

## Thermo RapidStak Plate Stacker

Innovadyne Technologies introduces the **Thermo RapidStak plate stacker** as an integrated benchtop peripheral for use with all **Nanodrop** systems for unattended high-throughput operations.

The RapidStak's telescoping gripper arm sets each plate down precisely into position on the Nanodrop stage, and removes and restacks it following dispensing.

The RapidStak is fully controlled by user-configurable steps in Innovadyne's Nanobuilder© software, enabling seamless installation and eliminating the need to develop custom interfaces. While the stacker is delivering and restacking plates, the Nanodrop can perform wash and aspirate operations in parallel, reducing total cycle time. After the dispense protocol the plates may be restacked or transferred to other devices, such as plate incubators, plate readers, and washers, that can be placed on the far side of the stacker.



The Nanodrop and the Thermo RapidStak together are a powerful solution for flexible bench top HTS applications in your lab. The small footprint allows the user to place the entire integrated device into a standard laboratory hood.

### Features

- A 384-well plate dispensed to and restacked in approx. 30 seconds
- Deploys to and retrieves from either plate position of a Nanodrop II
- Handles SBS footprint plates 10-15 mm in height
- Stacker operations initiated by user-configurable Nanobuilder steps
- Stacker and liquid handler perform some operations at the same time in parallel
- Stacker holds up to either 30 or 50 plates, depending on stack type.
- Plate deployment to either side of the stacker permits additional peripherals to be accessed from the stacker (plate washers, plate readers, incubators, bar code readers)

### Applications

- Assay Development
- HTS reagent dispensing
- Cell dispensing
- PCR master mix additions
- Primer dispensing
- Sequencing reactions
- Serial Dilutions/IC 50s
- Protein Crystallography
- MALDI plate preparation

## Performance Specifications

Cycle Element Times	Value
Plate to Nanodrop	6 seconds
Dispense to 384-well plate	18 seconds (aspirate, dispense, wash)
Retrieve and Restack Dispensed Plate	6 seconds

### Dimensions -- RapidStak

Dimension	Thermo RapidStak
Height (with 30 plate stack)	60.2 cm (23.7 in)
Height (with 50 plate stack)	87.9 cm (34.6 in)
Width	38.1 cm (15 in)
Depth	58.7 cm (23.1 in)

### Dimensions -- Nanodrop II Stage

Dimension	Nanodrop II Stage
Height	32.3 cm (12.7 in)
Width	53.6 cm (21.1 in)
Depth	24.6 cm (9.7 in)

### Dimensions -- Combined

Dimension	RapidStak and ND-II Stage
Width	91.7 cm (36.1 in)
max Depth	58.7 cm (23.1 in)
max Height (30 plate stack)	60.2 cm (23.7 in)