

**Maxum II Modular Oven Needle Valve**  
**Product Update**  
PU-001

**Revision History**

Issue	Date	Reason
001	11/12/2015	Initial Issue

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## 1.0 Description

This document describes the new options and mounting locations for needle valves in the Maxum Modular Oven.

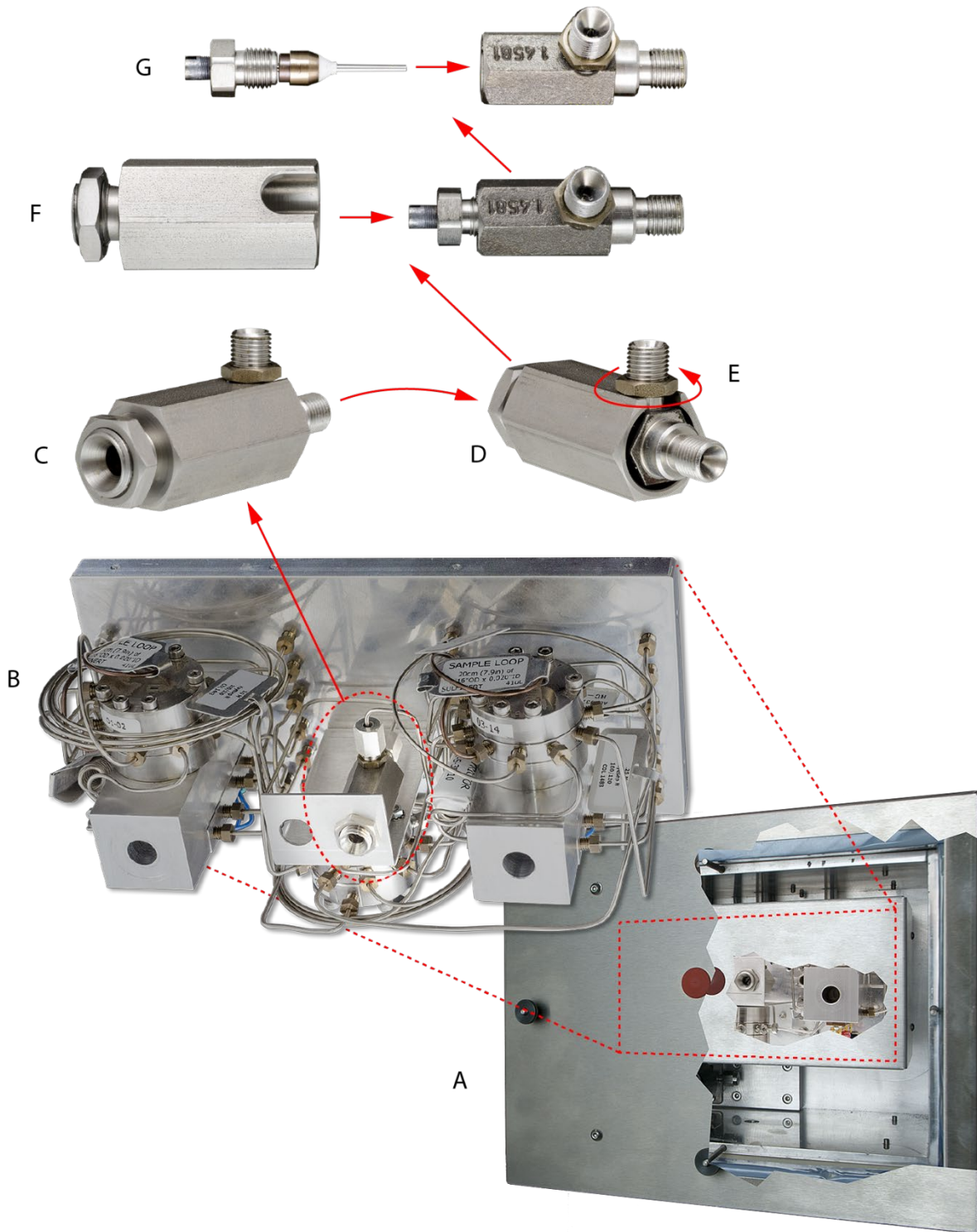
### 1.1 Needle Valve Overview

Needle valves are found in many applications of the Maxum II Gas Chromatograph. One advantage of this practice is to shorten the required cycle time for analysis. Previously, needle valves could only be used with Maxum II Airbath or Airless ovens. The modification described in this document enables many new applications to be included a Maxum II Modular Oven. The Modular Oven can now be used in a Continuous Emissions Monitoring System (CEMS).

