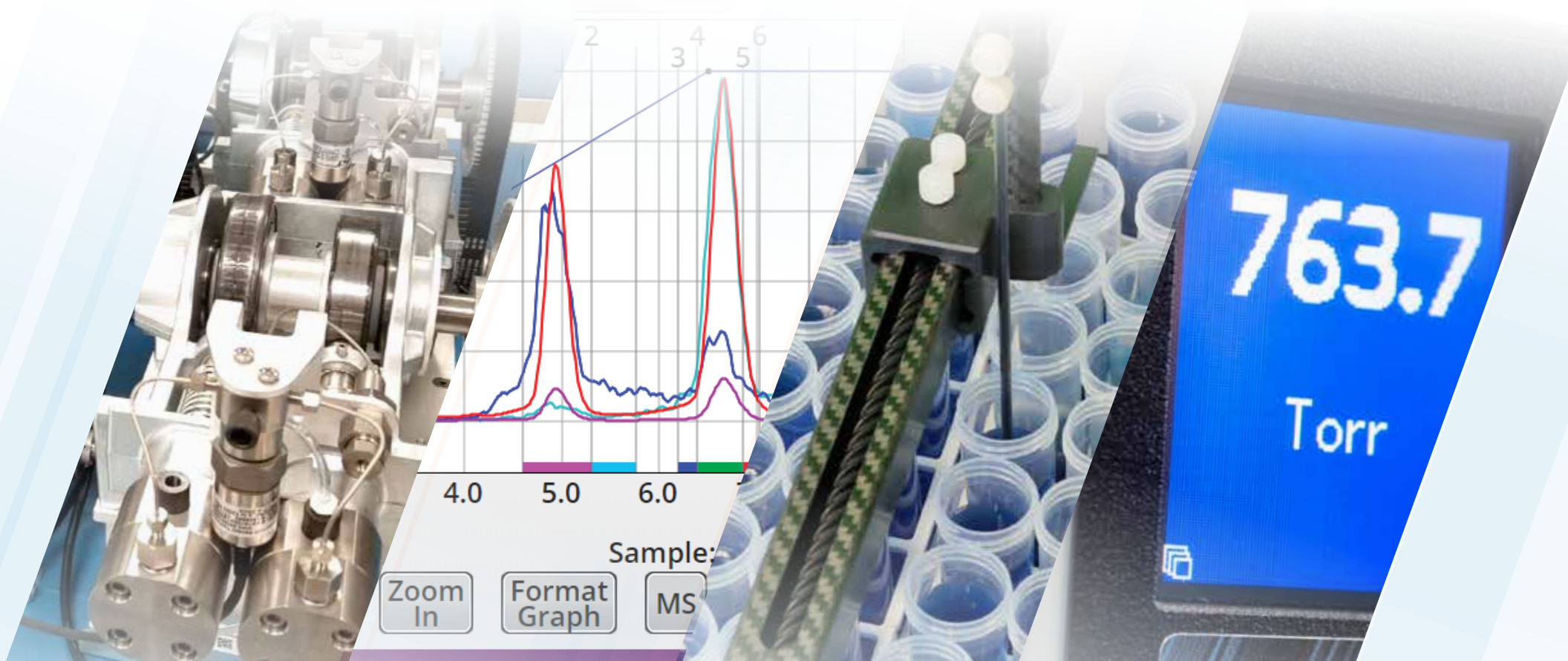




TELEDYNE OEM SOLUTIONS
Everywhereyoulook™



OEM Product Offerings

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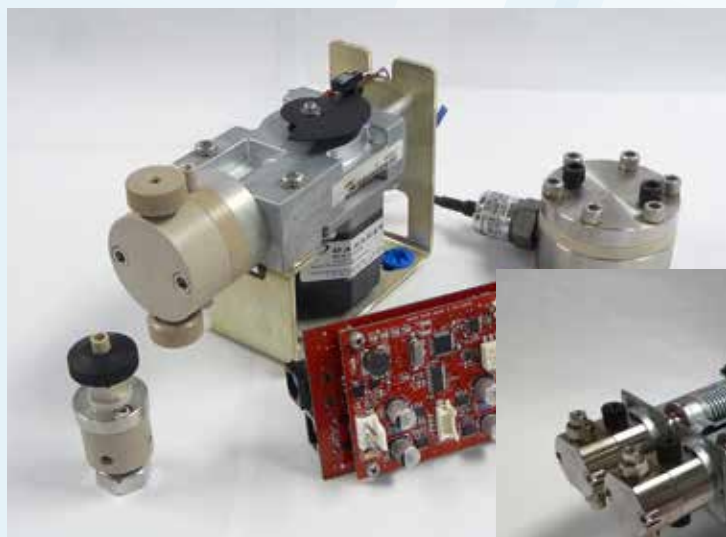


Fluid Movement

Teledyne OEM Solutions manufactures a wide variety of positive-displacement piston pumps used in HPLC, UHPLC, prep and flash chromatography, and protein purification applications. Whether you need low pulsation, no pulsation, or are working with hazardous materials, we have a ready-made option for you. All our standard offerings are available in kit form; if you need a configuration we don't provide, we can customize one based on your specifications.

Configured Pump Kits

These kits seamlessly integrate with your existing equipment. They include mechanical components, control interface electronics, all fluid-path components, and complete technical documentation.



Standalone Pumps

Our selection of standalone pumps offers options to support a range of uses. From economical to high performance, we have a pump to meet your needs. You can trust us to provide the right pump for the job.

Custom OEM Pump Kits

Our custom OEM kits are the answer to your pumping challenges. Choose from a variety of pump platforms, with flow rates from 1 $\mu\text{L}/\text{min}$ to 600 mL/min ; pressures up to 25,000 psi; single or dual piston; a wide variety of fluid path materials; and other fluid path components (see list below).

"Tell us what you need, and we will build a pump kit to meet your exact requirements."

