

AIR KNIFE

(INSTALLATION & MAINTENANCE)

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Compressed Air Supply & Installation

For lengths of 24" and longer, it's best to connect the compressed air to BOTH ENDS of the 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				
Total Air Knife Length (Inches)	Manifold Size (Inches)	Length of run (ft) & Size of Pipe (Inches)		
		10ft	50ft	100ft
1" to 6"	N/A	¼" Pipe 3/8" Hose	3/8" Pipe ½" Hose	½" Pipe ¾" Hose
7" to 12"	N/A	3/8" Pipe ½" Hose	½" Pipe ¾" Hose	¾" Pipe 1" Hose
13" to 24"	N/A	½" Pipe ¾" Hose	¾" Pipe 1" Hose	1" Pipe 1-¼" Hose
25" to 36"	N/A	¾" Pipe 1" Hose	1" Pipe 1-¼" Hose	1-¼" Pipe 1-3/8" Hose
36" to 60"	1"	1" Pipe 1-¼" Hose	1-¼" Pipe 1-3/8" Hose	1-¼" Pipe 1-3/8" Hose
61" to 84"	1"	1" Pipe 1-¼" Hose	1-¼" Pipe 1-3/8" Hose	1-½" Pipe 1-3/8" Hose
85" to 102"	1-¼"	1-¼" Pipe 1-3/8" Hose	1-¼" Pipe 1-3/8" Hose	1-½" Pipe 1-¾" Hose
102" to 120"	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 Air Knives. It's important to ensure both filters be sized to handle the total flow of the Air Knives.

Water removal

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

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.

General Operation

** For optimal performance, keep the blow off target within 12" of the Air Knife as force rapidly decreases after that. The built-in 'gap' in the Air Knife is .002". If you wish to...

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.

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.