



Sharpe Points

SHARPE MIXERS NEWSLETTER, MAY 2011

Sharpe helps clean up laundries' wastewater

BY FRED DECICCO
NATIONAL SALES MANAGER

Ever been to a process plant where workers wear uniforms?

Ever seen uniform-rental trucks driving to and from those plants?

All those uniform-rental companies washing all those dirty clothes.

And what happens to the wastewater from all those laundries?

The EPA requires that all industrial laundry wastewater be pretreated before being discharged to the municipal treatment plant. The wastewater must have pH adjusted; dirt, oil and grease removed.

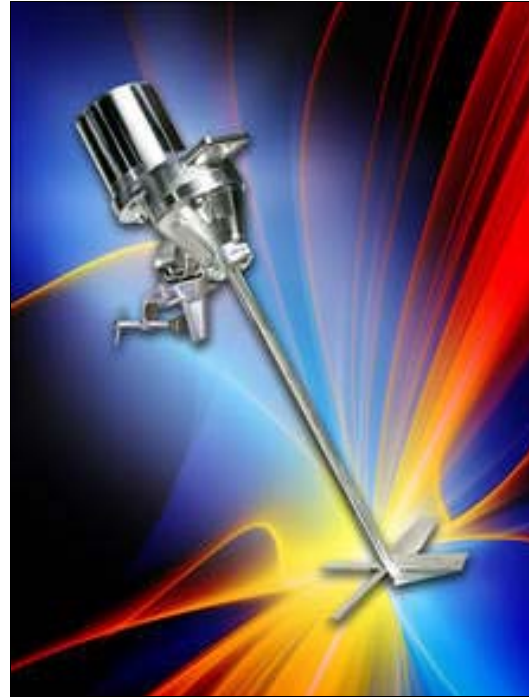
A common pretreatment operation consists of two equalization-pH adjustment tanks followed by Dissolved Air Flotation (DAF) to remove dirt, oil and grease.

The equalization-pH adjustment tanks range from 5,000 to 10,000 gallons. Each has a top-entry mixer.

The DAF system uses polymer as a coagulant aid. The polymer is usually mixed ahead of the DAF using a gear drive portable mixer.

Sharpe Mixers has been working with one of the world's largest uniform-rental companies for more than 10 years, supplying the mixers for its waste-treatment plants. We have shipped mixers to the company's plants across North America and the United Kingdom.

So next time you see a uniform-rental truck driving down the road, follow it back to the laundry and see what they're doing for pretreatment of their wastewater.



The Sharpe All-Stainless Steel Portable Sanitary Mixer is suitable for 50 to 5,000 gallons.

Sanitary-mixer designs tailored to your needs

BY DON GEYER
CUSTOMER SERVICE MANAGER

Our sanitary-mixer design has been getting a lot of attention lately, and rightly so! Starting at only \$1,595 and available from stock, our all-stainless portable mixer is perfect for blending juices and adding ingredients to sauces such as meat, poultry, yogurts and a wide range of other products.

The Sharpe All-Stainless Steel Portable Sanitary Mixer creates a high flow with low shear and can be equipped with 3/4", 1", and 1-1/4" diameter shafts in lengths up to 8 feet, hydrofoil impellers from 4" to 16" diameter, and fractional to 2 HP motors, either electric or pneumatic. Featuring a robust investment cast mounting clamp made of solid 316L stainless steel, this USDA-approved portable mixer is suitable for liquids from 50 to 5,000 gallons.

Our sanitary mixer is corrosion-resistant, paint-free and easy to clean.

Options for this portable mixer include variable speed drives, plate, flange or ferrule mounts, and polished finishes.

Want us to size a mixer for your specific needs? We can do that too!

