CASE STUDY

1531

APPLICATION GOAL

Reduce air consumption to avoid having to purchase additional 50 horsepower air compressor at a cost of $24,000.

BEFORE EXAIR

A company in Illinois was using 86 straight cut copper tubes for blow off for a peak compressed air demand of 475 SCFM and an average compressed air demand of 190 SCFM. Their current 50 horsepower air compressor could not keep up with the peak demand and they were losing system pressure throughout the facility. Before considering adding another compressor they decided to have an air auditor come in. The auditing consultants recommended they install engineered nozzles and directed them to EXAIR.

AFTER EXAIR

Reviewing their application with an EXAIR application engineer, it was recommended they install a **Model 1102 Mini Super Air Nozzle** onto each tube.

Sound levels were reduced to a mere 71 dBA for an overall 60% sound reduction. This was so much quieter than the open pipes that hearing protection was no longer required.

With the amplified air flow of the 1102 air nozzle, lower air pressures could be used and still get comparable performance thus reducing compressed air demand by 43%. Peak compressed air demand went from 475 SCFM to 275 SCFM and average overall air demand went from 190 SCFM to 70 SCFM.

Energy savings were just over $9,000.00. With a cost of the nozzles and installation at $7,300.00, ROI was under one year and with a cost avoidance of $24,000 for a new compressor.

Model 1102 (Zinc-Aluminum)

Air Consumption at 80 PSIG (5.5 BAR)		Force*		Sound Level
10 SCFM	283 SLPM	9 Ozs	255 Grams	71 dBA

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