

FINISH•MASTER™

Automatic Centrifuge

Automatic Separator for cleaning industrial fluids



■ FM-WT40

The FM-WT40 self-cleaning centrifuge is designed to remove fine solid particulate from various fluids (**oil & emulsion**) down to the 2-10 micron range (particle range is typical and will depend upon the specific application.)

The unit utilizes centrifugal force to perform the liquid/solids separation, and automatically discharges the dewatered (relatively moisture free) solids at frequent intervals during the processing cycle. Its rugged industrial design makes it suitable for removing highly abrasive solids such as metallic and ceramic fines from process liquids. This unit contains a dynamic breaking system reducing the discharge cycle time of the centrifuge bowl down to less than 2 minutes. Maximum operating temperature is 140°F for standard steel housing, and 195°F for stainless steel housing. The solids discharge is an automated 90 second cycle.

Waste Water Treatment

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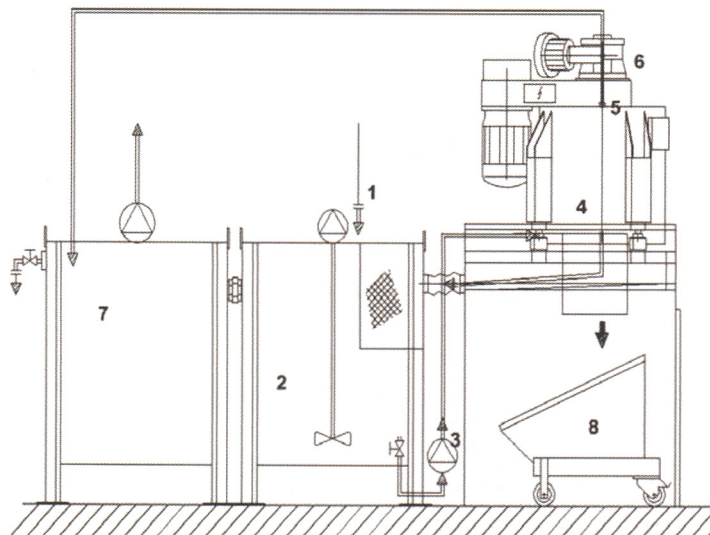
Operation (refer to diagram):

Dirty liquid **1)** enters the dirty fluid tank **2)** of the cleaning unit. The feed pump **3)** delivers the liquid into the centrifuge rotor **4)**. The centrifugal force causes the solids to be spun out on the rotor's wall. The clean liquid exits the rotor via a skimmer tube **5)** under pressure. The pressure usually is sufficient to transport the liquid into a clean fluid tank **7)**.

The automatic sludge discharge is controlled via a timer. During the sludge discharge cycle, the machine tool need not be stopped. The dirty liquid is accumulated in the dirty fluid tank **2)**. The feed pump is switched off, and the rotor is braked until special rotor valves open. Excess process fluid leaves the rotor via these valves in the rotor wall and flows back to the dirty fluid tank.

After a quick dry spinning of the sludge, the rotor is completely stopped. A high torque gear drive scraping mechanism **6)** peels the sludge from the rotor wall. The sludge falls through the open rotor bottom into a container **8)**. After scraping, the feed pump **3)** is switched on briefly to rinse sludge remnants from the inside of the rotor. The rotor returns to its normal nominal speed, and the feed pump is switched on. The dirty fluid cleaning process begins again.

The feed pump rate is slightly higher than the centrifuge's nominal capacity, thus working down the accumulated dirty liquid within the next few minutes of the processing cycle.



Features

- Maintains fluid clarity without the use of expensive filter cartridges
- Minimizes fluid replacement
- Minimizes waste disposal by generating relatively moisture free solids
- Requires minimal operator attendance and maintenance
- Significantly reduces downtime for, and frequency of, tank/sump cleanouts

Model	Flow Rate (gal/min)	Rotor Capacity (gal)	Sludge Discharge Capacity (lb/hr)	Noise Emission	Drive Power	Dimensions (L x W x H, in.)	Weight (lbs)	Voltage/Phase
FM-WT40	1-40	10.5	44	< 70 dBa	10 HP	32 x 48 x 51*	1375*	460V, 3 Phase

* = Not including stand