

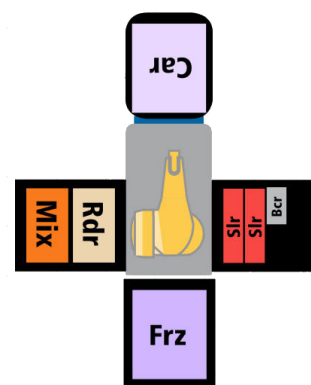
# Applications: Compound Storage

Controlled storage of compounds in a validated environment is the basis for all successful drug discovery operations. HighRes offers a variety of solutions for integrating these large scale sample stores into downstream processing operations. These can range from direct integrations of stores into compound delivery workcells, to the novel concept of using docking technology to transfer tube racks and plates from your store to separate processing systems. Here are two examples of HighRes Compound Storage Systems. We have configured two example systems to demonstrate the key advantages HighRes offers for Compound Storage applications.

## NanoCell

### Tube and Plate Store Interface

1 x Rbt Denso Robot	1 x Mix Ultrasonic Mixing Unit
1 x Frz Automated Tube and Plate Freezer	1 x Slr Automated Heat Sealer
1 x Car HighRes AmbiStore D	1 x Slr Automated Heat Seal Remover
1 x Rdr Tube Auditor	1 x Bcr Barcode Reader



### Description

This system is a HighRes NanoCell configured to provide an interface to a large tube and plate store. Plates and tube racks are picked out of the automated tube and plate store by the Denso robot and transferred to the HighRes AmbiStore that had been docked onto the NanoCell. Once all of the plates and racks are selected and placed in the carousel, the operator can undock the carousel and wheel it to a separate compound delivery system in another part of the lab or building for further processing.

This system is also equipped with a tube auditor, ultrasonic mixing device, heat sealer and heat seal remover to allow for the automation of simple auditing and plate manipulation tasks.

### NanoCell Key Concepts

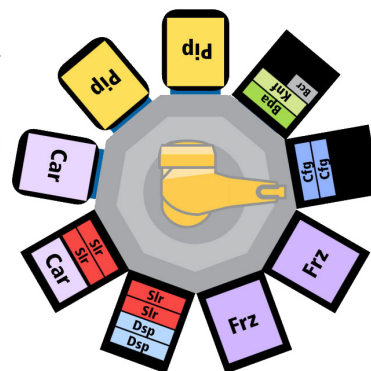
- Undock the AmbiStore (filled with mother plates and racks to be processed) and plug it into a second, discrete HighRes compound delivery platform
- After successful off-line processing, re-dock the AmbiStore (filled with used mother plates and new destination plates) and create an order to re-load the automated compound store
- Benefit from a smoother upgrade path for either the store or the processing platform by not having them physically linked. Linking the two units via docking still allows for a smooth and quick transfer of materials to ensure a close integration despite the physical separation.



## 9-Sided MicroStar

### Online Compound Storage with Acoustic Dispensing

1 x <b>Rbt</b> Staubli Robot	2 x <b>Slr</b> Automated Heat Sealer
2 x <b>Pip</b> Acoustic Dispensing Devices	2 x <b>Slr</b> Automated Heat Seal Remover
1 x <b>Frz</b> Ambient Automated Plate Store	2 x <b>Cfg</b> Automated Plate Centrifuge
1 x <b>Car</b> HighRes AmbiStore D	1 x <b>Knf</b> HighRes MicroBlast
1 x <b>Car</b> HighRes MicroServe	1 x <b>Bpa</b> Print and Apply Station
2 x <b>Dsp</b> Single Reagent Dispenser	1 x <b>Bcr</b> Barcode Reader



### Description

This system is a 9-sided HighRes MicroStar configured for direct integration with an ambient plate store and acoustic dispensing. This larger system would typically form the hub of a compound management group's operations. Equipped with two acoustic dispenser units, it is capable of generating large numbers of "assay-ready" plates, for use by downstream screening customers. Accessory instruments, including heat sealers, heat seal removers and plate centrifuges guarantee the integrity of both the source plates and the completed destination plates.

### MicroStar Key Concepts

- Direct integration with the ambient plate store allows for uninterrupted processing of larger batches of compound with no need for manual intervention
- As customer formats alter, modify the system's capabilities by exchanging the acoustic dispenser carts for classical liquid handler carts to enable a higher volume range to be provided for
- Use the docking technology to implement "hot spare" carts. These carts, fitted with an identical device and methods, can be swapped into the system mid-run to replace a failed device and allow uninterrupted processing.