



ELECTROSTATIC AIR CLEANERS

For Commercial & Industrial Applications

BX SERIES



THE B SERIES

RydAiR “B” series, UL listed (E532141- and now designated “BX”) Electrostatic Air Cleaners help businesses keep pollutants they generate in check. This is one way to help reduce environmental pollution as well as to avoid “Dirty Air” issues with neighbours. This is especially true in densely populated cities where buildings are in close proximity of each other.

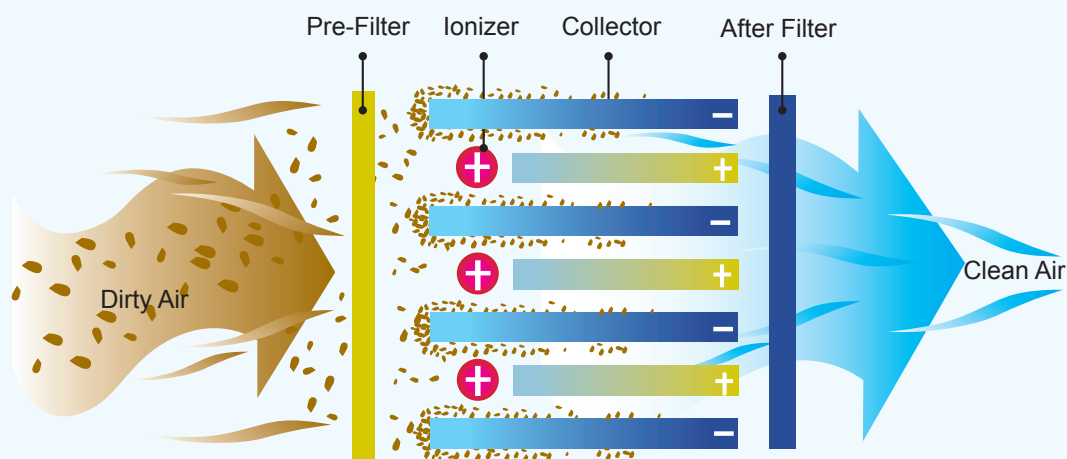
RydAiR Electrostatic Air Cleaners are also suitable for use in factories as they capture both dry and wet particulates, including dust, oil mist, cooking fumes, welding smoke and many other pollutants. RydAiR electrostatic air cleaners provide an effective, low maintenance air cleaning solution for many situations. They can be easily configured and incorporated into various types of exhaust systems of factories, restaurants workshops etc.

GREEN BUILDINGS

RydAiR units use washable filters and have low static pressure loss. When used in Air Handling Units (AHU), its low static pressure and efficiency results in significant energy savings to qualify for **GREEN BUILDING** status. RydAiR’s B series has high efficiency and meets MERV 14 requirements.



HOW IT WORKS



Contaminated air is drawn by the blower (external) through a washable metal mesh pre-filter which traps large dust particles. The remaining particles, some as small as 0.01micron, pass through a strong electrical field (ionizing section) where the particulates receive an electrical charge. The charged particles then pass into the collector plates section made up of equally spaced parallel plates.

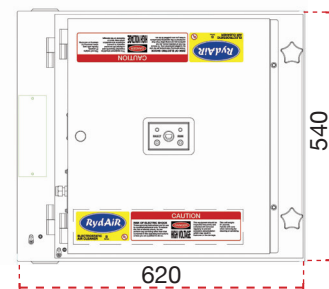
Each alternate plate is charged with the same polarity as the particles, which repel, while the interleaving plates are grounded, which attract and collect the contaminants. The contaminants are held on these plates until they are washed off.



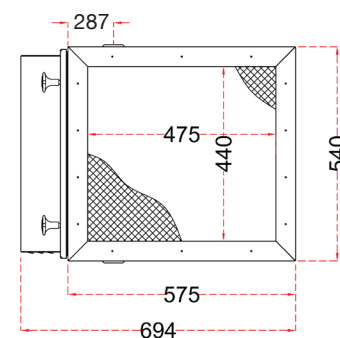
RY2500BX

Electrostatic Air Cleaner (Without Blower)

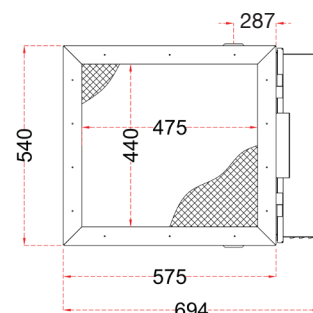
Industrial grade Electrostatic Air Cleaners for collection of dry and wet particulates like dust, oil mist, cooking fumes and various pollutants. Typical application include commercial kitchen exhausts, Air Handling Units (AHUs), factories, workshops, CNC machine shops and many other premises.



