

KRUGER

CFF Series

KRUGER Fan Filter Unit



COVID-19/PM2.5



EC Fan



Compact

Why KRUGER?

KRUGER has been a leading innovator and manufacturer of residential, commercial and industrial fan application solutions across Asia since 1985. Today with a direct presence in over 18 regions throughout Asia; world class R&D and manufacturing facilities; KRUGER are able to offer their customers unparalleled service and support at a local level. Our customers place their trust in KRUGER.



What is KRUGER Fan Filter Unit?

The CFF series is a compact cabinet unit that features highly efficient EC centrifugal fans, integrated with high-performance filters to reduce fine particles, bacteria, viruses and supply clean air to the occupant area.

Why use KRUGER Fan Filter Unit?

Effective Treatment System



Filter 99.99% of all >0.3 microns particles in the air. Minimize the spread of the COVID-19 virus via airborne transmission.

Compact Design

A compact cabinet which is smaller than those available in the market. One CFF unit is able to ventilate a space of 30m² with 3m ceiling height (8ACH) i.e. hotel room.

Energy Saving

EC plug fan that uses a high-efficiency EC motor with 90% reduction in power all without sacrificing performance.

Low Noise



High efficiency EC fan with light ABS impeller, lead to a reduction in noise level low enough for operation in business office and hotel conditions.



Indoor Air Quality Publication due to COVID-19/PM 2.5

Given the current global health situation, the so-called “new reality” declared by the World Health Organization, all spaces must carry out new regulations to prevent the spread of Coronavirus (COVID-19) caused by the virus SARS-CoV-2. Epidemic outbreaks are a threat that cannot be ignored to all people’s health and well-being and will have very important implications on society and the economy.

Air ventilation will have less effect on larger infected droplets/particles as they precipitate quickly, and should be controlled with proper surface hygiene. However, good air ventilation and renewal system are more effective for the smaller particles that can remain suspended for hours in closed environments.

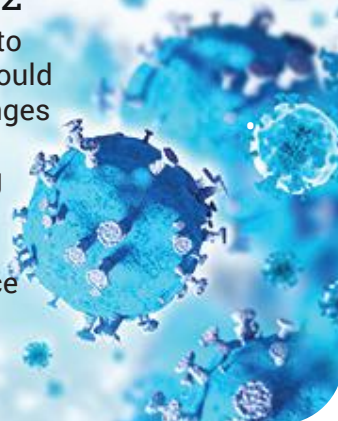


ASHRAE

ASHRAE has published two statements on how to manage the spread of SARS-CoV-2, with regards to the operation and maintenance of Heating, Ventilation, Air Conditioning (HVAC) in buildings.

• Airborne Transmission of SARS-CoV-2

Airborne exposure to the Coronavirus should be controlled. Changes in the operation of buildings, including installation and operation of HVAC systems, can reduce airborne exposures to viruses.



• Ventilation and Filtration

provided by HVAC systems can reduce the concentration of SARS-CoV-2 in the air and therefore reduce the risk of virus transmission by air. Unventilated spaces can cause thermal stress to occupants and reduce occupants’ resistance to infection, which is life-threatening. In general, a well-designed HVAC system is recommended to reduce the transmission of the virus.



