

# Micro-Solve®

g r e a s e   a n d   o d o r   c o n t r o l

Commercial and Municipal Submittal

## Micro-Solve® Grease and Odor Control

Micro-Solve® is a liquid blend of uniquely formulated ingredients specifically engineered to soften hard grease and sludge in commercial and municipal wastewater systems. Micro-Solve is 100% biodegradable.

- Reduces SSO's, call-outs and odor complaints
- Prevents grease obstructions in pump and force main intakes, all valves, and the inner walls of collection lines
- Reduces the need for vacuuming and jetting
- Reduces the need for confined space entries
- Inhibits the formation of grease generated odor producing gases
- Reduces loading and run time of pumps and force mains lowering electricity costs
- Continues working downstream to solve grease related problems down the line
- Limits exposure of the workforce and community to health risks and safety hazards
- Requires only minor maintenance
- Saves operating costs



## Enhanced Bioremediation

Micro-Solve® is not a bacteria, enzyme, ferrous solution or quick-fix emulsifier. Micro-Solve® aids in phase oil separation, making hard grease loose and soluble, creating the ideal conditions for the natural bioremediation process. This releases bound oxygen and trapped micro-nutrients that are better able to be utilized by the microorganisms that already live in the system. Simultaneously, Micro-Solve® adds nutrients to stimulate the population of naturally occurring aerobic, anaerobic and facultative microorganisms. These microorganisms then actively consume and metabolize the solubilized grease and sludge along with the newly available micro-nutrients. Micro-Solve® dual mode action amplifies and accelerates the power of the natural bioremediation process to proactively eliminate build-ups of grease and sludge and stop them from re-solidifying down stream.

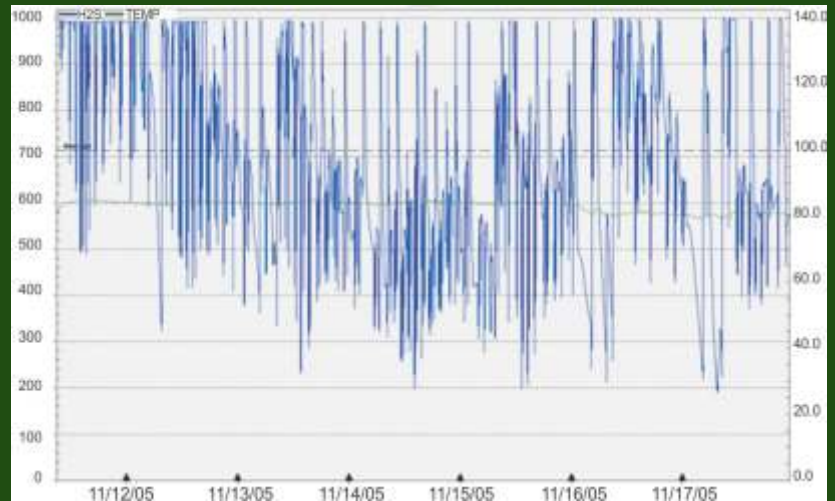
## Odor Reduction

Accumulations of caked grease and sludge generate problem gases such as Hydrogen Sulfide H<sub>2</sub>S which can cause corrosion damage, create safety hazards and generate odor complaints from the community. Using Micro-Solve® to effectively control grease and sludge will significantly lower levels of H<sub>2</sub>S.