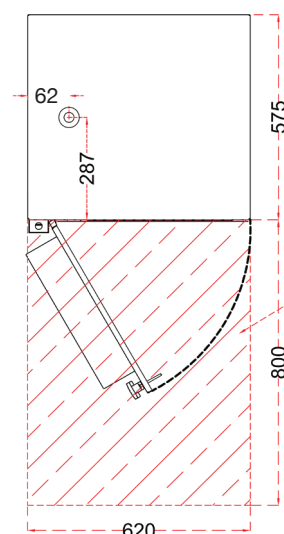
Front View



End View Air Inlet



End View



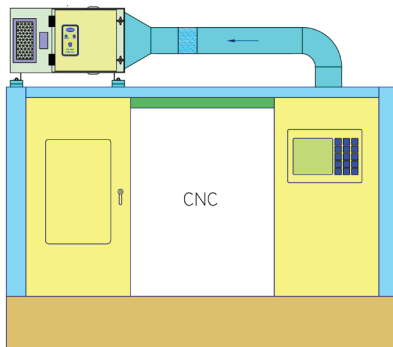
Top View

Space required for maintenance

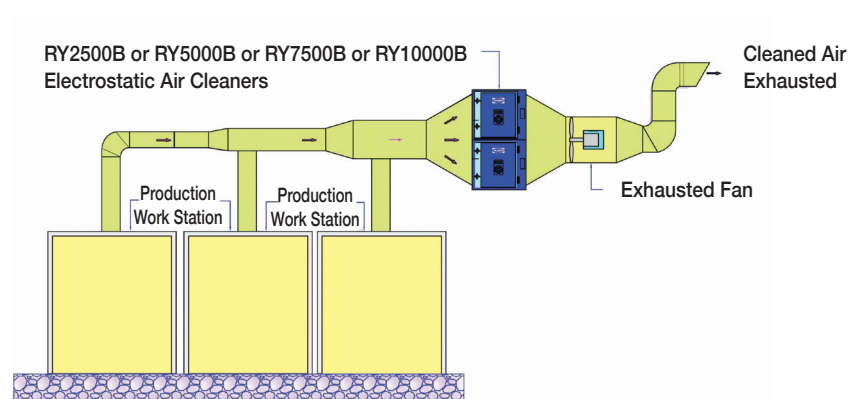
SPECIFICATIONS

Dimensions/Weight	H: 540 x W: 694 x L: 620 mm / 62Kg
Cabinet	Electro Galvanized Steel 1.4mm / 16 Gauge
Finishing	Powder Coated, Dark Blue
Air Volume (Rated-Max)#	2500-4600CMH(Max) / 1500-2700Cfm(Max)
Static Pressure	50Pa-115Pa (Max Capacity)
Voltage & Power	230 VAC +/-10% , 50/60Hz, 55Watts
Ionising Voltages	High Voltage: 12-13KVdc Low Voltage: 6-7KVdc
Air Flow Direction	Default : Right to Left; Reversible : Left to Right
Power Supply	Digital Power Supply, pulse wave modulation (PWM) High Frequency solid state and self regulating design
Features	*LED display on power supply showing operations and error messages on the unit *Short circuit, arc protection and auto restore power supply *BMS (Building Management System) terminals provided *Auto power cut-off when door is opened *Indicator LEDs for normal or wash indicator *Set of Terminals for remote LED normal or wash indicator
Particle size	From 0.01 microns - 10 microns
Efficiency	DOP Test, up to 95% single pass, up to 99% double pass, calculated. ASHRAE 52.2-2012, up to 96% single pass, up to 99% double pass, calculated. NIOSH 5026 OIL MIST FIELD TEST : UP TO 96%
MERV Ratings	Meets MERV 14 at velocity of 3.81m/s, 750fpm
Pre-Filter	Stainless Steel Wire Mesh, Washable x 1
Electrostatic Cell	H: 472mm, W: 550mm, L: 340mm
No of Cells / Weight	16.5Kg
No Of Plates per Cell	59
Total Collecting Area	6.07 Sq meters
Post Filter (Optional)	Stainless Steel Wire Mesh, Washable x 1
Installation	Ceiling Suspended; Wall or Frame Mounted, Multiple Units Stack

