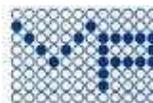




DE-GROOT LABORATORY EQUIPMENT LTD.
דה-גרוט ציוד מעבדות בע"מ



V&P SCIENTIFIC, INC.
Innovators in Liquid Handling
Arraying and Mixing

Blot Replicator

10 ul Blot Replicator

VP 404

96 stainless steel bolts in an anodized aluminum base. The bolts pick up liquid in the threads, transferring up to ~10 ul of liquid in the bolt threads (depending on the depth of submersion of the bolts). Ideal for those large crude volume liquid to liquid transfers.

Not for use in transferring liquids to agar plates or membranes, or colony to colony transfers on agar due to the irregularity in bolt length.

Bolt length = 24 mm, bolt diameter = 4.2 mm

Technical Documents:

[Care & Use of Bolt Replicators](#)



VP 404A

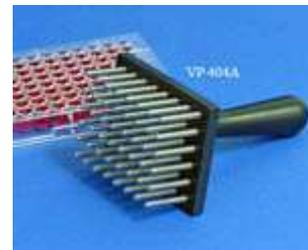
48 stainless steel bolts in a 96 well format with an anodized aluminum base. The bolts pick up liquid in the threads, transferring up to ~10 ul of liquid in the bolt threads (depending on the depth of submersion of the bolts).

Not for use in transferring liquids to agar plates or membranes, or colony to colony transfers on agar due to the irregularity in bolt length.

Bolt length = 24 mm, bolt diameter = 3.4 mm

Technical Documents:

[Care & Use of Bolt Replicators](#)



VP 404B

96 stainless steel bolts with an anodized aluminum base. The bolts transfer 1 ul to 50 ul of liquid in the bolt threads. Volume of liquid transferred depends on how far the bolt is submerged in the liquid. Ideal for those crude large volume liquid to liquid transfers.

Not for use in transferring liquids to agar plates or membranes, or colony to colony transfers on agar due to the irregularity in bolt length.

Bolt length = ~53 mm, bolt diameter = 4.2 mm

Technical Documents:

[Care & Use of Bolt Replicators](#)



20 ul Blot Replicator

VP 405

96 stainless steel bolts in an anodized aluminum base. The bolts pick up liquid in the threads, transferring up to ~20 ul of liquid in the bolt threads (depending on the depth of submersion of the bolts). Ideal for those crude large volume liquid to liquid transfers.

Not for use in transferring liquids to agar plates or membranes, or colony to colony transfers on agar due to the irregularity in bolt length.

Bolt length = ~17 mm, bolt diameter = 4.8 mm

Technical Documents:

[Care & Use of Bolt Replicators](#)



50 ul Blot Replicator

VP 406

96 stainless steel bolts in an anodized aluminum base. The bolts transfer ~ 50 ul of liquid in the bolt threads. Ideal for those crude large volume liquid to liquid transfers.

Not for use in transferring liquids to agar plates or membranes, or colony to colony transfers on agar due to the irregularity in bolt length.

Deep Well Replicators for Microplates

96 Deep Well Replicators

The first 96 Pin Replicator for deep well plates. The ultimate in efficiency for liquid transfer using deep well plates.

In addition to the fixed pin tools on this page we also have [floating deep well](#) replicators designed for use on robots.

Applications

- Resuspend settled material or microorganisms
- Transfer liquid from a deep well microplate to a 96 well microplate
- Transfer liquid to a deep well microplate from a 96 well microplate
- Blot liquid from a deep well microplate onto membranes
- Make high density arrays on membranes
- Condense four 96 deep well microplates into one 384 well microplate
- Expand one 384 well microplate to four deep well microplate

Features

- Stainless steel pins, 57mm long and 1.58mm in diameter
- Can be alcohol/flame or bleach sterilized for rapid reuse, or autoclaved
- Transfers ~.2 ul onto membranes (hanging drop) and larger volumes during liquid to liquid transfers (volume determined by depth)
- Pin tips are same size and on same plane to assure equal delivery

[Click here](#) for a list of published articles that cite using the products on this page.

VP 408A

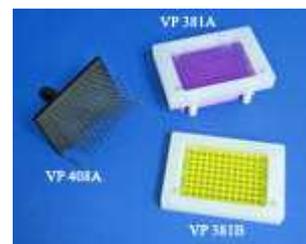
Deep Well MULTI-BLOT™ Replicator, 57 mm long pins .2 ul hanging drop delivery

Technical Documents:

- [384 Library From 96 Well Plates Manual](#)
- [Double Positive Block Pool Scheme Manual](#)
- [384 Well Library from Deep 96 Well Plates](#)
- [Deep Well Library Replication Manual](#)
- [Care and use of Multi-Blot Replicator](#)

VP OK9

Deep Well Replicator Kit contains one VP 408A, two VP 381A, one VP 381B, one VP 425A pin cleaning brush



VP 408B

Grooved Pin Deep Well MULTI-BLOT™ Replicator, 57 mm long pins ~3 ul grooved delivery

