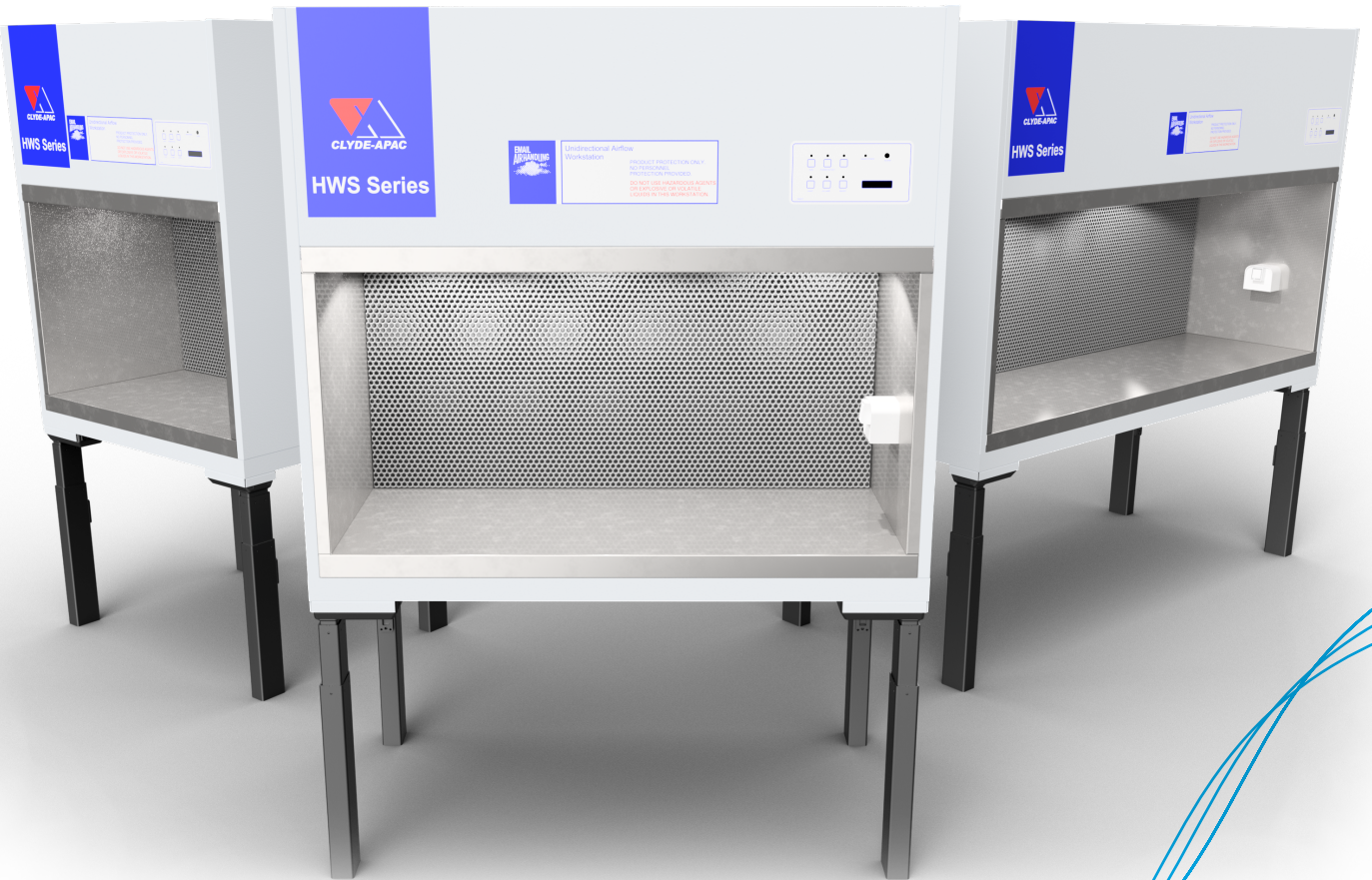




# HWS SERIES

HORIZONTAL-FLOW WORKSTATION



# DESCRIPTION

HWS (Horizontal-flow) Series cabinets are designed to provide a high degree of protection for process products and apparatus in laboratory and production facilities. Many critical applications in the medical, pharmaceutical, scientific and electronics fields demand an ultra-clean work environment that is free from particulate contamination.



# APPLICATION

## SUITABLE FOR:

- Aseptic dispensing
- Assembly of electronics and optics components
- Cell culturing
- Media pouring
- Preparation of medical devices
- Sterility testing

The HWS Series cabinets are self-contained Class 3.5 laminar flow work stations designed for installation on standard laboratory benches, or on optional floor stands.

The air is passed through the work zone in a smooth, horizontal direction, the blower fan and mounting position are designed to maximize airflow. The deeper rear plenum ensures unobstructed airflow to the HEPA filter face. As a result, the cabinet is quieter with reduced vibration and longer service life for the HEPA filter.

