

# SETTLING COLUMN

by Ned Kahn

## MAINTENANCE INSTRUCTIONS

### GENERAL INFORMATION:

This exhibit displays the complex dynamics of settling utilizing a clear tube filled with sand and water.

#### General cleaning:

The finished or painted surfaces of the exhibit may be cleaned with a mild soap solution or general purpose cleaner. Small surface scratches in the Plexiglas tube may be polished out with Novus plastic polish or similar plastic polishing products. (DO NOT use alcohol or solvents on the plastic!). Use a soft wipe that will not leave scratches, (we suggest Wype-All™).

#### Draining the tube:

The tube contains about 1.6 gallons (5-6) liters of water. There are no harmful substances inside, so it can be drained anywhere suitable. A small 1/8" pipe plug is located on one cap end of the tube for topping off the tube during filling. This opening is too small for draining and we suggest removing the entire cap end to allow the sand and water to rush out. (You will have to remove the plug first to eliminate the vacuum that makes it impossible to remove the cap.)

Turn the tube so the stainless steel pipe plug is up, then remove the pipe plug. Next remove the cap on top. A bucket will be needed to catch the water. The column can then be tilted to allow the water and sand to run out into the bucket.

#### New Sand Wash:

Pour in 1/2 bag (25 lbs) of sand in a plastic trash pail (5-10 gallons) and run a hose into the sand. Run enough water to churn the sand but not enough to lift the sand cloud above the edge of the container walls. This will wash out much of the unwanted particles and will probably take a few hours.

### Tube Filling:

Clean the inside of the tube of all spots.

Pour in the clean sand and fill 19 inches from the bottom. Next add 5-6 liters of distilled water and approximately 2 cc of blue food dye or until the desired purple color is achieved. Replace the end cap and top off the tube with distilled water through the small pipe plug. As bubbles form over the weeks, continue to top off the tube with distilled water added through the pipe plug.

### Tube Removal:

The tube assembly can be removed from its stand by loosening the rear shaft collar and sliding the shaft out of the bushings.

To remove the plastic tube from the split clamp, first drain it as described above. This will lighten the tube to make it easier to handle. While the tube is kept horizontal, remove the clamping screws from the split collar. The collar can then be spread to allow the column to slide out. Spreading the collar may be accomplished by inserting a screwdriver in the seam, or preferably by inserting the clamping screws in from the opposite direction, slipping a thin piece of metal in the seam, and using the screws to push the seam open.