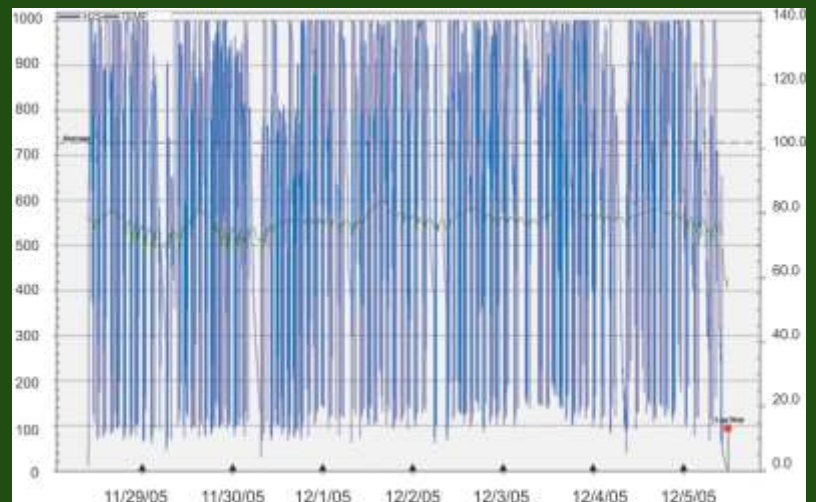
## Suggested Specification

The Micro-Solve® Grease and Odor Control system is recommended for use in commercial and municipal wastewater treatment systems, lift stations, collection systems, treatment plants, grease traps, septic tanks, digesters, clarifiers, hog farms, chicken ranches, meat processing plants, public hotels, school districts, convention centers, restaurants, and anywhere solids and grease accumulate. Micro-Solve® is highly effective in difficult “slow-flow” areas and will continue working from the point of application down the waste stream all the way through the treatment plant. Micro-Solve® is 100% biodegradable and WILL NOT RE-SOLIDIFY downstream. The result is reduced operating costs and cleaner water back into our environment.

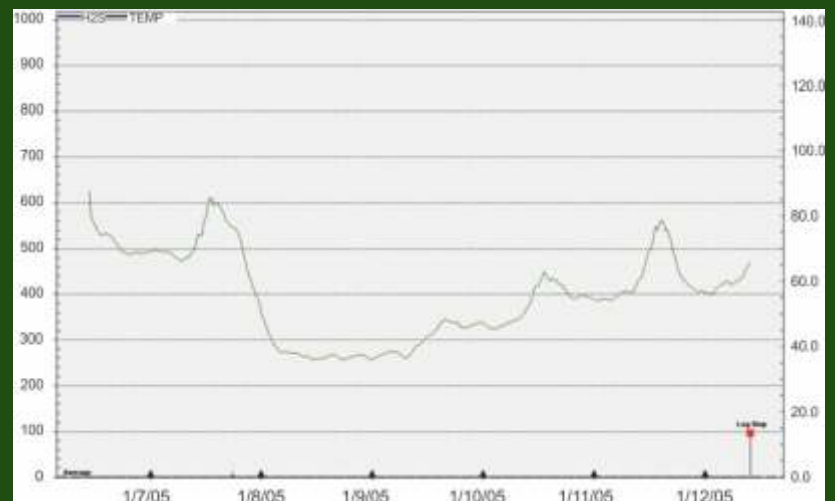
### BEFORE APPLICATION



### DAYS 17 - 21 WITH Micro-Solve®



### After Micro-Solve® with Odor-Solve Filter Unit.



# Micro-Solve®

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## Lift Station Application Technical Data Sheet

### Micro-Solve® Solution

A proactive grease and odor control system combining innovative application techniques with the power of a uniquely formulated solution. Micro-Solve® will solubilize and demulsify accumulating grease and sludge while simultaneously intensifying and accelerating the natural bioremediation process in wastewater lift stations.

### Micro-Solve® Grease and Odor Control System

The Micro-Solve® Grease and Odor Control System is composed of a 55 gallon drum of Micro-Solve® solution, a pump, a pump box and stem and an aerator/mixer. The system's programmable pump delivers Micro-Solve® from the drum to the wastewater in the lift station in doses timed and measured for optimum effect. For protection against moisture and inadvertent damage, the pump is mounted in the custom two piece pump box and stem. The pump stem is constructed of tubular steel and features an integral copper feed tube. Inserted into the drum of Micro-Solve®, the pump stem mounts securely in the large bung hole via a threaded collar fitting. The pump box has a steel body with a clear plexiglass access door and a tubular steel mounting post which fits into the pump stem. A separate steel dipstick for checking the level of Micro-Solve® in the drum is installed in the drum's small bung hole. EGSW's aerator/mixer consists of an air compressor unit connected by a 1/2" air hose to a aerator/mixer unit placed inside the lift station through the lift station doors and submerged in the wastewater.

