

# ANTECH



## **PuriFlow Series Class II Type A2 Biological Safety Cabinet**

A choice of safety, intelligence and value  
for routine applications

*PuriFlow*

The Antech Scientific PuriFlow Series Class II, Type A2 biological safety cabinets offer safety, intelligence and value to users. The cabinet is energy efficient and provides both personal and product protection from biological hazards and contamination. The performance meets main international standards such as YY0569, EN12469 and NSF49.



#### WiseFlow

- Advanced DC ECM blower, energy efficient and quite
- Constant Air Volume (CAV) and Constant Pressure Apheresis System (CPAS) technology for automatic airflow compensation
- U15 ULPA filter with filter life indicator alert
- ECO mode for faster airflow recovery & lower power consumption



#### Ergonomic design

- 10° sloped front for ergonomics
- 7" touch screen operated with WiseFlow control system, clear display and easy operation
- Motorized sash can be operated with touch screen, foot switch or remote controller
- Adjustable height stand provided as standard, match different users' requirements

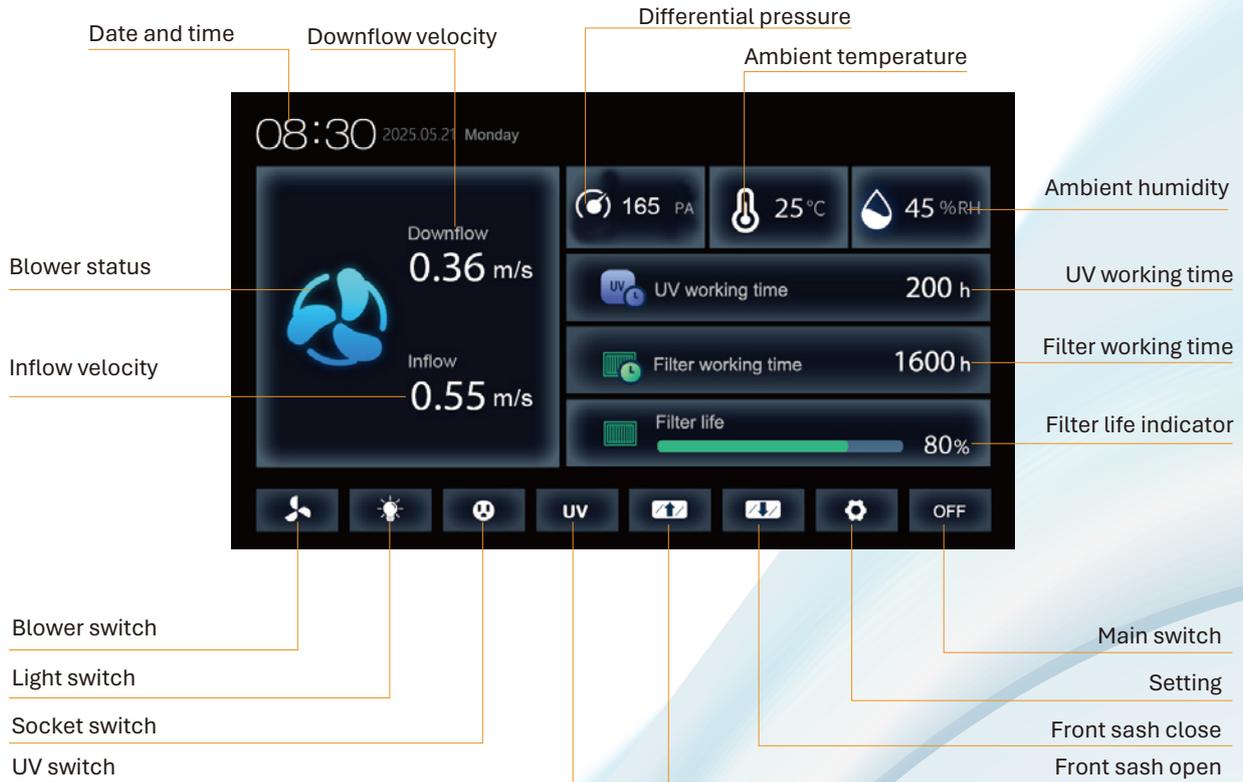


#### Convenience

- Dual UV-timer allows more flexibility to match user's shifts
- Water collection container and drain valve under work tray for convenient cleaning
- Casters for easy moving, leveling feet for firm installation



## WiseFlow operating system



## Convenient features

### WiseSash design

- Motorized sash operated with touch screen, foot switch or remote controller
- Independent manual sash system can be shut down when power failure
- Sash window can be lowered for convenient cleaning
- UV-proof sash window glass protecting people during disinfection



### WisePort convenience

- WisePort at both left and right side walls, providing flexibility to install
- Various valves and pipelines for different applications



### WiseClean design

- Front window can be lowered for convenient cleaning
- Work tray can be lifted and supported by rod when cleaning under tray area



### Raised arm rest

- Prevent grille blocking
- Comfortable working posture
- End-to-end design for free movement



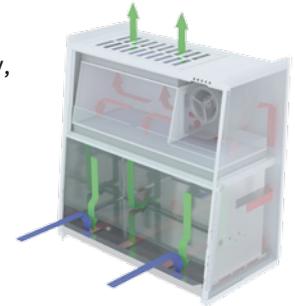
## Airflow Pattern of Class II Type A2 Cabinet

**Inflow:** Room air is drawn into the cabinet through the front opening at a specific velocity, creating a protective barrier that prevents contaminants from escaping the work area.

