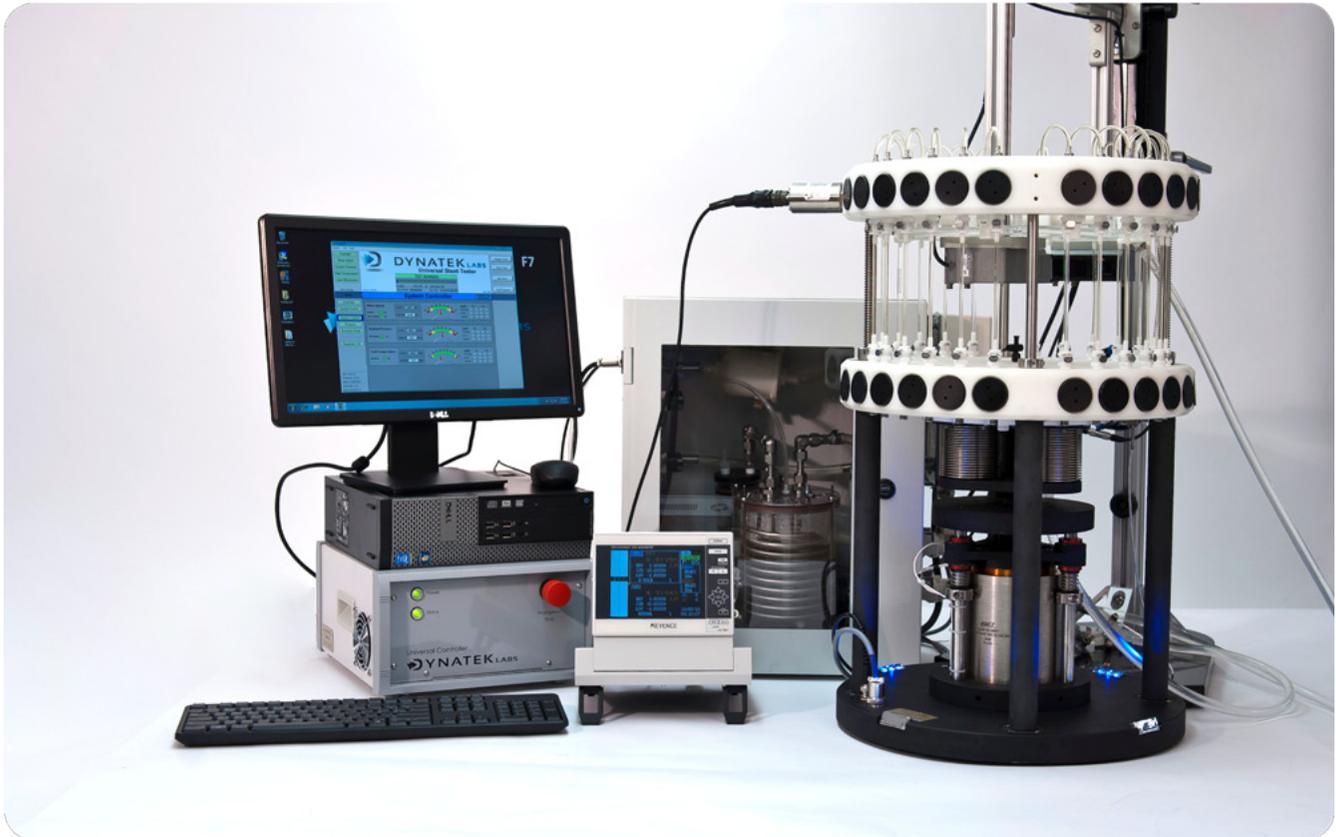


# UST Stent Tester



## **UST – Delivering next-generation productivity today**

Hot on the heels of the SVP-24, Dynatek Labs is proud to introduce the most powerful stent and graft durability testing platform in the world: the UST Universal Stent Tester. Until now, radial fatigue stent tester designs were severely constrained: you had to invest in three to five separate test units if you needed to test samples from 2 to 50 mm ID. The upfront investment for a company testing samples in the coronary to stent graft size ranges was prohibitive. Now, with a single UST Universal Stent Tester, you can conveniently test any size of stent or stent graft on only one machine, just by swapping out an optional manifold!

