

Topical and Transdermal Drug Testing



Paddle over Disk

| Part No. | Description | OEM Ref |
|------------------|--------------------------------------|------------|
| PSAPPFIVE-HR | Transdermal patch holder USP5 | 65-190-092 |
| PSAPPFIVE-HRCLIP | Plastic Clip for PSAPPFIVE-HR (each) | 65-190-205 |
| PSAPPFIVE-HRSCR | 17 Mesh PTFE Screen for PSAPPFIVE-HR | 65-190-190 |



PSAPPFIVE-HR

| | | |
|-------------------|--|---------|
| PSAPPFIVE-V35-040 | Transdermal Patch Holder, 1.38" (35mm) Opening (40 Mesh Screen) | 12-4200 |
| PSAPPFIVE-V56 | Transdermal Patch Holder, 2.20" (56mm) Opening (120 Mesh Screen) | 12-4230 |
| PSAPPFIVE-V80 | Transdermal Patch Holder, 3.15" (80mm) Opening (16 x 16 Mesh Screen) | - |
| PSTD400017 | Transdermal Patch Holder (35mm) Opening (125 Mesh Screen) | Generic |
| PSAPP5S16-35 | 16 Mesh 316 Stainless Steel Screen for PSAPPFIVE-V35 (pack of 25) | - |
| PSAPP5S20-35 | 20 Mesh 316 Stainless Steel Screen for PSAPPFIVE-V35 (pack of 25) | - |
| PSAPP5S30-35 | 30 Mesh 316 Stainless Steel Screen for PSAPPFIVE-V35 (pack of 25) | - |
| PSAPP5S40-35 | 40 Mesh 316 Stainless Steel Screen for PSAPPFIVE-V35 (pack of 25) | 12-4210 |
| PSAPP5S120-56 | 120 Mesh 316 Stainless Steel Screen for PSAPPFIVE-V56 (pack of 25) | 12-4231 |
| PSAPP5S125-35 | 125 Mesh 316 Stainless Steel Screen for PSTD40017 (pack of 25) | - |
| PSCUP03002 | Cuprophane 500x500mm, pk/10 | Generic |



PSAPPFIVE-V35



PSAPPFIVE-V56



PSAPPFIVE-V80

PTFE Suspension Cups

For suspensions, the PTFE suspension cup is a weighted holder with a hemispheric bottom designed to sit at the bottom of a standard 1L vessel to control the exposed surface area. The suspension is weighed in the center cup prior to analysis in order to correlate the release rate.

| Part No. | Description | OEM Ref |
|--------------|---|---------|
| PSSUSCUP-WH | Weighted holder, 5.72 cm OD, 0.52 cm ID | 12-4050 |
| PSSUSCUP-178 | Insert cup, 17.5x8.2 mm, use with p/n PSSUSCUP-WH | 12-4055 |
| PSSUSCUP-208 | Insert cup, 20x8.2 mm, use with p/n PSSUSCUP-WH | 12-4060 |



PSSUSCUP-178 + weighted holder

Polysulfone Membranes for Transdermal Testing

| Part No. | Description | OEM Ref |
|---------------------|---|---------|
| PSMDC-PS25-045-0100 | Membrane filter, 0.45µm, ø25mm, Hydrophobic Polysulfone, pk/100 | - |
| PSMDC-PS30-045-0100 | Membrane filter, 0.45µm, ø30mm, Hydrophobic Polysulfone, pk/100 | - |
| PSMDC-PS47-045-0100 | Membrane filter, 0.45µm, ø55mm, Hydrophobic Polysulfone, pk/100 | - |



PSSUSCUP-208

Enhancer Cell

An alternative to the Vertical Diffusion or Franz Cell for testing semisolids, the Enhancer or Immersion Cell is used with a special 200ml flat bottomed vessel with mini paddle. The PTFE Immersion Cell is designed to accommodate a 25 mm diameter membrane. It comprises four main parts:

