



CLEAN OIL
BRIGHT IDEAS

Hydraulic Oil Mitsubishi Lathe Lubrication System

CJC™ Application Study

Application Study
written by:

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CUSTOMER

TIMKEN POLSKA, Sosnowiec - producers of roller bearings.

THE SYSTEM

Drive lubricating system of Mitsubishi 8-spindle automatic lathe type 100 MRC-8 with 60 litres of hydraulic oil type L-HM 32/AZ.

THE PROBLEM

The pumping chamber of the cooling fluid is located next to the chamber of the lubricating system. This causes a permanent threat of cooling fluid and large amounts of mechanical particles entering the oil. The oil will be emulsified when contaminated with the cooling fluid. This will interrupt the machine operation and can cause sudden unplanned down time due to clutch blockage. The damaging ingress of cooling fluid into the oil is usually a result of operator failure and as such cannot be totally eliminated.

THE SOLUTION

A CJC™ Fine Filter LG 15/25 L is installed off-line on the machine. The filter is equipped with a 3 µm absolute CJC™ Filter Insert BG 15/25 with 1.5 litre dirt holding capacity of which 50% can be absorbed water.

THE TEST

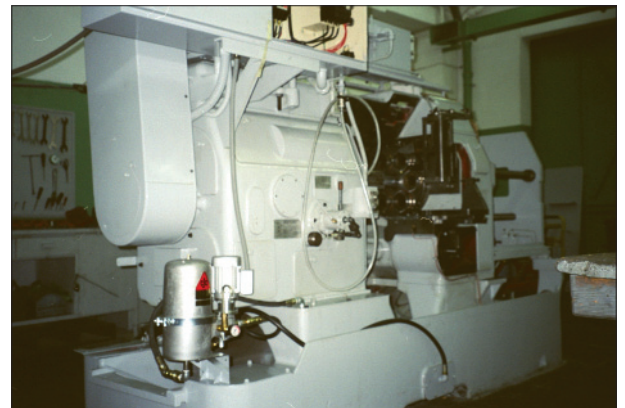
The test criteria included measurement of water absorption and replacement interval of the filter insert.

THE RESULT

A stable water level below 100 PPM in the oil was achieved (independent analyses carried out by the Filtrix Laboratory). Since the filter installation the automatic lathe has worked without problems. No more clutch blockades in the drive system have been observed.

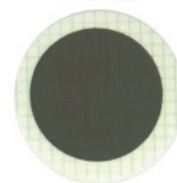
COMMENTS

Michal Korek, PM Department Maintenance Manager:
"Thanks to the CJC™ Off-line filter, the automatic lathe works more effectively. The frequency and costs of system failures have been reduced. The CJC™ filtration has been invaluable even though we are only protecting 60 litres of oil".

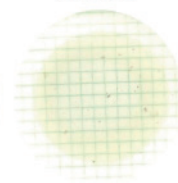


Mitsubishi Automatic Lathe type 100 MRC-8 with a LG 15/25L CJC™ Off-line Filter.

Test No 1

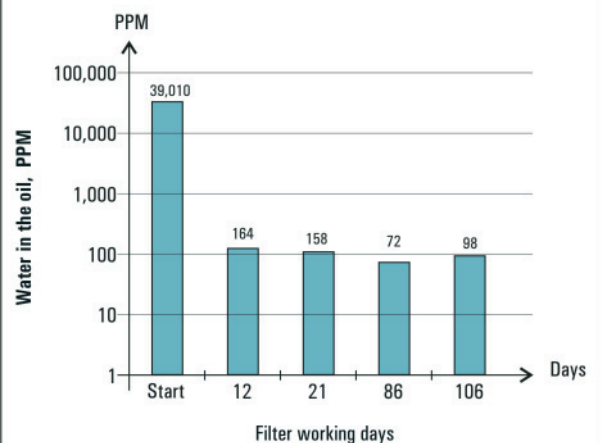


Test No 2



Pictures of the oil test membranes.

WATER REMOVAL



THE RESULT

	ISO Class
Test No. 1, 20.08.03, before	23/20/17
Test No. 2, 01.09.03, after	19/18/14