INDUSTRIAL / CNC APPLICATIONS

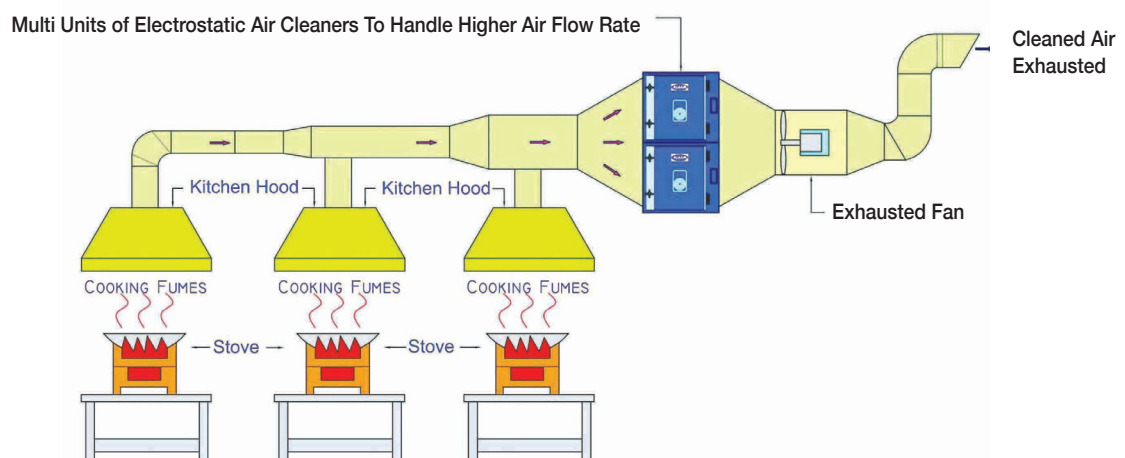
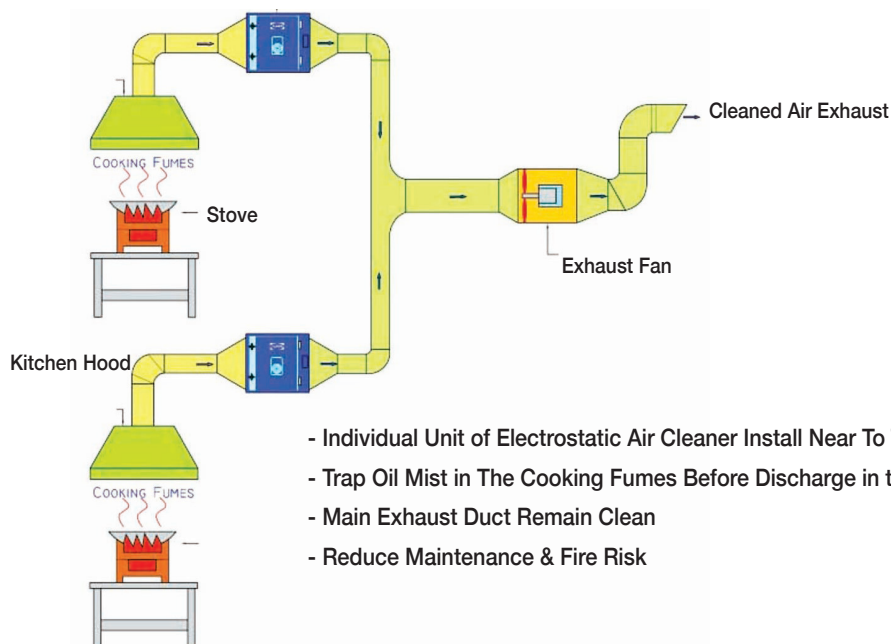


RydAiR RB700 oil mist collector



KITCHEN EXHAUST APPLICATIONS

RY2500B or RY5000B or RY7500B or RY10000B Electrostatic Air Cleaners



RydAiR's B series are tested for efficiency and static pressure drops under ASHRAE 52-2. Extracts are reproduced for reference

