# **Laminar Flow Air Disinfecting Equipment**





KDJH-N150 (Cabinet with fresh air) ( with new wind dealing system)

# KDJH-N150 >>

#### Features

- HEPA
- Reaches class 10,000 Cleanliness level Activated carbon filtration
- · Strong UV
- Negative Ion's
- · Medical grade purifying fan
- · Electrostatic absorption
- · Program control auto disinfect
- · Photo-catalyst filtration
- · 3 level filtration & disinfecting
- · 3 level wind speed adjustment
- · UV intensity detecting · Drying & Dehumidifying
- · Infrared remote control

(Air exchange & fresh air in (Optional)

#### Technical parameters

Item	Power Supply		Purified Air Volume		Power Input		Fuse	Bacteria		Particle	
Model								Conce	ntra	ntration	
KDJH-150	220V 22V 50/60Hz - 1Hz		1500-3	000m³/h	2100W		15A (6x30)			350(0.5m/L)	
Item Model	Clean Room Level	1	Noise	e Negative Ion		Le	pplicable R evel 10 000 lean Room	oom Sizes Normal Clean Roor	n	Fresh Air Volume	
KDJH-150	10000	6	5db(A) 6 x 10°		cs/cm²	/cm² 100m³		150-200r	n³	600 - 1000m <sup>3</sup>	

# KDJH-Q100 >>

#### Features

- HEPA
- Reaches class 10,000 Cleanliness level
  Activated carbon filtration
- · Strong UV
- · Negative Ion's
- · Medical grade purifying fan
- · Electrostatic absorption
- · Program control auto disinfect

- · Photo-catalyst filtration
- · 3 level filtration & disinfecting
- · 2 level wind speed adjustment
- · UV intensity detecting
- · Infrared remote control



KDJH-Q100 (Ceiling mounted)

#### **Application Range**

Applied to Operating Theatres, Patient Rooms, Recovery Rooms, and other rooms to that require Air Purification and Disinfecting.

#### Technical parameters

Item Model	Power Supply	Applicable Room	Cycling /		Fuse	UV Intensity
KDJH-Q100	220V - 22V 50/60Hz - 1Hz	100m³	800m³/	h 280W	3A (5x20)	500 W/cm <sup>2</sup>
Item	UV Leakage	UV Lamp F Life Span		Protection Type	Noise	Dimension
KDJH-Q100	1W/cm²	¡5000ho	urs	Class I Type B	65db(A)	620x830x300mm



#### KDJH-100 >> Features

- HEPA
- Reaches class 10,000 Cleanliness level .
- Strong UV
- Negative Ion's
- · Medical grade purifying fan
- Flectrostatic absorption
- · Program control auto disinfect
- · Photo-catalyst filtration
- Activated carbon filtration
- 3 level filtration & disinfecting · 3 level wind speed adjustment
- UV intensity detecting
- Auto contamination source detection
- Infrared remote control

#### Technical parameters

	Item Model	Power Suppl	y Purified A Volume	Purified Air Volume		Fuse		Bacteria Conce	Particle ntration	
ŀ	LK/KDJH100	220V - 22 50/60Hz - 1H	2V 1500-3000i	m³/h	600w		iA (20)	60cfu/m <sup>3</sup>	350(0.5m/L)	
	Item Model	Clean Room Level	Noise	Noise Ne		egative Ion		Applicable vel 10 000 ean Room	Room Sizes Normal Clean Room	
ļ	LK/KDJH100	10000	60db(A)	6 x 10 <sup>6</sup> pcs/cm <sup>2</sup>		100m³		150-200m <sup>3</sup>		



KDJH-N150 (Cabinet with fresh air) (Without new wind dealing system)

# Clean Air Operating Theater V.S. Traditional Operating Theater

Clean operating theater infection control is not only carried out to microorganisms inside or outside the operating theater, e.g. Infectious diseases operations or operations on patients carrying infectious diseases, but also to dormant particles which are present inside the operating theater. Particles in the air is a common medium for microorganisms to attach to, therefore to achieve better cross infection control caused by these particles, it is advised to focus on more effective means of control.

Besides the traditional sterilization of working surfaces (surgical instruments, devices, etc.), Clean operating theaters also requires the removing of particles (including living particles) in the operating theater rooms air. When these two measures are to carried out, most traditional ways of sterilization will not be applicable any more, e.g. UV lamp.

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# Laminar Flow Air Disinfecting Equipment







Laoken KDJH series of Laminar Flow Air Disinfectors are high capacity air purifiers specifically designed to remove hazardous microbial airborne particulate and contaminants in Hospitals and Health Care settings.



## Overview KDJH Series of Air Purification Systems

Laoken's KDJH series of air purification systems does not restrict room use, since it's not a permanent installation, allowing flexibility in planning patient load or room utilization.

Laoken's KDJH series of air purification systems are high-capacity air purifiers specifically designed to remove hazardous microbial airborne particulate. They work by eliminating sub micron-size infectious airborne particles from established breathing zone areas, reducing airborne microbial migration and the risk of inhalation. The product quickly became the market leader in medical facilities air purification systems and health care air purification systems utilizing a HEPA filtration system, thereby reducing risk of airborne infection by removing airborne pathogens that are contained in airborne diseases.