- A retaining ring which secures the membrane to the cell body and ensures full contact with the sample.
- A washer which holds the membrane in contact with the sample and provides a leak-proof seal between the membrane, retaining ring and cell body..
- The membrane or skin and
- Adjustment plate – allows control of the volume of the reservoir within the cell body. This threaded part can be placed at the appropriate height for each test and can be completely removed for easy cleaning. A Viton O-ring prevents leakage.
- The cell body which contains the compartment in which the sample (semisolid, solution, suspension, or emulsion)to be tested is placed.
- The cell is provided with an alignment tool and an adjustment tool that allows the user to vary the volume of the reservoir within the cell.

| Part No. | Description | OEM Ref |
|--------------|--|---------|
| PSENHANC-040 | Enhancer Cell, 4 cm ² surface area membrane | 12-4000 |
| PSENHANC-020 | Enhancer Cell, 2 cm ² surface area membrane | 12-4001 |
| PSENHANC-005 | Enhancer Cell, 0.5 cm ² surface area membrane | 12-4002 |
| PSENHANC-TOL | Adjustment tool, for all Enhancer Cell sizes | 12-4015 |
| PSENHANC-A40 | Alignment tool, for 4 cm ² Enhancer Cell | 12-4010 |
| PSENHANC-A20 | Alignment tool, for 2 cm ² Enhancer Cell | 12-4011 |
| PSENHANC-A05 | Alignment tool, for 0,5 cm ² Enhancer Cell | 12-4012 |



PSENHANC-040



PSENHANC-020



PSENHANC-005



PSENHANC-TOL



PSSMVASSY-TC



PSGLA200F-TA



PSSMVASSY-TA

Agilent

TruCenter Compatible for 7000, 7010, 7020 and 7025 Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------------------|
| PSGLA200F-VK | 200ml TruCenter Clear glass vessel, flat bottom | - |
| PSCOVERY-LL200 | Low evaporation cover with Cannula Hole | - |
| PSSMVASSY-TC | Small Volume Magnet. Adapter TruCenter Vessel | - |
| PSMINEPD-01 | Spin on/off mini paddle, 316S.S. | 12-1443; 13-3608 |

Agilent

TruAlign Compatible for 708-DS Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------------------|
| PSGLA200F-TA | 200ml Clear glass vessel, flat bottom | 12-5170 |
| PSCOVERY-LL200 | Low evaporation cover with Cannula Hole | - |
| PSSMVASSY-TA | Small Volume Vessel Conversion Adapter | 12-6268 |
| PSMINEPD-01 | Spin on/off mini paddle, 316S.S. | 12-1443; 13-3608 |



Agilent EaseAlign Compatible for 705-DS, 7000 and 7010 Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------------------|
| PSGLA200F-01 | 200ml EaseAlign Clear glass vessel, flat bottom | 12-5055 |
| PSSMVCOV-VK | Low evaporation cover with Cannula Hole | – |
| PSSMVASSY-VK | Small Volume Vessel Conversion Adapter, incl. cover | – |
| PSMINEPD019-01 | Spin on/off mini paddle, 316S.S. | 12-1443; 13-3608 |



PSSMVCOV-VK



PSSMVASSY-VK

Distek EaseAlign Compatible for 2100, 2500 and Evolution 6300 Systems

| Part No. | Description | OEM Ref |
|--------------|---|-----------|
| PSGLA200F-DK | 200ml Clear glass vessel, flat bottom | 3010-0099 |
| PSSMVCOV-DK | Low evaporation cover with Cannula Hole | – |
| PSSMVASSY-DK | Small Volume Vessel Conversion Adapter, incl. cover | 2800-0602 |
| PSMINBLD-DK | Detachable mini paddle blade, 316S.S. | 3200-0185 |



