RING BLADE™ AIR WIPE
INSTALLATION & MAINTENANCE

INSTALLATION AND SIZE OF COMPRESSED AIRLINES

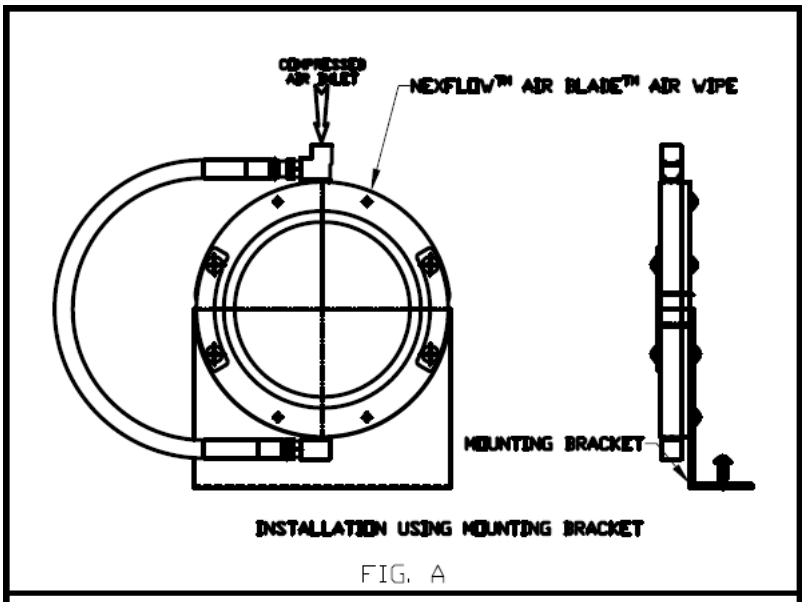

FIG. A

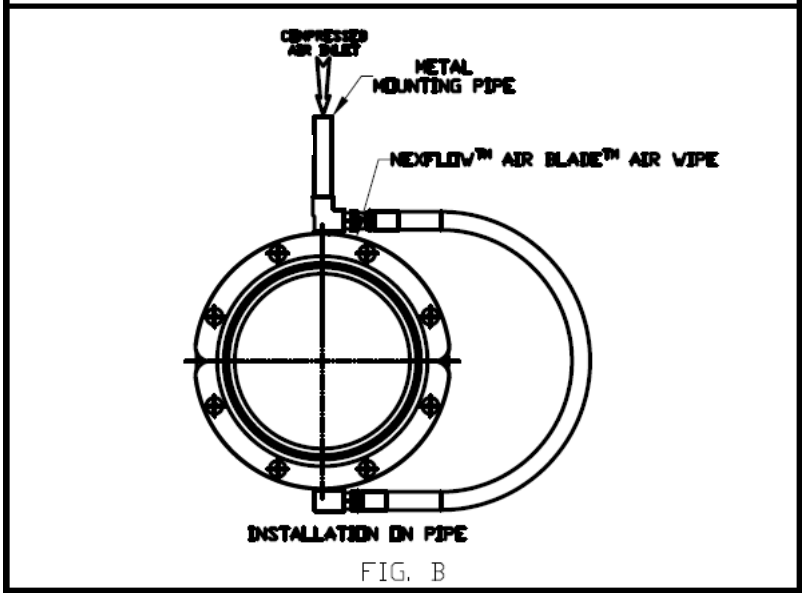

FIG. B

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

For a 2" or smaller Ring Blade™ Air Wipe it is recommended to use 1/4” pipe or 3/8" hose for runs up to 25 feet (7.5 Mtrs. Approx.). For 50 feet (15 Mtrs. Approx.) runs, use 3/8" pipe or 1/2” hose and for runs over 50 feet (15 Mtrs. Approx.), use 1/2” pipe or larger. For the 4" & 6” Ring Blade™ Air Wipe it is recommended to use 1/2” 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 0.03 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 (3 – 4.6 Mtrs).

