

# Quadra Tower<sup>TM</sup>

## Liquid Handling Workstation

### Product Brief

#### At-a-Glance

**Small footprint** - Occupies less than 1 ¼ square foot of bench space

**Flexible** - Air or positive displacement configurations for 96 or 384 tip workflows

**Accurate** - Delivers 2% CV from 450µL down to ½µL for aqueous or organic workflows

**Functional** - Transfer from reservoirs to microtiter plates with Integrated wash-station

**Programmable** - From front panel or PC running Tower GUI

**Economical** - Lowest cost of ownership of any 96-well tower available today

#### TOMTEC Quadra Tower

The Quadra Tower is based on the popular and highly reliable Quadra4<sup>TM</sup> Liquid Handling Workstation technology. It's designed to accelerate workflows traditionally serviced by 8 and 12-channel, hand-held pipettors. The Quadra Tower supports fast and accurate workflows in a footprint no bigger than a notebook computer. An unexperienced user can quickly become familiar with its operation and aspirate/dispense – aqueous or organic fluids via the front control panel in minutes or implement a complex repeatable workflow from a remote client via a GUI. The availability of a built-in bath allows tips to be washed between aspirate/dispense cycles saving time and significantly reducing the costs of consumables. The bath can be up-graded to an ultrasonic bath with or without a circulating peristaltic pump.

#### Positive or Air-displacement head configuration

The Quadra Tower is sold with either an air-displacement 96-tip head or a positive-displacement 96/384 tip head. The air-displacement head supports our standard 450uL disposable tips (P/N 196-205/S) and can pipette down to 10µL with a CV of 3%. The four positive displacement options support either 96-tip or a 384-tip head with a CV of 2%. The positive displacement heads are based on fixed stainless-steel coated tips which can be cleaned between workflows with the integrated bath. The following table shows available configurations.



Description	Number of Tips	Head Type	Max/Min volume	CV in %	P/N
96 Well 450uL disposable tip Quadra Tower	96	Air Displacement	450/10µL	3%	400-10
96 Well 200uL fixed tip Quadra Tower	96	Positive Displacement	200/2µL	2%	400-40
96 Well 60uL fixed tip Quadra Tower	96	Positive Displacement	60/0.5µL	2%	400-20
384 Well 200uL fixed tip Quadra Tower	384	Positive Displacement	200/2µL	2%	400-50
384 Well 60uL fixed tip Quadra Tower	384	Positive Displacement	60/0.5µL	2%	400-30





The Quadra Tower is equipped with four air driven retractable trays powered by an integrated air compressor. One tray can be removed facilitating numerous different combinations of shallow-well (SW), deep-well (DW) microtiter plates and reservoirs as noted. Either workflow can access the bath position between each aspirate/dispense operation.

	Workflow A	Workflow C
Tray 4	Reservoir/DW plate	Reservoir/DW plate
Tray 3	Reservoir/DW plate	Reservoir/DW plate
Tray 2	SW plate	
Tray 1	SW plate	Reservoir/DW plate

■ Indicates when Tray 2 is removed, SW plates can fit in all positions

### Applications

The Quadra Tower is a low cost, small foot-print instrument designed to accelerate a wide range of aqueous or organic workflows with unprecedented accuracy and repeatability. Typical applications include liquid-liquid extraction, mixing, re-formatting and microtiter plate preparation - to name a few.

It's also possible to implement pipeline pipetting of individual reagents using air-gap separation. This feature significantly simplifies and accelerates the collection and mixing of multiple reagents into a single well.

### Optional Accessories

Description	Function	P/N
Ultrasonic Tip Washing Control Module and Bath	To drive the optional ultrasonic bath unit	121-056-61
Ultrasonic Tip Washing Control Module, Bath & peristaltic pump	To drive ultrasonic and circulate aqueous fluid to and from the bath unit	196-460-61
Disposable 96 tip load Jig	Disposable Tip Loading Fixture (With Handle) for 96 tip, 450µl Pipetting Head	420-50
96/384 tip-head loading Jig	Tip Loading Fixture for both 384 & 96 Position heads, SV 60µl Pipetting Head)	420-51

### Product Specifications

Specification	Dimensions
Width	12 inches
Depth	15 inches
Height	25 inches
Power	240 Watts
Weight	78 pounds
Compressed Air Source (optional)	35 psi Max

