

RapidPick™ MP

Automated Colony Picking System

The RapidPick MP offers high throughput, great flexibility for workcell automation, and efficient picking of microbial colonies.

Hudson Robotics RapidPick MP technological advantages:

High Throughput – Picking rates of up to 2,500 picks per hour are possible with the RapidPick Multi-Pin Colony Picker. The high throughput is based on the continuous, serial approach that is supported by the turntable architecture allowing simultaneous picking, inoculation, washing and sterilization of the tungsten pins.

Flexible automation – The small footprint allows placement in hoods, anaerobic chambers, automated workcells and fully automated systems. Hudson's PlateCrane can be added to load colony plates and inoculation plates, and automated inoculation plate creation, sealing, barcoding and incubation can be included as throughput demands increase.

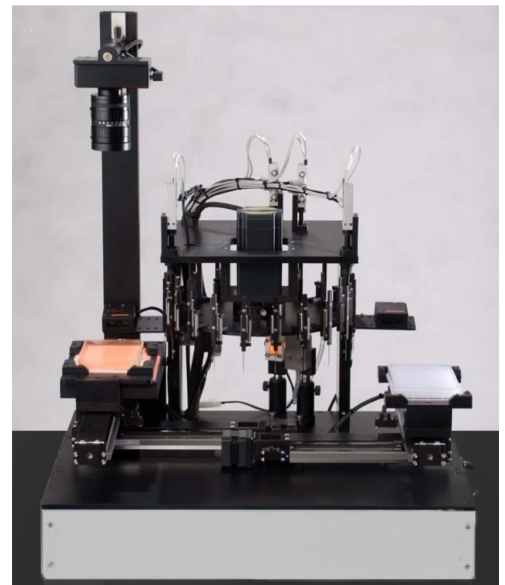
Efficient picking - The RapidPick MP supports inoculation rates of up to 99% in optimized E.coli colonies due to its continuous serial picking and inoculating operations from the colony plate to the inoculation plate. Since the RapidPick MP uses robust tungsten pins, there are no ongoing consumable expenses.

User interface advantages:

The RapidPick software supports a full range of choices ranging from fully automatic colony selection to fully manual selection. The user sets the morphology parameters including: Radius, Amplitude, Elongation, Conformity, and Separation, and the automatic mode will select colonies that meet those settings. The user can optionally review the image and add colonies or delete pre-selected colonies. The zoom feature allows the user to zoom in to view colonies close up and includes a ruler in millimeters that scales with size. Grid overlays or masks can be added to dish or tray images, allowing the use of segmented and multi-well plates.

Hudson's RapidPick systems are designed to pick from petri dish, Nunc™ Omnitrays™ or any standard 1, 6, 8, 24, 48 or 96-well microplate. They will inoculate SLAS 1, 24, 96, 384, or 1536 deepwell and standard height plates. A second destination plate option is available for archiving. Optional fluorescent or halo detection functionality is also available.

- RapidPicks are simple, robust picking systems that combine easy operation with high speed and durability.
- The RapidPick MP uses 20 pins for constant delivery of colonies to the destination plate by rotary action.
- Up to 2,500 picks per hour can be attained.
- The RapidPick MP is compatible with manual or automatic loading of petri dishes, Omnitrays and microplates.
- Barcode reading is included for source and destination plates.
- Tungsten pins are heat sterilized between colony picks, ensuring no cross-contamination of colonies.



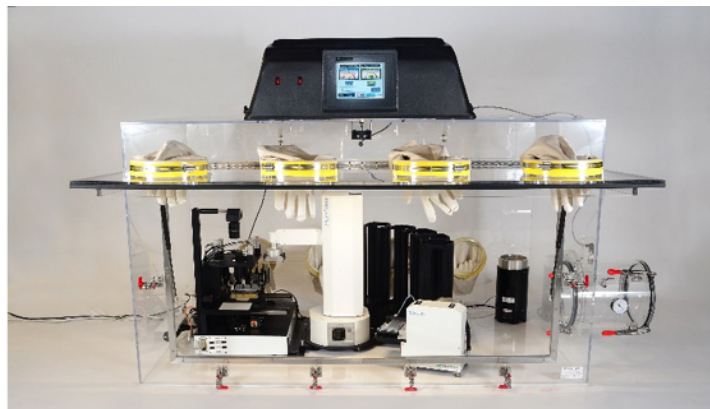
RapidPick MP

Applications

- **Colony Picking**

Microbial colonies: Bacteria and yeast – any colony that can be manually picked with a toothpick
(see the *Hudson Harvester* for fungal applications)

- **Re-arraying:** Move a colony from any source well to any destination well.
- **Pooling:** Select colonies from multiple source locations to move to one destination well.
- **Plate Replication:** Create copies of inoculated plates.



RapidPick MP Workcell in an anaerobic chamber

Specifications

- Dimensions measure 29" (73.7cm) W x 18" (45.7cm) D x 28" (71.1cm) H
- Standard configuration supports one or two inoculation plates
- High resolution USB camera and lens
- Software/camera images whole plate in 1 image field
- Automatic colony selection parameters based on: radius, amplitude, elongation, conformity, separation between colonies, size, shape, blue/white
- 20 tungsten picking pins rotate 360° from picking to destination to vacuum to wash bath to heater coil
- 360° rotation allows for continuous picking and processing
- Tungsten pins heat and cool quickly allowing sterilization to be done with direct heat
- Barcode readers for source and destination plates are standard
- Unlimited number of image parameter files for different users and sample types
- Pick from segmented plates using onboard masks

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