



UPC-MARATHON

# METHANOL SPARGER

## User Manual



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## **TECHNICAL ASSISTANCE**

For all questions or concerns regarding the operation of the **Methanol Sparger**, please consult the last page of this manual for contact information.



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# 1. INSTALLATION

## 3.1 Sparger Location

The Sparger should be installed vertically in the roof of the furnace, with the nozzle just below the refractory and above the fan. Prior to installation, the furnace must have a 1-1/4" NPT mounting flange.



**CAUTION:** If the sparger is located within the vicinity of a carbon probe, ensure that the sparger is located far enough away to prevent methanol droplets from coming into contact with the probe. Failure to do so may result in damage to the probe.

## 3.2 Sparger Installation

Start by loose fitting all 1-1/4" pipes and fittings. Then insert the sparger and screw loosely into place.

Observing inside the furnace where the sparger protrudes through, determine how much more or less the sparger needs to stick into the furnace. Varying the 1-1/4" pipe nipple lengths will allow for length adjustments of the protruding nozzle.

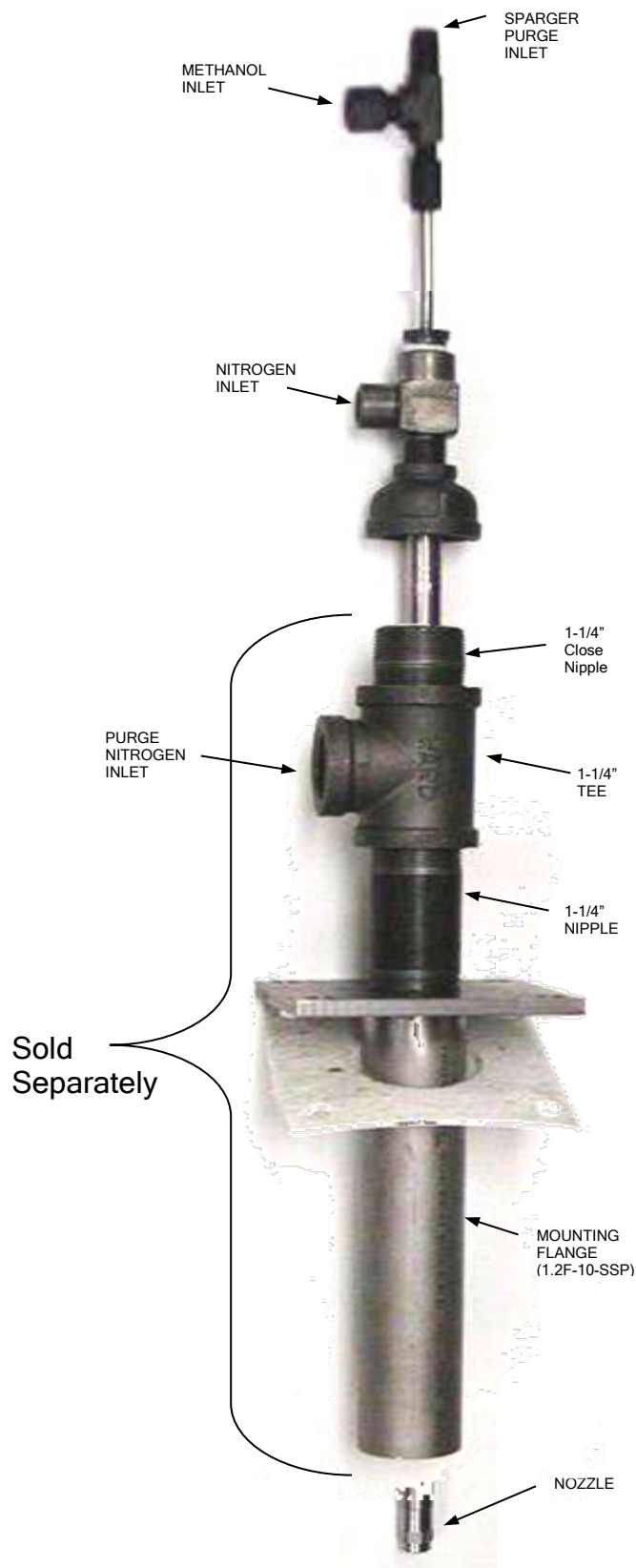
Once the proper length is determined, apply pipe sealer to the threads of all components and tighten into place.

Make supply connections as shown in the adjacent diagram.

Check all connections for leaks.



*The 1/4" tee in the Methanol line is only included when the optional Sparger Purge is ordered.*





## 2. OPTIONAL SPARGER PURGE INSTALLATION

### 4.1 Solenoid Valve Installation

The *Sparger Purge Solenoid Valve* should be located near the gas mixing panel that is servicing the furnace where the sparger is installed on.

Connect the inlet of the solenoid valve to a constant source of Nitrogen.

Plumb a 1/4" copper or stainless steel tube (Not Included) between the outlet of the (N.O.) solenoid and the *Sparger Purge Inlet* as shown in the previous page.

### 4.2 Wiring Solenoid Valve

The *Sparger Purge Solenoid Valve* requires a source of 24VDC that is energized when the methanol is flowing and "OFF" when the methanol is not flowing.



**CAUTION:** To reduce the risk of electrical shock and also to prevent damage to the Sparger Solenoid Valve and equipment, it is advised to turn off the supply power to the control equipment before connecting or disconnecting any wires.



