Enabling Nanoscale Advances

Park SYSTEMS

Accurion Workstation

Active Vibration Isolation IVF Workstation

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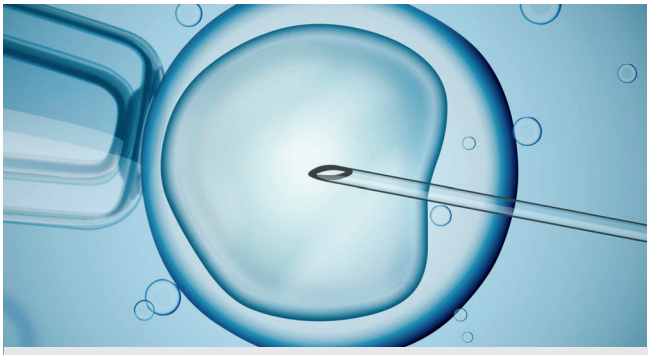


IVF Procedure

Accurion's IVF Workstation has been specially designed for the use with in-vitro-fertilization so that biologists can ergonomically sit in front of their microscope.

The IVF workstation consists of a lab table with integrated active vibration isolation system to actively compensate incoming vibrations. The incorporated Accurion i4 system is self explanatory with a control panel of only three buttons which allows the user to completely focus on the application. An active system enables you to work without disruptions and will increase your efficiency.

Due to the nonisolated surface space the user's arms can rest comfortably without impacting the procedure. In contrast to heavy granite tables its sleek design allows using your space to full capacity and also complements your existing furniture. In addition to that the active isolation system provides superior isolation performance and overcomes the disadvantages usually associated with passive systems.

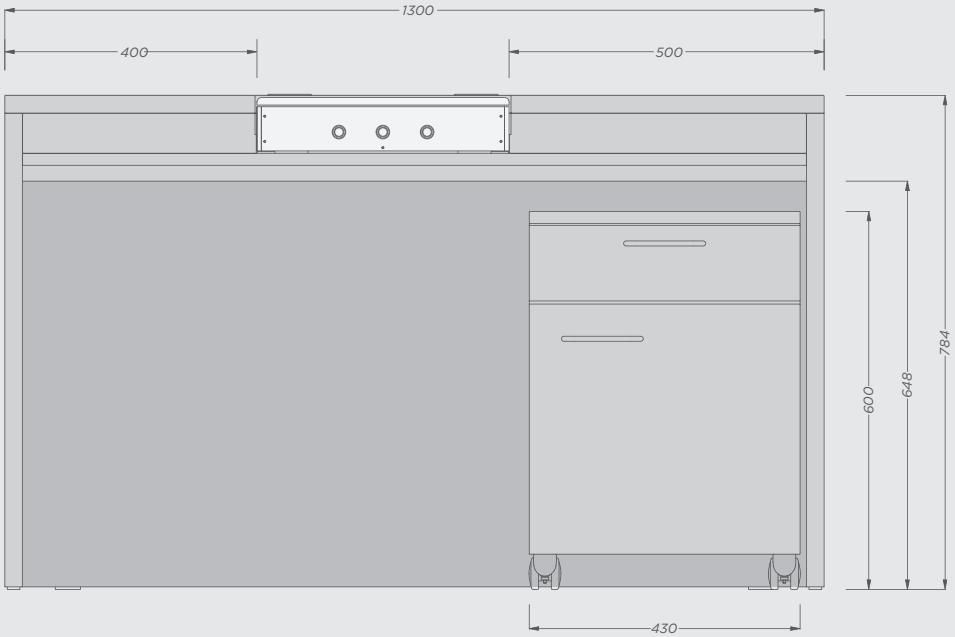
Aside from functionality and stability, Accurion paid particular attention to medical standards, e.g. proper surface coating. A mobile cabinet would be available as optional accessory.