**Laminar downflow:** A portion of the air is filtered and then flows downward in a unidirectional (laminar) manner over the work surface. This creates an ultra-clean zone for the product and prevents cross-contamination between samples.

**Recirculation and exhaust:** After passing over the work surface, the air is drawn through a rear grille. The majority (around 70%) is recirculated back after being ULPA-filtered. The rest (around 30%) is exhausted to the environment, also through a ULPA filter.

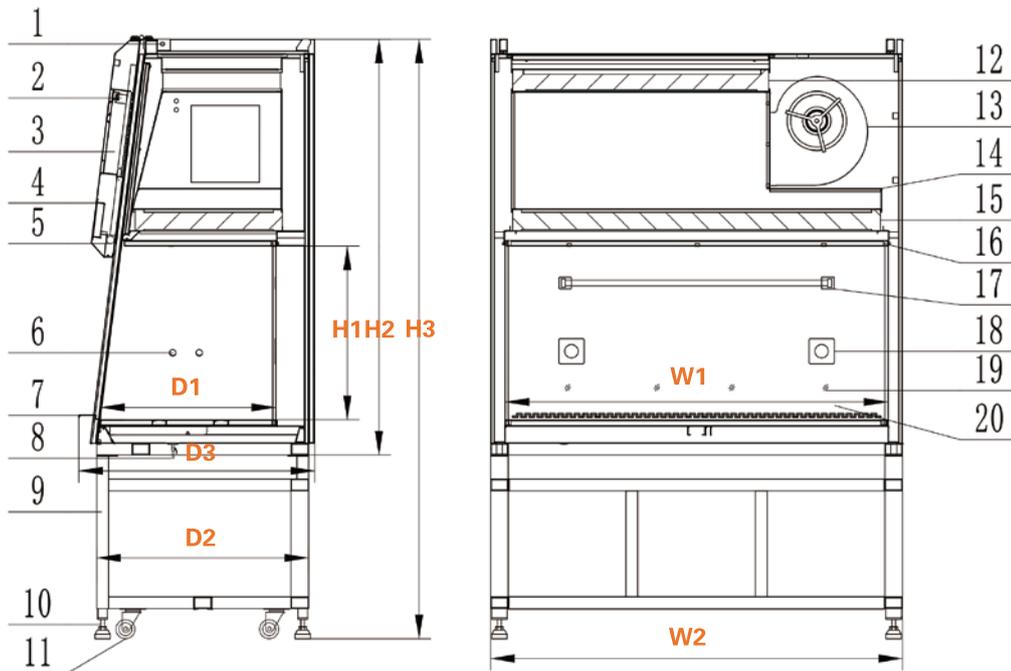
**Negative pressure:** To ensure air always flows inward, the cabinet maintains a slight negative pressure relative to the room, so any leaks occur from the outside into the cabinet, not the other way around.



- Contaminated room air
- Contaminated work surface air
- ULPA filtered air

## Engineering drawing

### Class II, type A2



- |                    |                               |                         |                      |
|--------------------|-------------------------------|-------------------------|----------------------|
| 1. Sash motor      | 6. Service valve access ports | 11. Caster              | 16. Airflow diffuser |
| 2. Circuit breaker | 7. Armrest                    | 12. Exhaust ULPA filter | 17. UV Lamp          |
| 3. Electrical box  | 8. Drain valve                | 13. Blower              | 18. Socket           |
| 4. Touch screen    | 9. Stand                      | 14. Plenum chamber      | 19. Sash window      |
| 5. LED lamp        | 10. Leveling foot             | 15. Supply ULPA filter  | 20. Work zone        |

Model	W1	W2	D1	D2	D3	H1	H2	H3
PF-A3	1000	1100	600	720	800	590	1420	2050
PF-A4	1300	1400	600	720	800	590	1420	2050
PF-A5	1600	1700	600	720	800	590	1420	2050
PF-A6	1800	1900	600	720	800	590	1420	2050

Unit:mm

## A universe package, a premium solution

A universe package of PuriFlow A2 cabinet includes:

1. Class II type A2 main cabinet
2. Detachable stand with:
  - Manual adjustable height
  - Casters & leveling feet
  - Foot rest bar
3. Socket x 2
4. Valve port x 4



