

Nordson MEDICAL Designs Extrusions Plus Additional Processing



CUSTOMER SITUATION

A leading medical device company was redesigning a critical component for a specialized medical device utilized in a specific medical application and wished to consolidate extrusion and secondary operations to one partner.

The PEEK extruded tubing had to have:

- High-volume quantities - 90,000 per month
- 2 x 0.013" diameter holes
- 360° printing
- 6 mm tip with a 23° angle on tip end and a 1° tolerance on transition angle

The decision to collaborate with Nordson MEDICAL was driven by the company's extensive expertise in extrusion processes, knowledge in value-added operations on PEEK material, and its capability to rapidly develop tubing. Initially, Nordson MEDICAL's involvement was to only manufacture tubing in accordance with the customer's design specifications. However, Nordson MEDICAL's capacity to seamlessly integrate device-specific features while maintaining competitive pricing led to the awarding of the contract for both extruded tube production and the execution of secondary operations, resulting in a comprehensive finished product.



NORDSON MEDICAL'S SOLUTION

Nordson MEDICAL entered into a close collaboration with the customer to craft an extensive project plan that adhered to stringent timelines. Numerous iterations were meticulously worked through, exploring various hole patterns, tip forming, and tubing diameters to align with the device's functional requirements. Nordson MEDICAL successfully constructed and dispatched prototypes for customer evaluation in an expedited time frame of 15 days.

The Nordson MEDICAL team brought forth extensive expertise spanning extrusion materials, processing, hole formation, tooling design, validation, and adept project planning and management. Notably, the team employed automation to insource the laser hole piercing, resulting in a significant cost reduction, making it the most substantial cost-saving initiative for the customer during that year.



OUTCOME

Nordson MEDICAL strategically incorporated automation into the project's pricing considerations from the outset, simplifying the supply chain and significantly reducing costs for the customer. The project, from inception to completion, including design, development, and validation, was executed seamlessly in just six months.

The customer successfully introduced the redesigned component into the market, and Nordson MEDICAL has continued to manufacture this tubing efficiently, meeting both unit price targets and the overall project cost objectives, as well as an aggressive ramp plan.