

# ASSEMBLY INSTRUCTIONS

## STATIC PROTECTION KIT / CONDUCTIVE HOSE



**WARNING: PUMPING OR MIXING FLAMMABLE LIQUIDS CAN CREATE STATIC ELECTRICITY, WHICH CAN CAUSE EXPLOSION AND FIRE RESULTING IN INJURY OR DEATH. ALL CONTAINERS MUST BE METAL AND GROUNDED.**

<b>Part No.</b>	<b>Applicable Model</b>
A100835, A100838	TTS, STTS, TBS, PFS, SFS, SFS-H
A100836	BTS, HVDP
A101521, A101521-1	TTS, STTS, TBS, PFS, SFS, SFS-H
A100961	TMS Mixer
107429	EFS

### GROUND WIRE ASSEMBLY ATTACHMENT TO MOTORS

#### Motor Type: Electric Explosion Proof

Unscrew the #10-32 plated nut that is installed on the exposed screw extending from the motor housings (Do not remove the standard hex nut from this screw). Attach #10 ring terminal from the end of the ground wire assembly to exposed machine screw using the wing nut and #10 lock washer. Contact Finish Thompson Inc. if a replacement #10-32 wing nut is needed.

#### Motor Type: Air

Remove one of the Allen head set screws from the motor mount. Slide 1/4-20 x 1-1/4" round head machine screw through 1/4" ring terminal on ground wire assembly (the 1/4" ring terminal is the 2<sup>nd</sup> terminal from the end of the wire assembly). Thread 1/4-20 plated nut onto screw. Insert screw into hole on motor mount and tighten (do not over tighten). Using a 7/16" wrench, tighten 1/4-20 nut against the ring terminal.

### ASSEMBLY FOR PUMPS

**Step 1** - Place stainless steel hose clamp on end of hose and slide hose over pump discharge spout. Tighten hose clamp.

**Step 2** - Attach ground wire assembly to motor using the appropriate instructions found on the left half of this page.

**Step 3** - Unscrew and remove the #8-32 x 1/4" brass screw and #8 brass lock washer from the pump and attach the remaining #8 ring terminal from the ground wire assembly (3<sup>rd</sup> terminal from the end of the ground wire assembly) using the brass screw and lock washer. Contact Finish Thompson Inc. if replacement screw and washer are needed.

**Step 4** - Attach ground wire assembly to the hose using the #8 ring terminal (4th terminal from the end of the wire assembly) and the supplied #8-32 x 1/4" brass screw and #8 brass lock washer.

Note: This step is not required for conductive hose.

**Step 5** - Check electrical continuity between all components of the ground wire assembly. Ensure there is electrical continuity between the ground clamp and and the motor connection, the ground clamp and the hose connection, and the ground clamp and the pump connection. The resistance must be one (1) ohm or less. If it is greater than one ohm, recheck all connections.

### ASSEMBLY FOR MIXERS

**Step 1** - Attach ground wire assembly to motor using the appropriate instructions found on the left half of this page.

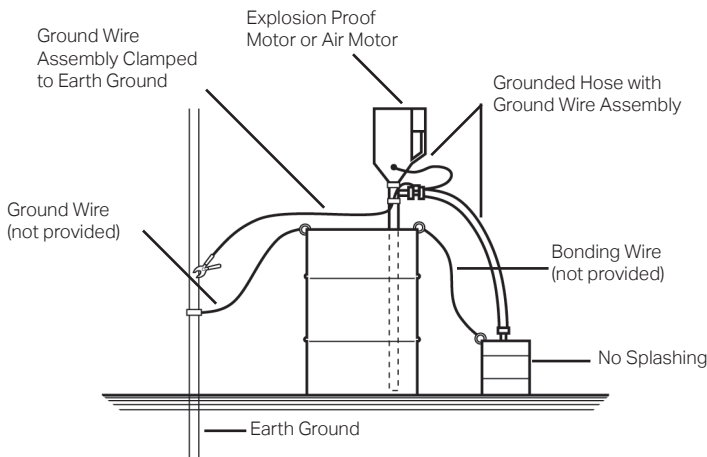
**Step 2** - Unscrew and remove the #8-32 x 1/4" brass screw and #8 brass lock washer from the mixer tube and attach the #8 ring terminal from the ground wire assembly using the screw and lock washer. Contact Finish Thompson Inc. if replacement screw and washer are needed.

**Step 3** - Check electrical continuity between all components of the ground wire assembly. Ensure there is electrical continuity between the ground clamp and and the motor connection and the ground clamp and the mixer connection. The resistance must be one (1) ohm or less.

## DRUM PUMP INSTALLATION

1. Install the pump and Static Protection Kit as described and shown.
2. Connect ground wire assembly to earth ground using supplied clamp.
3. Connect ground wire between drum and earth ground.
4. Connect ground wire between receiving container and earth ground (or use bonding wire to connect to drum).

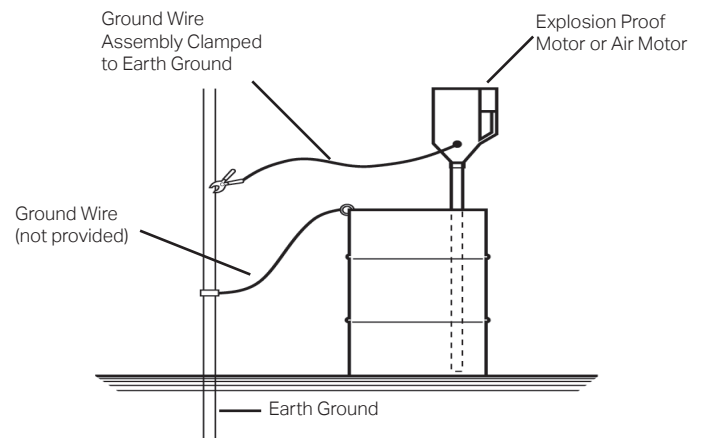
**⚠ CAUTION - Check electrical continuity between all components before pumping. All should be one (1) ohm or less.**



## TUBE MIXER INSTALLATION

1. Install the mixer and Static Protection Kit as described and shown.
2. Connect ground wire assembly to earth ground using supplied clamp.
3. Connect ground wire between drum and earth ground.

**⚠ CAUTION - Check electrical continuity between all components before mixing. All should be one (1) ohm or less.**



## OPERATION AND SAFETY PROCEDURES

- Use only explosion proof electric or non-electric air motors on stainless steel tubes with static protection kit to transfer flammable or combustible liquids.
  - Area for use must comply with NFPA 30 guidelines for safe storage and use of flammable and combustible liquids.
  - All containers and other equipment must be metal and grounded.
- ⚠ Static sparking can cause an explosion. Always follow NFPA 77 and CLC/TR 60079-21-1 guidelines for control of static electricity and proper grounding methods when using ATEX and Hazardous Location motor models. When operating in a hazardous area or pumping a hazardous fluid, the motor and entire pump system must be grounded to prevent static discharge using a Static Protection Kit or conductive hose.**



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