



CASE STUDY

AIR KNIVES

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AIR KNIVES

➔ What are Air Knives?

Air knife systems are used to discharge pressurized air to clean or dry a given product. The air they disperse is positive pressure, which is created by forcing air into a contained space and pushing it through a controlled area (or, in this case, an air knife).

➔ Here are some of the typical applications they are used for:

- Industrial blow-off systems remove debris, excess coating, sawdust, etc. In the automotive industry, the oil produced from the machining would get blown off.
- Drying systems: sounds like what they do! It could be moisture or water that needs to be completely dried off food or any other product.
- Cooling systems: specific products, like product, need to be cooled off after production.

THE APPLICATION

The system to the right was installed in 2020. It required 2 blowers to be ducted to separate bays (the end user had dump trucks that emptied biomass fuel into an underground furnace load system—our air knives were to help stop buildup on the moving floor runners, but the blowers couldn't be in the immediate area for anti-sparking reasons). This unique installation displayed the many different applications air knives can use!



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THE BEST DUCTING

US Tubing was the correct choice for this installation because of its leak-free, airtight connection. The US Tubing Viton o-ring is corrosive-resistant and can handle high-temperature appliances. In the case above, biomass fuel is highly corrosive and must be handled appropriately.