The mobile hospital air purification system can be placed beside patients in isolation rooms and other critical areas of use, including admittance, waiting and emergency rooms. The best results are achieved when the Laoken's KDJH series air purifiers are placed closest to the source of the contamination. (this is called source or control capture.) Capturing airborne contaminants at the source, eliminates contaminant migration further reducing airborne infection transmittal.

CDC guidelines recognize that a hospital air purification system and HEPA filtration system can play an important part in airborne infection control of TB. Our entire line of KDJH products use HEPA filters as a primary means of airborne infectious bacteria capture.

The HEPA filter is the heart of the Laoken's KDJH series of air purifiers, the same well-established and proven HEPA filtration system and technology that is used and embraced by high tech and medical establishments. When we combined the HEPA filtration system with germicidal UV Lamps (UVGI), which also have a long and established track record, we produced an mobile hospital air purifier that was immediately embraced by the health care (healthcare) community for protection against airborne pathogens. The Laoken's KDJH series of mobile hospital air purification systems proved to be an immediate success.

# **Laminar Flow Air Disinfecting Equipment**

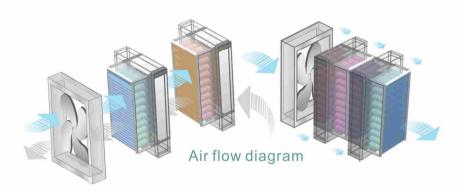


#### New wind dealing system

Air-conditioning in operating rooms causes stuffiness and is a common complaint from doctors and nurses, especially in small operating rooms where the usage of Halon is 500ml/h. When the new wind blow attains 1200m3/h, the concentration of Halon can be maintained at 500m3 (1200m3 = 0.4 ppm, which is just lower than the maximum allowed concentration of 0.5ppm). Owing to the special effect of clean and fresh air collected from the outdoors to the quality of indoors, the positioning and waterproof function of the new air inlet should be emphasized.

There is a big difference of particle concentration in unfiltered air and filtered air. Particle concentration (>0.5m) of unfiltered air is 500 times higher than treated air. Meanwhile, medium effect air filtration uses a multi pole system, which can largely reduce particle counts in the air brought inside the room by air conditioners. Medium effect filter, filtrates larger particles therefore it can also protect the HEPA filters during use.

As the cost for a medium effective filter is much cheaper than a HEPA filter, this design can extend the life span of the HEPA filters and reduce operating costs. To efficiently and instantly control, positive pressure, discharged disinfected air and unfavourable odours, the air exhausting system in the operating theatre should be installed separately, and the system should work constantly and connected to the air delivering system.



### Self-cleaning time

Self-cleaning time is the time needed to clean and de-contaminate the operating rooms air (e.g. after an operation) to a constantly high cleanliness level (e.g. before another operation is carried out).

#### New wind volume

The minimum wind volume for level IV, level II - III operation theatres is respectively required to be 1000m3/h. (Ophthalmologic operating rooms, usually have few operators and narrow space, 800m3/h), 800m3/h and 600m3/h to avoid unpredictable circumstances in small operation theatres.

### Application range

Operating rooms, Recovery rooms, Pathology departments, Cardiovascular, Supplying rooms, Preparation rooms, Precision instruments and Equipment rooms, etc.

#### Pharmaceutical Factories:

10 thousand grade to 300 thousand grade workshops, laboratories, etc.



# KDJH-K150 >>

#### Features

- HEPA
- Reaches class 10,000 Cleanliness level Activated carbon filtration
- · Air Conditioning
- Strong UV
- Negative Ion's
- · Medical grade purifying fan
- · Electrostatic absorption
- · Drying & dehumidifying
- · Program control auto disinfect

- · Photo-catalyst filtration
- · 3 level filtration & disinfecting
- · 3 level wind speed adjustment
- · UV intensity detecting
- · Auto contamination source detection
- · Infrared remote control

Air ex-change & fresh air in (Optional)

#### Technical parameters

Item Model	Power Supply	Applicable Room			Power Input	Fuse
KDJH-K150	DJH-K150 220V 22V 50/60Hz - 1Hz		2000m <sup>3</sup> /h		4000/400W	32A(10x38)
Item Model	UV Intensity	UV Leakage		l	JV Lamp Life Span	Noise
KDJH-K150	<b>500W/cm</b> 500W/cm		/cm <sup>2</sup>		5000 hours	68db(A)



KDJH-K150 (with air conditioning function)

# KDJH-B100 >>

#### Features

- HEPA
- Reaches class 10,000 Cleanliness level Activated carbon filtration
- · Strong UV
- Negative Ion's
- · Medical grade purifying fan
- · Electrostatic absorption
- · Drying &dehumidifying

- · Photo-catalyst filtration
- 3 level filtration & disinfecting
- · 3 level wind speed adjustment
- · UV intensity detecting
- · Infrared remote control
- · Program control auto disinfect

Air ex-change & fresh air in (Optional)

#### Technical parameters

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Item Model	Power Supply	Applicable Room	Cycling Air Volume	Power Input	Fuse	UV Intensity	
KDJH-B100	220V - 22V 50/60Hz - 1Hz	100m³	2000m³/h	550w	6A (5x20)	500W/cm <sup>2</sup>	
Item Model	UV Leakage	UV Lamp Life Span	Protection Type	e Noise		Dimensions	
KDJH-B100	1W/cm²	5000hrs	Class I	65db(	A)	1000x450x300mm (fresh air)	



Outdoor device (fresh air)

Outdoor device (air exchange