HWS cabinets contain pre-filters and the large filter face is matched to a plenum design that ensures a smooth laminar (unidirectional) flow of clean air through the work area and prevents entrainment of outside air.

An optional application of sound-deadening coatings in the upper plenum areas of both cabinet styles minimises noise and vibration, this option is particularly useful if work is conducted in ultra-quiet environments.

# FEATURES



## HEPA Filter

AS 4260 Grade 2 or equivalent to H14 (EN1822) 99.995% efficient, high performance single phase microglass filter media.

## Splash Guard

Splash guard specifically designed to provide the best protection to the HEPA filter from accidental damage whilst maintaining the best possible air distribution for superior laminar flow

## Work Zone

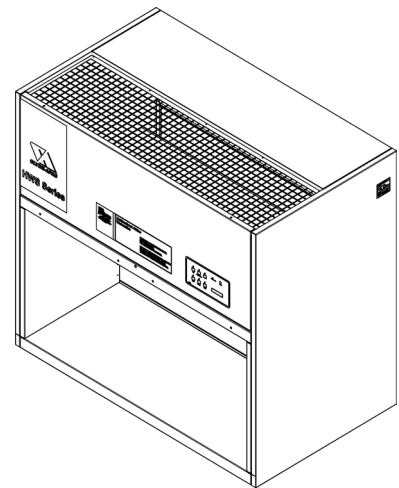
304 Grade Stainless Steel polished to a 2B finish is utilised throughout the workzone

## Automatic Stand

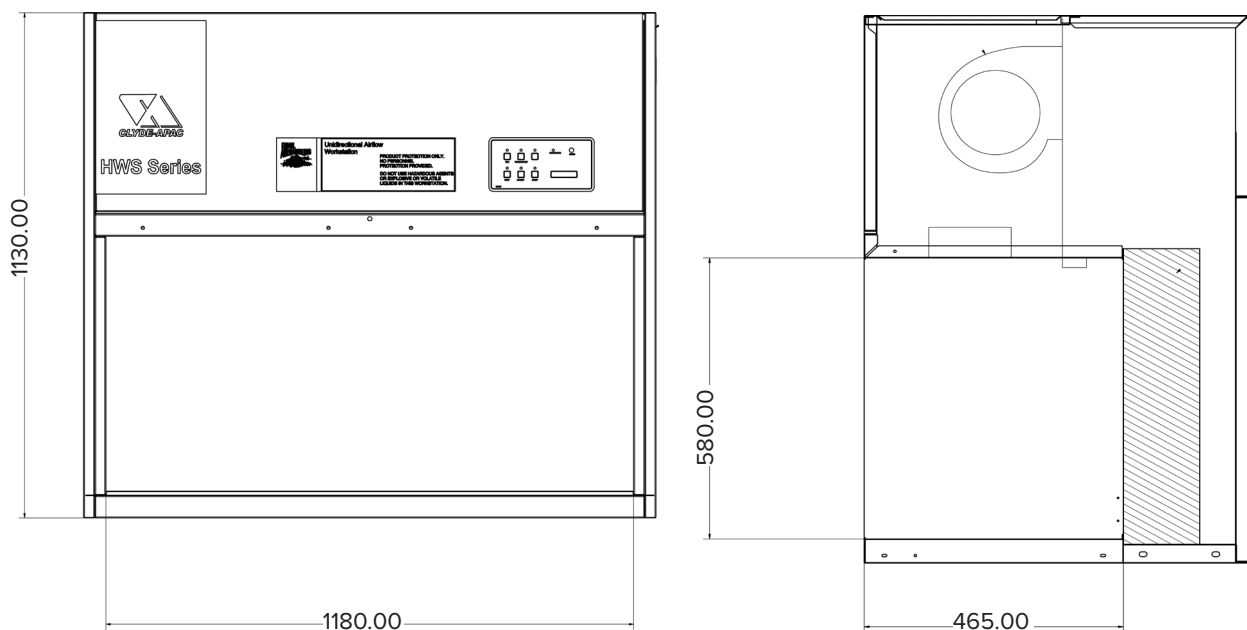
At the push of a button the optional electrically adjustable stand can be raised and lowered through a range of 600 - 990mm

# SPECIFICATIONS

	HWS 90	HWS 120	HWS 120/75	HWS 180	HWS 180/75
<b>WIDTH (MM)</b>	980	1280	1280	1890	1890
<b>DEPTH (MM)</b>	750	750	750	750	750
<b>OVERALL HEIGHT (MM)</b>	1130	1130	1280	1130	1280
<b>WORKZONE HEIGHT (MM)</b>	580	580	730	580	730
<b>WORKZONE DEPTH (MM)</b>	465	465	465	465	465
<b>WORKZONE LENGTH (MM)</b>	880	1180	1180	1790	1790
<b>WEIGHT (KG)</b>	120	150	180	200	230



## GENERAL ARRANGEMENT DRAWINGS-HWS 120





# CONSTRUCTION

**CABINET:** The housing is constructed of locally sourced steel and consists of a high-quality powdercoated finish to provide a suitably solvent, alkali and acid resistant laboratory grade coating. The work area is fully constructed from stainless steel, with inward folds to avoid sharp edges. A removable, washable metal screen protects the HEPA filter from mechanical damage.