- IVF Workstation with Nikon Eclipse Ts2R-FL
  Mobile cabinet optional

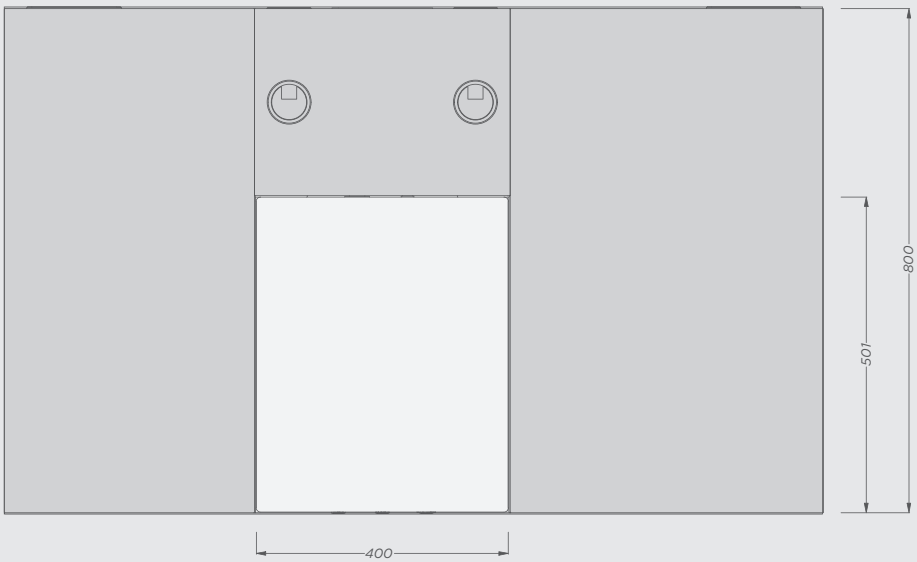
IVF Workstation

Isolated surface i4 (W × D): 400 × 500 mm / 15.7" × 19.7 "

Overall dimensions (W × D × H): 1300 × 800 × 784 mm / 51.2" × 31.5" × 30.9"



