

Challenges

A US bearing manufacturer producing small commodity bearings in China was not meeting customer deadlines due to production limitations. To improve operations, instead of changing machine parameters or investing in new machines, the customer allowed Quaker to introduce QUAKERCOOL® 3755 BIO. Initially, the manufacturer did not believe the introduction of the premium fluid would improve the efficiency of their operations, but without making any other changes to the process or manpower, production efficiency increased.

Providing Solutions

The introduction of QUAKERCOOL® 3755 BIO increased production efficiency by 30% without extra investment in machines or manpower. Additionally, with QUAKERCOOL® 3755 BIO the bearing manufacturer was able to achieve operating cost savings by reducing consumption and cycle times.

Adjacent is a comparison chart of the previous local brand versus QUAKERCOOL® 3755 BIO.

Product Description

QUAKERCOOL® 3755 BIO is a high-performance emulsifiable metalworking fluid engineered for moderate to heavy-duty machining and grinding operations requiring a high degree of lubricity, cleanliness, cooling, and corrosion protection. QUAKERCOOL® 3755 BIO is the result of the vast experience at Quaker Chemical Corporation in the field of bio-stability.



Product	Local Brand	QUAKERCOOL® 3755 BIO
Price (RMB/Drum)	5,000 RMB (\$750 USD)	7,000 RMB (\$1050 USD)
Monthly consumption	6 drums	5 drums
Monthly coolant cost (RMB)	30,000	35,000
Cycle time to machine one part(s)	13 hrs	10 hrs
Monthly Production Quantity (Set)	1,000,000	1,300,000
Cost per part (RMB/set)	0.0300	0.0269
Cost saving per part (RMB/set)	0.0031	
Monthly cost savings	4,000 RMB (\$600 USD)	
Yearly cost savings	48,000 RMB (\$7,200 USD)	

Process & Equipment

Part:	Bearing Ring, Model 6204
Material:	CRSS-3.0-001 from An Steel
OEM:	Shanghai Machinery Plant
Filtration System:	Paper
Wheel:	Local: P8*9*3

Product & Process Expertise

Metalworking lubricants represent a very minor part of the costs in a metalworking process, typically less than 1%. This case illustrates the importance of correct fluid selection. The impact of the fluid can be a multiple of its costs, making the price of a metalworking fluid insignificant. That is why Quaker focuses on developing fluids with the highest performance without compromise, fluids that sharpen your competitive edge.