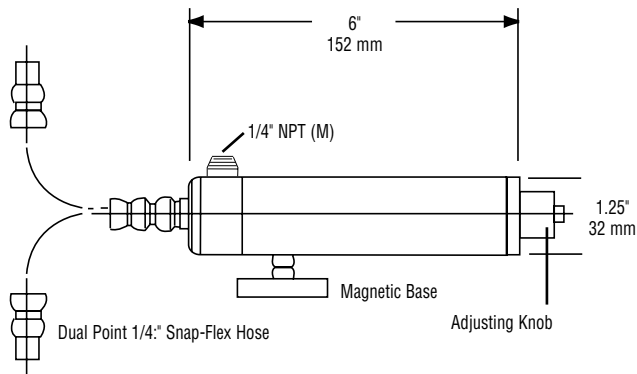
Cooling and Heating



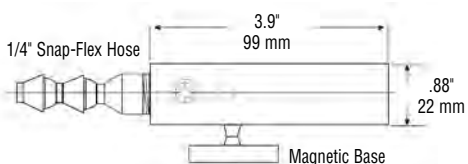
▲ Model 60015



▲ Model 60051



▲ Model 60061



▲ Model 60071



Stainless Steel Air Gun

Model Description

- 60015 Stainless Air Gun with magnetic base, Snap-Flex Hose and generators (4)
- 60040 Stainless Air Gun with magnetic base, Snap-Flex Hose and generators (4) and 5 micron filter
- 90601 Y dual point application hose

Adjustable Stainless Steel Air Gun

- Same wide range of temperatures and flow as the 60015 but with adjustable cold air flow and temperature range with each generator

Model Description

- 60050 Adjustable Stainless Steel Air Gun Kit with magnetic base, 12" Snap-Flex Hose, generators (4), 5 micron air line filter
- 60051 Adjustable Stainless Steel Air Gun with magnetic base, 12" Snap-Flex Hose, generators (4)

Adjustable Stainless Low Flow Air Gun

- Smaller size with adjustable flows and temperature range of the 10 and 15 cfm generator

Model Description

- 60060 Adjustable Air Gun with magnetic base, 5 micron air filter, dual point hose, 10 and 15 cfm generators
- 60061 Stainless Steel adjustable Air Gun with magnetic base, dual point hose, 10 and 15 cfm generators

Compact Cold Air Gun

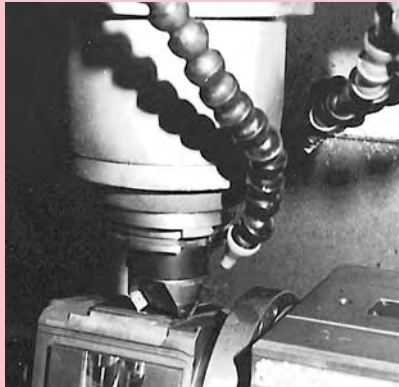
- Small size and a miser on compressed air, 75°F drop in compressed air temperature

Model Description

- 60070 Kit includes: 8 cfm compact cold air gun, Snap-Flex Hose, filter regulator with gauge, magnetic base
- 60071 8 cfm compact cold air gun, Snap-Flex Hose, magnetic base

AiRTX STAINLESS STEEL AIR GUNS

CASE STUDY



▲ Stainless Steel Air Gun Model 60400

An Alternative to Dry Machining

Occasionally a milling operation comes along that cannot be done using coolants to dissipate the heat. Such is an operation at a machine shop in New Miami, Ohio. They have a job using 4140 steel with a 35 Rc rating. The inserts are so hard that coolants are not recommended because they can cause cracking. The operation is set up at a speed of 1350 RPM with a 5 inch per minute feed rate. The 2 inch cutter has three inserts.

The customer requires the end product to be mirror finished. Any discoloration from the heat results in a scrap product. For this reason, the inserts must be replaced after every eight pieces. At \$8.00 per insert plus the operators' time to replace the spent units, another method of machining had to be found.

Qualiturn contacted AiRTX International, The Air Research Technology Company. They recommended the Stainless Steel Model 60040 that converts normal shop air into a sub-zero air stream and provides instant spot cooling. AiRTX manufactures the only Stainless Steel cooler on the market which is very practical over aluminum units in hot areas with high speed chips involved.