Top View

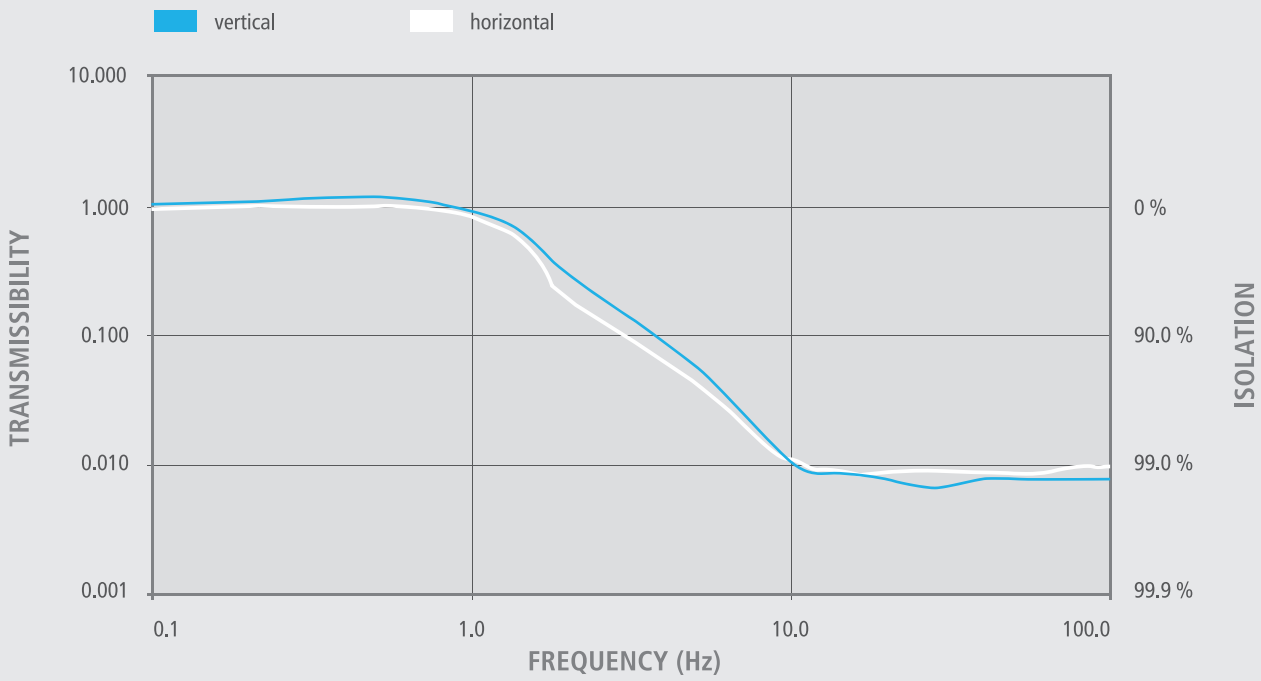


Specifications	IVF Workstation
Dimensions of isolated surface (L × W)	400 × 500 15.7 × 19.7 inch
Overall dimensions (L × W × H)	1300 × 800 × 784 mm 51.2 × 31.5 × 30.9 inch
Load capacity on isolated surface	0 – 120 kg 0 – 265 lbs
Isolation technology	Accurion control technology based on piezoelectric type acceleration pickup, fast signal processing and electro-dynamic force transducers.
Force directions	Active compensation in all six degrees of freedom.
Isolation performance	> 5 Hz = 25 dB (94.4 %) > 10 Hz = 40 dB (99 %)
Active bandwidth	0.6 – 200 Hz* (passive isolation beyond 200 Hz)
Settling time	300 ms**
Response time	0.5 ms***
Stroke of the actuator	1 mm
Max. correction forces	Vertical ± 8 N Horizontal ± 4 N
Max. compensation level	500 µm / sec. at 6 Hz and 60 kg / 132 lbs**
Repeatability of load adjustment	120 µm
Table top material on isolated surface	Powder coated aluminum
Table top material non-isolated surface	Medium density fiberboard with outer melamin resin surface
Top plate surface flatness	± 0.10 mm over complete surface
Environmental and operational requirements	Electrical voltage: Input 100 – 240 V/50 – 60 Hz AC ; Output :+12V / 5.0 A – 60W DC Power consumption: Typically 40 – 45 W Operating temperature: 15 – 40 °C / 59 – 104 °F Relative humidity: 0 – 60 % Operating altitude: < 2,500 m / 8,100 ft
Certified according to:	2014/35/EU 2014/30/EU FCC Regulations Part 15.107 & 15.109 SI 2016:1091

*The low-pass characteristics of the spring-mass combination dominate the dynamic behavior of the isolation system above 200 Hz.
The part of the active isolation decreases with increasing frequency.

**The settling time and maximum compensation level depend on several conditions such as payload, vibration frequency and load distribution.
The mentioned settling time value is exemplary for a centric load of 80 kg. The settling time defines the time until an incoming vibration is compensated.