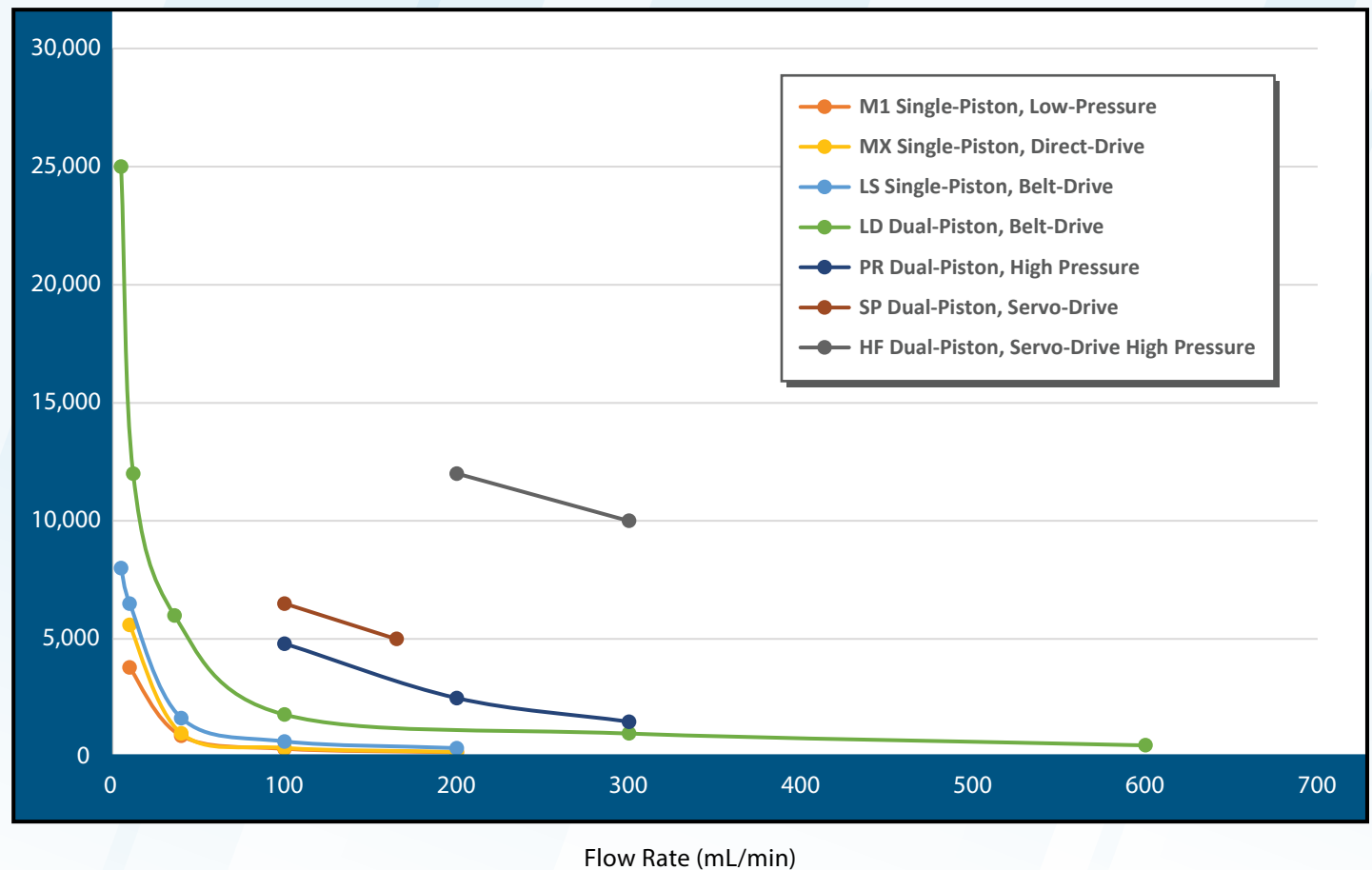
Fluid Path Materials

- Stainless steel
- PEEK high performance plastic
- Titanium
- Hastelloy

Other Available Fluid Path Components

- Prime-purge valves
- Pulse dampeners with integrated pressure transducer
- Various filters and fittings
- Jacketed pump heads for precise heating and cooling

Pump Performance Data



Gas Control

Teledyne OEM Solutions has decades of experience with thermal mass flow meters and mass flow controllers, including for high and low flow ranges, corrosive gases, and very high-temperature environments.

Flow Meters and Controllers

200 Series - General Purpose

- Mass flow meter & controller
- Very high flow capable (15,000 slm)
- Economical
- Accurate
- Elastomer sealed
- Linear output



300 Series - High Performance

- Mass flow meter & controller
- High flow capable (10,000 slm)
- Metal sealed (<25 slm)
- Low pressure drop

Digital 300 Series - Digitally Enhanced

- Mass flow meter & controller
- High flow capable (10,000 slm)
- Metal sealed (<25 slm)
- Linear output
- Digital communications
- Flow totalizing
- Setpoints



Engineered Solutions

Our mass flow controllers/mass flow meters can be configured for your specific requirements. Our 75-plus years of experience in designing and building mass flow meters provides a comprehensive capability to modify existing products to meet custom OEM specifications.



Low Flow

(0-5 sccm to 0-25 slm)

Medium Flow

(0-25 slm to 0-1,000 slm)

High Flow

(0-1000 slm to 0-15,000 slm)

Automation

CETAC Automation produced its first autosampler in 1993, responding to the need for a robust, ICP-OES liquid sampling accessory. Now, with over 50,000 autosamplers in various markets, Teledyne OEM Solutions has a wide selection of autosampler platforms and technologies.

Custom Entry-Level Autosamplers (OEM-500 Series)

The OEM-500 Series autosampler has proven its worth in thousands of laboratories and countless hours of operation. The common message from laboratories "It just works."

