

APPLICATION PROFILE

PROCESS SYSTEMS

Automotive

Challenge: **COOLANT CONDITIONING SYSTEMS FOR CNC MACHINE TOOLS**

Location: **FLORIDA**

Flodraulic's RHM group was tasked by a major manufacturer of hydraulic valves to reduce its machine tool coolant material and labor costs.

RHM came up with a coolant conditioning unit supplied with an automatic chemical concentrate module, paper media and magnetic filtration, labyrinth tank with micro bubbler to raise very fine particles and a tilting skimmer oil pick-up device to remove tramp oil from the tank.

Two larger Mazak CNC machine tools are connected to the conditioner unit to facilitate a totally automatic function of the coolant system. No manual input is required to manage the chemical concentrate and coolant levels within the two CNC machines. They are managed via the RHM conditioning system.

These coolant conditioning modules are available for single machine applications up to complete plant installations with over eighty machines.

The customer's chemical costs have been reduced by 50% and labor costs associated with coolant management reduced by 80%! Coolant life has been extended 80% and coolant tank clean-outs reduced by 50%. This has helped in achieving substantial increases in machine availability. The chemical check system is unique to the market and normal ROI timescales are less than one year.

The conditioner was originally supplied to the customer as a test unit to prove out the process, however, after three months the customer decided to purchase the system due to cost savings and the ability to run their facility "lights out" with no operator supervision. This was not possible prior to installation of the RHM / Flodraulic coolant conditioning system.

