



Agilent Microplate Seal Piercer

Data Sheet



Applications

1. Screening
2. Applications that do not require tip washing between microplates

Introduction

The Agilent Microplate Seal Piercer is a low cost automated microplate piercing station ideal for screening and compatible with a variety of seals and pin plates. As a complementary instrument to the Agilent PlateLoc Thermal Microplate Sealer, the Microplate Seal Piercer pierces a wide variety of seals on 96- or 384-well microplates in only four seconds of cycle time. Specially designed piercing pins guarantee a clean, controlled puncture on every microplate with a penetration depth of ≤ 4.5 mm, even with deep well microplates. Use station either as a stand-alone unit, or integrate into a robotic system through the ActiveX control and RS-232 serial port connection. Indicator lights on the machine alert the operator of the machine status (ready, busy, stop, low air pressure), and a microplate alignment sensor ensures that the microplate is correctly positioned in the microplate locator before actuation. A hardware interlock on the front door provides maximum safety to the operator. The piercing head is easily removed for cleaning. Reconfiguration between formats is accomplished in seconds by changing the pierce head.



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Features & Benefits

- **User Interface:** Push-button operation for stand-alone applications or automated operation via host PC.
- **Piercing Head:** Interchangeable 96- or 384-pin heads available with a variety of pin-plate designs (round and square pins).
- **Plate Accessibility:** Hand loading via operator for manual operation or articulated-arm robot able to fully access plate stage for higher throughput applications.

Additional Information

(Download a PDF copy of the *Pin Plate Selection Guide* found in the Agilent SealPiercing Station product section of the website.)

Pin Plates: 96- and 384-well compatible piercing heads available

Operating Modes

Manual or automated microplate piercing using articulated arm robots

Labware Compatibility: All ANSI-compliant microplates in 96- and 384-well formats

Compatible Seals: Pierceable Aluminum (06644-001), Clear Pierceable Thin Seal (17318-001). Details and specifications for Agilent heat seal can be found in the Agilent PlateLoc Thermal Microplate Sealer Consumables Selection Guide, Agilent publication 5990-3659EN (located in the PlateLoc product section of the Agilent website).

Specifications

Electrical: 110–240 VAC, 50-60 Hz, Operating AC Current 0.5A/120V or 3A/240V (typical) Inrush Current 20A/120V or 40A/240V (typical)

Operating Temperature: 4–40 °C

Controller: Agilent VWorks Automation Control software, ActiveX control

Interface: RS-232 serial port with DB9 connector

Certification: CE certified and built to meet UL standards

Cycle Time: 4 seconds

Piercing Force: 1000 pounds per plate

Penetration Depth: Please see *Pin Plates* table below

Dimensions

Height: 36 cm [14 in]
Width: 20 cm [8 in]
Depth: 34 cm [13.5 in]
Weight: 19 kg [42 lbs]

Part No.	Description
G5403A	Agilent PlatePierce

Pin Plates

Part #	Pin Description	Pierce Size	Depth	Typical Application	# of Pierces
08541.001	96-well	4.8 mm diameter	4.5 mm	96-well plate types	5
02349.002	384-well round	2 mm diameter	2.1 mm	Single use storage tubes, round wellled 384-well microplates	2
18331.001	384-well square	2.7 mm per side	2.1 mm	Squared-welled 384-well small microplates	3

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