- Simple OEM integration
- Affordable XYZ autosampler
- Custom OEM tailored to your need



Fraction Collectors

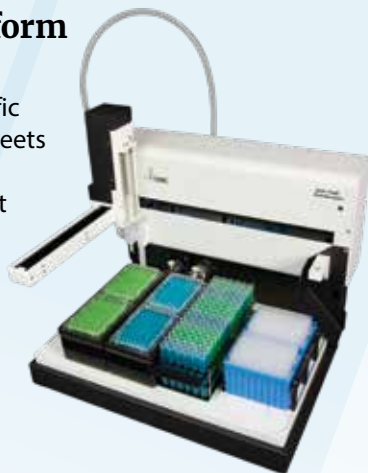
ISCO and CETAC brands unite to provide OEM solutions for small scale to high throughput applications. A wide selection of models and technologies provides capabilities to meet practically any need.



Custom Flexible Automation Platform (OEM-7000 Series)

Create a truly custom autosampler for your specific application. The OEM-7000 Series autosampler meets the OEM requirement for a robust, high-precision automation, with the strength to perform difficult operations such as septum piercing, and the reliability to execute pick and place operations.

- Multiple heights and sizes to choose from
- Operate with 384 micro-titer well accuracy
- Custom OEM tailored to your need



Advanced Carousel Autosamplers (OEM-100 Series)

The carousel platform minimizes space requirements, making it easy to fit into an existing OEM product or by itself. The advanced rotating sample tray allows for random access of a sample rack, unlike traditional carousel autosamplers with circular sampler racks.

- Operate 96-position well-plate to large vials/bottles
- Keep samples clean with built in cover



2-Axis Autosamplers Collector (OEM-6000 Platform)

The OEM-6000 Series fraction collector gathers up to eight fractions from a digester or other source; waste is minimized by returning unused material to the source.



Technology That Fits



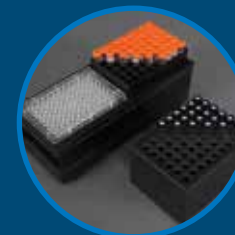
Pick-N-Place

The ASX-7000 series platform is capable of precisely delivering racks and/or vials to user defined locations.



Septum Piercing

Experience with many applications ranging from single to multiple septum piercing.



Temperature Control

Cooling/heating option allows computer controlled temperature control of samples from 1°C to 70°C.



Sample Mixing

Mechanical (paddle), vortex, in-line, or dispense mixing. CETAC has a mix of experience across a range of solutions and viscosities.



Fraction Collection

Fraction collection and autosampling in one platform. Combining two techniques reduces required bench space.



Syringe Pumps

We have experience moving liquids. Syringe, peristaltic, diaphragm or high-pressure piston pump.



Sample Probes

A wide selection of sample probes, including FEP encapsulated carbon fiber and glass lined stainless steel.



Sample Rack Options

A wide selection of standard sample racks from SBS microtiter plates to racks holding 500 mL bottles. Customized racks made to customer specifications.



Your Technology

Is your technology key to the application? Our experts will integrate your hardware into the design of the instrument for a truly custom solution.

OEM-500 Platform



Customize to your needs.

Simple

Easy Set-Up and Operation:

Out-of-the-box set-up allows for a fully operational system the day of delivery.

Robust

Corrosion Resistant: Sealed electronics chassis, conformal coated electronic boards and coated main driver-screw protect against the harshest of chemical environments.

Superior Material Construction: Inert, metal-free PTFE liquid flow path decreases sample contamination risk and prolongs the life of the instrument.

Motor Torque: Powerful X, Y, Z axis movement resists the effect of environmental buildup.

Accurate

Never Misses a Vial: Precision engineered automated sample probe arm and stationary sample racks virtually eliminate errors.

Auto-Zero Feature: Intelligent sample probe re-homing ensures accurate and repeatable probe positioning.

Integrated Rinse Station: Continuous flow sample probe rinse station with peristaltic pump minimizes sample contamination and carryover.