### The Bubbler Aeration and Mixing Tool

EGSW's aerator/mixer aids in speeding up the dispersal of Micro-Solve® solution throughout the water column. Grease and solids, including disposable wipes, are kept in suspension to prevent the formation of large clumps. Most importantly, it provides the additional oxygen required by facultative and aerobic microorganisms for the effective bioremediation of grease and sludge. The addition of oxygen allows facultative microorganisms to switch from an anaerobic to aerobic mode and creates a larger habitable environment for the population.

### Installation Data

Except for the aerator/mixer, the Micro-Solve® Grease and Odor Control system equipment is mounted on the 55 gallon drum of Micro-Solve®. The drum has a circular footprint of 23" in diameter and should be situated on the lift station pad within a 25' radius of the lift station doors. The external air compressor has a circular footprint of 12" in diameter and is usually placed beside the 55 gallon drum of Micro-Solve®. The submersible or submerged aerator/mixer unit will fit through a 14" opening and has a circular footprint of 12". The pump uses 1/4" polyethylene tubing to transfer Micro-Solve® solution from the drum to the pump and then from the pump, through the lift station doors, to the well. The aerator/mixer uses a 1/2" EPDM air hose, inserted via the lift station doors, to supply air to the aerator/mixer which is submerged in the water column. Both the pump and the air compressor for the aerator/mixer are wired for 120V 60Hz operation and are equipped with NEMA 5/15 plug ends.

### Maintenance

A 55 gallon drum of Micro-Solve® will last from 1 to 4 months before needing to be replaced. The internal Viton tube in the pump should be replaced with a new Viton tube coated with the supplied grease every 6 months. The aerator/mixer compressor's seals should be replaced after every 2,000 hours of operation.

# Micro-Solve®

grease and odor control

## Component Information

### Micro-Solve® Solution

Micro-Solve® is liquid blend of uniquely formulated, 100% biodegradable, ingredients specifically engineered to solubilize and demulsify hard grease and sludge in commercial and municipal wastewater systems.

Shelf Life: 10 years when properly stored.  
Sealed and unopened.

Storage: Store in a cool, dry, well ventilated area away from heat, sparks and open flame.

Packaging: 5 gallon pails / 11 per case  
55 gallon drums / 4 per pallet

Approved for use by NFS & USDA

#### CAUTION

Protective gloves and safety glasses should be worn when handling Micro-Solve®. Micro-Solve® should be used only in a well ventilated area. If ventilation is inadequate, a properly fitted MSA or OSHA approved respirator should be worn. Wash hands thoroughly after handling and before eating, drinking or smoking. See Micro-Solve® MSDS.

#### LIMITATIONS

Micro-Solve® acts as an inherent part of a proven system and should only be applied using the methods and equipment recommended by EGSW. Micro-Solve® is a professional, industrial grade product and should only be used by personnel who have read and understand the Micro-Solve® MSDS. Contact EGSW for training information and instruction.

### Micro-Solve® Pump

The Viking Pro Scentnal high speed, automated pump is capable of delivering up to 17 ounces of Micro-Solve® per minute from the drum to the lift station and is equipped with a programmable timer and adjustable circuit board for dosing activations of up to 48 feeds in 24 hours. The Viking Pro Scentnal features an internal Viton tube for superior durability and an adjustable brass spray nozzle for even dispersal of Micro-Solve® to the treatment area.

#### SPECIFICATIONS

1.1 - 17 ounces (33 - 503 ml) per minute output

Spray Nozzle Orifice Size: 0.60"

Flow Rates @ 40 PSI DWP: "Stream" .33 GPM, "Cone" .20 GPM

Manual timer for up to 8 events per hour or 48 feeds per 24 hours

Power Requirements: 120 Volt 60 Hertz 1.5 AMPS

Fuse Replacement: 5 AMP AGC

Power Cord Plug End: 115 VAC wall plug

1 Year Warranty

## The Bubbler Airation and Mixing Tool

EGSW utilizes an aerator/mixer to speed up the dispersal of Micro-Solve® solution, prevent grease and solids from clumping and supply the oxygen required by aerobic and facultative microorganisms for the effective bioremediation of grease and sludge . The aerator consists of an air compressor connected by a 1/2" EPDM air feed hose to the submersible diffuser unit.

### SPECIFICATIONS

Diffuser Dimensions: 12" X 11" X 25"

Weight: 49 lbs

Materials of Construction: 316L stainless steel frame and hardware.

