

How Much Does It Cost to Switch MWF?

As competitive pressures rise and data driven management philosophies become more common, it's worth the time to examine every component of the machining process for cost reduction opportunities.

Industrial fluids like the metalworking fluid (MWF) are often the first things examined when budgets get reviewed. However, when our customers consider changing from one metalworking fluid to another, they often ask, "How much will this change-out cost?"

It's not possible to lay out exact figures (or even ballpark numbers) that are relevant to each individual shop, but we can look at the costs you'll pay and returns you'll see on that investment if you switch to the right MWF for your application.

What You'll Pay

Overall, the costs of evaluating a MWF and switching to it will be relatively small.

1. Trial cost

Testing one or more new fluids against the incumbent will carry some minor costs. The first step to running a successful trial is always establishing a current baseline. Some shops are more thorough than others when it comes to keeping records of routine maintenance and troubleshooting issues. However, the more historical information you share with the Chemtool distributor, the more accurate the product recommendation will be to fill your individual needs. You may also need to brief or sell any number of co-workers from management to floor personnel, and time will need to be taken to define and arrange the trial, etc. You should add in the time spent in research and/or consultation when you begin evaluating potential new fluids as well.

You can look at this process as being similar to the time spent doing a thorough screening and interview process to hire a new employee—well worth it in the end if you make the right decision. Fortunately, your Chemtool distributor will be able to assist with this process, saving you time and effort.

2. Minor downtime

A trial is best conducted "side-by-side," with one machine running the new fluid and another machine (that does the same or similar work) running the incumbent fluid during the same time period. This provides an apples-to-apples comparison. Both machines will, therefore, need to be taken offline temporarily so the old fluid can be disposed of, the sumps and lines thoroughly cleaned, and the new fluid charged to eliminate as many variables as possible.

After the trial, if you choose to use the new fluid across the facility, this process will be repeated on each machine to ensure the results align with outcome of the trial.

3. Higher per-gallon cost

If you begin purchasing a fluid that shows a significant improvement over the incumbent, it will likely be the product of more advanced chemical engineering and, therefore, cost more per gallon. However, as we'll see, this can be well worth the investment. It is imperative to look at the overall cost of use of a product and not get stuck on the lowest cost per gallon up front. The equation for real MWF cost is:

Cost = (Volume of product consumed / Number of Parts Produced) * Cost/Gal of product

What You'll Save With the Right Choice

Will there be a return on your investment if you trial a new MWF? With advanced chemical engineering, and the proper product recommendation, the answer is "yes."

1. Reduced rework and increased tool life

What improvements you see will depend on what type of new MWF you choose, but better fluid means better performance where tools meet workpieces, so you can expect a reduction in reworked pieces. Improvements in lubricity, cooling, and corrosion protection will also result in extending tool life and thus reducing tooling overall tooling spend.

2. Reduced downtime

A fluid with a longer sump life and better biological resistance means you will have to dump, clean, and recharge your system less often, leading to less downtime, less L&O for routine maintenance, and reduced annual usage.

3. Reduced human costs and safety concerns

At the end of the day any manager can tell you how important operator acceptance is. You'll be less likely to deal with skin irritation, misting/smell complaints, or slip and fall hazards with a product that performs better and is accepted by the people that work with it daily. Reducing these types of interactions results in less time and money spent following up on operator complaints and easier safety metric reporting.

4. Increased profit

Even though the per-gallon cost of a new MWF could be higher than the incumbent product, increased productivity, longer tool and sump life, and better operator acceptance all result in a lower cost per-piece overall. That means a healthier bottom line for your shop as a whole.

Conclusion

Do you have concerns with your current fluid's performance, or just want to be sure you're using the best product for your application? Get in touch with your distributor, visit chemtool.com, or call 815-957-4140 to arrange a side-by-side trial today.