

VULCAN

Automated Digestion and Work-Up Station



Vulcan-S Duo (Syringe Dispensing, 2 hot blocks)

ENHANCING SAFETY & EFFICIENCY IN LABORATORIES

ALL-PLASTIC ENCLOSURE PROVIDES LONGEVITY IN HARSH ENVIRONMENT

FLEXIBLE AND SIMPLE SOFTWARE AUTOMATES



Reagent
Addition



Heating
Cooling



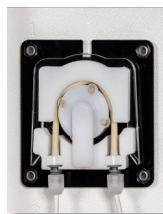
Sample
Dilutions



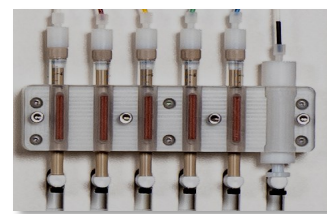
Aliquot
Transfer

Reagent Dispensing

- 7 Dedicated reagent lines running from bottle to probe
- Choice of Glass & PTFE Syringes, or Peristaltic Pumps
- Delivery module allows independent or simultaneous control over delivery of reagents
- Flow rates ranging from 0.5 to 1.5 ml/sec
- Syringes and Pumps available for all liquids including HF, HClO₄, H₂O₂, KMNO₄ and H₂SO₄



Peristaltic Pump



Syringe Module

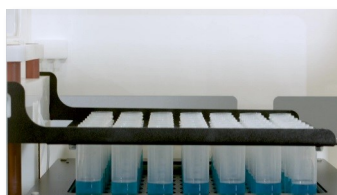


Option of all 6 PTFE syringes for ultrapure dispensing



Independent reagent lines reduces priming operations, increases dispensing speed and avoids reagent mixing

Heating



Pneumatically driven tray lift moves samples in and out of the digestion block providing precise, automated heating & cooling of the samples

- Choice of digestion block heating 230 °C to 400 °C
- Easy to swap blocks as necessary
- **Custom Blocks available upon Request!**

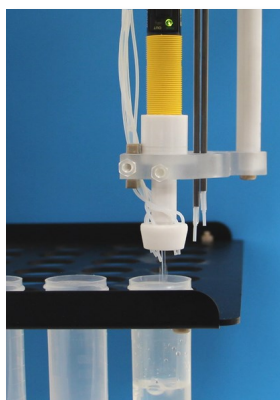


Digestion blocks accommodate 15, 25, 50 & 100 mL vials

All plastic, Non-Corrosive Enclosure

- The workstation is a built-in fume hood and saves valuable lab space
- All plastic construction prevents any corrosion by acid & heat and maintain robotic movements unobstructed
- Compatible for use with Perchloric acid
- Optional ULPA/HEPA filter maintain a particle free work area
- Excellent fume extraction arrangement





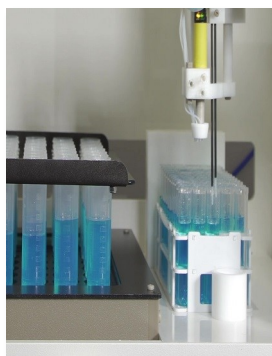
Dilute Up-To-Mark

Ultrasonic, non-contact sensor reads the initial sample volume and dilutes the sample to the users specified volume



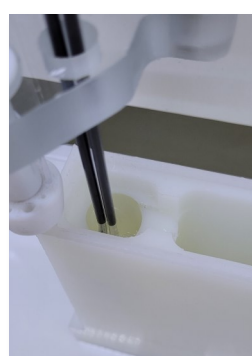
Stirring Samples

Samples are homogenized either by lateral movement and or by a stream of bubbles which force the sample to mix with the lighter diluent.



Transfer

After the digestion is complete, the system can transfer an aliquot of the digestate to an autosampler rack



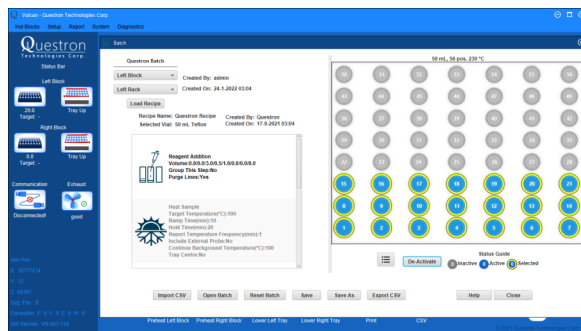
Cleaning Probes

Sample probes are washed in a dual chamber wash station to eliminate sample-to-sample cross contamination. Diluent flows within the well to clean the sample loop

Flexible Software

Agile software easily accommodate variety of pre-existing procedures. Progress of sample processing and system status is available on main software window.

Robotic routines are setup easily using key automation steps.



Software operates in different user levels to manage the access to variety of functions. At the end of sample processing a detailed report of all the processes with timestamps is made available to comply with **GLP** and **ISO standards**.

Software is capable of handshaking with LIMP system.



Accessories



HEPA/ULPA Filter

Clean room environment for ultra sensitive applications



Reagent Storage Cabinet

All plastic enclosure to safely store acids and extract acids to the Vulcan



Fume Scrubber

Made to extract acid from the fumes of an open digestion hood



DO YOU HAVE SPECIFIC REQUIREMENTS?

Customization is Available!

- Specific Vials
- Custom Block
- Specific functions



Custom Dispensing Probe for narrow 16mm ID vials

Configuration Options

	Vulcan Standard	Vulcan Duo
Blocks	1	2
Autosampler Rack	2	2
Dimensions (W x D x H)	96 X 62 X 81 cm 38 X 24 X 32 in	142 X 63 X 81 cm 56 X 25 X 32 in
Weight	95 Kg, 210 lb	114 Kg, 250 lb



Vulcan-S Single (Syringe dispensing, 1 hot block)

Reagent Dispensing Options

Options	Peristaltic	Glass Syringe	Teflon Syringe
I	1	5	1
II	1	0	6
III	4	2	1
IV	4	3	0
V	4	0	3
VI	7	0	0



Vulcan-P Single (Peristaltic dispensing, 1 hot block)

Contact us for more information