EPDM air hose.

Polypropylene air hose fittings.

Minimum Operating Depth: Requires 18 inches (0.46 m) of water to effectively circulate.

No damage when run dry in shallow water or drained condition.

Maximum Operating Depth: Maximum depth limited by air pressure available

Air Hose: 1/2" EPDM

Air Compressor Dimensions: 20" X 16" X 12"

Weight: 29 lbs.

Motor: 120VAC, Single Phase, 1/2 hp

Power Cord Plug End: 120V 60Hz with NEMA 5/15 plug end

Warranty: 2 years



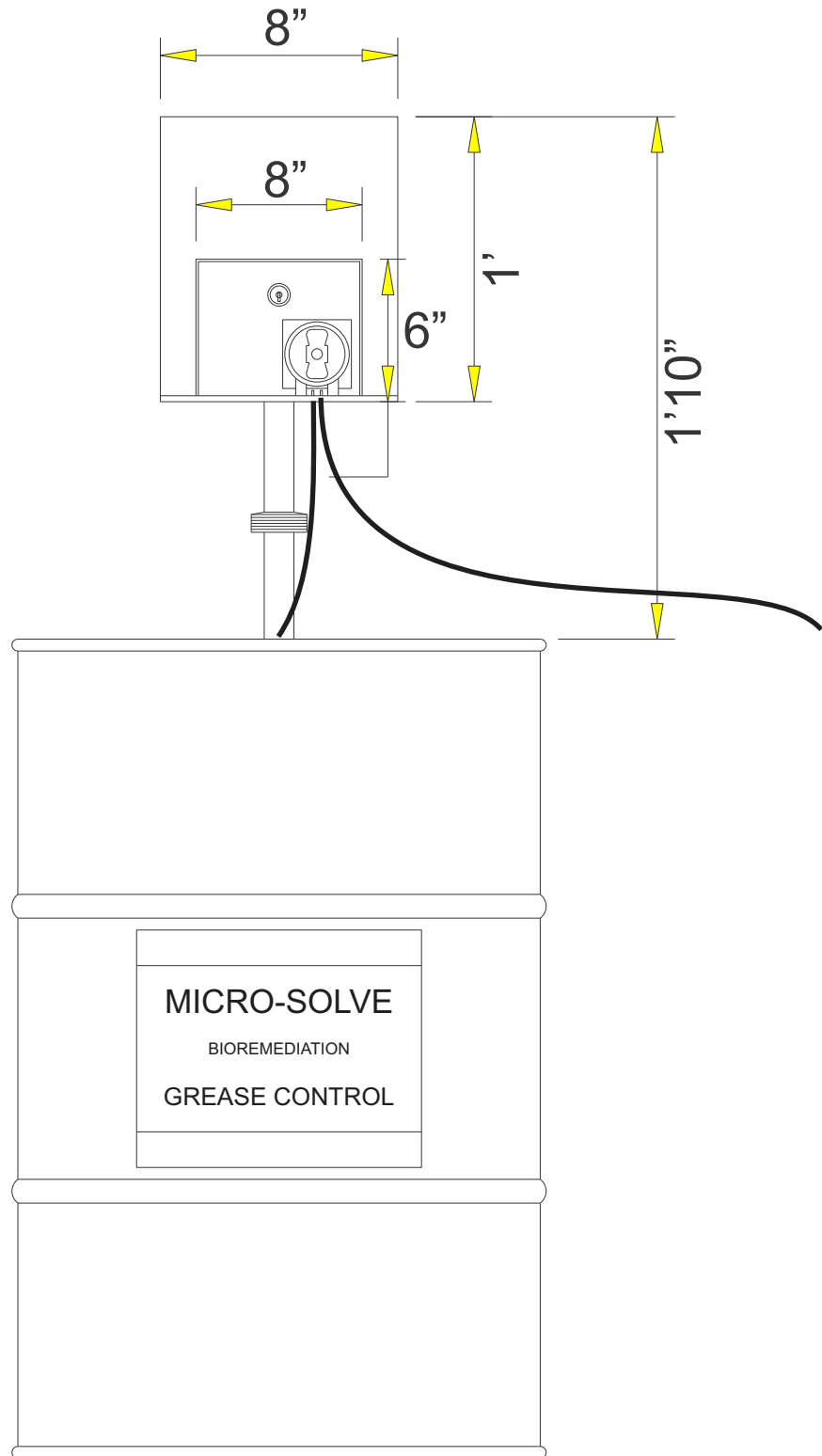
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512 775 5358

