US CENTRIFUGE®
The Liquid-Solid Separation Experts

Vibratory / Mass Finishing Liquid Recycling Systems

US Centrifuge has applied centrifuges and designed centrifuge systems for a variety of vibratory / mass finishing applications for the purpose of clarifying suspended solids from the liquid process solution. Centrifugally clarified liquid that was previously sent to drain is now often re-circulated many times extending the liquid's working life, which reduces operating costs and minimizes disposal volumes.

As an example one major manufacturer of transmission gears was previously mixing up a 3,500-gallon tank of fresh liquid / soap solution at the start of each day. At the end of the day the dirty liquid was dumped to a special waste treatment system and the cycle was repeated. After installing the centrifuge the useful life of the liquid solution was extended from (1) one day to (14) fourteen days and the sludge discharged from the centrifuge was easily disposed of as a solid relatively moisture free cake. This customer saved over $250,000 in operating costs the first year.

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The centrifuge is commonly applied to vibratory / mass finishing applications. The centrifuge uses the multiplied force of gravity to separate the heavier suspended solids from the process liquid solution. The separated solids form a dense cake in the centrifuge bowl that is either removed manually in the M412 unit or is discharged automatically by either the Supramatic model A460 or Duramatic models A420 and A440.

US Centrifuge units offer the following advantages:

Will not blind-off like media filtration

No disposable filter media is required

Separates solids as small as 3 to 5-micron

Produces a relatively moisture free cake for disposal

Maintains minimal TSS levels in the re-circulated or discharged liquid solution

Manual clean and automatic self-cleaning machines available

Complete package systems with tanks and pumps available

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US Centrifuge supplies individual manual clean or automatic self-cleaning centrifuges centrifuges as well as complete pre-engineered / pre-constructed systems. Systems include the centrifuge with integral process tanks including transfer and optional chemical injection pumps. Standard and / or customized systems are designed and built to suit each customer's specific application and / or facility requirements.

US Centrifuge manufactures:

- Model M412 manual clean centrifuge
- Models A420, A440, and A460 automatic self-cleaning centrifuges

US Centrifuge systems feature one of two basic system designs:

- The "clean-dirty" process tank system design which is ideal for applications where the process equipment flow rate is less than the centrifuge's maximum rated flow capacity.
- The "conical" process tank system design which is ideal for applications where the process equipment flow rate is greater than the centrifuge's maximum rated flow capacity.

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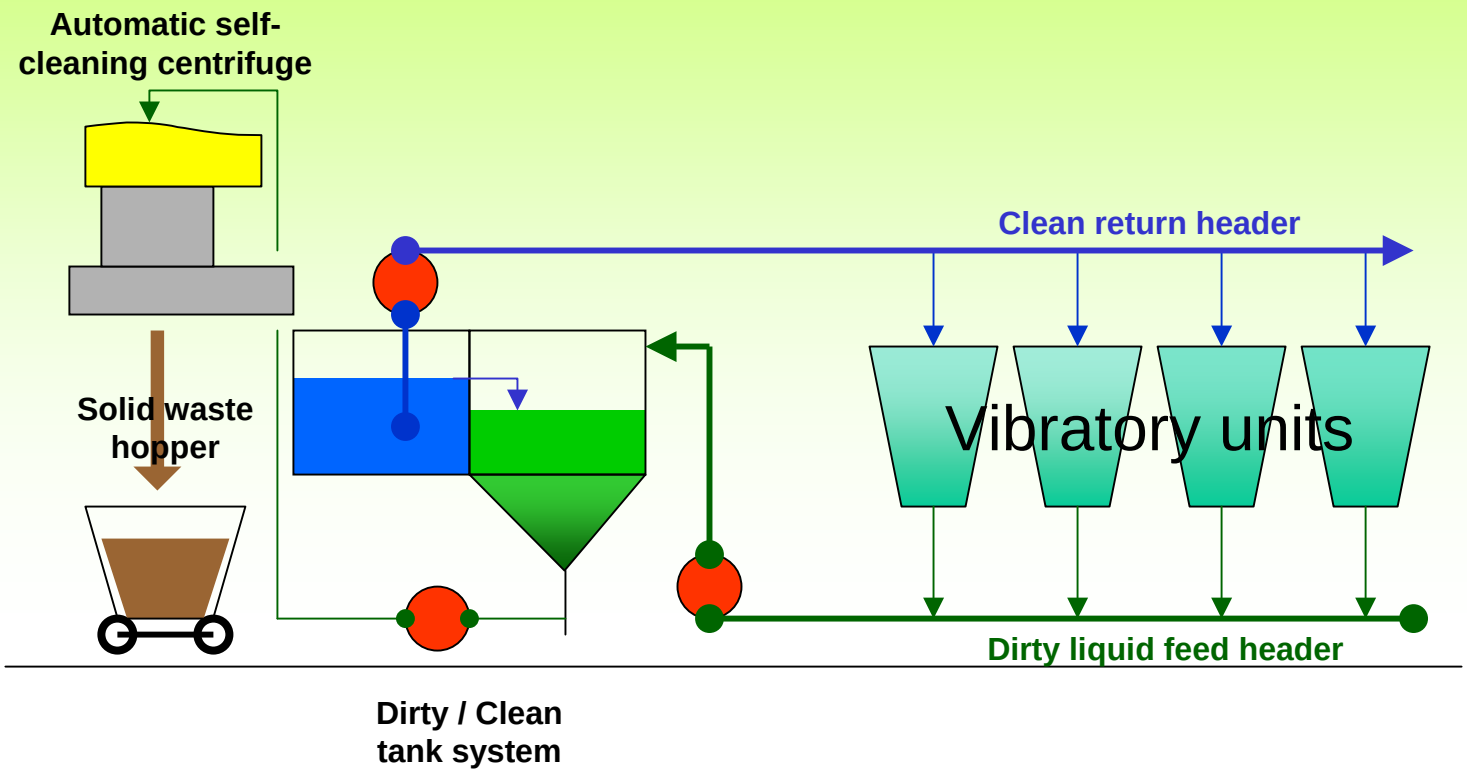
The basic flow diagram below illustrates a system including an automatic self-cleaning centrifuge with integral “clean / dirty” process tanks and transfer pumps.

Systems can be designed for a single vibratory unit or multiple vibratory units applications.



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To determine which centrifuge and / or system design is most appropriate for your application and / or facility requirements please provide as much as information as possible with respect to the following questions:

How many and what size are the vibratory units?

What is the liquid requirement / flow rate of each vibratory unit?

How much solid waste is typically produced each day

Hours of operation ( ) hours per day / ( ) days per week?

What is the liquid discharge height of the vibratory units?

Does the liquid drain to a common pit or through a common header?

Are you replacing an existing system? How is the liquid currently being filtered?

Do you prefer a manual clean or automatic self-cleaning centrifuge?

Do you prefer an individual centrifuge or complete system?

What do you want to achieve with a new system? What specific features should be included?

Please return information to your US Centrifuge representative or US Centrifuge directly via e-mail sbehrens@uscentrifuge.com / fax 317-299-2284 / or call 800-899-2040