INDEPENDENT THIRD PARTY TEST REPORTS

By U.S. Based Laboratory

ASHRAE 52.2-2012 TEST Report

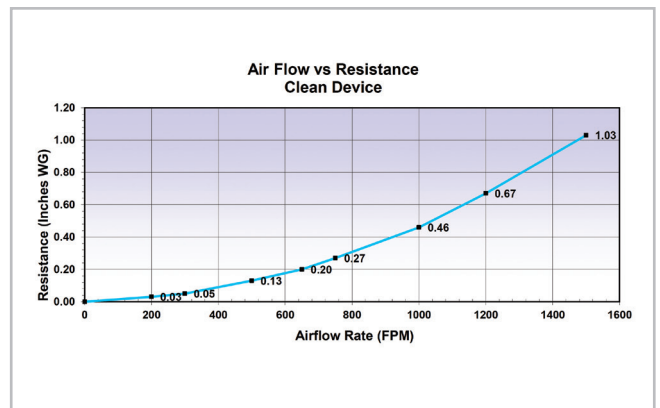
Data - Particle Removal Efficiency %

Particle Size Range (Um)	Geometric Mean Diam (Um)	Particle Removal Efficiency (%)							
0.30 - 0.40	0.35	39.7	47.9	60.4	75.3	84.0	90.7	93.1	93.4
0.40 - 0.55	0.47	46.3	55.8	70.2	82.3	87.5	91.8	93.5	93.7
0.55 - 0.70	0.62	53.3	62.4	75.8	86.0	90.1	92.4	93.5	93.9
0.70 - 1.00	0.84	61.5	69.8	81.3	88.7	91.5	92.9	93.6	93.8
1.00 - 1.30	1.14	67.4	76.6	85.2	90.5	92.4	93.1	94.1	94.2
1.30 - 1.60	1.44	71.6	80.4	87.3	91.5	93.0	93.3	93.8	94.0
1.60 - 2.20	1.88	76.1	84.7	89.6	92.0	93.1	93.3	94.1	94.2
2.20 - 3.00	2.57	82.8	89.2	92.2	92.9	93.5	93.6	94.1	94.2
3.00 - 4.00	3.46	87.1	92.9	93.4	93.6	94.2	93.7	94.1	94.3
4.00 - 5.50	4.69	90.0	94.5	94.3	94.3	94.7	94.6	94.4	94.7
5.50 - 7.00	6.20	89.9	94.8	95.0	95.0	95.8	94.6	94.4	94.7
7.00 - 10.00	8.37	88.2	93.7	94.1	95.6	96.4	95.7	95.6	95.4
		1500FPM	1200FPM	1000FPM	750FPM	650FPM	500FPM	300FPM	200FPM
Resistance (in w.c.) ---->		1.03	0.67	0.46	0.27	0.20	0.13	0.05	0.03
Resistance (in Pa) ---->		257.5	167.5	115	67.5	50	32.5	12.5	8

Test results indicate that RydAiR units meet MERV14 requirements at velocity of 3.81m/s (750fpm)
See table below.

Standard 52.2 Minimum Efficiency Reporting Value (MERV)	Composite Average Particle Size Efficiency, % in Size Range, µm			
	Range 1 (0.3-1.0)	Range 2 (1.0-3.0)	Range 3 (3.0-10.0)	Average Arrestance, %
1	n/a	n/a	E3 < 20	Aavg < 65
2	n/a	n/a	E3 < 20	65 ≤ Aavg < 70
3	n/a	n/a	E3 < 20	70 ≤ Aavg < 75
4	n/a	n/a	E3 < 20	75 ≤ Aavg
5	n/a	n/a	20 ≤ E3 < 35	n/a
6	n/a	n/a	35 ≤ E3 < 50	n/a
7	n/a	n/a	50 ≤ E3 < 70	n/a
8	n/a	20 ≤ E2	70 ≤ E3	n/a
9	n/a	35 ≤ E2	75 ≤ E3	n/a
10	n/a	50 ≤ E2 < 65	80 ≤ E3	n/a
11	20 ≤ E1	65 ≤ E2 < 80	85 ≤ E3	n/a
12	35 ≤ E1	80 ≤ E2	90 ≤ E3	n/a
13	50 ≤ E1	85 ≤ E2	90 ≤ E3	n/a
14	75 ≤ E1 < 85	90 ≤ E2	95 ≤ E3	n/a
15	85 ≤ E1 < 95	90 ≤ E2	95 ≤ E3	n/a
16	95 ≤ E1	95 ≤ E2	95 ≤ E3	n/a

**Above is the MERV requirement per ASHRAE Standard 52.2-2012



RydAiR is a Singapore based brand of electrostatic air cleaners, with strong emphasis on practical design and suitability in application. We continue to strive for improvement in both quality and design and remain constantly open to clients' needs and industry trend.

RydAiR products are now distributed from Japan to Australia to India, Middle East and Europe.



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