

Drum Filter Central Coolant System

INDUSTRIAL FILTRATION | DRUM FILTER DESIGN | COOLANT FILTER SYSTEM

PRODUCT USED:

Magne-tight Magnetic Separator
Central Coolant Filter System
Hydro-Vac Vacuum Systems
Perma-Flow Drum Filters



MORE INFO

The Micro screen drum filter media has an absolute rating of 350 microns and typically filter the coolant to less than 50 ppm above 50 micron. From the Micro screen drum filters, 12,500 gpm are sent directly back to the machines for less critical operations and trench flushing.

Plus, an additional 4500 gpm are pumped up to two model HV-7W permanent media Hydro-Vac vacuum filters and two model FSMB-10W Magne-Tight magnetic separators, for super cleaning the coolant.

The Hydro-Vac filters will filter the coolant to less than 25 ppm above 8 micron, while the Magne-Tight is used to remove tramp oil and particles less than eight microns. The superclean coolant is then pumped to the critical machining operations.

The headline central filtration system follows the same process flow steps as the block line. The headline trench is

The two central coolant filter systems pictured were provided to Navistar International for the 6.0 liter V8 Diesel Engine Program.

The applications are cast iron machining of the engine block & heads. The block line central filtration system, shown in the left half of the picture, was designed to filter 17,000 gpm of water based coolant and recycle 5000 #/hr of cast iron chips.

The headline central filtration system, shown in the right half of the picture, was designed to filter 8820 gpm of water based coolant and recycle 4000 #/hr of cast iron chips.

Filtra-Systems provided simultaneous engineering, coolant drum filter design, manufacturing, integration, delivery and commissioning of the complete block and headline central filtration systems.

The Navistar facility used the traditional method of transporting the coolant and metal fines from the machine tool to the filters, via in floor sloped trench.

The block line trench is diverted into the top of two large drag tanks located in the twenty-four foot deep filter gallery. In the center of the picture you are seeing the tops of the sixteen-foot high drag tanks.

The majority of the cast iron chips settle in the drag tank and are carried out by the conveyor. Within the drag tanks, the dirty coolant is pumped through eight model V4.5-112 Perma-Flow Micro-screen drum filters.



diverted into the top of the two drag tanks located in the right half of the filter gallery.

The majority of the cast iron chips settle in the drag tanks and are carried out by the conveyor. Within the drag tanks, the dirty coolant is pumped through five model V4.5-112 Perma-Flow Micro-screen drum filters. From the Micro-screen drum filters, 7000 gpm are sent directly back to the machines for trench flushing and less critical operations.

An additional 1820 gpm are pumped up to two model HV-4S permanent media Hydro-Vac vacuum filters and one model FSMB-10W Magne-Tight magnetic separators, for super cleaning the coolant. The superclean coolant is then pumped to the critical machining operations.

We can't wait to hear from you. Call us now at 248-427-9090 for your free industrial filtration consultation.