



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

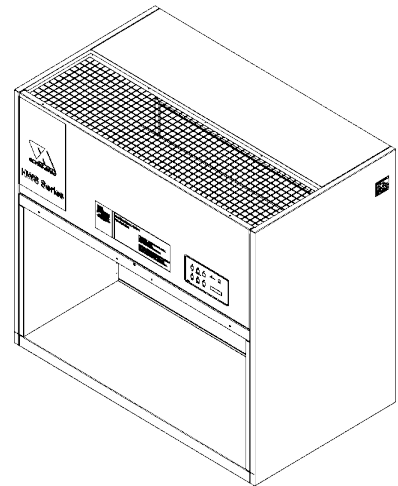
304 Grade Stainless Steel polished to a 2B finish is utilised throughout the workzone

Automatic Stand

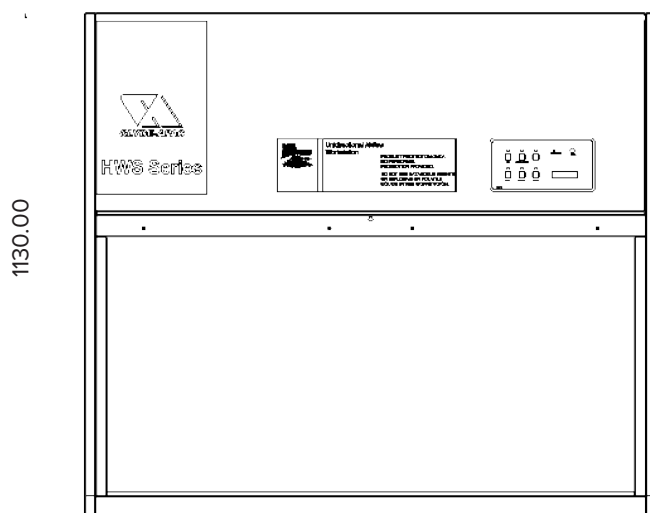
At the push of a button the optional electrically adjustable stand can be raised and lowered through a range of 600 - 990mm

SPECIFICATIONS

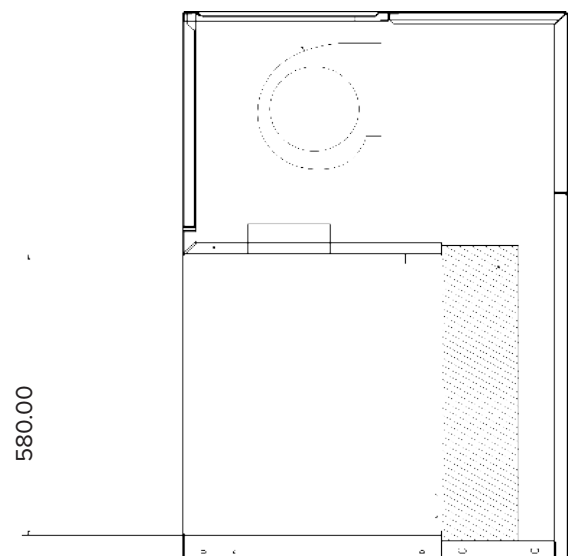
	HWS 90	HWS 120	HWS 120/75	HWS 180	HWS 180/75
WIDTH (MM)	980	1280	1280	1890	1890
DEPTH (MM)	750	750	750	750	750
OVERALL HEIGHT (MM)	1130	1130	1280	1130	1280
WORKZONE HEIGHT (MM)	580	580	730	580	730
WORKZONE DEPTH (MM)	465	465	465	465	465
WORKZONE LENGTH (MM)	880	1180	1180	1790	1790
WEIGHT (KG)	120	150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



GENERAL ARRANGEMENT DRAWINGS-HWS 120



1180.00



465.00

GENERAL SPECIFICATIONS FOR HWS CABINET

Model		HWS 90	HWS 120	HWS 120/75	HWS 180	HWS 180/75	HWS 240	HWS 240/75
Part No.		2015018	2015000	2015005	2015010	2015015	2015012	2015014
Nominal Size		0.9m	1.2m	1.2m	1.8m	1.8m	2.4m	2.4m
External Dimensions	Width	980 mm	1280 mm	1280 mm	1890 mm	1890 mm	2490 mm	2490 mm
	Depth	750 mm	750 mm	750 mm	750 mm	750 mm	750 mm	750 mm
	Height	1130 mm	1130 mm	1280 mm	1130 mm	1280 mm	1130 mm	1280 mm
Internal Work Zone Dimensions	Width	880 mm	1180 mm	1180 mm	1790 mm	1790 mm	2390 mm	2390 mm
	Depth	465 mm	465 mm	465 mm	465 mm	465 mm	465 mm	465 mm
	Height	580 mm	580 mm	730 mm	580 mm	730 mm	580 mm	730 mm
Fans: 240V single phase direct drive		2	2	2	3	3	3	3
Average Airflow Velocity Laminar flow		0.4 - 0.45m per second						
Sound Emission		< 58.8 dB (A)	< 60.2 dB (A)	< 60.2 dB (A)	< 62 dB (A)	< 62 dB (A)	< 62 dB (A)	< 62 dB (A)
HEPA Filter Typical Efficiency		99.995% at 0.1 to 0.3 microns to AS4260/EN1822						
Germicidal UV Lamp AS1807:2021 Clause 4.5		No less than 400mW/m ²						
Fluorescent Lamp Intensity S1807:2021 Clause 4.5		Minimum average of 650 Lux						
Certification to Australian Standards		AS1807: 2021 Clause 4.1/ Clause 4.3/ Clause 4.4/ Clause 4.5/ Clause 4.7/ Clause 4.9/ Clause 4.10						
Cabinet Construction AS2252.6-2011	Main Body	1.2mm 18 gauge powder coated electro galvanised steel						
	Work Surface	1.2mm 18 gauge type 304 stainless steel with B2 finish						
	Side Walls and Sump	1.2mm 18 gauge type 304 stainless steel with B2 finish						
Electrical 220-240V AC 50Hz	Cabinet Power/ Amp	1300 Watts - 10 Amps						
	Outlet Amp Fuse	10 Amps	10 Amps	10 Amps	10 Amps	10 Amps	10 Amps	10 Amps
	Full Load Amps	4.5 Amps	4.5 Amps	4.5 Amps	6.75 Amps	6.75 Amps	6.75 Amps	6.75 Amps
	Power Consumption	0.7 Kw	0.7 Kw	0.7 Kw	0.9 Kw	0.9 Kw	0.9 Kw	0.9 Kw
Cabinet Net Weight (kg)		120 kg	150 kg	180 kg	200 kg	230 kg	240 kg	300 kg

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

OPTIONAL EXTRAS:

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

PERFORMANCE

PERSONNEL PROTECTION

HWS 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.

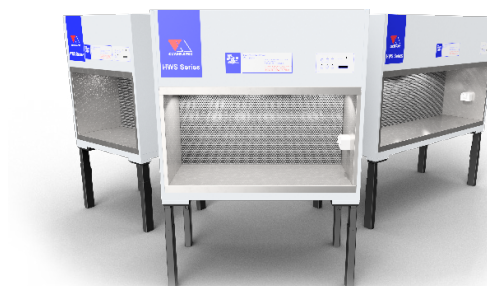
PERFORMANCE SPECIFICATION

- 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/m²

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!

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