

# ***SSF-Stepp Street Flusher with Anti-Ice System***

# ***SPECIFICATIONS***



- Sizes available to 3500 Gallon.
- In cab controls for operator convenience.
- Various spray nozzles, duck bills to water cannons.

## **Stepp Manufacturing Co., Inc.**

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**TANK:**

To have a capacity of 2,000 gallons. Shall be oval in cross section. Constructed of 10 gauge steel. Heads to be flanged and reinforced, constructed of 10 gauge steel. Tank will be equipped with two (2) 10 gauge steel surge plates with a minimum 12" space between bottom of tank and surge plates, and 6" space between top of tank and surge plates. Tank will be electrically welded inside and out and a Non-Destructive Testing procedure is used to check for leaks. Tank to be coated with a epoxy type sealer to prevent rust. All welds will be performed in accordance with A.S.M.E. specifications. Tank will be equipped with a 20" full opening manhole with a 2 1/2" overflow/vent pipe, 2 1/2" anti-siphon hose and a hydrant fill with removable strainer mounted internal of the tank. Tank will be equipped with TAPERED sub frame to assure drainage to rear discharge valve. Tank shall include an anti-cavitations sump to allow pump to function with out the suction of air at low water levels. Tank to be mounted to truck with composite spacers and slip mounts to allow for movement between tank and truck frame without damaging tank.

**HYDRAULIC:**

To be powered by a load sensing Piston Pump, to provide constant water flow regardless of truck speed, driven off of a transmission mounted PTO. Pump will drive a fixed displacement gear motor. Having variable speed control for setting product pump speed . Thirty gallon reservoir, all necessary hoses, strainers, filters, overload protection, fittings and temperature gauge shall be included.

**PUMP:**

Pump shall be Goulds pump, size 4" x 6" split case with 13" impeller, capacity of 750 gallons per minute at 50 PSI at 1000 RPM and 80 PSI at 175 RPM.

**PIPING:**

All plumbing shall be done in wrought steel with flexible connections to and from pump manifold. All lines shall be designed to be self draining. No valves required for winterizing. Unit shall be equipped with four (4) duckbill style nozzles, rated at 150 GPM ea. Nozzles will be adjustable for horizontal and vertical movement, two (2) to be located in front of vehicle ahead of steering wheels, and two (2) on the side of tank ahead of drive wheel. Unit shall also include a 6" air operated dump valve.

**CONTROLS AND INSTRUMENTS:**

Unit will have controls mounted inside cab. It will include manifold pressure gauge, pump speed control, and control switches to operate individual water functions. A digital level gauge with hi/low alarm will also be included in the control panel.

**HOSE REEL:** Unit shall include an electric rewind hose reel with 50' of 1" hose with adjustable nozzle.

**PAINT:**

All exterior parts to be primed and painted two (2) coats of 2-part polyurethane white paint.

**MANUALS:**

Two (2) sets of manuals will be issued with each unit. Additional manuals upon request.

**WARRANTY:**

One (1) year on parts and workmanship, component parts manufacturers warranty prevails. The tank shall have a five year warranty from leakage due to cracking from normal use.

All components as specified or equal.

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# *Stepp's Street Flusher* Optional Features

**Water Cannon** - An Elkhart Sidewinder water monitor shall be added to the unit as optional equipment. It shall include a joystick controller to operate the cannon in the up/down, and the left /right position. The joy stick also controls the spray pattern of the nozzle from a fog spray to a stream. Cannon shall be bumper mounted with crash guard.

**Hook Frame Mount-** Tank can be mounted to an A-Frame style hook for use with a swap-loader truck. This includes all necessary hydraulic quick couplers and electrical quick connects to run pumping system. Additional swing-away nozzles and quick disconnect nozzles are available on request. Appropriate for properly sized engineered tanks.

**Trailer Mounted-** All tanks ranging from 500 gallons to 6000 gallons may be trailer mounted upon request. Trailer specification available per unit size on request.

**Tank Sizes-** Tank sizes available from 2000-6000 gallons. Truck mounted unit will be manufactured in according to all state and federal DOT regulations.

**Work Light-**Optional Halogen style flood lamps for filling and spraying under low light conditions.

**Strobe Light-**Optional Strobe lights, work lights and arrow boards mounted at rear, are available upon request.

**Whelen Super LED Light System:** LED light system with 700 series lights to give you high visibility rear lights. Includes rear amber strobe, stop, tail ,turn, backup light and 2 mirror mounted strobes.

