

# VISION<sup>®</sup> DIFFUSION TEST SYSTEMS

## VISION<sup>®</sup> MICROETTE™ AUTOMATED TEST SYSTEM

The Vision Microette system automates sampling from groups of six Hanson Vertical Diffusion Cells (VDCs) for extensive unattended tests and handles surfactants, saline, and hydroalcoholic receptor solutions. The Vision Microette is an ideal research and quality control tool for the study of topical and transdermal drug delivery formulations, as well as ophthalmics, cosmetics, skin care products, and pesticides.



- 1 PROGRAMMABLE CIRCULATING WATERBATH
- 2 VISION<sup>®</sup> MICROETTE™
- 3 6-CELL DRIVE SYSTEM
- 4 VISION<sup>®</sup> AUTOFILL™

## STARTUP MANUAL TEST SYSTEM

The **Hanson 6-Cell Manual Diffusion Test System** is a startup vertical diffusion cell test system ideal for manual use and sampling. The system includes a **6-Cell Drive System**, **6 VDCs**, a **Jacketed Beaker** for media replacement, and a **Supply Kit** that includes a **manual sampling syringe** and other parts to help run a test and manually sample.



Six VDCs are included with the purchase of the 6-Cell Manual Diffusion Test System. Please specify VDC choice when ordering. Refer to "Ordering Info" section for more information.



The 6-Cell Manual Diffusion Test System is adaptable for later addition of the Vision Microette autosampler.

## SINGLE-GROUP VS. MULTI-GROUP

The Vision Microette includes two models: a versatile “Multi-Group” system that can automate up to 3 groups of VDCs, and a lower cost “Single-Group” system that automates 1 group of VDCs.

To expand the Multi-Group system from 1 group of VDCs to more, an additional 6-Cell Drive System, 6 VDCs, and Vision AutoFill is required.



6-CELL DRIVE SYSTEM

VISION® AUTOFILL™

US Patents; CE / CSA / RoHS compliant

### 6 CELLS SINGLE-GROUP SETUP

Vision Microette Single-Group setup automates sampling from 1 group of 6 VDCs (6 cells total).



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### 12 CELLS MULTI-GROUP SETUP

Vision Microette Multi-Group setup automates sampling from 2 groups of 6 VDCs (12 cells total).



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### 18 CELLS MULTI-GROUP SETUP

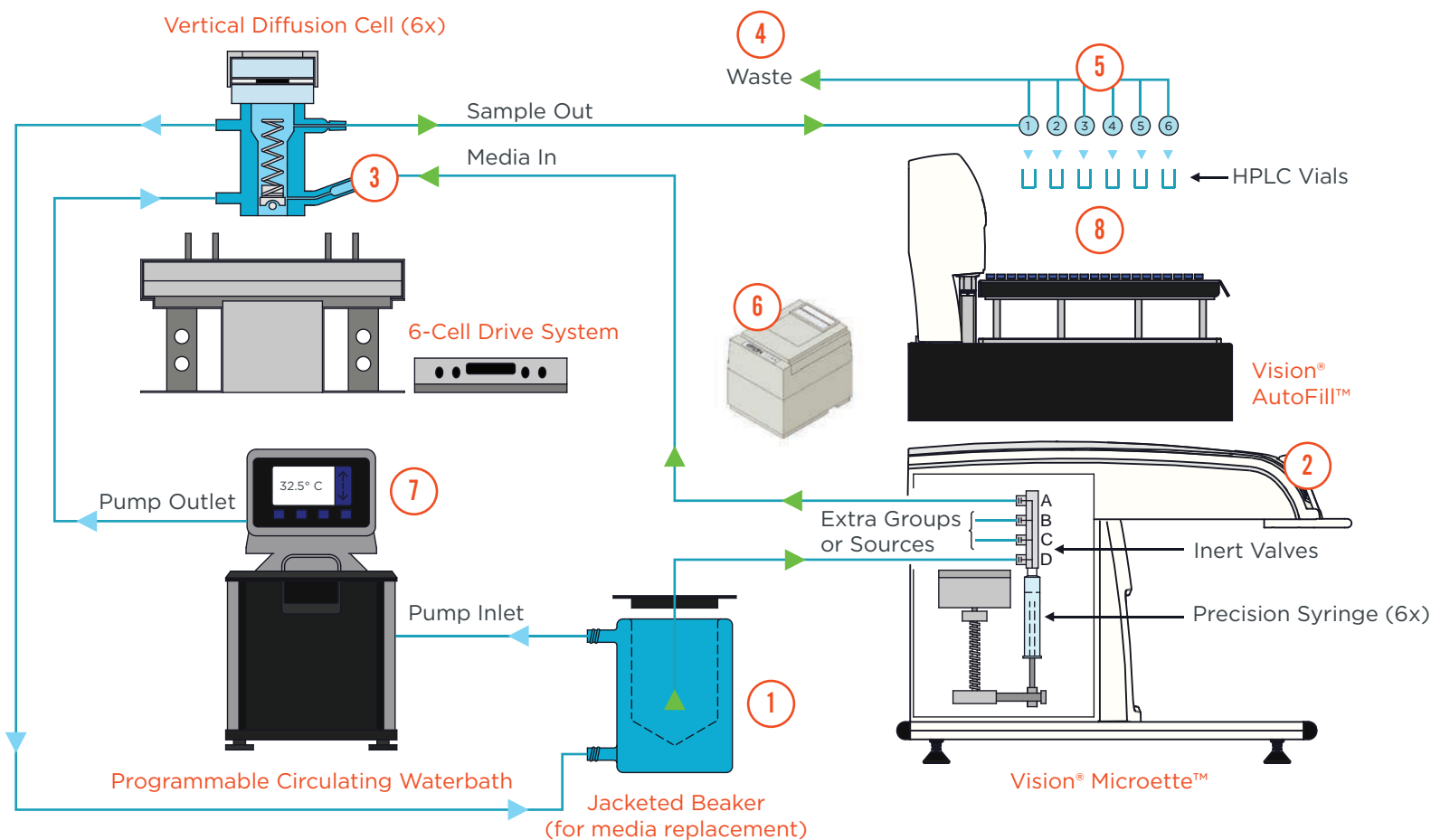
Vision Microette Multi-Group setup automates sampling from 3 groups of 6 VDCs (18 cells total).



