

# PRESSRELEASE



## Use a Super Air Knife To Dry, Instead Of A Blower

Many times, when companies have the requirement to dry, clean, cool, or blowoff a product surface, using a blower comes to mind. While some might think that to be a good option, blowers are extremely expensive, big and bulky along with being very noisy. There is another thing blower manufacturers don't like to talk about. The bearings wear out. This is due to the high speeds. This purchase eventually translates into downtime to get them repaired and the high cost of that maintenance since they must be sent back to the manufacturer for the repair.

EXAIR's **Super Air Knife** eliminates those problems. It delivers a powerful curtain of air that uses only one part compressed air, drawing in 40 parts room air. It also fits in tight spaces. How does the Super Air Knife compare to a blower, drilled pipe, and flat air nozzles? The costs will likely surprise you!

## Compare These Blowoffs



### Drilled Pipe

This common blowoff is very inexpensive and easy to make. For this test, we used (2) drilled pipes, each with (25) 1/16" (1.6mm) diameter holes on 1/2" (13mm) centres. As shown in the test results below, the drilled pipe performed poorly. The initial cost of the drilled pipe is overshadowed by its high energy use. The holes are easily blocked and the noise level is excessive - both of which violate OSHA requirements. Velocity across the entire length was very inconsistent with spikes of air and numerous dead spots.



### Flat Air Nozzles

As shown below, this inexpensive air nozzle was the worst performer. It is available in plastic, Aluminium and stainless steel from several manufacturers. The flat air nozzle provides some entrainment, but suffers from many of the same problems as the drilled pipe. Operating cost and noise level are both high. Some manufacturers offer flat air nozzles where the holes can be blocked - an OSHA violation. Velocity was inconsistent with spikes of air.



### Blower Air Knife

The blower proved to be an expensive, noisy option. As noted below, the purchase price is high. Operating cost was considerably lower than the drilled pipe and flat air nozzle, but was comparable to EXAIR's Super Air Knife. The large blower with its two 3" (76mm) diameter hoses requires significant mounting space compared to the others. Noise level was high at 90 dBA. There was no option for cycling it on and off to conserve energy like the other blowoffs. Costly bearing and filter maintenance along with downtime were also negative factors.



### EXAIR Super Air Knife

The Super Air Knife did an exceptional job of removing the moisture on one pass due to the uniformity of the laminar airflow. The sound level was extremely low. For this application, energy use was slightly higher than the blower but can be less than the blower if cycling on and off is possible. Safe operation is not an issue since the Super Air Knife cannot be dead-ended. Maintenance costs are low since there are no moving parts to wear out.

Type of Blowoff	PSIG	BAR	SCFM	SLPM	Horse Power Required	Sound level dBA
Drilled Pipe	60	4.1	174	4,924	35	91
Flat Air Nozzles	60	4.1	257	7,273	51	102
Blower Air Knife	3	0.2	N/A	N/A	10	90
Super Air Knife	60	4.1	55	1,557	11	69

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