PSMINEPD-01

Erwaka Compatible DT126, DT720, DT820, DT1410 and DT1610 Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------|
| PSGLA200F-EW | 200ml Clear glass vessel, flat bottom | 21612 |
| PSSMVASSY-EW | Small Volume Vessel Conversion Adapter | – |
| PSCOVERV-LL200 | Low evaporation cover with Cannula Hole | – |
| PSMINEPD-EWLH | Spin on/off mini paddle, 316S.S., LH | – |
| PSMINEPD-EWHH | Spin on/off mini paddle, 316S.S., HH | – |



PSSMVCOV-DK



PSSMVCOV-DK

Hanson Research Compatible for SR6, SR8-Plus Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------------------------|
| PSGLA150F-HR | 150ml Clear glass vessel, flat bottom | 72-600-572; 74-105-152 |
| PSCOVERH-LL200 | Low evaporation cover with Cannula Hole | – |
| PSSMVASSY-HR | Small Volume Vessel Conversion Adapter | 72-800-714 |
| PSMINEPD-HR | Spin on/off mini paddle, 316S.S. | 74-105-204 |



PSSMVASSY-HR

Hanson Research Compatible for Vision Systems

| Part No. | Description | OEM Ref |
|----------------|---|---------------------------|
| PSGLA150F-HR | 150ml Clear glass vessel, flat bottom | 72-600-572; 74-105-152 |
| PSCOVERH-LL200 | Low evaporation cover with Cannula Hole | – |
| PSSMVASSY-HRV | Small Volume Vessel Easi-Lock Adapter | 74-105-155 |
| PSMINEPD-HR | Spin on/off mini paddle, 316S.S. | 74-105-203 |



PSGLA150F-HR



PSSMVASSY-HRV



PSMINEPD-HR



PSIMMERC-UN

Immersion Cell for Ointments

The test is the same as standard dissolution testing, with the exception of using a small (mini) paddle and vessel, with the immersion cell inside the vessel. The ointment is sealed in a delivery chamber where it can only move into the solution through a membrane.

| Part No. | Description | OEM Ref |
|--------------------------|---|------------|
| PSIMMERC-UN | Immersion Cell only, 15 mm | 65-190-043 |
| PSIMMERC-UNT | Immersion Cell with tools, 15 mm | 65-190-051 |
| PSMSDC- PS25-045-0100 | Membrane filter, 0.45µm, ø25mm, Hydrophobic Polysulfone, pk/100 | – |

Extraction cell acc. to EP 2.9.4. chapter 3

The cell holds the patch flat, with the release surface uppermost and parallel to the bottom of the paddle blade. A distance of 25 ± 2 mm is maintained between the paddle blade and the surface of the patch. The temperature is maintained at 32 ± 0.5 °C. The vessel may be covered during the test to minimise evaporation.

| Part No. | Description | OEM Ref |
|-------------|-------------------------------|---------|
| PSEXCELL-27 | Extraction Cell, 27mm, 1,48ml | 18421 |
| PSEXCELL-38 | Extraction Cell, 38mm, 2,94ml | 22252 |
| PSEXCELL-45 | Extraction Cell, 45mm, 4,13ml | 22253 |
| PSEXCELL-52 | Extraction Cell, 52mm, 5,52ml | 22254 |



PSEXCELL-27



PSEXCELL-38



PSEXCELL-45



PSEXCELL-52

Topical and Transdermal Drug Testing



Erweka Rotating Cylinder

| Part No. | Description | OEM Ref |
|----------------|---|--------------------|
| PSAPPSIX-EW01 | Rotating Cylinder S.S., UniShaft, short version, to screw to Shaft | 81-000-9000; 22408 |
| PSAPPSIX-EW01L | Rotating Cylinder S.S., UniShaft, long version, to screw to Shaft | 81-000-9010; 22409 |
| PSAPPSIX-EW02 | Rotating Cylinder S.S., MagniShaft short version, with Shaft for Low-Head use | 84-000-9000 |
| PSAPPSIX-EW02L | Rotating Cylinder S.S., MagniShaft long version, with Shaft for Low-Head use | 84-000-9010 |