**BIO-TECH INDUSTRIES, INC.**

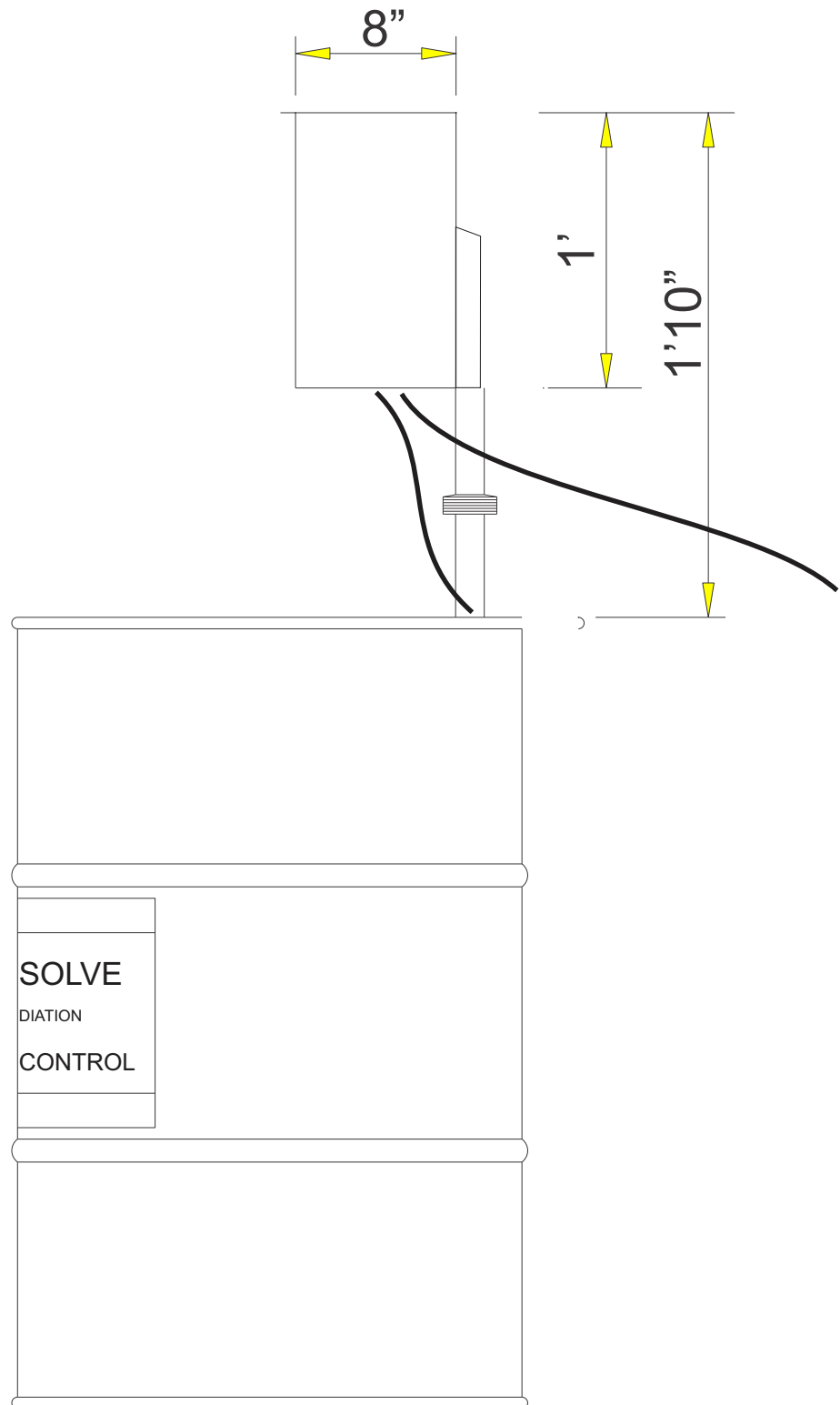
1027 Blanding Blvd Ste 606  
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# Micro-Solve® System



