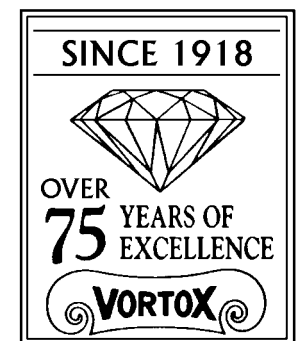
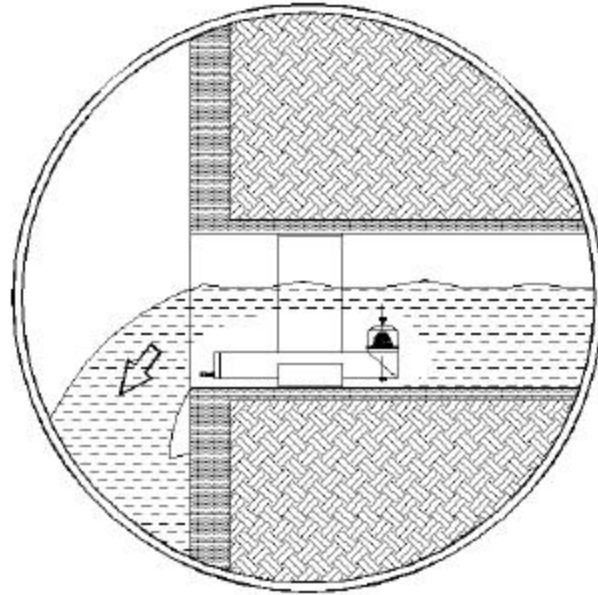


