

# Biotage® SPE Dry 96

## Sample Concentrator System

Biotage® SPE Dry 96 and SPE Dry 96 Dual Sample Concentrators are suitable for evaporation of microplate samples across a broad range of formats. By delivering heated gas above and below each well, SPE Dry 96 systems dry samples quickly maintaining tight temperature control at user selected settings. Designed for high throughput sample processing, SPE Dry systems have simple front panel controls and use removable gas delivery assemblies for fast adjusting and cleaning.

### Versatile Formats

SPE Dry is designed with novel technology and a simple interface to produce uniform and reproducible evaporation. The design has a small footprint to fit easily in the fume hood. The heating mechanism is designed to rapidly heat without overshooting the temperature, preventing degradation of temperature sensitive compounds.

Standard SPE Dry 96 and SPE Dry 96 Dual systems are supplied with stainless steel needles. For high purity work, or applications that require particularly aggressive solvents, PTFE coated needles are available. Both needle types can be individually replaced should they become damaged or corroded.

SPE Dry is available in single or dual format and adapts easily to 24-, 48-, 96-, and 384-well microplate formats.

### Advantages

- » Efficient evaporation through heated gas flow above and below collection plate
- » Precise temperature control and gas flow with reproducible evaporation times
- » Compact design
- » Easy to use
- » Suitable for 24-, 48-, 96- and 384-well microplates



**Figure 1.** SPE Dry 96 with optional Biotage® ACT Plate Adapter (left). SPE Dry 96 Dual (right).

### Specifications

|                                |   |
|--------------------------------|---|
| <b>Technology</b>              | Heated gas delivery above and below wells speeds evaporation  |
| <b>Number of Samples</b>       | Models for one or two 96 well plates  |
| <b>Format</b>                  | 8 x 12 well microplates and deep-well plates  |
| <b>Timer</b>                   | Manual  |
| <b>Max. Sample Volume</b>      | 10 mL collection plates   |
| <b>Final Endpoint Volumes</b>  | –   |
| <b>Capacity</b>                | 24, 48, 96 or 384 well plates   |
| <b>Operating Temperature</b>   | 60 °C (upper head)<br>80 °C (lower head)  |
| <b>Gas Supply Requirements</b> | 1 bar to 4 bar (15 psi to 65 psi)   |
| <b>Operating Flow Rate</b>     | Min 25 LPM, Max 60 LPM (Single),<br>90 LPM (Dual)   |
| <b>Exhaust</b>                 | –   |
| <b>Electrical Supply</b>       | 110 or 220 VAC, 50 or 60 Hz, 5A   |
| <b>Max. Power Consumed</b>     | 405 VA  |
| <b>Dimensions (WxDxH)</b>      | 25.4 cm x 38.1 cm x 40 cm (dual)<br>10" x 15" x 15.7"<br>24.2 cm x 30.6 cm x 40 cm (single)<br>9.5" x 12" x 15.7" |
| <b>Weight</b>                  | 13.9 kg/31 lbs  |
| <b>Certifications</b>          | EN61326 (1997 w/A1: 98 & A2: 01)<br>Class A   |
| <b>Humidity</b>                | 20% to 80% RH (non-condensing)<br>up to 31 °C   |

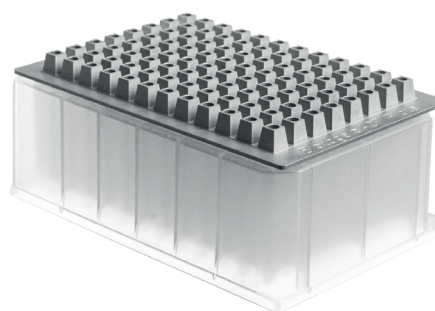
## Evaporation Rates<sup>1</sup> (minutes)

| Solvent                                     | 40 °C <sup>2</sup>  |                   | 60 °C <sup>2</sup>  |                   |
|---|---------------------|-------------------|---------------------|-------------------|
|   | 500 µL <sup>3</sup> | 1 mL <sup>4</sup> | 500 µL <sup>3</sup> | 1 mL <sup>4</sup> |
| Methanol                                    | 14                  | 28                | 11                  | 20                |
| Water                                       | 90                  | 165               | 46                  | 86                |
| Methanol/water (50:50)                      | 46                  | 95                | 28                  | 56                |
| Propan-2-ol                                 | 16.5                | 26                | 11.5                | 16.5              |
| Acetonitrile/water (50:50)                  | 51                  | 60                | 31                  | 36                |
| Methanol/acetonitrile (50:50)               | 19                  | 24                | 12                  | 15                |
| Acetonitrile                                | 17                  | 20                | 12                  | 15.5              |
| Methanol/(v/v) 1% NH <sub>4</sub> OH        | 18                  | 28                | 13.5                | 16                |
| DMF   | 73                  | 105               | 33                  | 41                |
| Methanol/dichloromethane (50:50)            | 12                  | 15.5              | 7.5                 | 9.5               |
| Dichloromethane (v/v) 1% NH <sub>4</sub> OH | 8.5                 | 11.5              | 6                   | 8                 |

- Experiments were conducted with flow rate at 50 liters/minute at the upper manifold and 30 liters/minute at the lower manifold. Drying gas used was compressed air. Only standard moisture trap was used within the system. Moisture content of ambient air will affect results.
- Temperatures refer to the upper head. Bottom unit was 20 °C higher.
- 500 µL volumes were in a 1 mL collection plate.
- 1 mL volumes were in a 2 mL collection plate.

## Biotage® ACT Plate Adapter

Protect your samples from cross contamination (cross talk) during evaporation. Designed for use with square well collection plates, Biotage® ACT (Anti Cross Talk) Plate Adapter is compatible with Biotage® SPE Dry 96 and SPE Dry 96 Dual Sample Concentrator Systems.



## Ordering Information

| Part Number      | Description   | Quantity | Part Number       | Description  | Quantity |
|------------------|---|----------|-------------------|--|----------|
| SD-9600-DHS-NA   | SPE Dry 96 Sample Concentrator System, 100/120V   | 1        | SD2-9600-DHS-EU   | SPE Dry 96 Dual Sample Concentrator System, 220/240V   | 1        |
| SD-9600-DHS-EU   | SPE Dry 96 Sample Concentrator System, 220/240V   | 1        | SD2-9600-DHS-T-NA | SPE Dry 96 Dual Sample Concentrator System, with PTFE Coated Needles (Top Head Only), 100/120V | 1        |
| SD-9600-DHS-T-NA | SPE Dry 96 Sample Concentrator System, with PTFE Coated Needles (Top Head Only), 100/120V | 1        | SD2-9600-DHS-T-EU | SPE Dry 96 Dual Sample Concentrator System, with PTFE Coated Needles (Top Head Only), 220/240V | 1        |
| SD-9600-DHS-T-EU | SPE Dry 96 Sample Concentrator System, with PTFE Coated Needles (Top Head Only), 220/240V | 1        | 414355SP          | Biotage® ACT Plate Adapter   | 1        |
| SD2-9600-DHS-NA  | SPE Dry 96 Dual Sample Concentrator System, 100/120V                                      | 1        | 121-5202          | Collection plate, 1 mL, Square   | 1        |
|                  |   |          | 121-5203          | Collection plate, 2 mL, Square   | 1        |

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Part Number: PPS447

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