Aerospace Manufacturer Reduces Costs and Increases Production with Custom Branded Fluid from ***Tailored Performance Fluids™***

Overview

An aerospace manufacturer that machines parts of various alloys including titanium, Inconel®, stainless steel, and aluminum for aerospace applications was looking at upgrading their metalworking fluid due to heavy residues on parts and machine tools. Having previously tested 16 products over an eight-year span, the company was ready to find a product that delivered results. After an initial investigation, the conclusion was that a high-lubricity synthetic metalworking fluid would be the perfect solution to the problems they were facing.

Application

The aerospace company was recommended a custom-branded high-lubricity synthetic from Tailored Performance Fluids™, designed for aluminum and difficult-to-machine steels. Not only is the synthetic oil-rejecting and low foaming in all types of water, it offers excellent corrosion protection on both aluminum and steel, and should also be safe for short runs on copper. At the proper concentrations, this product can be used on some stainless alloys as well as titanium and runs exceptionally clean, washes off parts easily, minimizes drag out, and protects against fouling by both bacteria and fungus. With a neutral pH, this Tailored Performance Fluids product is milder on the skin and less prone to dermal irritation.

Results

After a test duration of 60 days with production occurring five days per week, 24 hours per day, it was evident that the fluid from Tailored Performance Fluids was superior, its performance far exceeding the company's previous fluid. **Productivity increased by a staggering 300%** and surface finishes were vastly improved. Furthermore, not only was the fluid bought at a lower price per gallon, running at lower concentrations further reduced the cost of the fluid. With these results, it was clear that the aerospace company had found a fluid that they could rely on.

- **33%** decrease in price per gallon
- Fourfold increase in parts per shift
- **83%** decrease in usage
- Improved surface- and mirror finishes
- No foam issues related to high pressure
- Improved tool life and less downtime

Product	Price / Gallon	Concentration	Alloy	Foam	Parts / Day	Inserts	Usage / Shift
Previous Fluid	$54	10-12%	Multiple	Yes	1	1	6 Qt.
TPF Fluid	**$36**	**10%**	**Multiple**	**No**	**4**	**2**	**1 Qt.**