

CYCLOTRON PRODUCTS, INC.

Drawbacks of Basic Filtration:

- Reservoir divisions create **dead spots** where coolant settles.
- **Coolant goes rancid** very quickly when tramp oil becomes trapped.
- **Cleaning** basic filter systems can be cumbersome (scrape/powerwash)
- **Frequent replacement of secondary filters** leads to low flow, possible burning of parts or breakage of tool.
- **High swarf concentration** in coolant damages pumps and valves.

Solution:

Past experience has shown that the addition of one of our **hydrocyclones** greatly reduces coolant changes and maintenance on existing filtration systems resulting in cleaner machine tools, tooling and better parts. One of our Cyclotron Products, Inc. systems will pay for itself in less than a year. Contact us for further information at www.cyclotronproducts.com

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ADDITIONAL FILTRATION FOR MACHINING CENTERS

Many companies using high quality machining centers have encountered problems when it comes to cleanliness of the machining coolants. Tools get plugged, parts get burned or scratched and tool breakage becomes a real issue. Tool breakages can cause damage to the holders, the machine itself and parts being machined. Often, these expensive machine tools have only **basic filtration systems** whose primary function is to remove chips from the machine by means of a conveyor. Coolant then passes through screens or around and over baffle walls before it reaches the supply pump/s. To remove fines, cartridge or bag filters are added.



Cyclotron Products, Inc. has a **low cost, media free solution** to these issues where water-soluble coolants are being used. Adding a pump (will usually fit into one of the holes in an existing filter system), a single hydrocyclone for 20 gallons-per-minute and a cart/bucket for the removed particulate, can achieve filtration down to 5 microns in steel (filtration achieved is dependent upon specific gravity of the material). These systems are customizable to fit just about any configuration. Total floor space required is only 6 square feet if a cart is used. If a bucket is used, the bucket could be placed on the current filter system requiring no additional floor space.

This system will provide continuous filtration of coolant in the reservoir. Constant turbulence in the reservoirs will keep settlement to a minimum and prevent the coolant from becoming rancid. The system will not interfere with coolant supply to the machining center and the only cleaning required would be the cart/bucket of fines with a small amount of coolant.

For larger machining centers, Cyclotron Products, Inc. can provide systems ranging from 40 to 80 GPM. Such systems would be suited to filter systems with 150 gallons minimum holding capacity.