Grooved Pin Deep Well Replicator Kit contains one VP 408B, two VP 381A, one VP 381B, one VP 425A pin cleaning brush.....**VP OK9A**



Technical Documents:

- [384 Library From 96 Well Plates Manual](#)
- [Double Positive Block Pool Scheme Manual](#)
- [384 Well Library from Deep 96 Well Plates](#)
- [Deep Well Library Replication Manual](#)
- [Care & Use of Grooved Long Pin Replicators](#)

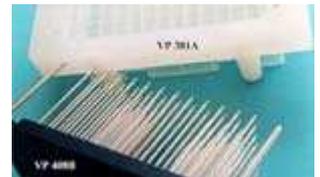
VP 403F Long Grooved Pin Replicator

41 mm Long Grooved Pin Replicator (96 Deep well Replicator), aluminum base, autoclaveable and flammable, pin diameter = 2.77 mm, ~6 ul delivery volume.

The pins on the VP 403F are too large to fit into 384 well microplates so it is not recommended to reformat libraries from 96 to 384 wells.

Deep Well LIBRARY COPIER™ Registers Deep Well Replicator to deep well microplates, centers pins in wells to prevent hanging drop from being knocked off. Fits all the Deep Well MULTI-BLOT™ Replicators.....**VP 381A**

LIBRARY COPIER™ Converter Registers Deep Well Replicator to 96 & 384 well microplates & Omni Trays to convert deep well libraries to 96 or 384 well microplate libraries or to make arrays on Omni Trays. Fits all the Deep Well MULTI-BLOT™ Replicators.....**VP 381B**



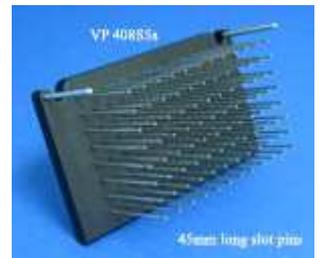
Technical Documents:

- [Care & Use of Grooved Long Pin Replicators](#)

Slot Pin Deep Well 96 Replicators

96, ~0.5 ul Slot Pin MULTI-BLOT™ Replicator, pin length=45mm, pin diameter=1.58mm	VP 408S.5a
96, ~1 ul Slot Pin MULTI-BLOT™ Replicator, pin length=45mm, pin diameter = 1.58mm	VP 408Sa
96, ~2 ul Slot Pin MULTI-BLOT™ Replicator, pin length=45mm, pin diameter = 1.58mm	VP 408S2a
96, ~5 ul Slot Pin MULTI-BLOT™ Replicator, pin length=45mm, pin diameter = 1.58mm	VP 408S5a

If you are transferring DNA, cDNA or other materials in hydrophobic solutions you will find that using our new V&P Pin Cleaning Solution will greatly increase the precision of delivery. For an explanation see the [FAQ page](#) and the [V&P Pin Cleaning Solution page](#).



Technical Documents:

- [Care and use of Multi-Blot Replicator](#)
- [Care & Use of Floating Pin Replicators](#)
- [Care & Use of Slot Pin Replicators](#)

384 Deep Well Slot Replicators

These replicators with their 45 mm long pins will reach the bottom of all the 384 deep well block on the market including the Whatman Uniplate 400. Perfect for precision transfers to and from 384 well microplates.

384, ~0.5 ul Slot Pin MULTI-BLOT™ Replicator. Pin length=45mm, pin diameter = 1.58mm	VP 384S.5a
384, ~1 ul Slot Pin MULTI-BLOT™ Replicator. Pin length= 45mm, pin diameter = 1.58mm	VP 384Sa
384, ~2 ul Slot Pin MULTI-BLOT™ Replicator. Pin length= 45mm, pin diameter = 1.58mm	VP 384S2a

Technical Documents:

[Care & Use of Slot Pin Replicators](#)

[Care & Use of Floating Pin Replicators](#)



Cleaning Pins

The most important aspect of using pin tools is to start with clean pins and then keep them clean so they will consistently deliver the same volume. We recommend our [Pin Cleaning Solution \(VP 110\)](#) to clean the pin of protein and other residue buildup before you start an assay. To quickly and efficiently remove the previous transfer from the pin we have a wide variety of manual and robot wash reservoirs ranging from disposable polypropylene reservoirs ([VP 576D](#)) to reusable [wash reservoirs, flowing reservoirs and fountains](#) to clean 96, 384 and 1536 pin tools. The robot wash stations are also adapted so the [blotting station](#) is part of the washing station thus reducing the cleaning cycle time and the number of robot stations required for the cleaning process. We also have other [independent blotting stations \(VP 540D\)](#) and [VP 522](#).

Integral to the cleaning process of all pins is the blotting step between baths. Lint particles in the slots or on pin tips, from standard paper towels, will interfere with the loading and unloading of liquid. We have solved this problem. The [VP 540DB](#) blotting system is a tray with the standard microplate foot print that contains a super absorbent polypropylene pad covered by a Lint Free Blotting Paper. We strongly recommend that you use this or our other [lint free blotting systems](#).

[Click here](#) for a list of published articles that cite using the products on this page.

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