

# Duonetics Corporation

**Five Axis Machining - Dynamic Balancing  
50 Years of Excellence**



# Supporting Oil and Gas

In our 53 years as a CNC contract house we've developed unique skills and a thorough understanding of the petro-chemical pump industry which makes us extremely good at these complex, high precision parts. We understand how they work, and what's required to keep them running smoothly.

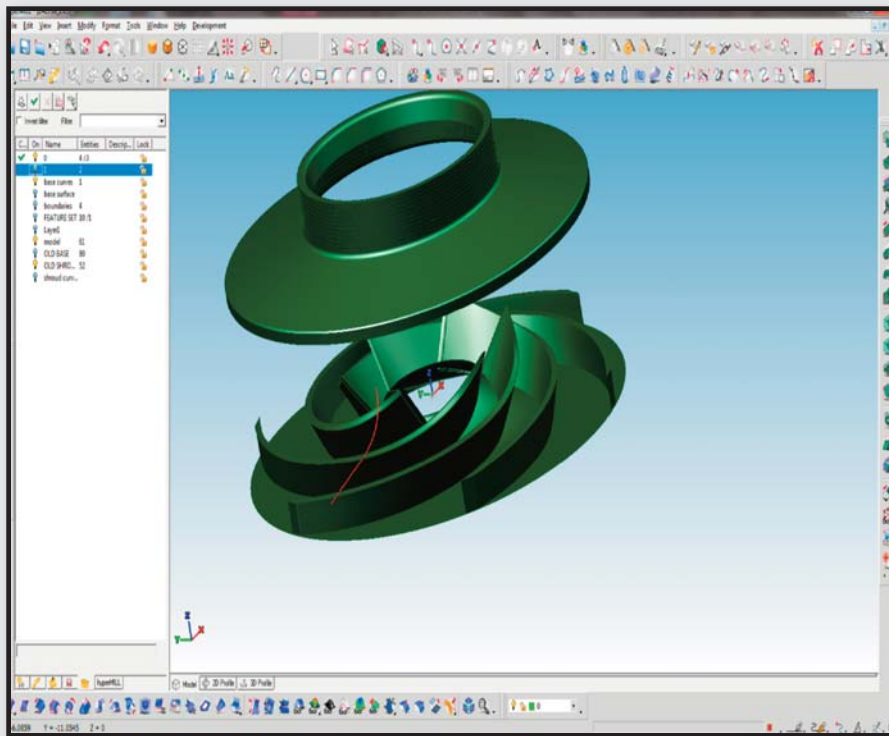


Photo (Left) is taken from our Open Mind hypermill 5 Axis CAD/CAM computer programming software, one of the world's most powerful CAD/CAM programming and engineering systems.

A two-piece centrifugal impeller is being designed for fusion-welding to replace old technology cast impellers. These new technology parts are rapidly replacing castings for their structural integrity and superior performance in the growing cryogenics industry.

Below is a progression series showing a large housing which replaces a casting. From ingot, thru turning, and 5 axis blade cuts. We can work from a model or even broken parts and old blueprints to develop working CAD models through finished parts.



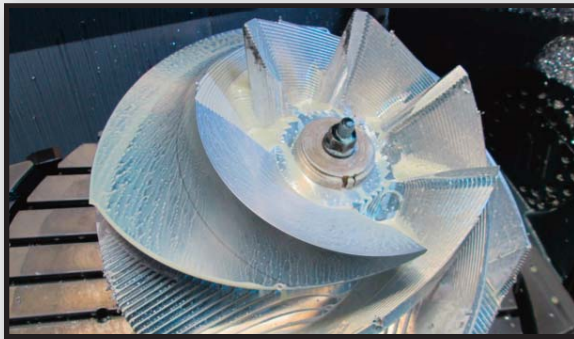
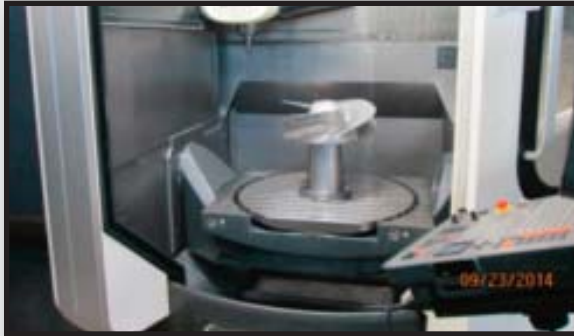
In an increasingly competitive world where one day you're in and the next you're old news, your products need to be the best. That means insuring your supply chain has no weak links. Duonetics has been supplying high quality precision machined parts for over 50 years to companies just like yours. We specialize in complex cryogenic impellers, and difficult 5 axis parts. Keeping you supplied with on-time, zero defect components for your pumps, aircraft, automobiles, and other assemblies is what we do. With competition poised to take advantage of the slightest miscue, knowing you can rely on your supply chain is crucial. We know this and our AS9100 Rev. C/ISO 9001 compliant facility is organized and structured to prevent defective materials from ever making it past our constant vigilance. We know you won't tolerate faulty parts, you shouldn't have to. You're only as good as the people who support you and we're accomplished professionals when it comes to meeting your requirements.

