



APPLICATION GOAL: Reduce sound level & maintain blow off performance of thumb guns in a manufacturing facility.



BEFORE EXAIR: A manufacturer of medical and other high tech products was using inexpensive thumb guns for blow off and cleaning in their machine shop. The Quality Manager was looking for quieter devices. One device was sent to EXAIR for Efficiency Lab testing, performed at 80psig, and produced the following results:

| Air Consumption | Force applied | Sound level |
|-----------------|---------------|-------------|
| 22.3 SCFM | 1.0 lb | 87 dBA |

AFTER EXAIR: Considering the wide variety of Safety Air Guns and engineered Air Nozzles available from EXAIR, they were able to identify three distinct models that were suitable for specific applications at different stations:

Model 1699-CS VariBlast Compact Safety Air Gun w/Mini Super Air Nozzle & Chip Shield



| Air Consumption | Force applied | Sound level |
|-----------------|---------------|-------------|
| 10.0 SCFM | 0.56 lb | 71 dBA |

Applications that required a similar airflow pattern, and application-specific force levels, saw a 16dBA sound level reduction, and an air consumption reduction of **55%**.

Model 1809-PEEK-CS VariBlast Precision Safety Air Gun w/Pico Super Air Nozzle & Chip Shield



| Air Consumption | Force applied | Sound level |
|-----------------|---------------|-------------|
| 4.9 SCFM | 0.31 lb | 68 dBA |

Other applications also benefited from a tighter airflow pattern with reduced air consumption, and saw an 18dBA sound level reduction. Air consumption was reduced by **78%**.



Model 1310-24-CS Heavy Duty Safety Air Gun w/24" Extension, Super Air Nozzle & Chip Shield



| Air Consumption | Force applied | Sound level |
|-----------------|---------------|-------------|
| 14 SCFM | 0.81 lb | 74 dBA |

Applications that required higher force were successfully serviced, and still saw a **13dBA sound level reduction**. Air consumption was reduced by **37%**.

SUMMARY: This customer's goal of reducing sound levels was met dramatically, while reducing compressed air consumption. This is a prime example of how a "one size fits all" approach can be costly when selecting compressed air products, and how an engineered approach can be tailored to specific needs.