Technical Specifications

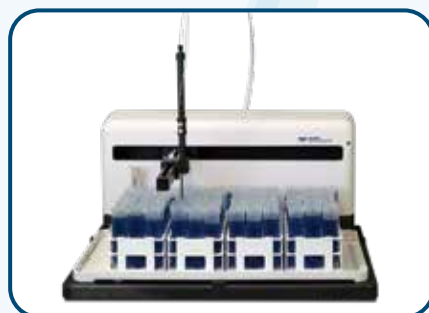
ASX-280 Compact 2-Rack Autosampler



Height	62 cm (24")
Width	36 cm (14")
Depth	56 cm (22")
Weight	8.1 kg (17.8 lbs)
X-Axis	22.2 cm (8.74")
Y-Axis	30.0 cm (11.81")

**allow additional space for cables*

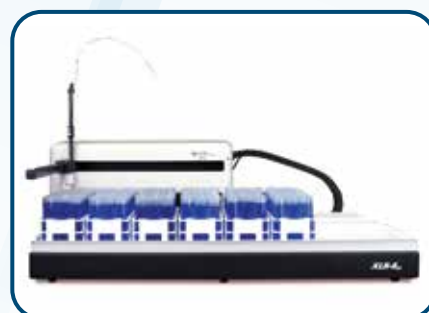
ASX-560 Rugged 4-Rack Autosampler



Height	62 cm (24")
Width	58 cm (22.8")
Depth	56 cm (22")
Weight	11.7 kg (26 lbs)
X-Axis	42.0 cm (16.54")
Y-Axis	30.0 cm (11.81")

**allow additional space for cables*

XLR-8₆₀ Extended 8-Rack Autosampler



Height	66.7 cm (26.3")
Width	112 cm (44")
Depth	59.5 cm (23.5")
Weight	20.4 kg (45 lbs)
X-Axis	2 × 42.0 cm (16.54")
Y-Axis	30.0 cm (11.81")

**allow additional space for cables*

Speed

Axis	Min	Max
X	70 mm/sec	370 mm/sec
Y	70 mm/sec	340 mm/sec
Z	70 mm/sec	430 mm/sec

Autosampler Control Utility

Configuration tool for speed control of XYZ and pump including IQ/OQ for product setup