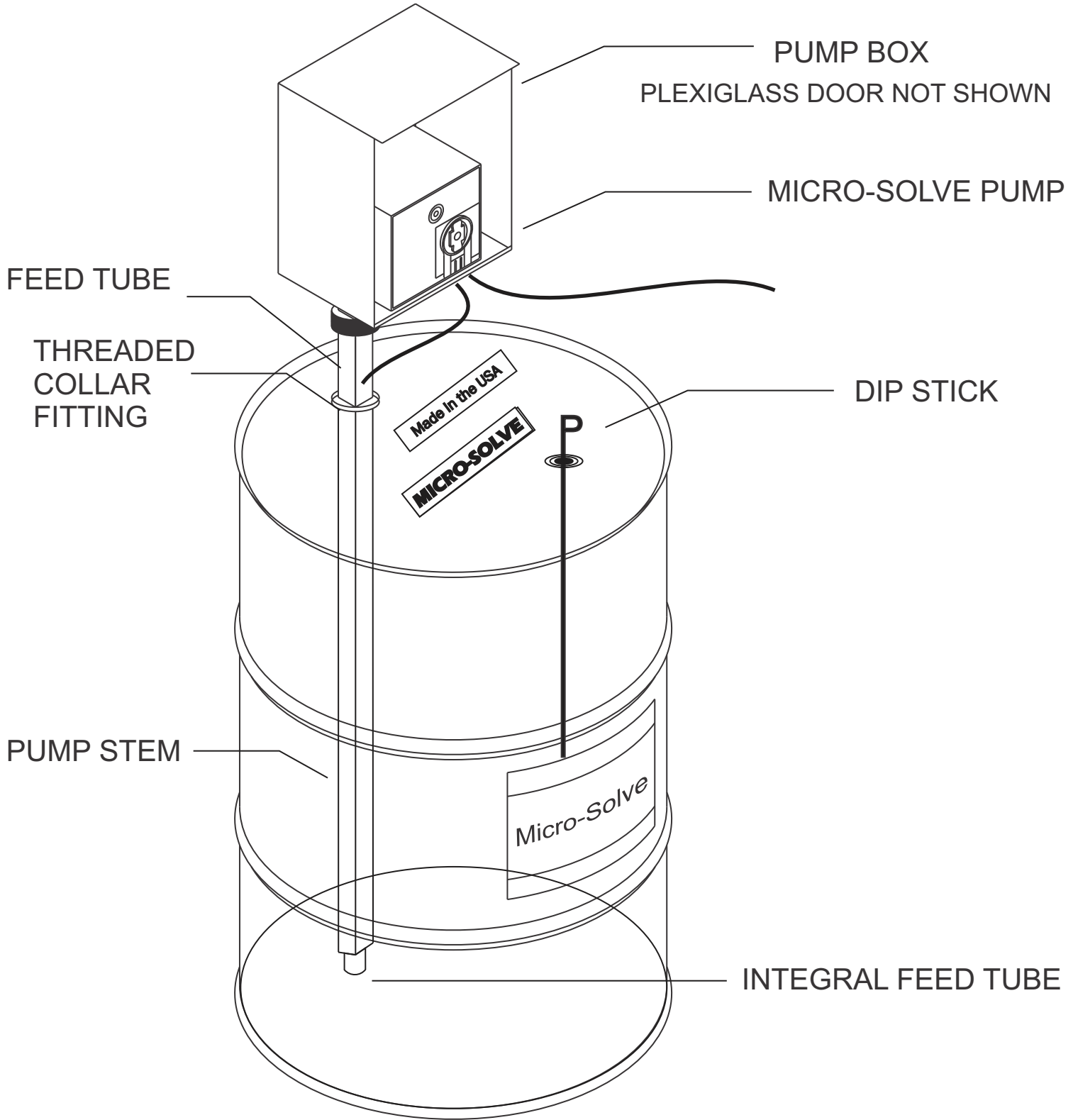
U Front View

# Micro-Solve<sup>®</sup> System



Side View

# Micro-Solve® System



ISO View