



## Customer Spotlight

# Taking it to the next level with ESPRIT Valley Machine

**Located in North Plains, Oregon, Valley Machine specializes in providing precision machined components as well as full integration of their customer's entire product life cycle; from precision manufacturing to technical mechanical assembly.**

They primarily manufacture components for the semiconductor, medical, photonics, optics, and aerospace industries. Having to support multiple industries, Valley Machine uses a wide range of various CNC mills and lathes, including five Mori NH4000 horizontal mills, some supporting 40 taper vertical mills, four lathes, two Miyano BNJ42S, twin turret, twin spindle machines, and an INDEX C200 three turret, twin spindle lathe.

With Valley Machine's dynamic shop floor environment, being able to post and go, and having edit-free code was extremely important to manufacture the high precision components their customers demanded, and to deliver them on time.

Valley Machine made the decision to implement a CAM software system that could immediately run their complex mill/turn machines, as well

as their standard mills and lathes. After evaluating the top CAM companies on the market, Valley Machine chose ESPRIT CAD/CAM software for its multi-channel synching ability, post processors that could produce accurate g-code the first time, and their world-class customer technical support.

"Support prior to even purchasing the product was superior, and immediately getting the help I need is something the ESPRIT support team excels at. There was never a hesitation when I asked to borrow a machine setup or post for evaluation." said Jeremiah Archer, Lead Programmer, Valley Machine.





Jeremiah Archer, Lead Programmer, Valley Machine

## Complex Machining Made Easy

Once Valley Machine was confident ESPRIT CAM could handle their shop's complex programming needs, they began to optimize the machining capabilities of their new INDEX C200 three turret, twin spindle lathe to manufacture an important component for one of their medical industry customers.

After purchasing ESPRIT CAM and attending a short week long training program, Valley machine was immediately able to start re-programming existing projects, as well as begin new projects on their two Miyano BNJ42S, twin turret, twin spindles machines.

In addition, ESPRIT gave them the opportunity to create more complex parts on their three turret, twin spindle INDEX C200 lathe machine, improving process planning, and in turn decreasing part cycle time and increasing productivity. "After just a week of basic ESPRIT training I could post edit-free code, and quickly program one of the most complex lathes in the industry" continues Jeremiah Archer.

The project involved making 2,000 medical interconnects made from 303 stainless steel. In the past Valley Machine faced many challenges when trying to manufacture these medical interconnects, such as problematic hand written programs and having to machine the parts not only on a twin spindle lathe, but then having to move the part to a separate vertical mill to machine the face holes and milled profiles, costing them valuable production time and money.

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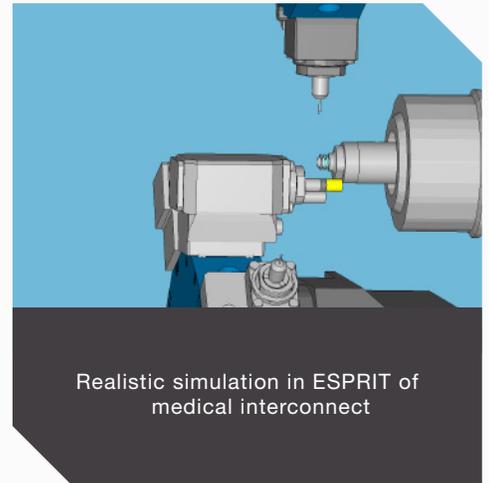
-- Jeremiah Archer, Lead Programmer, Valley Machine, United States

With ESPRIT CAM software seamlessly running their new complex three turret, twin spindle lathe, programming the part was easy, with exact realistic machine simulation and syncing capabilities that allowed Valley Machine to quickly re-sequence cutting operations, and not only reduce cycle time, but help hold tight tolerances as well.

"When the customer was switching materials around, we could adjust speeds, feeds and cutter passes accordingly" said Jeremiah Archer. Valley Machine was now able to produce solid, edit free lathe programs that helped reduce setup times, and significantly reduced the cycle time, while also improving part quality using ESPRIT.



Machining of medical interconnect on an INDEX C200 lathe



Realistic simulation in ESPRIT of medical interconnect



Final machined 303 stainless steel medical interconnect

Today Valley Machine enjoys quicker machine setup times in ESPRIT with post processors that generate accurate g-code the first time, and every time, saving them valuable machining time and increasing their productivity.

They can now machine any part on their complex mill/turn lathes like clockwork with ESPRIT CAM. "It's super easy to make changes and try new things when you have a part programmed in ESPRIT because of its realistic full machine simulation, that allows you to visualize each operation." says Jeremiah Archer. Valley Machine continues to grow physically and intellectually, and continues to gain additional opportunities to machine more complex parts with the help of ESPRIT CAM in various newfound markets.

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-- Jeremiah Archer, Lead Programmer, Valley Machine, United States

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