Communication Interface

2 Serial (RS-232) ports;
USB (virtual COM port);
5 auxillary inputs / 5 outputs

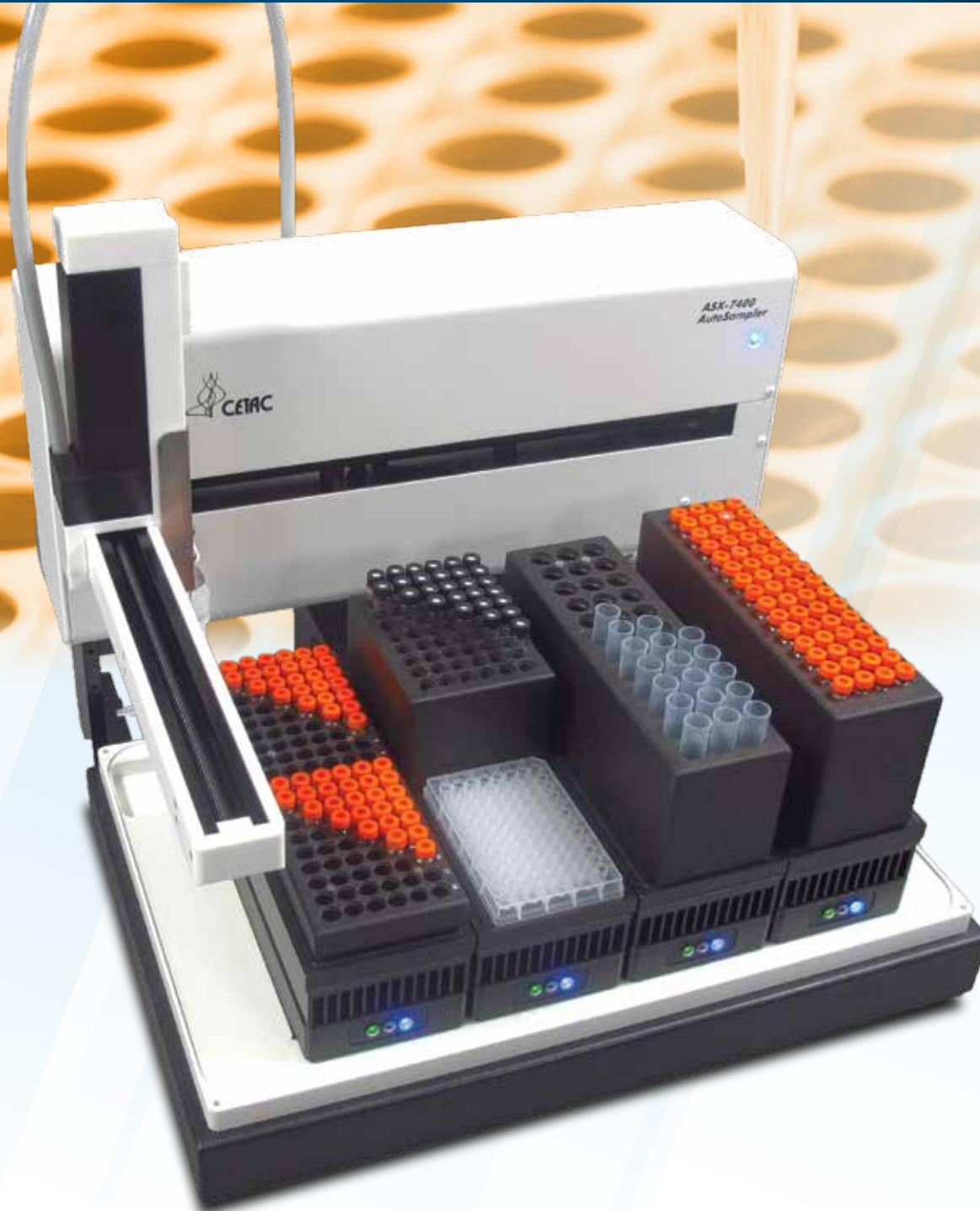
Power Requirements

100-240 VAC, 47-63 Hz, 1.9A

Options

Environmental Enclosures
Online AutoDilutor (SDX_{HPLD})
Offline AutoDilutor (SimPrep)
Rapid Sample Introduction (ASX_{PRESS})

OEM-7000 Platform



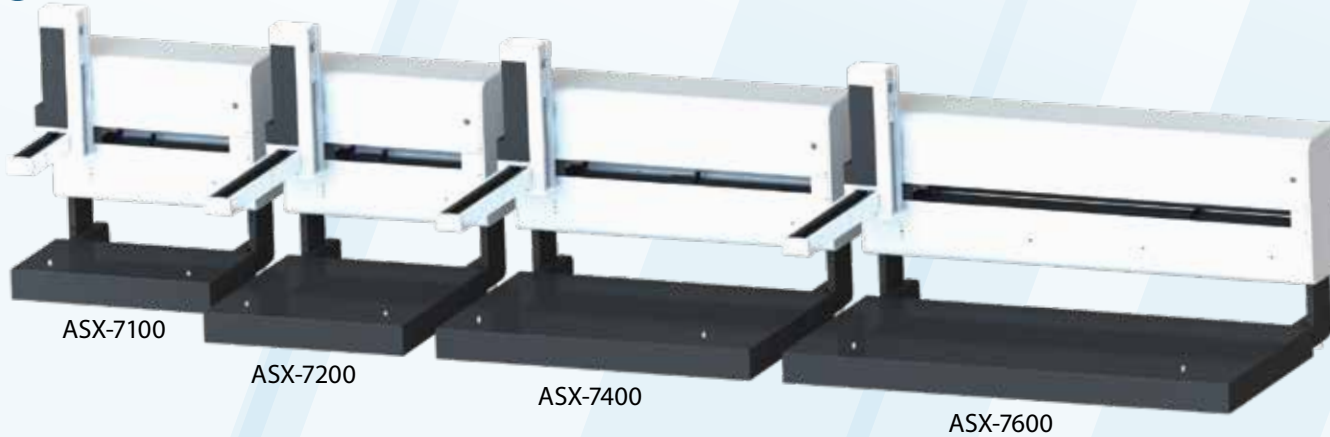
Flexible OEM Autosampler

The OEM-7000 automation platform allows our partners to find the solution that they need for their requirements. This platform was developed to scale in size and height to serve a wide range of industries. Liquid media volumes can be handled within a range of 5 μ L to 800 mL from the same, single, platform. Teledyne OEM Solutions works with industry partners to ensure that their automation needs are being met. The automation platform was developed with accuracy and precision in mind enabling liquid handling from sample positions as small as 384 well micro titer plates.

