NEX FLOW
Leading Technology Into The Future

RING BLADE™ AIR WIPE INSTALLATION & MAINTENANCE

INSTALLATION AND SIZE OF COMPRESSED AIR LINES

It is important to minimize the pressure loss to a Ring Blade™ Air Wipe or series of Ring Blade™ Air Wipes. Keep airline sizes adequately large.

For a 2" Ring Blade™ Air Wipe (Model 20002) it is recommended to use ¼" pipe or 3/8" hose for runs up to 25 feet. For 50 foot runs, use 3/8" pipe or ½" hose and for runs over 50 feet, use ½" pipe or larger. For the 4" Ring Blade™ Air Wipe (Model 20004) it is recommended to use ½" pipe or larger. Never use fittings that can be "restrictive" thereby starving the Ring Blade™ Air Wipes of air and creating a large pressure loss in the airline.

CARE OF THE COMPRESSED AIR SUPPLY

Because Ring Blade™ Air Wipes utilize a small "gap" for the air outlet, it is important to keep the air line free of moisture, oil and dirt which may clog the unit. By using proper filtration the Ring Blade™ Air Wipes can run maintenance free for many years.

For water removal, a minimum 10 micron filter complete with an automatic (float type) drain is recommended. It should be sized to handle the total air flow of the Ring Blade™ Air Wipes at the pressure they will be used. If oil could be a concern, an oil removal filter should be added downstream from the water removal filter and should also have an automatic (float type) drain. Again, they should be sized to handle the total flow of the Ring Blades.

Filters should be mounted near any Ring Blade™ Air Wipe, typically within 10 to 15 feet.

USING THE RING BLADE™ AIR WIPE, INCREASING & REDUCING FORCE, AND THE CONSERVATION OF AIR

The Ring Blade™ Air Wipe is supplied with coupling brackets fro each half. One is meant to be stationary and the other has a "notch" for latching the two halves together. Compressed air is supplied at the ¼"NPT inlet of the pipe tee, providing air to both halves of the Ring Blade™ Air Wipe. The Ring Blade™ Air Wipe should be positioned so the material running through the unit is evenly spaced from all surfaces.

In many cases the Ring Blade™ Air Wipe can either be supported by the compressed air supply piping or, by using the tapped holes on the back of the units.

The "gap" in the Ring Blade™ Air Wipe is .002 and is maintained by a plastic "shim". To increase the force you can add another .002" shim, thereby doubling the gap. Simply dismantle the Ring Blade™ Air Wipe, install the extra shim and reassemble. This will increase mass flow, velocity and force but also increase air consumption so care must be taken to insure proper airline size. If you add the shim, assume the doubling of the Ring Blade™ Air Wipe air use and size accordingly.

To decrease force, a regulator may be added and simply reduce the pressure to reduce the force required. To conserve compressed air, it is best to use a regulator to reduce the pressure to the point where the Ring Blade™ Air Wipe still performs as it must, but by minimizing compressed air use by utilizing the air at a lower pressure. The Ring Blade™ Air Wipes are especially ideal for applications where intermittent blow off is required. A sensor or timer can have the compressed go on and off to the Ring Blade™ Air Wipe system as required utilizing a solenoid valve. Energy is only consumed when the unit is operating.

CLEANING

If the Ring Blade™ Air Wipe does get clogged from contamination, simply dismantle the unit, clean, and reassemble. Care should be taken to reinstall the shim (or shims) prior to putting the two pieces back together.

Sometimes a build up of a dirty film can occur on the face of the Ring Blade™ Air Wipe due to vapour in the surrounding atmosphere. Clean this surface using a mild solvent and clean rag. To prevent contaminants from getting pushed back into the Ring Blade™ Air Wipe gap, do the cleaning with a small amount of compressed air passing through the Ring Blade™ Air Wipe.

TROUBLESHOOTING

With zero moving parts, there is little that can go with an Ring Blade™ Air Wipe. However, certain factors can cause a reduction in flow or force and thereby reducing the performance of a Ring Blade™ Air Wipe.

If the force or flow seems to be below normal, install a pressure gage near the inlet of the Ring Blade™ Air Wipe. If the pressure is low, it may be due to undersized airlines, perhaps restrictive fittings, or from clogged filter elements. These things should be checked, in particular the fittings used and the filter elements.

If you have any questions or problems, please contact:

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