Using the Model 60040, Qualiturn was able to increase production by 400% before changing the inserts. According to Mike Barber, owner of Qualiturn Machining Center, "the AiRTX Model 60040 at \$275.00 was paid for during the first hour's run of products".

Compact, reliable, and maintenance free, the Stainless Steel Model 60040 provides a simple, clean, and coolant free solution to many machining operations. Just plug into a standard compressed air line (80-90 psi), aim the flexible 12" nozzle, and let it go to work. The magnetic base holds the Model 60040 in place on the machine. The same sub-zero air is available regardless of the position of the Model 60040.

In addition to dry machining, the Stainless Steel Model 60040 can improve drilling, grinding, or tapping operations. Also cooling motors, parts, processors, and molds are easily achieved to increase production. You can even use the cold air to shrink shafts and the hot air for expanding a bearing's trace for easy fits in pressing bearings onto shafts..

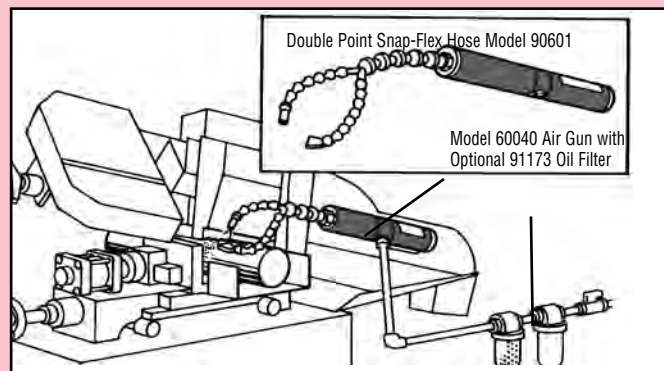


▲ Stainless Steel Air Gun Model 60015

A specialty furniture design company, 1st in Design, has found a way to speed operations by removing wood burning discolorations before they occur. Using the Gold Air Gun model 60015, normal shop compressed air is cooled to -15 degrees F to cool the saw blades and router used in manufacturing wood furniture.

Burt Aarsen, owner of 1st in Design, says, "the Cold Air Gun is such a simple, clean, way to eliminate a time consuming step in making furniture. I use it in almost every drilling, sawing or router operation.

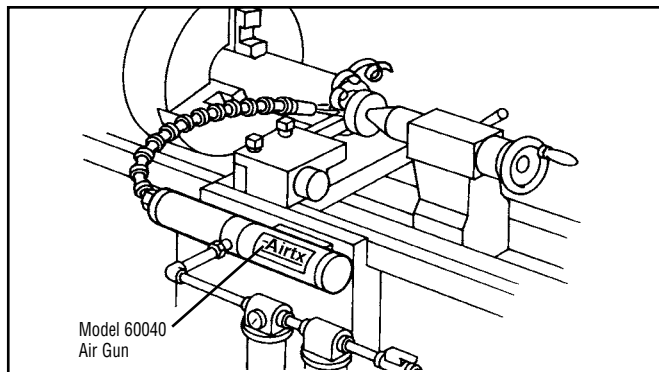
The Cold Air Gun also increases tool life by lessening the small heat cracks in the sharp edges of the tools and that means a sharper edge for a larger period of time".



Wood Working — Band Sawing

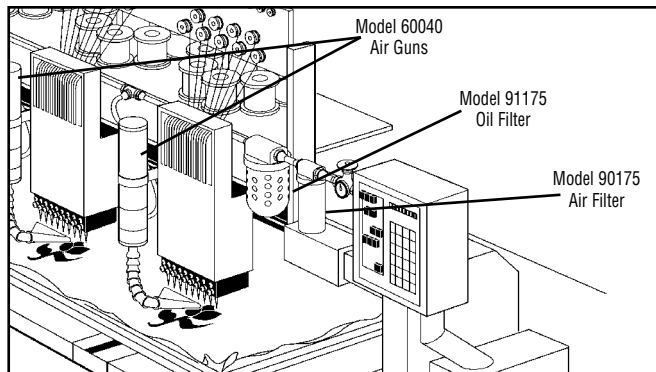
The Model 60040 Air Gun eliminates liquid coolant in cutting of bar stock. Cold air prolongs blade life and stops premature dulling.