**WARNING:** Any electrical or mechanical modification to this equipment without prior written consent of UPC-Marathon will void all warranties and may result in hazardous safety conditions.

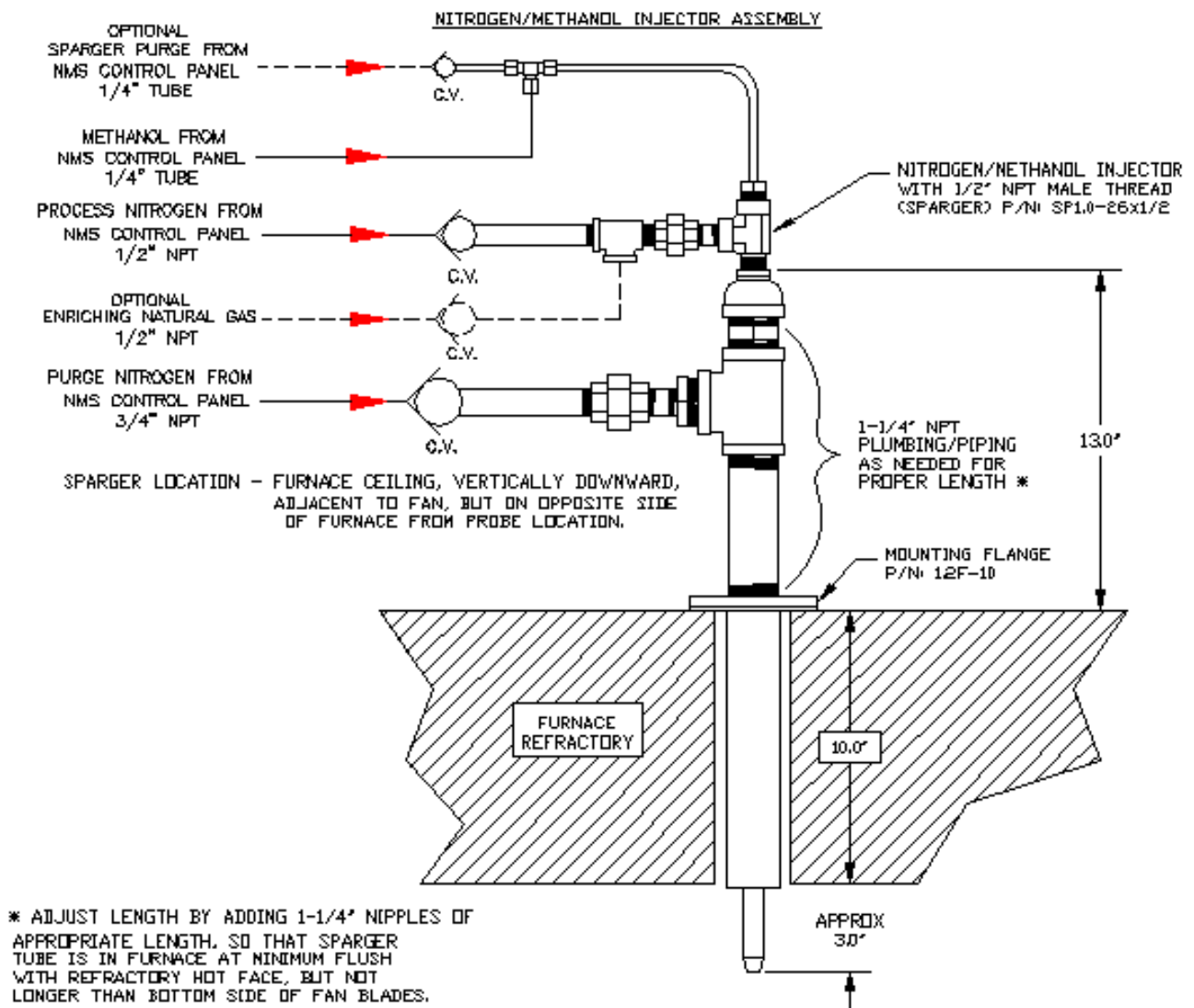
## 3. MAINTENANCE

The Methanol Sparger is designed to provide trouble free operation. In the event of extended absence of methanol flow, the sparger nozzle may become congested with soot and require cleaning. This is especially true if the sparger is not equipped with a Sparger Purge Valve.

To restore the methanol flow, removal of the nozzle is necessary. Once the nozzle is removed, it can be further taken apart; however, extreme care must be taken not to lose the flow diverter located inside the nozzle. Once disassembled, any degreaser can be used to clean the nozzle and its components.



## 4. PLUMBING DIAGRAM





## 5. SPARE PARTS LIST

### Nozzle Only

Description	UPC Part No.
1 Gallon Sparger Nozzle	SP-1G
2 Gallon Sparger Nozzle	SP-2G
3 Gallon Sparger Nozzle	SP3-G
5 Gallon Sparger Nozzle	SP-5G

### Sparger Complete w/ Nozzle

Description	UPC Part No.
Methanol Sparger Tube - 1 GPH	SP 1.0-26-1G
Methanol Sparger Tube - 2 GPH	SP 1.0-26-2G
Methanol Sparger Tube - 3 GPH	SP 1.0-26-3G
Methanol Sparger Tube - 5 GPH	SP 1.0-26-5G

### Sparger Purge Solenoid Valve

Description	UPC Part No.
1/4" N.O. Solenoid Valve	1-3464



## 6. CUSTOMER SUPPORT

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