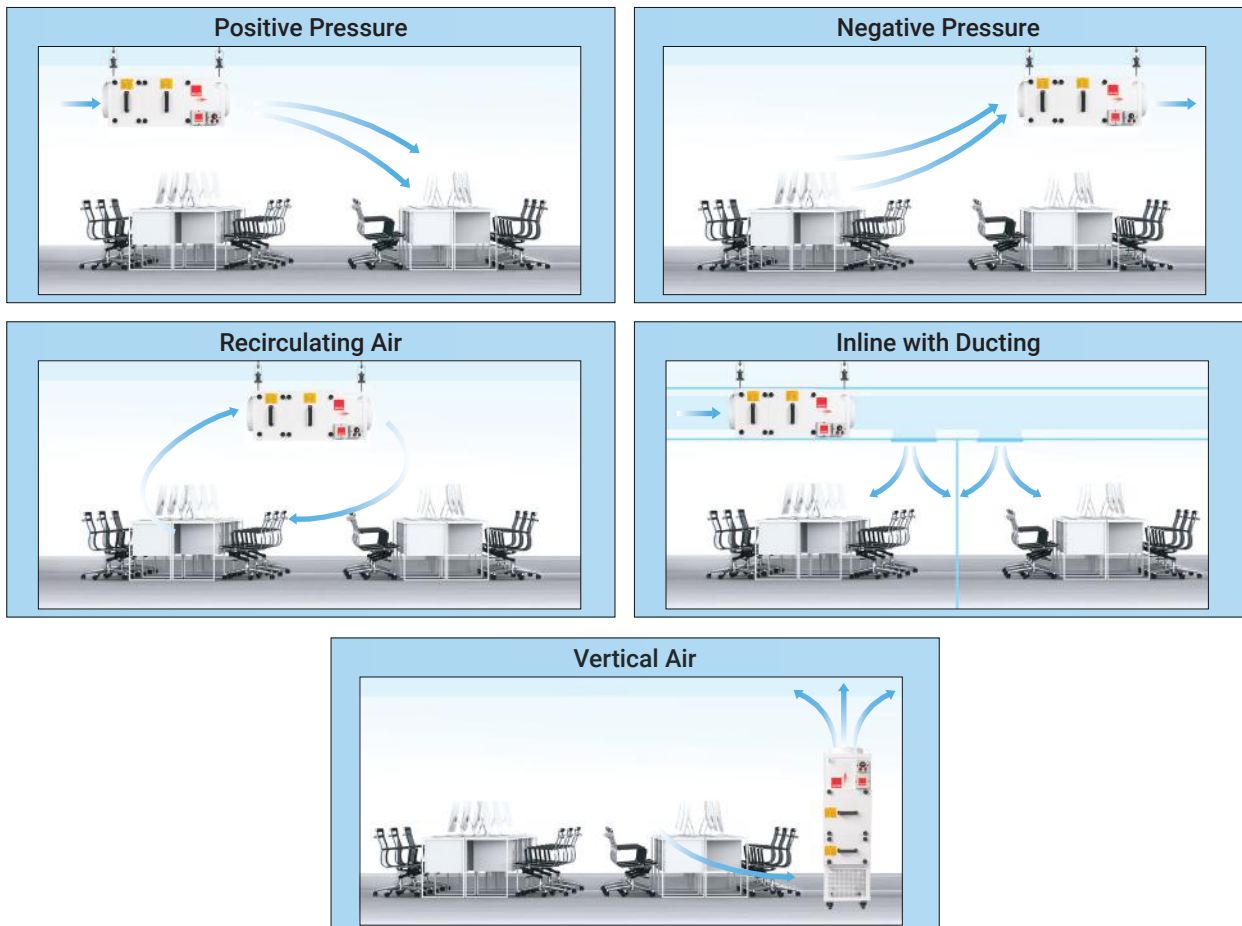
Filters of the Facilities and HVAC Systems, along with other strategies help reduce the transmission of the virus by eliminating other contaminants from the air that can affect health.

This guide is intended to be advisory in nature and informative in content for safe workplaces. It was developed with the purpose of supporting our Kruger clients.

Fan Filter Unit Applications



CFF Functions



Product Specifications

Vertical Type:



A: Control Box

Variable speed control as per flow rate requirement

B: EC Fan

3rd generation aerodynamically optimized plenum fan impeller of ABS material with EC motor

C: Power Box

To control the power supply of the fan during operation

D: HEPA Filter

HEPA Filter grade H14 with a minimum efficiency of 99.995% filters particles sizes up to 0.3 microns

Optional: Medium Filter MERV14, approximate minimum efficiency ePM1 -75%

E: UV Lamp

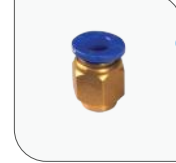
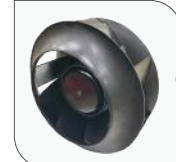
Efficient for disinfecting unsanitary air, low mercury content, long life time, and ozone-free

