Case Study

Orthopaedic Manufacturing

Metalworking fluids have always been a "necessary evil" in the orthopaedic industry. They are designed to provide lubrication at the point of cut but until now, there are many issues related to these fluids that our customers are faced with every day.

- Tool life
- Surface finishes
- Cleanability
- Hard water stability
- Low foaming in high pressure applications
- Residues

These issues are very common yet overlooked. At Innovative Fluid Design, we feel there is a way to improve ALL the issues without sacrificing tool life or surface finishes.

Situation: During our discussions with medical customers, we found that many of them were using products commonly used in the medical industry and they were experiencing poor tool life, residues, hard water instability, foam, and/or dirty machines, which resulted in high usage and downtime. These customers were frustrated, and operators were dissatisfied with their environment.
Innovative Fluid Design has been focused on improving metalworking fluids for over 35 years. It has been our quest to meet the challenges our customers face every day and work to improve these challenges.

Result:

We are thrilled to announce the development of the **"RX" line** of metalworking fluids. These formulations are designed specifically for the medical industry to eliminate the daily issues related to metalworking fluids.

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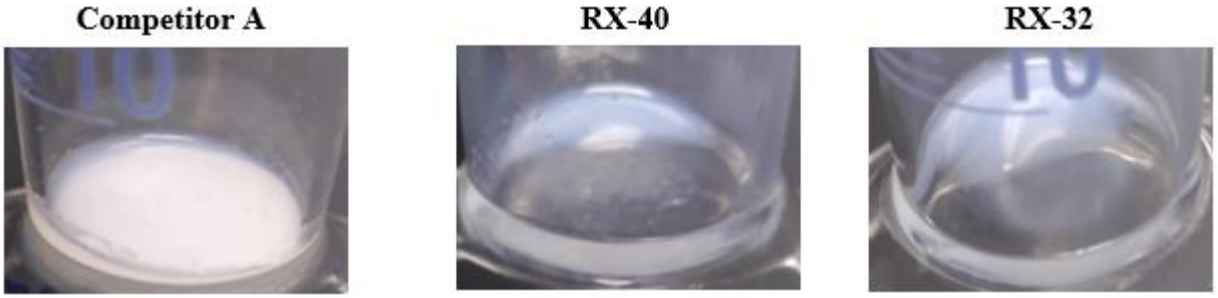
We focused on the following issues and can state emphatically that we have technology that will exceed our customers' requirements in the following areas:

- Improved tool life
- Improved surface finishes
- Extremely clean running
- Easily removed with no residue
- Improved bio-stability designed to provide longer sump life, no additives
- 30-50% less usage due to better wetting properties, resulting in less carry out and plating out on machine surfaces
- Extreme pressure additives designed by Innovative Fluid Design that perform better than traditional technology on harder alloys such as Titanium, Inconel, Stainless Steel
- Compatible with both Ferrous and Non-Ferrous alloys

