



# Organism-specific picking pins of the QPIX 400 series

*For a diverse range of high-throughput microbial workflows*

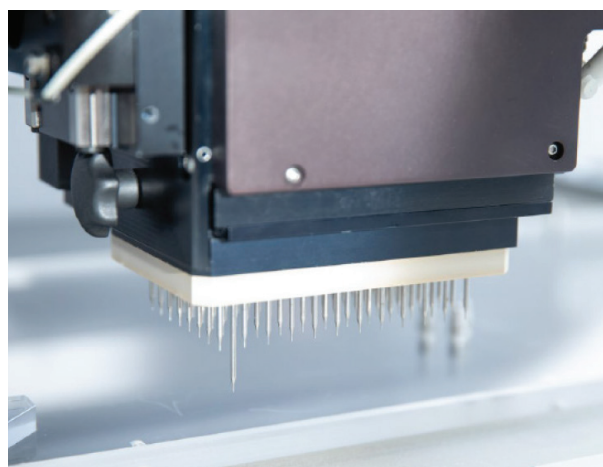
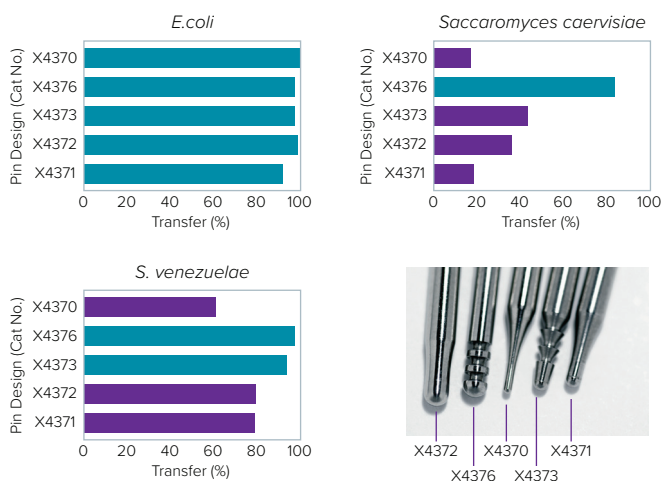
The QPix<sup>®</sup> 400 Series of automated microbial colony pickers by Molecular Devices is designed to meet research needs across a diverse range of microbial workflows. Powerful and versatile colony detection algorithms combined with specialized pins are specifically tailored to pick, plate, and replicate bacteria, fungi, algae, phage, and yeast cells. Pick up to 3000 clones per hour with a typical efficiency of >98%, significantly increasing speed, throughput and walk-away time. The innovative, high-throughput technology platform significantly speeds up biologics screening by automating repetitive tasks, reducing errors and improving flexibility.

## Agar height sensor and the right pin optimize colony transfer efficiency

Repetitive failure of a colony transfer can result in project delays, wasted biomaterials, or the loss of valuable clones. To ensure optimal colony transfer for a diverse range of microorganisms, Molecular Devices offers a unique portfolio of picking pins that come in a variety of shapes, sizes, and textures. Moreover, a proprietary agar height sensor automatically determines the optimal picking height on-the-fly, thus enabling optimal transfer and outgrowth of biological materials. Together, proper pin selection and the agar height sensor enhance microbial colony transfer efficiency by as much as 40% as shown in the example dataset in Figure 1.

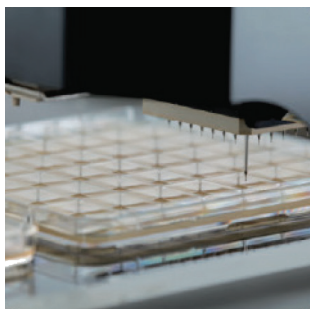
## Pin features

- Range of organism-specific pins
- Extends 8 proprietary spreading pins simultaneously
- Five pin shapes for picking loaded into fully automated pneumatic, 96-pin picking head
- Customer-interchangeable heads for other applications
- Automatically sterilized between runs and reusable
- Proper pin selection and agar height sensor enhance microbial colony transfer efficiency



**Figure 1:** Colony transfer efficiencies can vary widely according to the pairings between microorganisms and colony-picking pins. A representative dataset is shown for *E. coli*, *Saccaromyces caerevisiae*, and *S. venezuelae*.

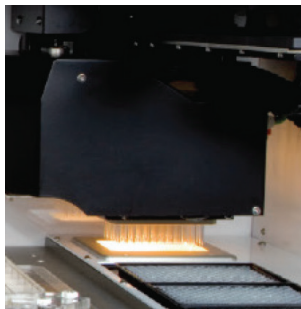
## Pick colonies with a typical efficiency of >98%



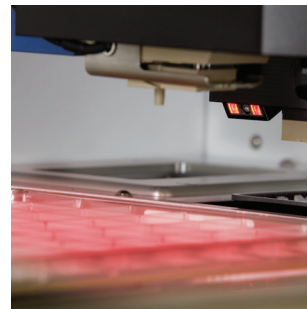
Sensors detect agar height, helping high-precision robotics pick single colonies gently.



Organism-specific pin heads are tailor-made to ensure maximum transfer of material.



Proven pin sterilization process is suitable for any organism.



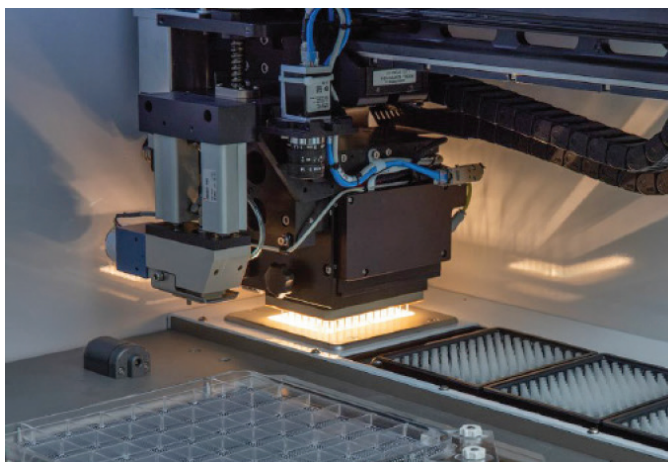
Barcode reader tracks sample plates, wells and picked clones for perfect record keeping.

## Reutilize picking pins with the built-in washing bath

Many colony pickers rely on either pipette tips or a feed of polymer reels to pick microbial communities. Not only does the QPix 400 series employ a range of different pins, but the built-in washing system means these pins can be indefinitely reused.

The three-bath system, typically filled with bleach, sterile water and ethanol, also includes a halogen lamp. This system ensures the pins are washed, disinfected, dried and ready to reuse in a matter of minutes.

Programming flexibility also allows complete customization of the washing technique to suit individual research needs.



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