### 1.2 Location

- Inside the Modular Oven Compartment, the door mounts with 4 thumb nuts. (A in Figure 1). The application module cover has two access holes for the needle-valve adjustment ports.
- The dual-detector module can have up to 3 Model 50 valves and 2 needle valves. (B in Figure 1). The needle valves are mounted on a bracket between the two detectors, along with a third Model 50 valve.
- Each needle valve is in a housing held onto the bracket by a single nut that surrounds the adjustment port. (C in Figure 1).
- The needle valve can be removed from the housing by loosening the nut on the radial port and sliding the valve body out. (E and F in Figure 1).
- The adjustment needle can be removed by unscrewing the nut. (G in Figure 1).

# SIEMENS

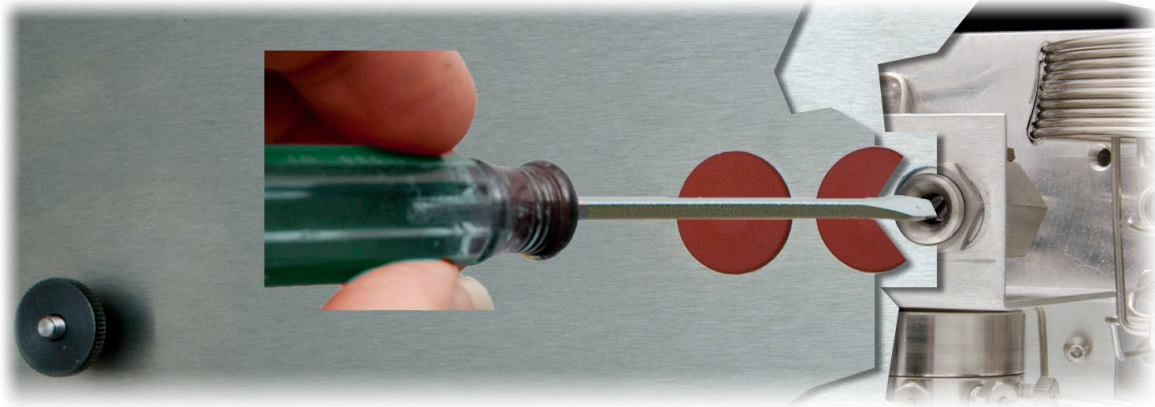


**Figure 1. Needle Valve Location and Components**

# SIEMENS

## 1.3 Service Access

The needle valve can be adjusted without removing the oven door. The rubber plugs in the door have slits to allow a screwdriver to be inserted through to the adjustment port.



**Figure 2. Adjusting the Needle Valve**

## 2.0 Custom Application Drawing Package

The Custom Drawing Package delivered with the equipment shows what parts were installed by the factory. If no replacements have been made from installation, then the Custom Drawing Package will provide the user with the part numbers of the items in the unit. If changes have been made, this may still provide information on the type of parts that are currently installed.

Included with your analyzer is a custom application drawing package that provides drawings and information pertinent only to your analyzer. Because the drawing package has specific information concerning the specific Maxum II, you should have this package readily available during installation.

Typical documents included in this package may include:

- System Block and Utility Requirements
- System Outline and Dimensional Drawings
- Sampling System – Plumbing and Spare Parts List
- Sampling System Dimensional Diagram
- Sampling Probe
- Electronic Controller – Internal Layout
- Applicable Wiring Diagrams
- Oven Plumbing Diagram – Sensor Near Electronics
- Recommended Spare Parts - Analyzer
- Manufacturing Test Charts
- Stream Composition Data
- Data Base Information Files