## **Design solution for unmatched versatility**

Retaining many of the powerful features of the original SVP-24 Stent and Vascular Prosthesis Tester, each UST platform consists of a Hyper Drive and bellows module and a sample manifold module in which the stent samples are mounted. Based on the size of your current stent test samples, you can choose the optional sample manifold module sized for your sample ID. Testing larger or smaller samples? No problem! Choose from one of four interchangeable manifold modules that best fits your needs, swap out the existing sample module and you're ready to test a different size.

## **Lowest cost of ownership**

With the UST, you only have to invest in one test platform to test stent and graft samples regardless of their internal diameters. The UST's powerful all-in-one platform gives you the productivity of four radial durability testers at slightly more than the price of one unit. To maximize your return and protect your investment, nothing beats the UST.

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**DYNATEK LABS**  
Leading the world in medical device testing



### Innovative technology delivers superior testing results

Dynatek's SVP and UST feature a single motor that drives fluid with a pulsatile motion into the whole sample. This ensures that the *entire sample* is undergoing the same test condition and the pressurization is most like how the heart pressurizes the vasculature.

Since pulsatile conditions are uniform across the entire length of the mock vessel that contains the sample, the SVP-24 and UST, unlike dual-headed units, can test *up to five* stent samples in a mock vessel, (depending on the length of the stent) offering significantly increased capacity. With the SVP-24 and UST, cutting edge science delivers *uniform test conditions* and exceptional performance.

The vertical configuration of the SVP-24 and UST permits bidirectional rotation of the manifold, allowing the included laser micrometer to take deflection readings of samples conveniently. The Flow-Through Adapter allows test fluid to be pumped through all samples in a closed loop, ensuring an even temperature distribution within all mock vessels and also ensuring the removal of shed particles, which is of particular importance during the testing of bioabsorbable stents.

### One product platform – multiple applications

For high sample capacity, the SVP-24 is unbeatable. For flexibility in testing however, the UST offers unrivalled productivity with the convenience that only a truly modular platform offers. Each dedicated manifold is sized for an application-specific range of sample IDs, with the XL manifold offering the widest range. Choose from any of the following optional sample manifolds on the UST to suit your sample requirements:

Platform	Sample ID range	Straight Sample #
SVP-24	2-12 mm	up to 24
UST-M	2-16 mm	up to 16
UST-L	2-24 mm	up to 12
UST-XL	2-50 mm	8 to 16

[UST manifolds are interchangeable]

***“...the UST lets me choose sample flexibility or high throughput when I need it.”***

### Designed for reliability and long life

With only one powerful, long-life Hyper Drive linear actuator, the SVP and UST feature a minimal number of moving parts, about half the number of moving parts in competitive testers featuring two motors. Proprietary alloy bellows are designed to run for over a billion cycles and the rugged manifold is fabricated from durable Delrin.

Frelon Gold™-coated linear bearings on the linear actuator are designed to absorb enormous loads, provide smooth motion and reduce stress on the motor, and the custom motor shaft features a Diamond-Like Coating (DLC) making it extremely hard and wear-resistant. Result? The SVP-24 and UST will provide years of virtually maintenance-free performance.

### One motor or two?

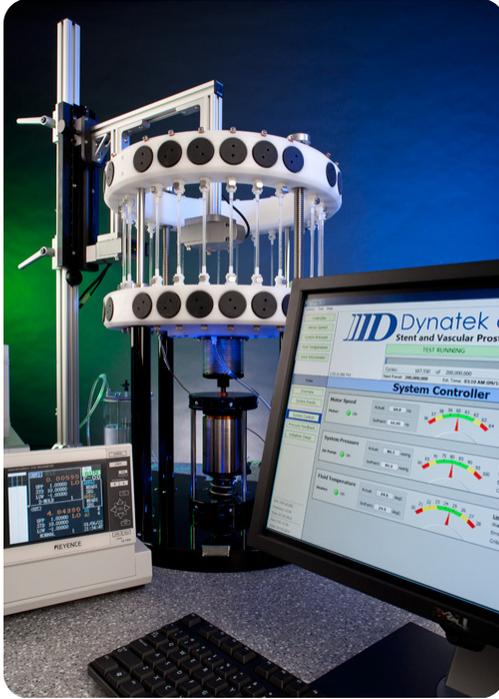
In competitive units featuring two motors, two wave fronts rush inwards towards the middle of the sample where they collide. The required test condition is only created in a narrow center region, resulting in only the center of the sample being adequately tested. This situation is worsened in longer samples, where the two extremities of the sample are further away from the central ‘test region’ on the sample.

