REGULAR ION AIR KNIFE
(INSTALLATION & MAINTENANCE)

Streamtek™ Corp.
Ph: +1-705-770-4455
Fax: +1-705-252-6343
E-Mail: sales@stream-tek.com
Web: http://www.stream-tek.com

Compressed Air Supply & Installation

For lengths of 24” and longer, it’s a must to connect the compressed air to BOTH ENDS of the Regular Ion Air Knife. If you choose to use the rear ports, be sure to feed each one if there is more than one! If pipe cannot be used, there are mounting holes provided.

MINIMUM PIPE SIZES FOR MANIFOLD LENGTHS				
Regular Ion Air Knife Length	**Manifold Size**	**Length of run & Size of Pipe**		
		10’ (3m)	**50’ (15.2m)**	**100’ (30.5m)**
1” to 6” (25mm to 76mm)	N/A	¼” Pipe 3/8” Hose	3/8” Pipe ½” Hose	½” Pipe ¾” Hose
7” to 12” (178mm to 305mm)	N/A	3/8” Pipe ½” Hose	½” Pipe ¾” Hose	¾” Pipe 1” Hose
13” to 24” (330mm to 610mm)	N/A	½” Pipe ¾” Hose	¾” Pipe 1” Hose	1” Pipe 1-¼” Hose
25” to 36” (635mm to 914mm)	N/A	¾” Pipe 1” Hose	1” Pipe 1-¼” Hose	1-¼” Pipe 1-3/8” Hose
37” to 60” (940mm to 1524mm)	1”	1” Pipe 1-¼” Hose	1-¼” Pipe 1-3/8” Hose	1-¼” Pipe 1-3/8” Hose
61” to 84” (1549mm to 2134mm)	1”	1” Pipe 1-¼” Hose	1-¼” Pipe 1-3/8” Hose	1-½” Pipe 1-3/8” Hose
85” to 102” (2159mm to 2591mm)	1-¼”	1-¼” Pipe 1-3/8” Hose	1-¼” Pipe 1-3/8” Hose	1-½” Pipe 1-¾” Hose
103” to 120” (2616mm to 3048mm)	1-¼”	1-¼” Pipe 1-3/8” Hose	1-½” Pipe 1-¾” Hose	2” Pipe 2-¼” Hose

Compressed Air Supply

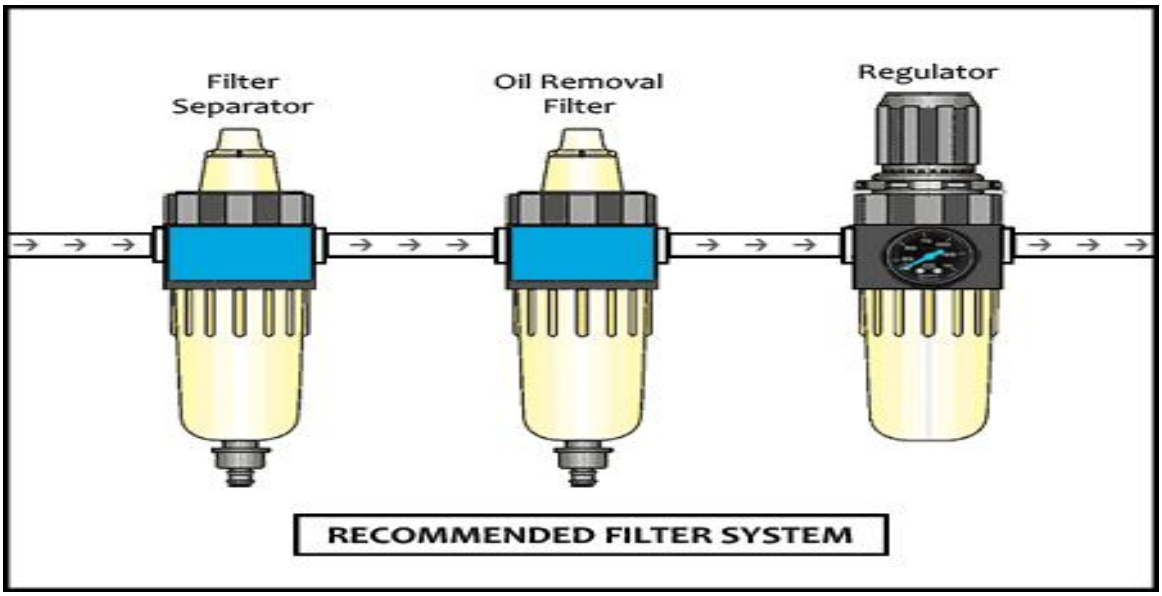
**All filters should be installed within 10-15ft of the Regular Ion Air Knife. It’s important to ensure both filters be sized to handle the total flow of the Air Knives. Filters should be mounted close to any Air Knife system, within 10 to 15 feet is ideal.

