EXAIR CASE STUDY

1579

APPLICATION GOAL

Reduce compressed air consumption and noise levels in various blow off and drying applications.

Modular hose assemblies like this ring (above) and the 2-point (right) are cheap and easy…

BEFORE EXAIR

A hose manufacturer had plastic modular hose assemblies (made for liquid coolant use) for air blow offs at various stations. Some were used to blow debris from product, others were used to dry the product as it exited a wash cycle. These hoses are not designed for use with air, and were brought into question for possible replacement with engineered products that would be efficient and quieter.

…but they're made for liquid. When used with air, they're inefficient and wasteful.

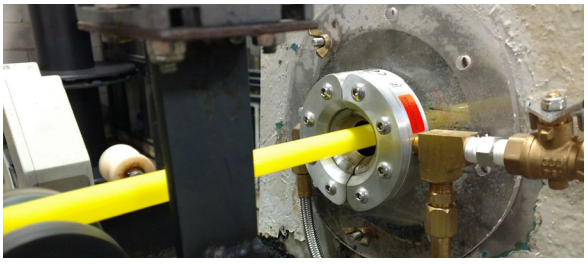
AFTER EXAIR

Two of the modular hose blow offs were replaced with a **Model 2403 3″ Aluminum Super Air Wipe** (for the ring) and a **Model 2401 1″ Aluminum Super Air Wipe** (for the 2-point.) Upon verifying successful operation in these two applications, 22 other production lines throughout the plant were outfitted with EXAIR Super Air Wipes, replacing modular hose blow offs. The table below lists the quantities of each type of blow off that was replaced, their respective operating pressures, and the reductions in both air consumption and sound levels:

Qty	Supply Pressure (psig)	Modular Hose Blow Off	SCFM	EXAIR Model	SCFM	Air Savings (each)	Annual Operating Cost Savings (each)	Annual Operating Cost Savings (ext)	Sound Level- Modular Hose (dBA)	Sound Level- Air Wipe (dBA)
4	30	2-Point	23.5	2400-½" Super Air Wipe	6.5	17.0	$510.00	$2,040.00	83	70
6	35	2-Point	27.6	2401-1" Super Air Wipe	10.0	17.6	$528.00	$3,168.00	85	71
11	40	Ring	37	2402-2" Super Air Wipe	17.0	20.0	$600.00	$6,600.00	87	73
3	40	Ring	37	2403-3" Super Air Wipe	22.9	14.1	$423.00	$1,269.00	87	74

Total Annual Savings: $13,077.00

Cost of compressed air usage is based on electric utility cost of $0.08/kWh and calculated for operation 8 hours/day,5 days/week, 50 weeks/year.



EXAIR Model 2401 1" Super Air Wipe blows off a hose extrusion as it exits a washer.

SUMMARY:

With a total purchase price of **$10,220.00** *(2017 Prices)* the return on investment is just **285 days**. The environmental benefit of the quiet Super Air Wipes was immediate.

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