**FANS:** A direct-drive fan is regulated by a speed controller to enable airflow to be maintained through filter life. Fans and filter plenums are designed to provide quiet operation and low vibration level.

**HEPA:** AES Environmental HEPA filters, are certified for compliance to AS 4260. Each filter is individually certified to be leak-free in accordance with AS 1807:2021 Clause 4.4. A manufacturer endorsed test label fitted with an extract of the test report is affixed to each filter. A prefilter extends the life of the exhaust HEPA filter and protects it from the mechanical damage during cleaning of the work zone.

**PRE FILTERS:** An easily-accessed, washable pre-filter arrests not less than 90% of particles 5 micron and larger, thus prolonging HEPA filter life. A warning light in the control panel signals the need for pre-filter service.

**ELECTRICAL:** A low voltage touch control panel is located on the front of the cabinet. Glare-free lamps provide a minimum lighting intensity of min 650 lux at the work floor.



## STANDARD FEATURES:

- Stainless steel work zone
- Low voltage touch controls
- Pre-filter service
- Glare-free fluorescent lighting
- Comprehensive operation manual
- Power outlet
- Germicidal UV lamp

## OPTIONAL EXTRAS:

- UV & UV Shield
- Manometer
- Service taps for air, gas and vacuum
- Extra quiet operation
- Floor stand (fixed height OR Electric height Adjustable)

# PERFORMANCE

## PERSONNEL PROTECTION

HWS & VWS cabinets provide protection for products or experiments, but do not protect personnel from aerosols of hazardous materials that may be handled in the cabinet. For applications where personnel and environmental protection is required, Clyde-Apac Class I, II or III biological safety cabinets, or cytotoxic drug safety cabinets (as applicable) should be considered.

Specifiers and intending users should see AS2243.3, Clause 2.2 which sets out the intended applications and limitations of these cabinets.

## PERFORMANCE SPECIFICATION

- Design and compliance standard: Australian Standard: AS2252.6
- Air Cleanliness: ISO class 5 (class 100) AS ISO 14644.1
- Air velocity: Between 0.40-0.45 m/s average at the work zone
- Illuminance: Greater than average of 60 Lux
- Power Supply: 220-240V, 1ph, 50Hz Filters: F5 pre-filter and H14 Main HEPA filter to 99.995%
- UV Wavelength: 254 nm intensity not less than 400mW/m<sup>2</sup>

# CERTIFICATION & TESTING

HWS Series cabinets are factory tested and certified by a NATA-Accredited laboratory. Additional testing and certification is recommended as follows:

- On site prior to use
- After maintenance
- After filter replacement
- After re-location
- At least annually
- In special circumstances, e.g. if faulty operation is suspected.



AES Environmental maintains an ISO 9001:2015 quality management system to ensure process and product conformance.



AES Environmental is a family owned, engineering and manufacturing business. The company comprises of major brands situated in the Air Filtration, Pollution Control and Life Sciences markets. Those brands and products are market-leading names within their fields ensuring that AES Environmental is capable of fulfilling its goal of providing the market with a single, integrated source for air filtration, clean room and pollution control needs.

Whatever business area you operate in, effective air filtration and pollution control is vital for your products, processes and people. All our products are manufactured in Australia and along with that, we offer installation and service Australia wide, that you can always rely on.

# GET TO KNOW US

AES Environmental consists of an Australian head office and manufacturing location in Sydney, NSW, manufacturing and service operations in Perth, WA, Adelaide, S.A. and service operations in Melbourne, Vic. Internationally the business operates manufacturing facilities in Bangkok, Thailand and Newcastle Upon-Tyne, UK.

However large or small the need, with expertise in just about every area of industrial and process filtration and separation, we're ready to help to deliver the products and 'hands-on' support to help you build a better future.

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*In keeping with our policy of continuing product improvement, we reserve the right to alter specifications without notice.*

## GET IN TOUCH!

### AES HEAD OFFICE SYDNEY

-  9A Pebury Rd, Minto, 2566
-  1300 550 116
-  [sales@aesenvironmental.com.au](mailto:sales@aesenvironmental.com.au)
-  [aesenvironmental.com.au](http://aesenvironmental.com.au)

