<b>FurnacePros</b>
DIVISION OF LOCHABER CORNWALL, INC.

Technical Note

# Sample Ports

DOC NBR: TEC-710

APRVD: JMC 18 MAR 14

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### 1.0 SCOPE

1.1 Instructions for using furnace sample ports.

## 2.0 EQUIPMENT REQUIRED

- 2.1 <sup>1</sup>/<sub>4</sub>-inch sample tubing, stainless steel or teflon.
- 2.2 Gas Analyzer, O2, Moisture or other.
- 2.3 9/16-inch open-end wrench.

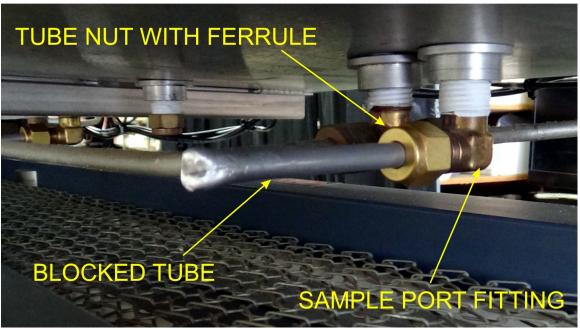


Figure 1. Sample Port and Fittings

### 3.0 FURNACE

- 3.1 Disconnect power from the furnace
- 3.2 Remove furnace side panel close to furnace entrance.
- 3.3 Under the furnace chamber, locate the sample port fitting for the chamber zone that is to be sampled.

### 4.0 EQUIPMENT CONNECTIONS

- 4.1 Using a open-end wrench, loosen the Tube Nut and remove Blocked Tube.
- 4.2 Slide Tube Nut and Ferrule from Blocked Tube. Retain Blocked Tube for reinstallation later.
- 4.3 Install Tube Nut and Ferrule over new sample line tubing.
- 4.4 Gently tighten nut back in place on Sample Port Fitting. DO NOT OVERTIGHTEN.
- 4.5 Connect other end of sample line tubing to sample pump suction or Analyzer IN.

#### 5.0 SAMPLING

- 5.1 Start sample pump and/or analyzer.
- 5.2 Allow adequate time for sample line to dry and sample to saturate tubing walls.

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## 6.0 MOVE OR DISCONNECTING THE SAMPLING SYSTEM

- 6.1 To change sample ports, loosen Tube Nut and disconnect sample line and reattach at another port. Make sure all unused ports are closed or blocked.
- 6.2 When the analyzer or sample pump is to be disconnected, close off the sample line using a valve or replace sample line with Blocked Tube using Tube Nut and Ferrule.