

Holding the right CARDS

Rheonix Inc has integrated Tecan's Cavro® Air Displacement Pipettor (ADP) into its EncompassMDx™ molecular diagnostics workstation, providing complete automation of sample processing and analysis using Rheonix's CARD® molecular diagnostic technology.

Rheonix Inc, a molecular diagnostics device manufacturer based in Ithaca, New York, has developed a unique microfluidic assay technology, CARD (chemistry and reagent device). The CARD system allows complete automation of genetic and immunoassay diagnostic testing of various biological sample types, including FFPE (formalin fixed paraffin embedded) samples, using a single disposable device. Each CARD contains all the pumps, valves, microchannels, reservoirs, reagents and reaction chambers required to perform a wide range of assays, using a patented lamination technology to control fluid flow.

Dr Richard Montagna, Senior Vice President for Corporate Business Development and Scientific Affairs at Rheonix, explained: "Our patented diaphragm technology uses a very thin, deformable membrane to create microfluidic circuits within the device, opening or closing junctions between discontinuous channels using positive or negative pressure. Each assay consists of various steps – including sample acquisition, cell lysis, DNA or RNA extraction and purification, PCR or isothermic gene amplification and detection – and is controlled by our EncompassMDx workstation. This platform is designed to run completely unattended, from loading the clinical sample to printing out the final results, and can process up to six CARDS, allowing 24 separate assays to be performed in parallel."



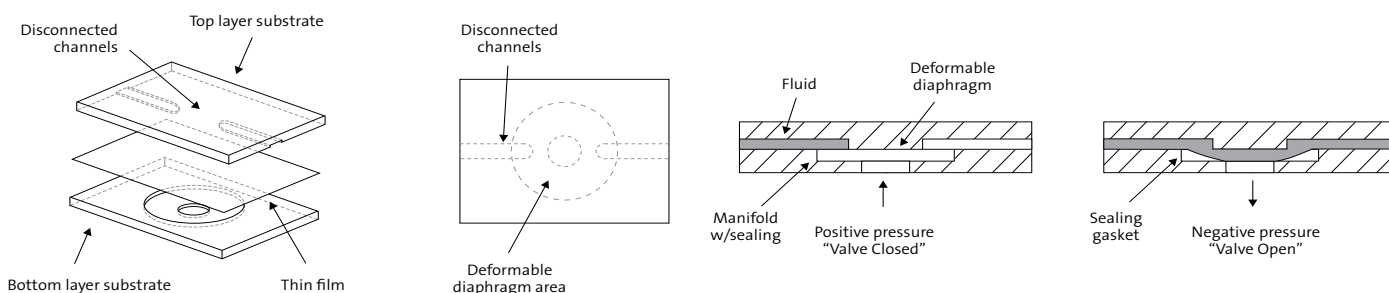
The Cavro ADP is an integral part of each EncompassMDx workstation

"Rather than develop our own pipetting system for sample addition, our engineers looked at third-party devices from several OEM manufacturers to perform this essential task. We chose the Cavro ADP for its combination of accuracy, robustness and competitive pricing, and are not aware of any other pipetting system that has the same breadth of capabilities. It can handle a wide range of sample materials and volumes, and we were confident that this flexibility, combined with the use of Tecan's high quality disposable tips, would allow constant and reliable walkaway operation of the EncompassMDx workstation."

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To learn more about the Cavro ADP, visit www.tecan.com/adp

For more information on Rheonix Inc, go to www.rheonix.com



Rheonix's patented lamination system uses deformable membranes to open and close microfluidic channels using positive or negative pressure