F: Pre-Filter

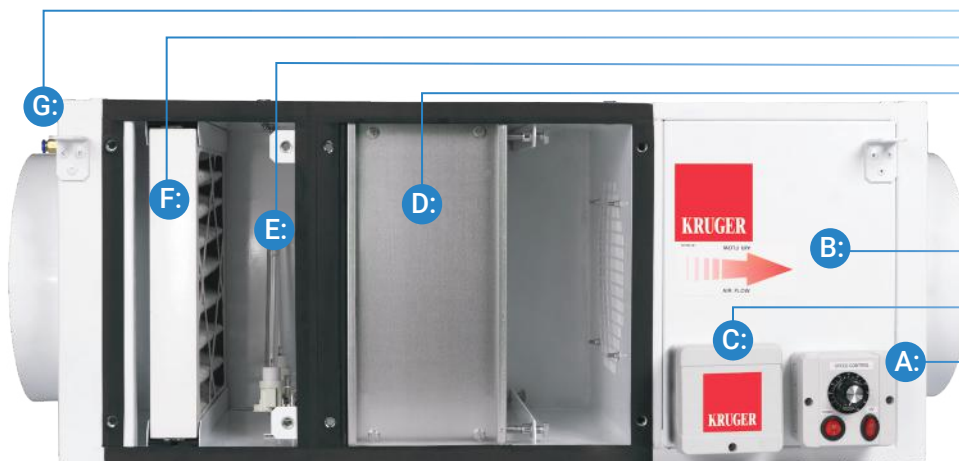
Synthetic media Pre-Filter MERV8 for remove coarse particles

G: Flow Measurement

Tracking the pressure drop to adjustment speed with the control box



Horizontal Type:

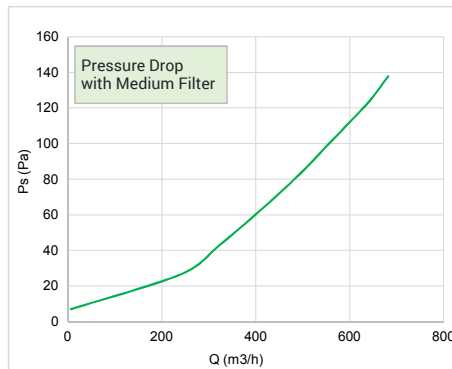
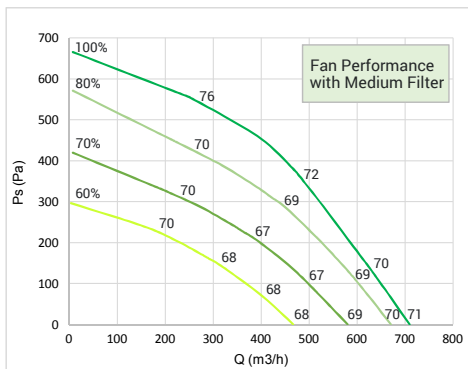
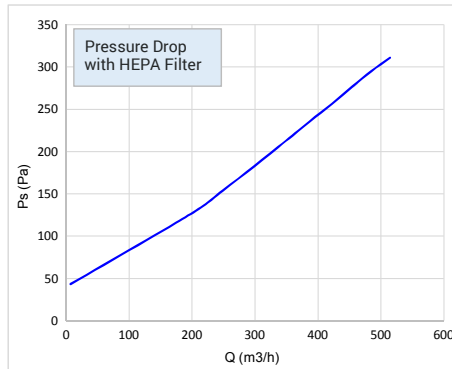
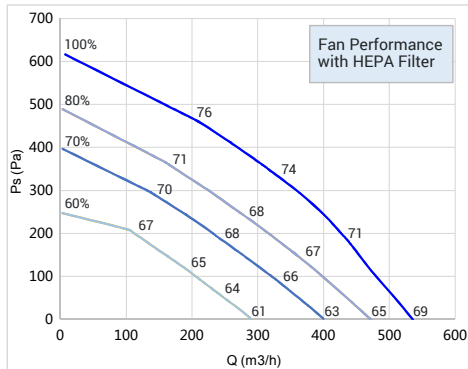


Fan Technical Data

Model	Filter Type	Max. Speed (RPM)	Max. Air Flow (m ³ /h)	Installed Power Motor (kW)	Max. Asorbed Power (kW)	Sound Power Lw, dB(A)	Sound Pressure Lp, dB(A)*
CFF 500	HEPA	3000	535	0.35	0.18	69	54
	Medium		709	0.35	0.21	71	56

- * Inlet Lp(A) sound pressure levels at 1.5 m are measured at free discharge in spherical free field condition.
- Values shown are for inlet Lwi(A) sound power levels for installation type D: duct inlet, duct outlet. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.
- Performance shown is for installation type D: duct inlet, duct outlet. Performance rating include the effects of filters. Speed (RPM) shown is maximum speed. Performance is based on actual speed of test.

