

# Down To The Wire: Paxton's Stainless Steel Air Knives Reduce Costs & Downtime For Wire Manufacturer

## THE CLIENT

A leading wire manufacturer located in India reached out to a Paxton Products Distributor to help improve their wire manufacturing process. More specifically, the manufacturer needed help with its extrusion process. **Extrusion** is the process of passing a soft, flexible wire through an extruder where a coating of plastic or other insulating material is applied. After the coating materials are added to the extruder and have successfully been melted onto the wire, the coated wire then passes through another cooling system and is coiled on reels to complete production.

## THE CHALLENGE

The client was having issues with its cleaning solution adhering to the wire and remaining on the final rolled product. Not only does this cause product quality issues, but there is a high cost associated with the lost cleaning solution. On average, one liter of cleaning solution can cost the plant nearly \$200 if wasted.

Currently, the manufacturer has improvised a rude system of crimped pipes and compressed air, along with mechanical wipers to reduce the "carry over" of the cleaning solution. The compressed air nozzles they use require approximately 150 CFM at 60 PSI. Carrying a high price tag in energy costs, the manufacturer's current system requires 25 hp of compressed air - ultimately taking a toll on the air pressure in the plant by causing their compressor to run continuously. This improvised system not only drives up maintenance costs for the plant, but also puts a strain on the rest of the plant's operations overall. The manufacturer needed a better, more cost-effective solution and reached out to a Paxton Products Distributor for help.



## THE SOLUTION

The Paxton Products Distributor worked alongside the manufacturer to find the best possible solution for solving the plant's issues while still trying to save the plant money. The final solution consisted of four of Paxton's **Stainless Steel Air Knives**, installed above and below the conveyor- spanning perpendicular to the wire travel. The system was designed to deliver 850 CFM at 2.2 PSI, with an estimated Return on Investment (ROI) of around two years, based on energy savings alone. "Because the Air Knives provide multiple points of drying without using compressed air, the wire manufacturer was also able to save a significant amount of money in compressed air usage," added one of Paxton's Application Engineers involved in the project.



## THE BENEFITS

Because Paxton's Air Knives feature a continuous, uninterrupted air slot design that gives uniform coverage over the project area, the manufacturer was able to reduce downtime for the plant overall - while still improving product quality. In addition to the estimated ROI of around two years, the new Paxton Products system reduced the plant's energy costs by nearly 80% when compared to the previous compressed air system. Overall the wire manufacturer is pleased with the final solution and is very confident that the Paxton system will significantly improve the plant's current drying and blow off operations.

Click [here](#) or scan the QR code to learn more about how you can save money by eliminating compressed air with Paxton Products.



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