Castrol Hysol MB 50 Success on Jet Engine Drive Shafts.

Improved cutter life, part finish, productivity and cleaner machines.

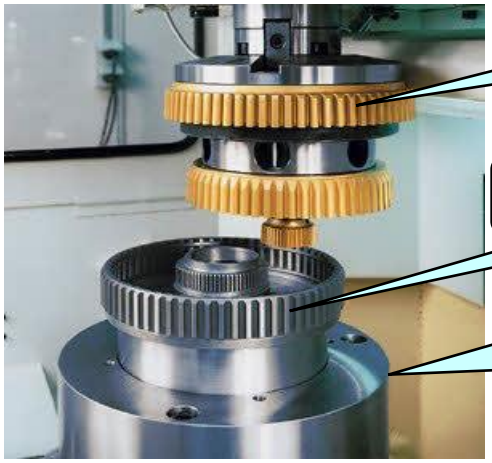
Customer was experiencing operator complaints of residues and washer contamination with neat cutting oil on Titanium and Inconel jet engine components. On the Fellows spline center in the drive shaft cell, cutters are typically reground after 2 parts. With Hysol® MB 50, the cutter life doubled to 4 parts. Loss of production for tool changes was about 1 hour for every 2 parts, leading to a savings of 260 hours in productivity per year and a reduction in the tooling budget.

There was also a significant savings on the inspection time due to the excellent part finish. The customer went from 1 hour inspections to only 15 minutes. In addition, they no longer need to wash the part, which provides another time savings of 15 minutes for a total of 1 hour per part, gaining an additional 520 production hours.

Total production hours saved on the T14-G02 and T62-P02 drive shafts is 780 hours per year.

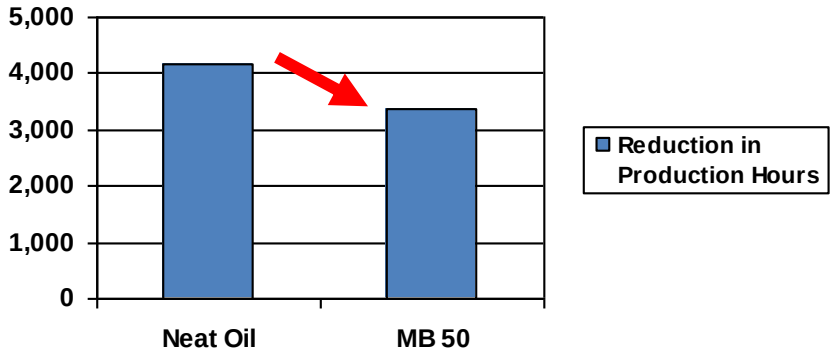
Castrol Hysol MB 50 Coolant

Improved cutter life, finish and cleaner machines



Production Hours Saved

780 hours per year



Hysol MB 50 has proven to be an extremely effective oil soluble coolant capable of replacing neat oil in the critical spline operation in the jet engine drive shafts. Castrol has been able to take these experiences and improve tool life and operator acceptance. These conversions have resulted in significant dollar savings and an enhanced work environment for the customer, as well as the elimination of chlorinated paraffins.

Savings Analysis:

	Neat oil	Hysol MB 50
Downtime	1.5 hours/part	0
Parts Per Cutter	2	4
Operator Acceptance	Poor	Excellent