

## **INSTRUCTIONS for NEX FLOW™ SUB ZERO VORTEX™ MIST UNIT**

The **NEX FLOW™ SUB ZERO VORTEX™** Mist System consists of the following components:

1. Mist Suction Unit liquid siphon system c/w magnetic base. Magnetic base may be removed and mounting holes used to mount direct onto your equipment.
2. Flexible Hose and delivery nozzle assembly (lubricant and cold air delivery system) pre-assembled with the liquid siphon system
3. NEX FLOW™ Model 56008H Mini Cooler which is threaded onto the liquid siphon system

### **How to Use**

1. Mount the unit close to where you wish to apply the lubrication mist and cooling using the magnetic base or the mounting holes.
2. Put the siphon (clear) tubing onto your container of mist coolant/ lubricant and secure the tubing. Keep the liquid supply at the SAME level or close to the level of the mist system to allow for siphon effect to work properly.
3. Set the brass adjusting screw on the liquid siphon system fully clockwise (off position) so no lubricant will flow.
4. Hook up your compressed air source to the vortex tube 1/8" NPT connection. You will require 5 SCFM at 50 PSIG. DO NOT OPERATE ABOVE 50 PSIG to avoid freezing.
5. Turn on your compressed air supply .
6. Adjust the brass screw on the liquid siphon system until the amount of liquid begins to flow. The liquid should be very cold (5 C to 10C) leaving the delivery nozzle. Adjust the liquid flow to obtain the necessary amount of lubrication and cooling required. To increase cooling increase pressure of the compressed air supply. Do not cool the air to below 5 degree C to avoid freezing. You can check the temperature with a thermometer near or into the end of the nozzle.

### **Expected Results**

1. A traditional mist unit uses compressed air to deliver mist which cools and lubricates
2. The vortex tube cools the mist to a much lower temperature to make it more effective in cooling resulting in less mist required.
3. Results will vary – however an expected average reduction of 20% mist should result by supplying cooled liquid.

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### **Trouble Shooting**

1. Liquid stops flowing. Check if liquid source is at about the same level/height as the mist unit. If the Mist Unit main body has condensate or feels too cold you probably had freezing occur. Let the unit warm and liquid thaw. Adjust pressure to the Mini Cooler vortex tube to be certain it is no more than 50 PSIG
2. Too much liquid is flowing. Adjust the brass screw to reduce the flow.
3. Not enough liquid is flowing. Adjust to brass screw to increase flow. Check if hose properly inserted into liquid container to draw up fluid.

**DO NOT TAKE APART THE FLEXIBLE HOSE AS IT IS CAREFULLY ASSEMBLED TO ASSURE PROPER FLOW OF AIR AND LIQUID.**