## Select optional accessories for your application

Accessory	Description	Cat. No.
User Convenience Equipment	Hanging shelf for base stand	3134100
	Stainless steel armrest (set of two)	3134200
	IV bag holder kit with 10 hooks	3134300
	Remote controller for front sash	3134400
Sidewall Utilities	Gas valve	3132100
	Vacuum valve	3132200
	Water valve	3132300
Exhaust Transitions	Thimble duct exhaust transition for 3 ft cabinet (without sensor)	3133300
	Thimble duct exhaust transition for 4 ft cabinet (without sensor)	3133400
	Thimble duct exhaust transition for 5 ft cabinet (without sensor)	3133500
	Thimble duct exhaust transition for 6 ft cabinet (without sensor)	3133600



Hanging shelf



Arm rest



Valve



IV bag holder

## Technical specifications

Model		PF-A3	PF-A4	PF-A5	PF-A6	
<b>Type</b>		Class II, type A2				
<b>Dimensions &amp; weight</b>	Nominal size	ft/mm	3 ft/ 1000mm	4 ft/ 1300mm	5 ft/ 1600mm	6 ft/ 1800mm
	External (W x D x H)	mm	1100 x 800 x 2040	1400 x 800 x 2040	1700 x 800 x 2040	1900 x 800 x 2040
	Internal (W x D x H)	mm	1000 x 600 x 600	1300 x 600 x 600	1600 x 600 x 600	1800 x 600 x 600
	Usable working area	m <sup>2</sup>	0.6	0.78	0.96	1.08
	Working table height		750/800/850/900/950 mm adjustable			
	Working height of front window	mm	200	200	200	200
	Maximum opening height of front window	mm	480	480	480	480
<b>Electric</b>	Net weight	kg	235	255	307	330
	Power supply		220V, 50Hz; 220V, 60Hz; 110V 60Hz			
	Rated power	W	500	540	750	850
	Rated current	A	3	3.5	3.5	4
	Power consumption	KWh/h	0.5	0.6	0.6	0.7
	LED lamp	W	36 x 1	40 x 1	40 x 1	40 x 1
	UV lamp	W	20W x 1	30W x 1	30W x 1	30W x 1
<b>Cleanliness</b>	Receptacle		2, total 1320W, 6A			
	Filter, downflow		U15 ULPA, ≥99.9995% @ MPPS, EN1822			
	Filter, exhaust		U15 ULPA, ≥99.9995% @ MPPS, EN1822			
	Cleanliness grade		ISO class 4			
	Total colony in impaction sampler (operator protection)	CFU	≤10	≤10	≤10	≤10
	Total colony in slit type sampler (operator protection)	CFU	≤5	≤5	≤5	≤5
	Total colony in culture dish (product protection)	CFU	≤5	≤5	≤5	≤5
<b>Airflow</b>	Total colony in culture dish (cross contamination)	CFU	≤2	≤2	≤2	≤2
	Airflow pattern		70% downflow, 30% exhaust			
	Exhaust direction		Top exhaust			
	Average inflow velocity	m/s	0.55	0.55	0.55	0.55
	Average downflow velocity	m/s	0.36	0.36	0.36	0.36
	Exhaust/inflow air volume	m <sup>3</sup>	396	515	634	713
	Downflow air volume	m <sup>3</sup>	745	969	1192	1341
<b>Ergonomics</b>	Front sash		Electric sash operated with touch screen, foot switch or remote controller			
	Illumination	lx	>1000	>1000	>1000	>800
	Noise	dB(A)	<60	<61	<63	<65
	Valve (vacuum, gas, water)		○	○	○	○
	WisePort		2	2	2	2
	Drain valve		●	●	●	●
	Arm rest		○	○	○	○
<b>Material</b>	IV bar		○	○	○	○
	Blower		DC ECM blower			
	Working tray		SUS304			
	Inner walls		SUS304			
	Main body		Spraying coated steel			
	Front window glass		Tempered glass, UV-proof, 6mm			
	Stand		Detachable, adjustable height			
<b>Control</b>	Leveling foot		4	4	4	4
	Caster		4	4	4	4
	Display & control		7" Touchscreen			
	ECO mode		●	●	●	●
	Ambient temperature display		●	●	●	●
	Ambient humidity display		●	●	●	●
	UV lamp working time display		●	●	●	●
	Filter working time display		●	●	●	●
	Filter life indicator		●	●	●	●
	Cabinet ON/OFF timer		●	●	●	●
	UV timer		●	●	●	●
	Password protection		●	●	●	●
<b>Alarm</b>	RS485 port		●	●	●	●
	Alarm type		Visible and audible alarm			
	Inflow velocity		●	●	●	●
	Downflow velocity		●	●	●	●
	Sash height limit		●	●	●	●
	Fan failure		●	●	●	●
	Filter life alert		●	●	●	●
<b>Shipping</b>	Packing size, carton (W x D x H)	mm	1210 x 1000 x 1720	1510 x 1000 x 1720	1810 x 1000 x 1720	2010 x 1000 x 1720
	Packing size, plywood case (W x D x H)	mm	1210 x 1000 x 1720	1510 x 1000 x 1720	1810 x 1000 x 1720	2010 x 1000 x 1720
	Gross weight, carton	kg	285	315	370	400
	Gross weight, plywood case	kg	335	375	440	470

● Basic equipment ○ Optional