# *In-the-Pipe Sampler*

*by*



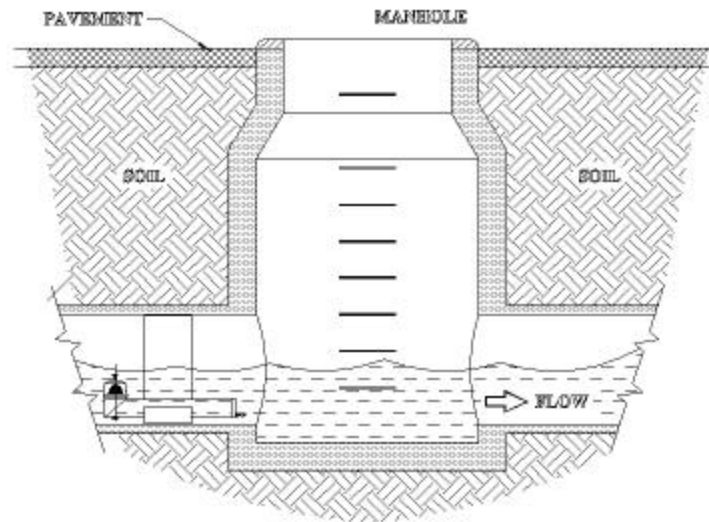


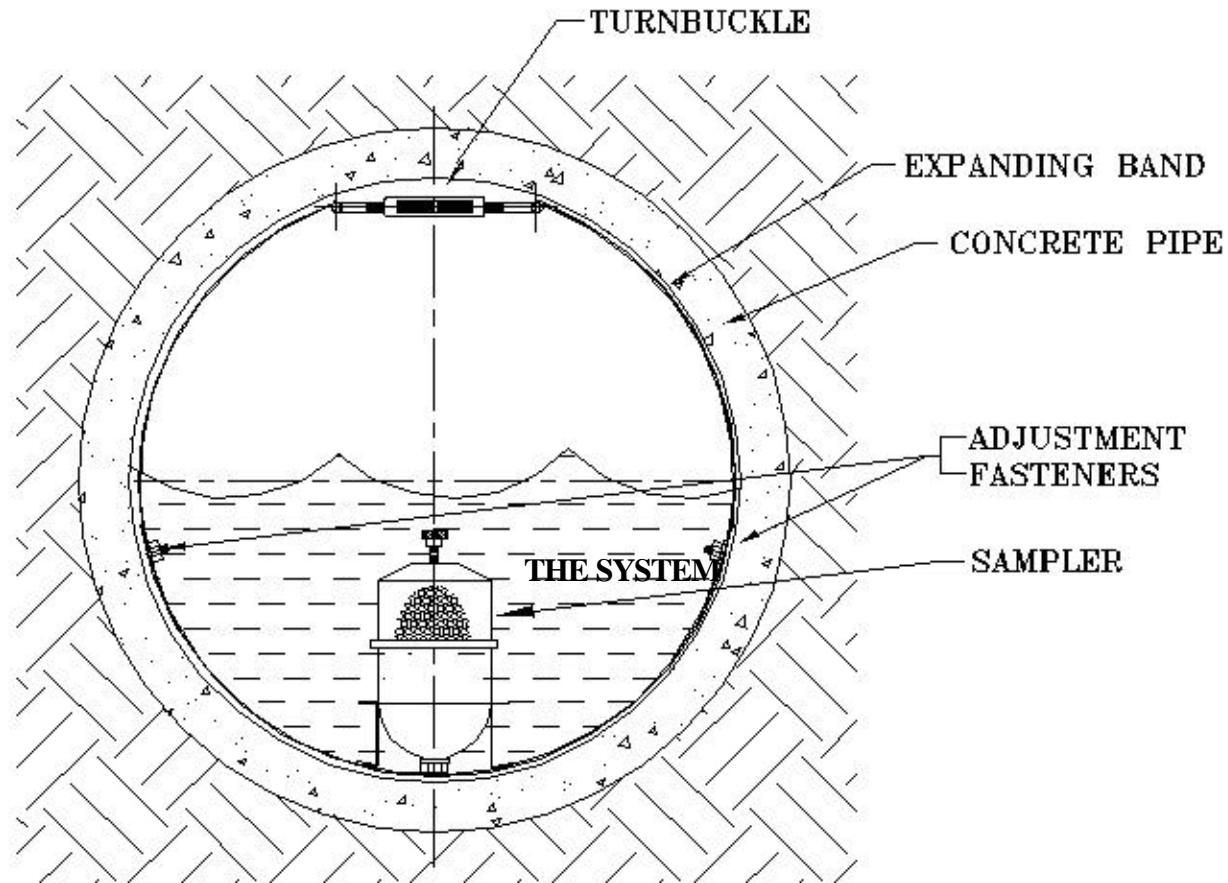
**VORTEX  
IN-THE-PIPE SAMPLER**

- ! Portable
- ! No power source - all mechanical operation
- ! .80 gallon/3 liter sample size
- ! Automatically starts sampling above 4-1/4" of base flow
- ! Automatically shuts off
- ! Easy transfer of the sample to lab bottle
- ! Low obstruction of storm water pipe

## VORTEX IN-THE-PIPE SAMPLER

Vortex Samplers have moved underground to tackle a new application. Now, in addition to the original Vortex Storm Water (surface run-off) Sampler this new In-The-Pipe Sampler addresses the requirements of Municipal and Industrial applications that are best accomplished by collecting liquid samples in a storm drain system. Municipalities can monitor for **illicit discharges** during dry and wet seasons. Further, storm water samples can be collected with the same device throughout the municipal boundaries. Industrial sights can accomplish sample collection in the same manner.





This sampling system includes an expanding band designed to accommodate 3 ranges of pipe diameters. They fit pipes ranging from 12 through 15 inch diameters, 18 through 24 inch diameters, and 24 through 30 inch diameters.

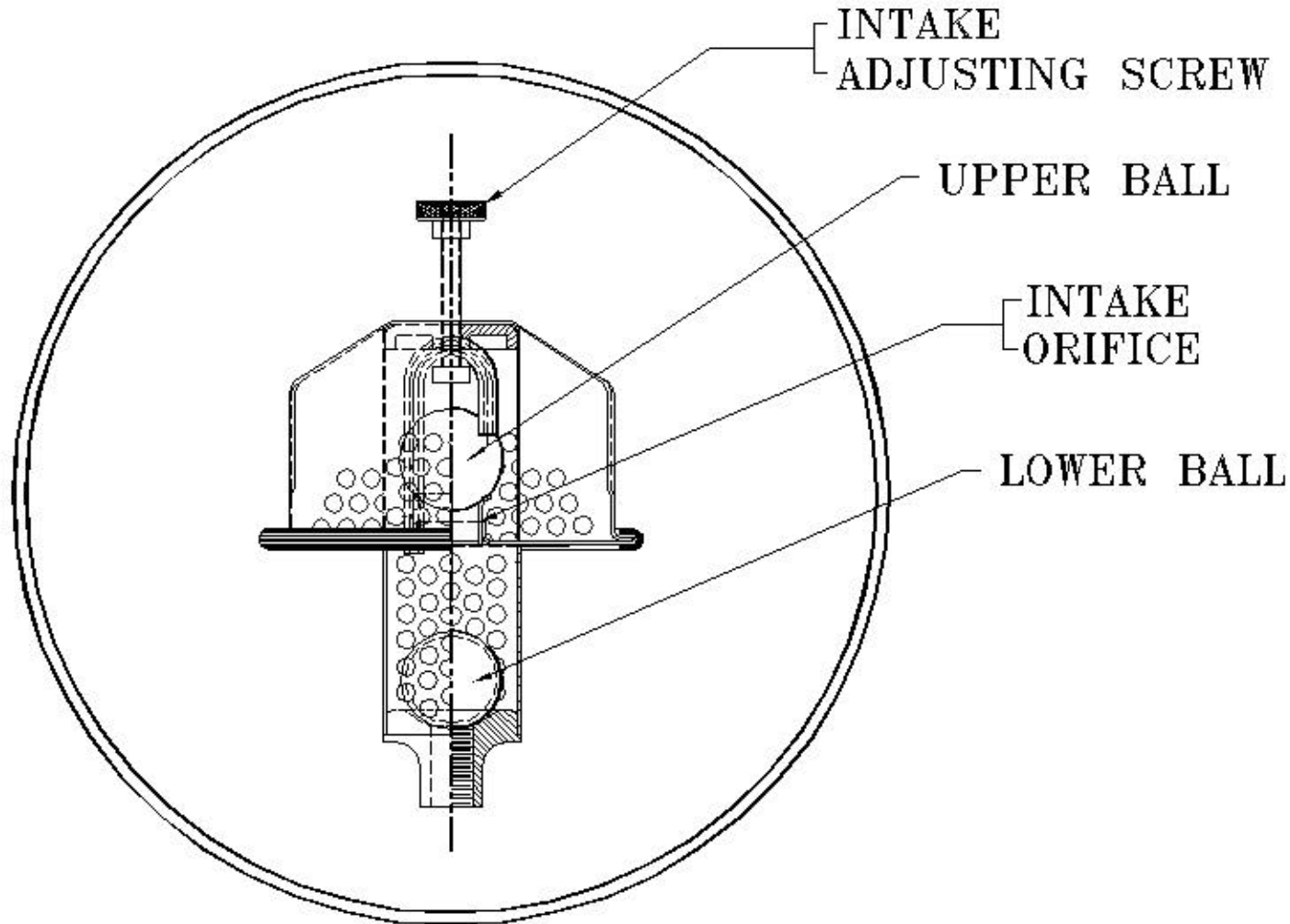
The expanding band is placed into a pipe and locked in place by setting the adjustment fasteners and using a turnbuckle. The Sampler slides into a bracket which holds it securely to the expanding band. The band is completely portable, however, it may be left in a permanent location while the Sampler is installed in the band bracket when sampling is required.