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## HOW THE AUTOMATED SYSTEM WORKS



- 1 The system is set up by filling each Hanson Vertical Diffusion Cell (VDC) with heated deaerated receptor solution from the Jacketed Beaker. The dosage wafer with membrane is filled with the formulation and placed on top of the VDC to start the test.
- 2 A given protocol is activated to initiate the start. On program command, the Helix™ stirrer stops. *The Vision Microette saves up to 25 protocols for sampling volumes, and time points, including advanced routines for cell dilution and other requirements.*
- 3 A selected aliquot of fresh replacement media is injected from a precision syringe pump in the Vision Microette through the VDC's media replace port into its receptor chamber. *This forces an exact equal amount from the VDC to be extracted through the sampling port to the Vision AutoFill.*
- 4 A rinse cycle just before each sampling cycle ejects contents of the sample tube to waste. *This cleans the sample lines prior to sampling and collection.*
- 5 Sample aliquots are collected and archived in pre-cut septum HPLC vials in the Vision AutoFill. When each sampling point is complete, the Helix stirrer starts again to restore homogeneity.
- 6 This sampling and collection sequence continues for each programmed time point until the end of the test. The serial or network (PostScript) printer provides an ongoing status report of all test operating conditions.
- 7 Throughout the test, the Programmable Circulating Waterbath maintains controlled temperature in the Jacketed Beaker and each VDC (typically 32 °C for skin permeation studies).
- 8 Collected samples archived in interchangeable racks may be removed at the convenience of the scientist for the HPLC and other method analysis.



# VISION® DIFFUSION TEST SYSTEMS



## ORDERING INFO

For more information, please contact your local Hanson representative or email us at: [sales@hansonresearch.com](mailto:sales@hansonresearch.com)

### 6-CELL MANUAL DIFFUSION TEST SYSTEMS:

The following systems include a 6-Cell Drive System, 6 VDCs, a jacketed Media Replace Beaker, and a Supply Kit that includes a manual sampling syringe. Programmable Circulating Waterbaths sold separately.

- 58-001-401** 6-Cell Manual Diffusion Test System w/ 4 mL Cells, Clear
- 58-001-411** 6-Cell Manual Diffusion Test System w/ 4 mL Cells, Amber
- 58-001-402\*** 6-Cell Manual Diffusion Test system w/ 7 mL Cells, Clear
- 58-001-412\*** 6-Cell Manual Diffusion Test System w/ 7 mL Cells, Amber
- 58-001-403** 6-Cell Manual Diffusion Test System w/ 12 mL Cells, Clear
- 58-001-413** 6-Cell Manual Diffusion Test System w/ 12 mL Cells, Amber

\*US FDA Recommended for topicals.

### VISION MICROETTE AUTOMATED DIFFUSION TEST SYSTEM:

- 59-101-002** Vision Microette Autosampler, Multi-Group
- 59-101-003** Vision Microette Autosampler, Single-Group
- 61-201-001** AutoFill Collector
- 58-001-420** 6-Cell Drive System
- 58-001-430** Programmable Circulating Waterbath, 115 V
- 58-001-431** Programmable Circulating Waterbath, 230 V

### RECOMMENDED ACCESSORIES

The Startup Tool Kit provides all the tools needed to prepare vertical diffusion cells for a diffusion test. It includes an applicator to apply dosages to the cell top and cleaning tools that conveniently extract media from the cells without the need to remove the cells from the stand.

- 58-001-721** Startup Tool Kit, 115 V
- 58-001-722** Startup Tool Kit, 230 V



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