Residue Free technology with outstanding wetting properties



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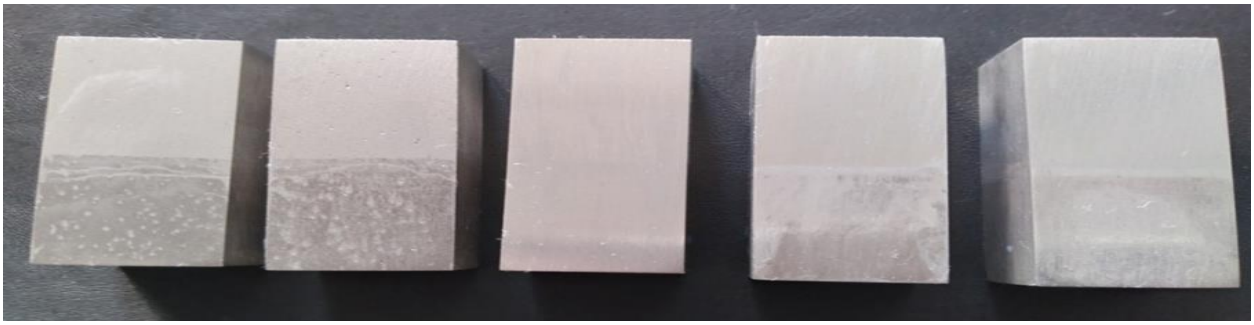
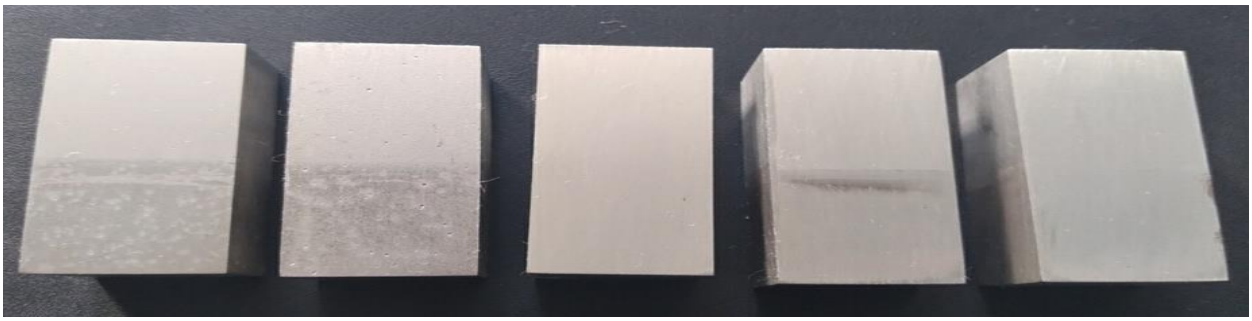
Aluminum Stain: Stain testing is conducted by sanding blocks of the aluminum to a fresh clean surface. The blocks are then partially submerged into a 5% solution of the product and allowed to soak for 72 hours. At the end of this period, the parts are removed and inspected for staining. This test is performed to maintain compatibility with non-ferrous alloys the fluid may contact.

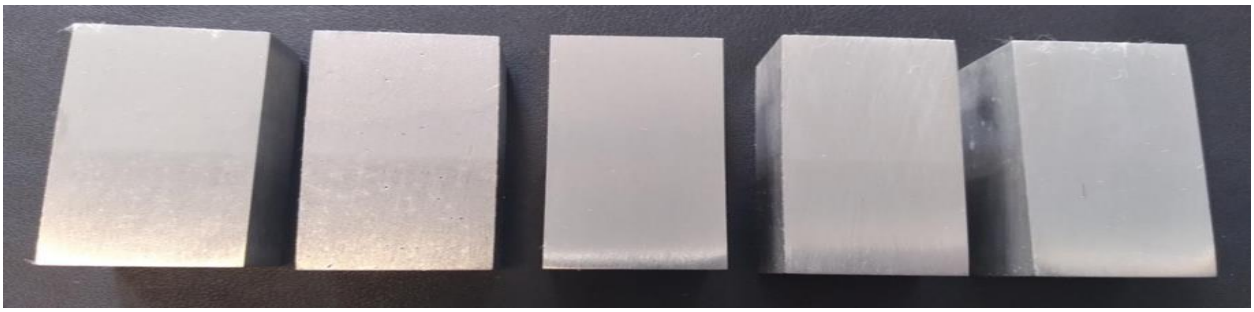
Competitor A:



RX-40:



RX-32:



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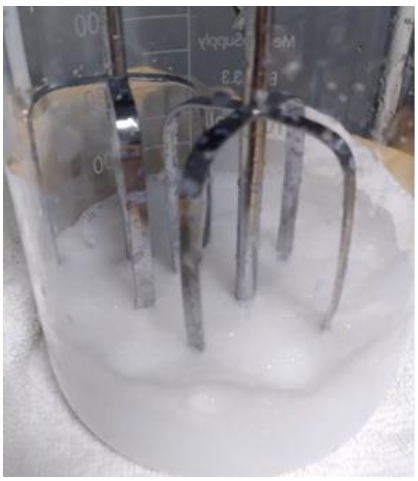
Foam Break: Foam break is designed to evaluate a metalworking fluids' tendency to foam over time in a machine tool. In this test, the metalworking fluid is subjected to high agitation causing foaming conditions / air entrapment. This test measures the time for any foam that is generated to disperse.

Competitor A	**RX-40**	**RX-32**
25 second break	**6 second break**	**8 second break**



Send us an email or feel free to call: (574) 551-3940

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