**Arrow board:** Optional Arrow board mounted at the rear or top, with left and right arrow flashing along with a hazard flashing mode.

**Garden Hose Adapter:** Tank outlet with valve that allows attaching a water hose for watering purposes.

**Loading Hose:** Tank to be equipped with 2½"x 15' diameter loading hose and a 2½" diameter side loading valve located on curb side of tank.



# *Stepp's Street Flusher* **Optional Features**

**Stainless Steel Tank:** Substitute 304 stainless steel tank material.

**Stainless Steel Plumbing:** Substitute 304 stainless steel plumbing material.

**Additional Spray nozzle:** Adding an additional spray nozzle at a customer specified location at time of ordering.

**Duckbill spray nozzle:** Replacement spray nozzle.

**Sprinkler Can:** Sprinkler can used for dust control mounts in existing plumbing.

**Sprinkler Bar:** Rear mounted ,pressurized spray bar, controlled from the control panel.

**Digital Level Gauge:** Additional digital display. Customer specified location.

**Front Equipment Fill:** Front mounted tank fill with cam lock.

**Aluminum Fenders:** Aluminum diamond plate fenders. Substitute for steel fenders. Std on Stainless steel tanks

**Pro-Tech Tool Box:** Side mounted storage tool box.

**Pro-Tech Stainless Steel Toolbox:** Side mounted stainless steel storage tool box.

**Heated Stainless Steel Cabinet:** Heated stainless steel cabinet engine/plumbing enclosure to prevent pump freezing. Heat provided from chassis engine.

## **Engine Driven Pump:**

Water pump will be driven by a John Deer Diesel engine, 80 HP at 2500 RPM. Mechanical governor, fuel pump, full flow spin on oil filter, industrial fuel filter, 12 volt starter, alternator, muffler, air cleaner with rain cover, amp gauge, temperature gauge, oil gauge, engine rack, start/stop switch, located on inside of cab, connecting to pump by a direct connect housing. Pump shall be Goulds pump, size 4" x 6" split case with 13" impeller, capacity of 750 gallons per minute at 50 PSI at 1780 RPM.



FRONT SPRAY WITH FRONT MOUNTED DUCK NOZZLE



HOSE REEL WITH HOSE AND OPTIONAL SPRAY NOZZLE



# *Stepp's Street Flusher* **Anti Ice Options**

**Anti-icing Package:** Multi purpose water/anti-ice tank system. With all of the water truck optional equipment and the addition of the anti-ice system you have a 4 season tanker. With Stepp's anti freeze water pump system with heated plumbing and heated optional cabinet you can use the truck for many needs throughout the year. Sizes from 2000-3500 gallons.

Street Flushing  
Anti-Ice Application  
Ice rink flooding/maintenance  
Watering applications  
Many cleaning options with the optional water cannon  
Utilities- manhole flushing catch basin flushing  
Street sweeping support  
Herbicide application  
Dust control and Dust control product application

**Stainless Steel Tank:** Substitute 316L stainless steel tank material specifically for salt brine and herbicides.

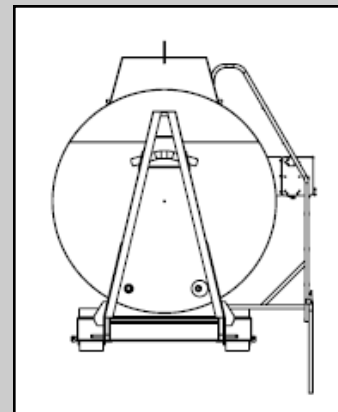
**Stainless Steel Plumbing:** Substitute 316 stainless steel plumbing material.

**Hook Mounted:** Designed to operated and fit most any brand of hook lift system on the market. Anti-ice operations as well as street flusher applications. Available in 2000, 2500, and 3000 gallon options. Other size configurations available upon request. A perfect way to utilize your current fleet of trucks. Includes hydraulic drive 750 gpm pumping and 150 gpm anti-ice system with controller and 3 lane spray bar.

**Slip In Configuration:** Designed to Slip in to you current dump style truck and utilize your existing fleet. Hard sided stainless steel tank available in 1000-3000 gallon sizes. Custom sizes available upon request. The slip in style system includes a set of folding front legs with a fixed, adjustable height rear leg system to load and unload with out the need of any other equipment.