Pick Your Autosampler –

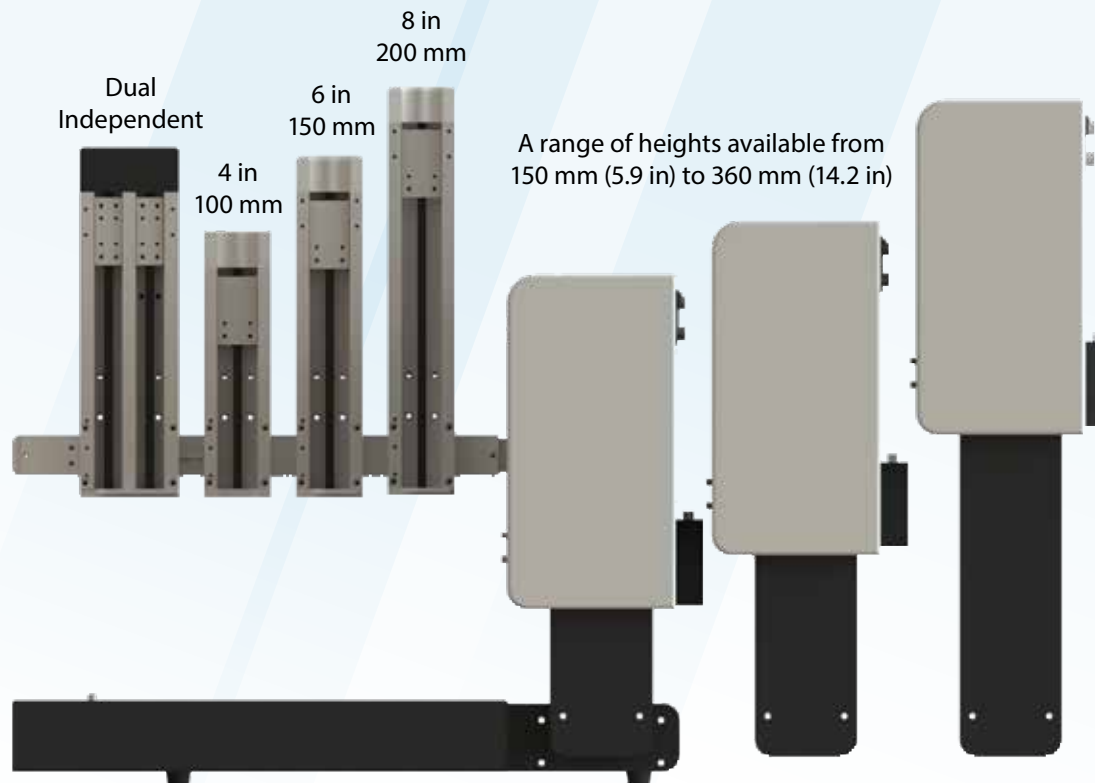
Four easy steps guide you through the process: ① ⇨ ③
One size fits all? At Teledyne, we don't think so. That is why we offer 4 platform bases.

① Select Your Size



② Select Your Z-Axis

Single or dual independent with a wide range of movement to meet sampling/dispensing depth.



③ Select Your Height

If you have tall or short vials or if you have equipment mounted on the deck for direct injection, select the clearance height for your application.

Two trusted brands come together under one new name: Teledyne OEM Solutions

SSI and CETAC brands join forces to leverage our liquid management expertise and automation solutions for a one-source solution that satisfies the needs of global instrument manufacturers (OEMs).

For over 30 years, we've been dedicated to providing innovative solutions to OEMs, using advanced technologies across a broad range of techniques (e.g., ICP to HPLC), driven by a true passion to exceed the expectations of our OEM customers.



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