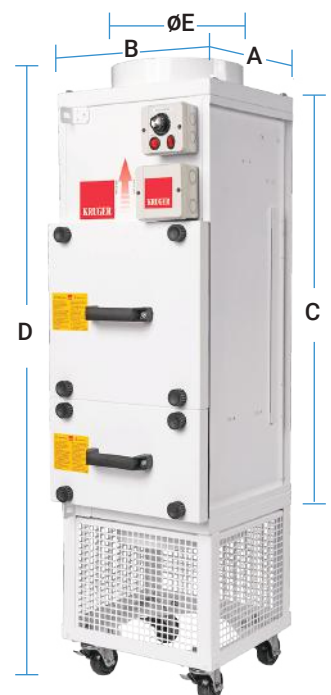
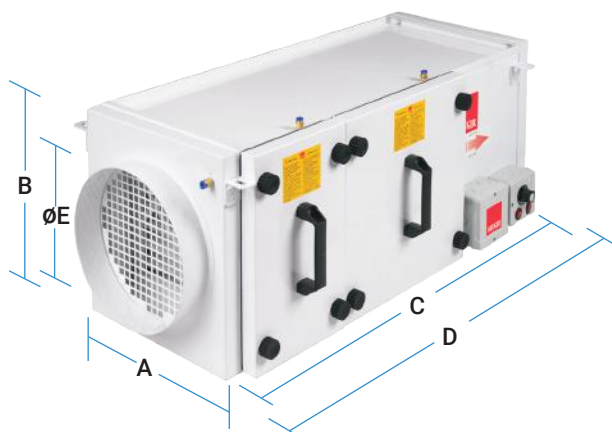
Fan Performance Curve



- Value shown are for inlet Lwi(A) sound power levels for installation type D - Ducted inlet, Duct outlet. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Rating include the effects of duct end correction.
- Performance shown is for installation type D: duct inlet, duct outlet.
- The performance shown is for operating at variable operational speed (in %).

Fan Dimension

Model	A (mm)	B (mm)	C (mm)	D (mm)	øE (mm)	Weight (Kg)
CFF 500 (Horizontal)	410	342	1000	1100	250	26
CFF 500 (Vertical)		385	970	1395		35



KRUGER Ventilation Group

THAILAND (Regional HQ)

KRUGER VENTILATION INDUSTRIES ASIA CO. LTD.
30/159 Moo 1, Sinsakorn Industrial Estate,
Chetsadawithi Road, Khok Kham Mueng, Samuthsakorn 74000, Thailand
Tel: +662 1054298 Fax: +662 0248256-9
Website: www.krugerfan.com

THAILAND

KRUGER VENTILATION IND. (THAILAND) CO. LTD.
30/105 Moo 1, Sinsakorn Industrial Estate,
Chetsadawithi Road, Khok Kham Mueng, Samuthsakorn 74000, Thailand
Tel: +662 1050399 Fax: +662 1050370-2
Email: mktg@kruger.co.th

INDIA

KRUGER VENTILATION INDUSTRIES (INDIA) PVT. LTD.
Kruger Centre, Mumbai-Nasik Highway,
Kalamgaon, Shahapur, Thane 421601, Maharashtra, India
Tel: +91 9960558899/9975577211
Email: sales@krugerindia.com

MIDDLE EAST

CONTACT: KRUGER VENTILATION INDUSTRIES (INDIA) PVT. LTD.
Tel: +91 9766323730 / + 91 9975577211
Email: rahul@krugerindia.com

INDIA (NORTH)

KRUGER VENTILATION INDUSTRIES (NORTH INDIA) PVT LTD
Village Rohad, Tehsil Bahadurgarh, Jhajjar, Haryana-124507
Tel: +91-9958991652/9958991660/8586966303
Fax +91-1276-278096
Email: sales.kni@krugerindia.com , service@krugerindia.com

KOREA

NEOMATE CO. LTD.
2-1010, Ace High Tech City B/D, 775 Gyeongin-ro,
Yeongdeungpo-gu, Seoul, Korea. Postal Code 07299
Tel: +82-2-2679-2052 Fax: +82-2-2679-2174
Email: y7890@neomate.co.kr

