

# Aluminum Machining Central Coolant Vacuum Filters System

INDUSTRIAL FILTRATION | VACUUM FILTER SYSTEM | MACHINE COOLANT FILTER

**PRODUCT USED:**

- Hydro-Lift Pump
- CNC Machine Pumpback
- CNC Machine Base Trench
- Filter Supply & Return Piping
- Central Coolant Filtration System
- Hydro-Vac Vacuum Filter



Some of Filtra-Systems' biggest and long-term clients come from America's automotive industry.

The fact that we have earned their business for the last three-plus decades speaks volumes about our products, as these clients require robust systems that are easy to maintain and can deliver coolant at exacting quality standards.

We earn these customers' respect and business because we fully understand how our systems can work within the framework of the metal cutting industry, and we design, engineer, manufacture, and install these systems around the world.

## PROJECT SPECIFICS:

The central filtration system pictured on this page was provided to Ford Motor Company for the Duratec 35 engine program.

The application is aluminum head machining, utilizing fifty-six Huller CNC machines.

The central vacuum filter system was designed to filter 7600 gpm of water soluble coolant and to recycle 600 lbs/hr of aluminum chips.

The machine coolant filter system included two model HV-9D Hydro-Vac vacuum filters, each with 100 micron permanent media, a center mounted strainer conveyor with 750 micron permanent media, clean tank, heat exchanger, system supply pumps, and control panel.

The dirty coolant first enters Filtra-Systems patented belted strainer conveyor, where 80% of the chip load is removed.

The strained coolant is then directed to two Hydro-Vac vacuum filters, where the remaining chips are removed and the coolant is filtered to less than 10 ppm at 10 micron.

The clean coolant is then pumped through a heat exchanger to maintain a constant temperature of 72 F, and back to the machine tools at 75 psig.

For the Duratec 35 engine headline, Filtra-Systems supplied simultaneous engineering, design, manufacturing, integration and delivery of the complete Hydro-Vac vacuum filter system shown.

**Want to make your central coolant filtration system even better? Almost Instantly. Call Filtra-Systems Now, 248-427-9090**