Learn more at www.sharpemixers.com and www.sharpemixers.blogspot.com



Sharpe takes mixers' nameplates to next level

Upgrade to help plants meet key standards

BY FRED DECICCO
NATIONAL SALES MANAGER

Sharpe Mixers is working with the USDA and 3-A to be sure our all-stainless-steel mixers are acceptable for use in plants that comply with USDA, FDA and 3-A standards.

One of the issues they address is nameplates. The typical nameplate is stainless steel, embossed with pertinent information. It's attached

to the mixer drive with rivets. This may create a space behind the nameplate that can be hard to clean with CIP or COP procedures.

So instead, Sharpe Mixers purchased a power unit that etches the surface of the mixer by using enzymes and electrical current.

This is known as electro-etching. All-stainless-steel mixers are now supplied with this "clean" nameplate.



Sharpe Mixers has started etching nameplates on the surface of mixers through a process known as electro-etching.

Mixer school

Side-entry impeller positioning

BY STEVEN F. DRURY, P.E.
VICE PRESIDENT OF APPLICATIONS

How do we achieve maximum mixing in a side-entry application? Let's take a look:

The rule of thumb for positioning a side-entry impeller is a minimum of 1/3 of the impeller diameter off the wall. (Sharpe side-entry mixers allow for even higher wall clearance to minimize impeller suction loss, and nozzle length must be taken into consideration.)

H = Distance off wall

D = Impeller diameter

Suction area = $\pi D \times H$

Discharge area = $\pi D^2/4$

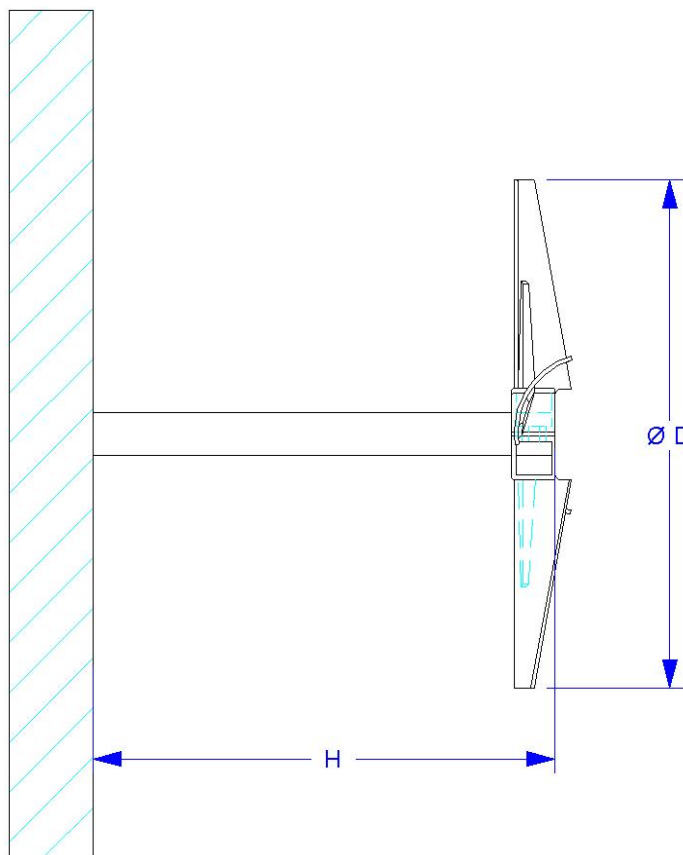
Suction = discharge in order to avoid "starving" impeller flow

$$\pi D \times H = \pi D^2/4$$

$$H = D/4$$

So, for a flat wall H is constant. For a curved wall, H is going to vary. 1/3 D is pretty close to 1/4 D, and as it is slightly longer, more forgiving of wall curvature, etc.

Sharpe Mixers has been sizing side-entry mixers for many years, for industries including asphalt mixing, pulp and pa-



Drawing by Geoff Graham

per, wastewater, petroleum, storage tanks and more.

How can we assist you? Let us know what your needs are and we can size a side-entry mixer for you today!