MYANMAR

KRUGER VENTILATION (MYANMAR) CO. LTD.
Room No. F21, Thiri Yadanar Whole Sale Market, (Htawunbe)
Toe Chae Ward, North Okkalapa Township, Yangon.
Tel: +959 763141081/2/3
Email: htoon@krugermm.com

SINGAPORE

KRUGER ENGINEERING PTE. LTD.
2 Venture Drive #20-23, Vision Exchange,
Singapore 608526.
Tel: +65 68631191 Fax: +65 68631151
Email: mktg@krugerfan.com

AUSTRALIA

S&P KRUGER AUSTRALIA PTY. LTD.
2 Cunningham St, Moorebank N.S.W. 2170
Tel: +61 2-98227747
Fax: +61 2-98227757
Email: info@sandpkruger.com.au

INDONESIA

P.T. KRUGER VENTILATION INDONESIA.
JL. Teuku Umar No.20,
Karawaci - Tangerang 15115, Indonesia
Tel: +62 21-5512288/5513557 Fax: +62 21-5513502
Email: mktg@krugerindo.co.id

CHINA (GUANGZHOU)

GUANGZHOU KRUGER VENTILATION CO. LTD.
No. 9 Huahui Road, Huashan, Huadu,
Guangzhou, P.R. China 510880
Tel: +86 20-66356635 Fax: +86 20-86786001/86786500
Email: gzkru@krugergz.com

CHINA (TIANJIN)

TIANJIN KRUGER VENTILATION CO. LTD.
Jingjin Science and Technology Park
Wuqing District, Tianjin, China
Tel: +86 22-22143480/3481 Fax: +86 22-22143482
Email: krugertj@krugertj.com

CHINA (SHANGHAI)

Shanghai Kruger Ventilation Co.,Ltd.
No.500 Yuanguo Road, Anting, Jiading District,
Shanghai 201814, P.R. China
Tel: +86 21-69573266 Fax: +86 21-69573296
Email: shkru@krugerschina.com

CHINA (WUHAN)

WUHAN KRUGER VENTILATION CO. LTD.
No. 805, Huian Ave, Dongxihu District, Wuhan, Hubei, P.R. China 430040
Tel: +86 27- 83248840/83060522/83097505
Fax: +86 27- 83261886
Email: whkru@krugerwh.com

HONG KONG

KRUGER VENTILATION (HONG KONG) LIMITED.
Flat C, 9/F, Yeung Yiu Chung (No.8) Industrial Building,
20 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong
Tel: +852 22469182 Fax: +852 22469187
Email: info@kruger.com.hk

TAIPEI

KRUGER VENTILATION (TAIWAN) CO. LTD.
No. 157, Ping-an Rd, Hengfeng Village,
Dayuan Shiang Taoyuan County 337, Taiwan
Tel: +886 3-3859119 Fax: +886 3-3859118
Email: sales@krugertwn.com.tw

MALAYSIA

KRUVENT INDUSTRIES (M) SDN. BHD.
Lot 850, Jalan Subang 7, Taman Perindustrian Subang,
47500, Subang Jaya, Selangor D.E.
Tel: +603 80743399 Fax: +603 80743388
Email: mktg@kruger.com.my

PHILIPPINES

KRUGER M & E INDUSTRIES CORP.
B3 Welborne Industrial Park
Bancal Carmona Cavite 4116, Philippines
Tel: +63-917-561-9088 / +63-917-596-7288
+63-917-712-8438 / +63-917-306-8288
Email: mktg@krugerph.net

VIETNAM

KRUGER VENTILATION INDUSTRIES (VIETNAM) CO. LTD.
Lot A7. 2-4, C2 Road, Thanh Thanh Cong LZ,
Trang Bang Dist. Tay Ninh Province, Vietnam
Tel: +84-276 3585200/01/02 Fax: +84-276 3585199
Email: mktg@krugervn.com



Kruger Ventilation Industries Asia Co., Ltd.

30/159 Moo 1, Sinsakorn Industrial Estate
Chetsadawithi Road, Khok Kham Mueng,
Samuthsakorn 74000, Thailand

Tel: +662 1054298 Fax: +662 0248256-9

Website: www.krugerfan.com

CAT049.E0 April 2023

A member of