Rotating Cylinder viewed from below

Agilent Rotating Cylinder

| Part No. | Description | OEM Ref |
|--------------|--|---------|
| PSAPPSIX-01 | Rotating Cylinder for Transdermal Patches, 316S.S. | 12-1360 |
| PSAPPSIX-01L | Long version Rotating Cylinder | - |

Hanson Rotating Cylinder

| Part No. | Description | OEM Ref |
|----------------|--|------------|
| PSAPPSIX-HR | Rotating Cylinder for Transdermal Patches, 316S.S. | 65-590-011 |
| PSAPPSIX-HRL | Long version Rotating Cylinder | - |
| PSSPNAPP6-HRV | Spin ON/OFF USP APP 6 Rotating Cylinder for Transdermal Patches, Vision Compatible, Electropolished 316S.S. | 74-105-240 |
| PSSPNAPP6-HRVL | Spin ON/OFF USP APP 6 Rotating Long Cylinder for Transdermal Patches, Vision Compatible, Electropolished 316S.S. | - |

Distek Rotating Cylinder

| Part No. | Description | OEM Ref |
|--------------|--|-----------|
| PSAPPSIX-DK | Rotating Cylinder for Transdermal Patches, 316S.S. | 3200-0142 |
| PSAPPSIX-DKL | Long version Rotating Cylinder | - |

Electrolab Rotating Cylinder

| Part No. | Description | OEM Ref |
|--------------|--|------------|
| PSAPPSIX-EL | Rotating Cylinder for Transdermal Patches, Electropolished 316 Stainless Steel | 0103A00184 |
| PSAPPSIX-ELL | Long version Rotating Cylinder | 0103A00183 |

Sotax Rotating Cylinder

| Part No. | Description | OEM Ref |
|--------------|--|---------|
| PSAPPSIX-ST | Rotating Cylinder for Transdermal Patches, Electropolished 316 Stainless Steel | 7663 |
| PSAPPSIX-STL | Long version Rotating Cylinder | - |



PSAPPSIX-01

PSAPPSIX-01L

PSSPNAPP6-HR

PSAPPSIX-01

Topical and Transdermal Drug Testing



The vertical diffusion cell (VDC) system is a simple, reliable, and reproducible means of measuring drug release from semisolid (cream, ointment, and gel) dosage forms.

The membrane, with its application side up, is placed in a VDC (typically a 15-mm diameter orifice), e.g., a Franz cell. The VDC assembly consists of two chambers (a donor chamber and a receptor chamber), separated by a donor compartment and held together by a clamp.

This type of cell is commonly used for testing the in vitro release rate of topical drug products, cosmetics, skin-care products and ophthalmics.

USP 1724 compliant

Hanson Compatible Cells

| Part No. | Description | OEM Ref |
|----------------|---|------------|
| | Clear Glass – Complete VDC cell | |
| PSVDC0904CP-HR | Vertical Diffusion Cell, Clear Glass, 9 mm Orifice, 4 mL vol, “Small” | 58-001-451 |
| PSVDC1507CP-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 7 mL vol, “Standard” | 58-001-455 |
| | Recommended by US FDA for topicals | |
| PSVDC1512CP-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 12 mL vol, “Large” | 58-001-459 |
| PSVDC1520CP-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 20 mL vol, “Large” | – |
| | Clear Glass – VDC cell Only | |
| PSVDC0904CO-HR | Vertical Diffusion Cell, Clear Glass, 9 mm Orifice, 4 mL vol, “Small” | 58-001-453 |
| PSVDC1507CO-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 7 mL vol, “Standard” | 58-001-457 |
| | Recommended by US FDA for topicals | |
| PSVDC1512CO-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 12 mL vol, “Large” | 58-001-461 |
| PSVDC1520CO-HR | Vertical Diffusion Cell, Clear Glass, 15 mm Orifice, 20 mL vol, “Large” | – |