MOUNTING

The Ring Blade™ Air Wipe is supplied with coupling brackets for 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 1/4” 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.

The Ring Blade™ Air Wipe can either be supported by using mounting brackets attached to the tapped holes on the back of the units (Fig A) or the compressed air supply piping (Fig. B).

USING THE RING BLADE™ AIR WIPE

The “gap” in the Ring Blade™ Air Wipe is 0.002” (50 microns) and is maintained by a SS-304 “shim”. To increase the force you can add another 0.002" (50 microns) 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 ensure 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 air go on and off to the Ring Blade™ Air Wipe system as required by using a solenoid valve. Energy is only consumed when the unit is operating.

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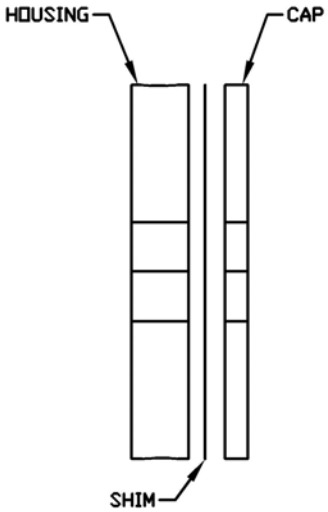
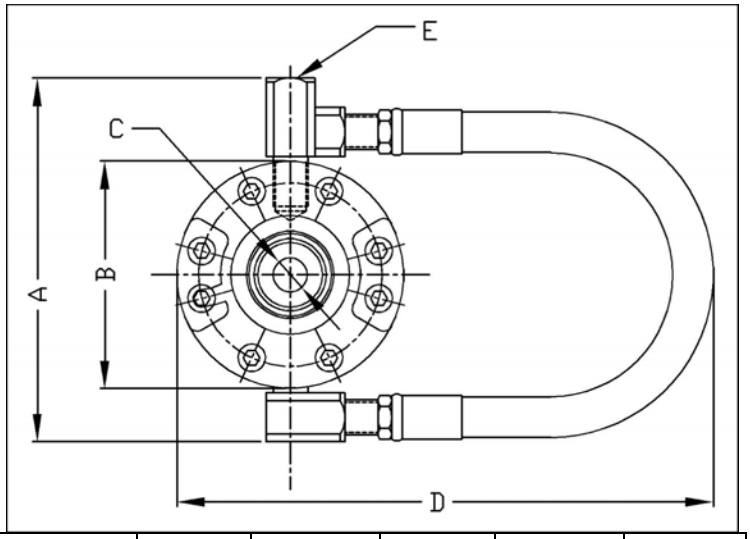
CLEANING & TROUBLESHOOTING

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 buildup 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.
With zero moving parts, there is little that can go wrong with a 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 gauge 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.



EXPLODED VIEW OF RING BLADE AIR WIPE



Model No.	A Inches (MM)	B Inches (MM)	C Inches (MM)	D Inches (MM)	E Inlet Thread
20000 / 20000X / 20000XS	5.6” (142)	3.25” (82.55)	0.5” (12.7)	7.7” (195.50)	1/4" NPT
20001 / 20001X / 20001XS	6.1” (155)	3.75” (95.25)	1” (25.4)	7.0” (178)	1/4" NPT
20002 / 20002X / 20002XS	7.1” (180.3)	4.75” (120.65)	2” (50.8)	8.0” (203.2)	1/4" NPT
20003 / 20003X / 20003XS	8.1” (206)	5.75” (146.05)	3” (76.2)	9.0” (228.6)	1/4" NPT
20004 / 20004X / 20004XS	9.1” (231)	6.75” (171.45)	4” (101.6)	10.0” (254)	1/4" NPT
20006 / 20006X / 20006XS	11.1” (282)	8.75” (222.25)	6” (152.4)	12.0” (304.8)	1/4" NPT

DIMENSION TABLE

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Updated: June-2015