**TRUCK MOUNTED ANTI-ICE 3 LANE SYSTEM**



**Hook Mounted**



# Stepp's Street Flusher *Anti Ice Options*

**Anti-icing Package:** An additional pumping package that operates independently of the street flusher pumping system with the exception of the hydraulic load sensing pump. Will include a stainless steel centrifugal force pump, flow meter, lane actuators, GPS speed sensor (does not require transmission input) stainless steel spray bars with up to 3 lane coverage and a Varitech 5100e controller.

The Varitech 5100e controller offers a compact, rugged design, intuitive navigation and comfort.

It includes:

Ergonomic design for comfortable operation

Right-hand location of controls offer an unobstructed view of the LCD screen

Compact design (5.1"H x 7.2"W x 2.5"D) avoids overcrowding the cab with hardware

Built-in USB port for data retrieval and firmware upgrades.

Bright, bold color LCD touchscreen for calibration and configuration options.

Protective casing surround control knobs to prevent unintentional use and damage to the knobs.

Fully adjustable mounting option for easy, customizable installation.

Backlit rocker switches for easy viewing at all times.

Tactically placed interlock system to ensure safe use of critical functions.

## **Optional Varitech SSC6100 controller:**

The 6100 Control System is the industry-leading integrated CAN Bus joystick and spreader controller. The premier closed-loop spreader controller comes equipped with an intuitive user interface, full 7" color LCD and rugged system components.

High Resolution 7" Color LCD Screen • Displays information-rich graphical representations for a clear view of snow and ice operation

CAN Bus Central Processing

Slim design provides centralized connections to AVL devices, USB fobs and other in-cab peripherals

Connectivity • Ability to plug-and-play with a single connector system to 12 VDC spreader body and trailer system

Mounting Options • Customize configuration to meet your needs with single-stick control or multi joystick options

AVL/GPS Integration • Deeply integrates with the PreCise® MRM solution for accurate reporting on route, location, material application, accessory details and more

## **Mounting Options:**

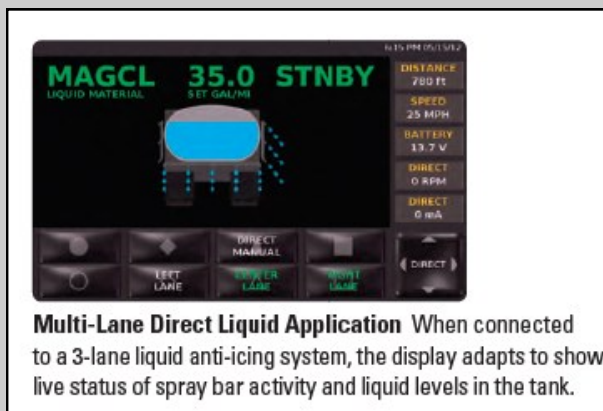
Standard mounting options include dash mounted, control box mounted or optional armrest mount.



**VARITECH 5100E CONTROLLER**



**VARITECH SSC6100 CONTROLLER**



**Multi-Lane Direct Liquid Application** When connected to a 3-lane liquid anti-icing system, the display adapts to show live status of spray bar activity and liquid levels in the tank.

# Stepp's Street Flusher *Anti Ice Options*



## Optional PreCise IX-403-H Mobile Resource Management:

The IX-403-H series GPS device is a rugged, full-featured mobile resource management solution that encompasses the latest in technology to deliver critical vehicle data to fleet managers. Combining a GPS receiver and a 3G cellular radio communicating on the largest, most pervasive network in the world, you will always know where your mobile assets are and how they are performing.

Whether you're a municipality with a winter maintenance fleet looking to integrate GPS with FORCE America spreader controllers or a service company looking to outfit your mobile mechanics' trucks for dispatching, PreCise MRM can help you maximize your resources and minimize costs.

### Features

- 3G GPRS/EDGE/UMTS/HSDPA and WiFi Wireless Connectivity
- Ruggedized Design - Water resistant - Operating temperature -30°C to +85°C - Shock 25 g
- 16 MB onboard flash memory
- Modular Connectivity - Six inputs (digital/analog, with selectable pull-up) - Two outputs (open-drain, >0.5A capable) - 10/100-BaseTX ethernet port - Embedded host USB port - 2 J1939 ports / 1 J1708 port\* - OBDII options (\*eliminates J1939 and J1708 ports when installed) - 2 RS-232 ports (spreader controller interface, diagnostic, auxiliary)
- Simplified installation with flexible in-vehicle mounting options• Web-based device management• Configurable exception-based alerts
- Over-the-air unit configuration and firmware download• Voltage monitoring and low battery notification



VARITECH SSC6100 CONTROLLER WITH PRECISE



PreCise® Mobile Resource Management

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