PSVDC1507CP-HR

| Part No. | Description | OEM Ref |
|-----------------|---|------------|
| | Amber Glass – Complete VDC cell | |
| PSVDC0904CP-AHR | Vertical Diffusion Cell, Amber Glass, 9 mm Orifice, 4 mL vol, “Small” | 58-001-452 |
| PSVDC1507CP-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 7 mL vol, “Standard” | 58-001-456 |
| PSVDC1512CP-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 12 mL vol, “Large” | 58-001-460 |
| PSVDC1520CP-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 20 mL vol, “Large” | – |
| | Amber Glass – VDC cell Only | |
| PSVDC0904CO-AHR | Vertical Diffusion Cell, Amber Glass, 9 mm Orifice, 4 mL vol, “Small” | 58-001-454 |
| PSVDC1507CO-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 7 mL vol, “Standard” | 58-001-458 |
| PSVDC1512CO-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 12 mL vol, “Large” | 58-001-462 |
| PSVDC1520CO-AHR | Vertical Diffusion Cell, Amber Glass, 15 mm Orifice, 20 mL vol, “Large” | – |



PSVDC1512CP-AHR



Hanson VDC Parts

| Part No. | Description | OEM Ref |
|----------------|---|------------|
| PSVDCGLDSK-HR | Glass Disk, suited for all TDS cells | 58-001-506 |
| PSVDCCLRNG-HR | Cell ring | 58-001-507 |
| PSVDCDSW09-HR | Dosage wafer for 4ml cells, 9 mm orifice | 58-001-518 |
| PSVDCDSW15-HR | Dosage wafer for 7, 12, 20ml cells, 15 mm orifice | 58-001-511 |
| PSVDCCLPAS-HR | Clamp Assembly for 4, 7, 12, 20ml cells | 58-001-450 |
| PSVDC0904CT-HR | Threaded Cell Top, Clear Glass, 2ml volume suited for 4ml cell | 58-001-530 |
| PSVDC1507CT-HR | Threaded Cell Top, Clear Glass, 6ml volume suited for 7, 12 and 20ml cell | 58-001-531 |
| PSVDCMSP06-HR | Stirrer Plate 6-position | 58-001-420 |
| PSVDCMC40-HR | Universal Speed control unit, 40 Watt, RS232 | 58-001-425 |



PSVDCDSW09-HR



PSVDC1507CT-HR

Kerski Cell

Permeation cell with isofill chamber was developed especially for automatic sampling, which can also pose a difficulty especially for the Franz Cell. Furthermore, this model can be used with labile skins such as separated epidermis or mucous membranes of all kinds. An additional problem for cells with horizontal application is the formation of air bubbles under the skin. Vertical application as well as the design of the permeation cell with isofill chamber can avoid this problem. Permeation area of the cell is approx. 65mm².

| Part No. | Description | OEM Ref |
|---------------|--|---------|
| PSKERSKI-01 | Permeation cell with isofill chamber for liquides, approx. 10ml | - |
| PSKERSKI-02 | Permeation cell with isofill chamber for (semi)solid dosage forms, approx. 10 ml | - |
| PSKERSKI-03 | Permeation cell with isofill chamber for (semi)solid dosage forms, approx. 5 ml | - |
| PSKERSKI-04 | Permeation cell with isofill chamber for (semi)solid dosage forms, approx. 20 ml | - |
| PSVDCMSP15-HR | Magnetic Stirrer MixDrive 15 pos. | - |
| PSVDCMC40-HR | Universal Speed control unit, 40 Watt, RS232 | - |



PSVDC1507CT-HR



PSKERSKI-01



PSVDCMSP06-HR



PSVDCMSP15-HR



Transdermal Cells in Climate Chamber