

Case History 123

Industry:

Automotive Industry

Components/Products:

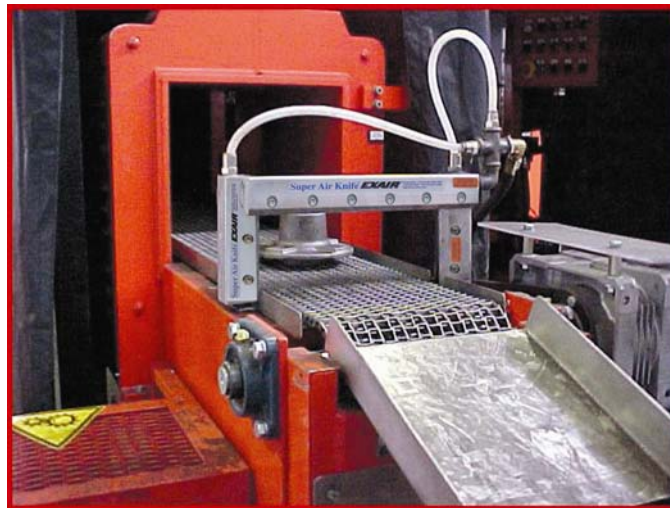
Light duty axle hubs

Background:

A European manufacturer subcontracted the design and build for their new axle hub production line. Part of the process included the machining of surfaces prior to inserting the press fit lugs which retain the bearing. The line sub contractor had considered each station and even included air nozzles to remove debris after the machining operation.

The Problem:

On commissioning of the new production line, attempts were made to clean the hub using the series of air nozzles blowing across the surface. While this arrangement removed most of the contamination, traces of coolant and chips still remained on some hubs due to voids in the airflow. Production was slowed while waiting for an operator to clean the parts by hand, using an ordinary air gun.





The Solution:

Following discussions with an EXAIR distributor the sub contractor installed (1) **Model 110012 12" (30cm) Super Air Knife** across the top of the conveyor and (2) **Model 110006 6" (15cm) Super Air Knives** mounted vertically (one on each side). The Super Air Knives were angled so the approaching axle hub was completely covered by a uniform sheet of high velocity air. The entire surface was clean, hand cleaning was eliminated and the new production line approved.

Comment:

It's common to see this same Super Air Knife configuration, regardless of the part. Why? The high velocity, laminar airflow of the Super Air Knife completely surrounds the surface and is consistent across the entire length. There are no forceful spikes of air that could possibly change the orientation or position of the part. A blower or banks of air nozzles cannot deliver that sort of consistency. When high velocity, uniform airflow, low air consumption and quiet operation are necessary, the Super Air Knife is the best choice.

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