AiRTX Stainless Steel Air Guns at Work



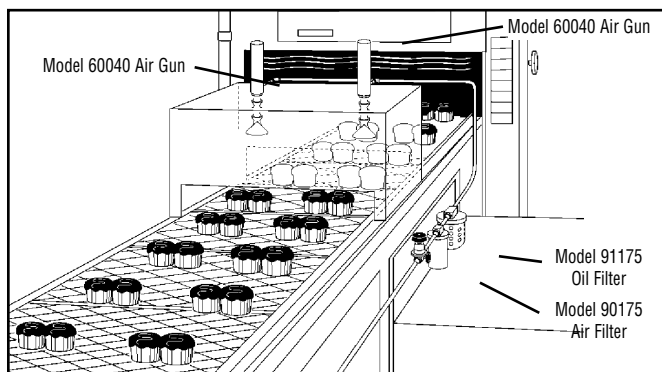
Plastics — Machining

Model 60040 Air Gun speeds production on this plastics machining operation and improves finish by cooling cutting tool with 10°F (-12°C) air.



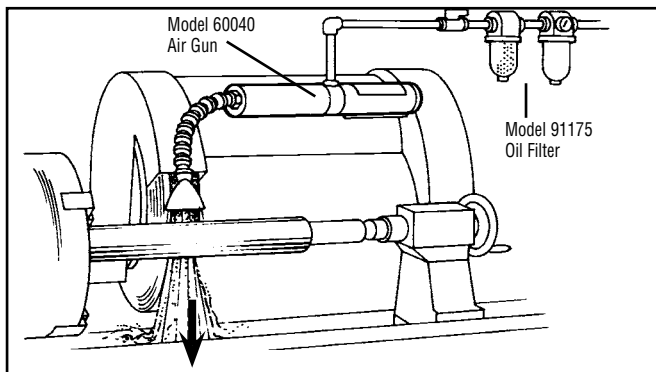
Textiles — Sewing/Embroidering

In production sewing or embroidering, the Model 60040 Air Gun eliminates needle heat build-up, which can cause thread burn-through and stoppages.



Food Processing — Product Cooling

Two Stainless Steel Model 60040 Air Guns in a plastic enclosure provide clean, dry, cold air to cool baked goods—for a tiny fraction of the cost of a long cooling conveyor. Conveyor distance was cut from 22 feet to 8 feet.



Metalworking — Grinding

Grinding speed can be increased, while still holding tolerances, by using the Model 60040 Air Gun to cool the wheel and material.

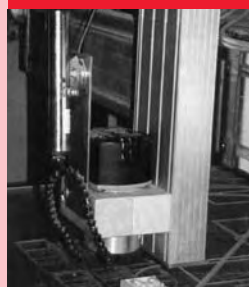
Metalworking — End Mill

CASE STUDY

We recently purchased the AiRTX Stainless Steel Air Gun model #60051 and have found it to be a great product. We tested this product on one of our lathes as well as our horizontal end mill with double angle cutters. With this product we increased tool life on the lathe by 300% (mild steel). Tool life on the end mill was increased by 250% (stainless steel) and 350% (mild steel). "I figure that this product paid for itself within 3 weeks of purchase. I highly recommend this product".

Courtesy of AGS Group, Inc.

Woodworking — Router Bits



A Techno-Isel Series III CNC router cuts knife templates from a strip of plastic. Unique also uses the router to manufacture carved mouldings and baseboards. The router is mounted with an AiRTX Model 60040 Air Gun for spot cooling, making the plastic easier to work with and prolonging the life of the router bits.

Courtesy of Custom Woodworking Business Magazine.

CASE STUDY

Unique Woodworking Carving uses a Techno-Isel Series III PC-driven CNC router to cut the knife template into a strip of plastic. Owner Jay Boussein says that initially, working with the plastic was difficult because it melted—chips that were cut off would re-adhere to the piece, so the template would require significant cleaning before it could be used.

Boussein found a solution by mounting an AiRTX Model 60040 Air Gun to the router. The gun is a Stainless Steel Vortex Tube. When compressed air is spun in the tube, the air on one side cools while the other side heats up. "I thought, 'It's heat we're trying to avoid. I'll just get one of these tubes and blow cold air on the thing,'" he says. "It works like a champ. It cools [the plastic] just enough so that I don't get the meltback."

The cool air also helps protect the carbide router bits, which can soften under heat and wear out more quickly, he adds.