Furthermore, dual-motor units can only test one stent per mock vessel, since test conditions are obtained only in the center of each mock vessel.

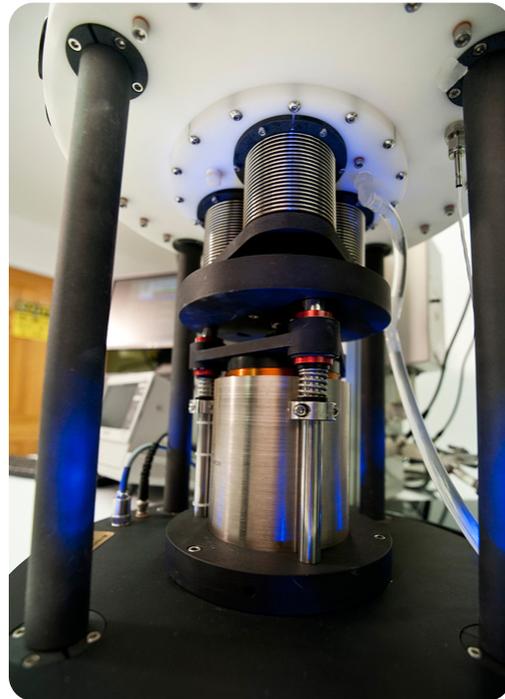
## Boost productivity with optional accessories

A wide range of optional add-ons have been tailor-made to meet the needs of stent and graft testing protocols:

- Various diameters of graft tube adapters and quick disconnects
- Sample isolation valve to allow removal or replacement of individual samples without test interruption
- Adapters for catheter deployment of stents on the tester



SVP-24: Single bellows, small Hyper Drive for smaller sample testing



UST: Three bellows, large Hyper Drive for larger sample testing that requires more volume throughput

## How do I choose the right tester for my device testing needs?

If you're testing coronary, renal, SFA or carotid stents, and you are looking for maximum sample throughput, you may choose the SVP-24, which would cover samples with IDs up to 10 mm. For iliac stents, you may choose the SVP-24 or UST-M or -L, depending on the ID of your stent. For AAA or TAA stent grafts, you may choose UST-VL for devices up to 50 mm ID. Note that depending on the choice of UST manifold, you will be able to test smaller or larger numbers of samples.

# Dynatek's UST Stent Tester Specifications

## Description

Mock vessel configuration  
 Mock vessel length (straight)

## Specification

straight, curved, bifurcated  
 up to 300 mm,<sup>1</sup> adjustable

Manifold sample sizes	ID	# of straight samples <sup>2</sup>
SVP-24	2-12 mm	up to 24
UST-M	2-16 mm	up to 16
UST-L	2-24 mm	up to 12
UST-XL	2-50 mm	from 8 to 16 (with adapters)

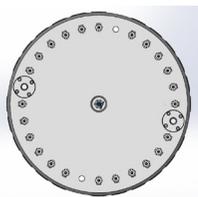
Field swappable UST manifolds	yes
Accelerated closed-loop control of pulsatile tube distention	yes
Testing at physiological speed	yes
Testing at accelerated speed	yes
Testing fluid	PBS, D/W
Fluid temperature range	≤ 45°C
Test monitoring	mock vessel distention, pressure, temperature, frequency
Automatic test control method	mock vessel distention
Fluid flow through mock vessels	yes
Drive	Hyper Drive linear motor
Controller	included
Laser mock vessel distention measurement	optional laser micrometer

1 Depending on sample compliance

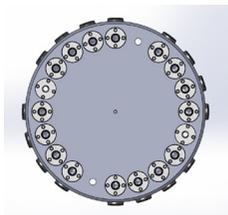
2 Number of bifurcated samples that can be mounted is approximately half the number of straight samples.

Specifications are subject to change without notice.

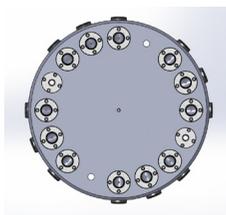
## Manifold options:



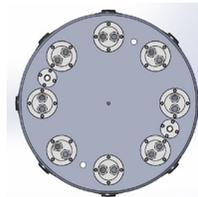
SVP-24  
 2-12 mm  
 up to 24 samples



UST-M  
 2-16 mm  
 up to 16 samples



UST-L  
 2-24 mm  
 up to 12 samples



UST-XL  
 2-50 mm  
 8 to 16 samples

To receive a customized proposal, contact us today at:

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