Once the unit is installed, the Sampler waits for the liquid to flow. When the flow reaches the intake valve assembly (adjustable from 4.25 to 7.25 inches in depth), the system begins to collect a sample. This standard unit allows unwanted base flows of less than 4.25 to 7.25 inches to bypass the Sampler.

A dry weather monitoring unit, utilizing a dam, allows for collection of samples when low flows would not normally reach the minimum 4.25 inch level.

## HOW IT WORKS

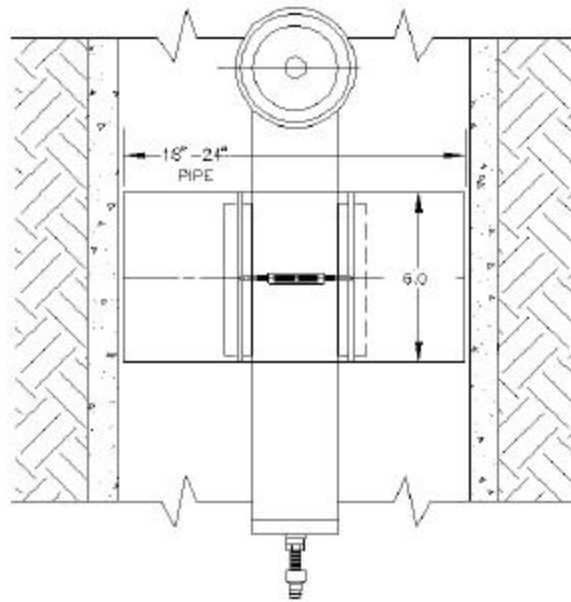
This product operates using the Vortex Sampling Method established with the original Vortex Storm Water Sampler design. A 2 ball valve assembly is at the core of this design. The upper ball is external to the system. It rests on the intake orifice, keeping the system sanitary until liquid causes this ball to float. As the ball floats, liquid enters the collection chamber at a rate that is governed by setting the intake adjusting screw. As the collection chamber fills, the lower ball floats closing off the intake flow by sealing the bottom of the orifice.



## SAMPLE REMOVAL AND TRANSFER

When the sample is caught, the Sampler is removed from the band bracket.

To transfer the sample to a laboratory bottle, place a length of acceptable tubing on the barbed tip of the center port valve. Turn the valve to its open position, place the tube in the bottom of the lab bottle and transfer the sample. Seal the lab bottles and contact your lab to have sample analyzed.



## SAMPLERS & ACCESSORIES

**SAMPLERS** - All stainless steel construction, polypropylene ball valves, nitrile ball valve gasket.

**FS3A** - .80 gallon/3 liter capacity Sampler

**FST3A** - "Teflon7 lined" .80 gallon/3 liter Sampler

**EXPANDING BAND ASSEMBLIES** - All stainless steel, fits into selected diameter pipes (manholes or outfalls) and holds the In-The-Pipe Sampler in position. These bands will mate with any of the Samplers listed below.

**FSX15** - Expanding band fits 12 to 15 inch diameter pipes

**FSX24** - Expanding band fits 18 to 24 inch diameter pipes

**FSX30** - Expanding band fits 24 to 30 inch diameter pipes

**BASE ASSEMBLIES** - All stainless steel construction, the following Base Assemblies, both wet weather and dry weather (dam-type), allow the Sampler to be installed into the Expanding Band Assembly.

**FSB3A** - Base Assembly, fits FSX15

**FSB3B** - Base Assembly, fits FSX24 and FSX30

**FSR15** - Dam Assembly, fits FSX15

**FSR24** - Dam Assembly, fits FSX24

**FSR30** - Dam Assembly, fits FSX30

*Compressed air required to inflate the dam*



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