Water removal
Minimum 10 micron filter, with an automatic (float type) drain.

Use Model FTR038-1 (3/8” NPT) Auto Drain Filter Separator for units up to 12” (305mm) long.
Use Model FTR012-1 (1/2” NPT) Auto Drain Filter Separator for units 13” to 24” (330-610mm) long.
Use Model FTR034-1 (3/4” NPT) Auto Drain Filter Separator for units longer than 24” (610mm).

Oil removal
Use an Oil filter installed downstream from the water filter if oil is a concern. Again this should be fitted with an automatic (float type) drain.

Use Model OIL038-1 (3/8” NPT) Auto Drain Filter Separator for units up to 12” (305mm) long.
Use Model OIL034-1 (3/4” NPT) Auto Drain Filter Separator for units longer than 12” (610mm).



Pressure Regulator
Use Model PR014-1 (1/4” NPT) Pressure Regulator /W Gauge for units up to 12” (305mm) long.
Use Model PR012-1 (1/2” NPT) Pressure Regulator /w Gauge for units 13” to 24” (330-610mm) long.
Use Model PR034-1 (3/4” NPT) Pressure Regulator /w Gauge for units longer than 24” (610mm).

General Operation

The STREAMTEK Regular Ion Air Knife should be located at a point after the material has received its static charge. If this material is exposed to additional friction, it may build up more static charge(s). If this happens, additional Ion Air Knives may be required.

Very little pressure is needed to operate the Regular Ion Air Knife. 30 to 40 PSIG most often the pressured used, which can be controlled by a pressure regulator.

* The ionizing bar is sockless and may be touched without injury.
** The Ion Air Knife and Power supply should **NOT** be used within a Flammable or Explosive Area.

To increase force

- Dismantle Air Knife, install an extra .002" shim and reassemble. This will increase flow rate, velocity, and force but also increase the compressed air consumption. Assume the doubling of the Air Knife length to size piping and manifolds.

To decrease force

- A regulator may be added downstream from the oil/water filters to reduce the force required.

Cleaning

Simply disassemble the unit, and clean all surfaces using a mild solvent and rag. Be careful to not damage the shim (or shims) when reassembling. To prevent contaminants from entering the Air Knife, pass compressed air through the unit.

The Ion Bar itself should be periodically cleaned as the dirt buildup will reduce the effectiveness of the static bar over time. Dirty industrial environments may need daily cleaning while clean-room applications may require only monthly cleaning. A soft bristle tooth brush is an ideal choice to clean the emitter points and remove any particulate. Do **NOT** use liquid cleaners or any soaps which could leave a residue that is conductive as it can destroy the static bar.

*** Never Clean An Ionizer With The Power On!**

Troubleshooting

There are many factors that can cause the reduction in flow or force. Undersized airlines, restrictive fittings, or clogged filter elements are common areas to check. If you suspect below average performance, install a pressure gage at the inlet of the Air Knife, and clean the entire unit.

If the Ion Bar does not seem to be working properly, the Model 7905 Static Meter can be used to troubleshoot. It's easy to use and will display the charge that is found on a surface without physically touching it. Simply measure the charge on the surface before ionizing it. Then ionize the surface and measure again!

If you have any questions and/or concerns, please contact a STREAMTEK™ Application Engineer at:
Telephone: +1-705-770-4455 (Worldwide)
Fax: +1-705-252-6343 (Worldwide)
E-mail: sales@stream-tek.com
Website: http://www.stream-tek.com