# Shop and Inspection

At Duonetics we can tackle large, complex 5 Axis jobs using the latest 5 Axis machinery and programming solutions. Drawing from 53 years of machining experience, we are proficient at solving difficult machining jobs. Our very large 34" capacity and multiple machines gives us latitude to fulfill challenging requirements easily. With 5 turning centers, 6 milling machines, and an extensive compliment of support machines we have what it takes to handle just about any job.



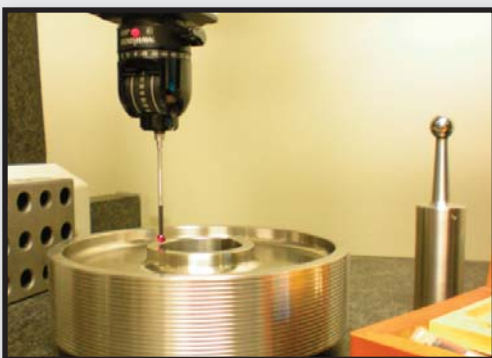
Above our newest DMU85 Five Axis being delivered to compliment our existing DMU60.



Case in point, our Deckel Maho Gildemeister DMU85 Monoblock pictured at top left. Newly added in late 2014 to compliment our existing DMU60, impressive to look at, even more impressive to see in operation. Large enough to machine a full sized V-8 engine block it has an 18,000 RPM spindle, dynamic touch probe in-machine part measuring, and extensive tool life management. There are few jobs too challenging for machines like this one. And you won't find machines like this in other small machine shops, it's what separates us from our competition, makes us agile and capable beyond the abilities of other shops.

Pictured at left are some other examples of inducers, and a large billet impeller being roughed out. This will become a fusion bonded impeller. Duonetics is highly qualified and experienced in the design and manufacture of these high quality parts. Lead times are greatly reduced over castings and they outperform castings in every way, strength, performance, and longevity.

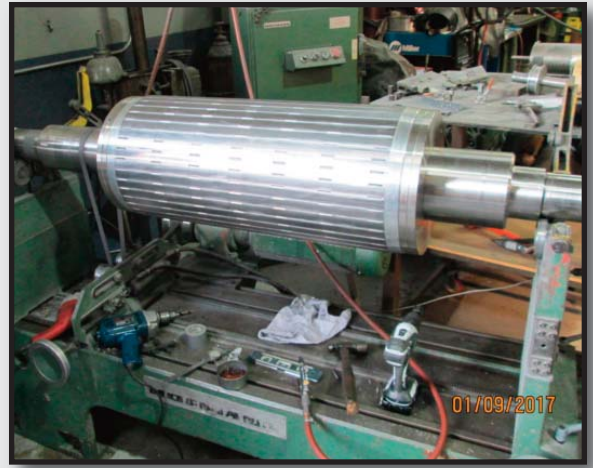
Below left and right show our CMM and Romer Arm inspection tools. Our AS9100C inspection dept. is extremely well tooled and climate controlled. Our new Romer arm is portable, accurate within microns, and a powerful tool with laser point cloud scanning capability, excellent for blade profile inspection, and inspection at critical manufacturing points on the shop floor.



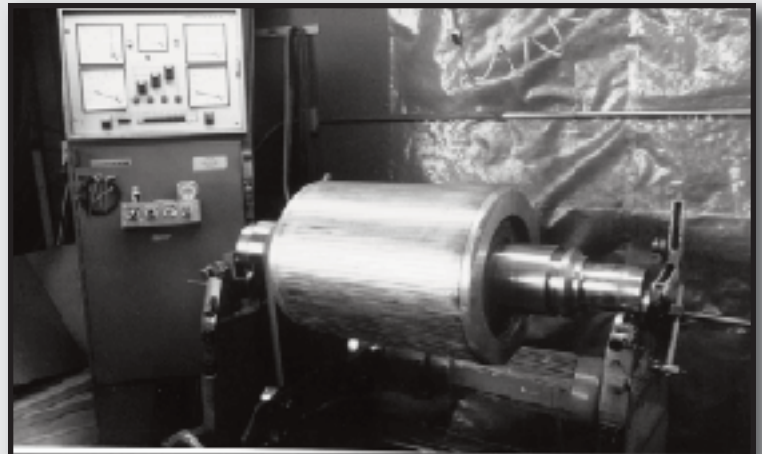


# Precision Dynamic Balancing

Duonetics is one of the West's most qualified and best equipped balancing shops. With 7 Hoffman balancing machines we have capacity up to 1500 lbs of rotating weight. Our experienced staff is trained to handle your large and small parts expertly. All forms of correction are available including custom fabricated weights, welded into position, and everything in between. Even your assemblies can be check balanced as show in some of the accompanying photos.



Duonetics is a powerful ally in the manufacture of your critical components. With 53 years of experience and all of the necessary equipment, we are positioned to help you strengthen your supply chain. You need reliable vendors, isn't it time you took a serious look at how to make it stronger? Contact us and let us show you how we can help, we're just a click away.



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