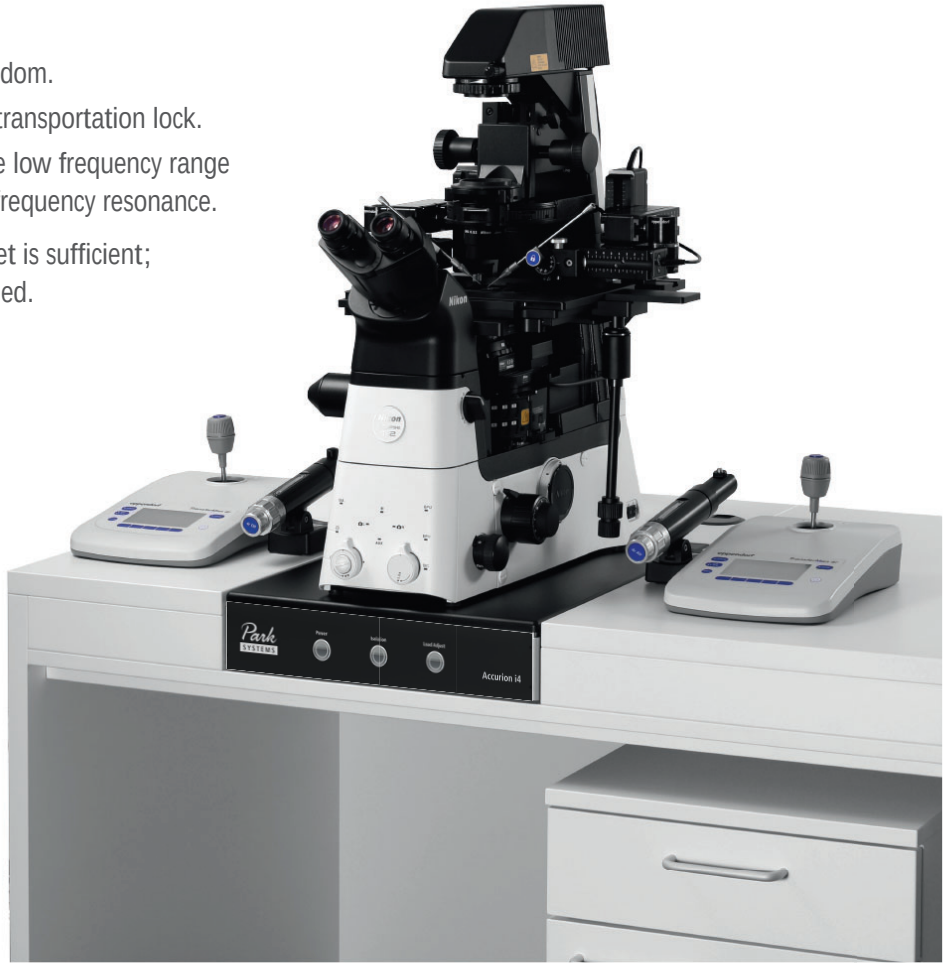
***The response time determines when the system starts to actively isolate an incoming vibration after detection by the sensors.



Transmission graph of the Accurion i4 measured at a velocity of 100 µm/s with a payload of 20 kg (44 lbs).

Key Features

- Isolation in all six degrees of freedom.
- Automatic load adjustment and transportation lock.
- Vibration cancellation even in the low frequency range due to the lack of a natural low frequency resonance.
- AC power from an electrical outlet is sufficient; no compressed air supply is needed.
- Excellent position stability.
- Response time only 0.5 ms.



- IVF Workstation with Nikon Eclipse Ti2

Park Systems Global

● Regional headquarters
● Distribution partners

Park Systems GmbH - Accurion

Park Systems GmbH previously known as Accurion GmbH is a leading provider of high-end, state of the art imaging ellipsometry and active vibration isolation products. Accurion was merged into Park Systems Corporation in 2022 to boost its R&D resources and expand its sales network to better serve its customers.
Park Systems is a world leading manufacturer of nano metrology-microscopy solutions including the atomic force microscopy (AFM), white light interferometry and infrared spectroscopy systems.
It provides complete range of nano metrology and microscopy products for researchers and engineers in the chemistry, materials, physics, life sciences, semiconductor, and data storage industries.

Prior to merger with Park Systems, Accurion was previously known as Nanofilm Technology GmbH, a spin-off from the Max Planck Institute for biophysical chemistry in Goettingen. In 1991, the company began designing the Brewster angle microscope for the characterization of ultrathin films. In 1996, the company's division of active vibration isolation was established. In 2009, Halcyonics GmbH, a specialist in active vibration isolation solutions, merged with Nanofilm Technology GmbH to form Accurion GmbH.

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