

# General Instructions (Roof Exhaust Fan) RDA-RDC-RCU-RCD Series



IGB011.E4/1911



This manual is to assist the engineer to avoid the most common fan problems caused by improper storage, installation, operation and maintenance. HANDLING AND MAINTENANCE SHOULD ALWAYS BE PERFORMED BY EXPERIENCED AND TRAINED PERSONNEL.

# RECEIVING, HANDLING AND STORAGE

Rough handling during shipment and improper storage can cause damage that is not noticeable until the fan is in operation. This can be avoided with proper storage and handling techniques.

Fan should be hoisted with slings placed around the fan housing. Touch up the scratch coated surfaces during lifting, to prevent corrosion to occur at this area. Store the fan in a clean and dry place, preferably indoor to ensure fan shaft, bearing and fan casing are protected against dust and corrosion. Do not store the fan in a location where it will be subjected to vibration. This can cause the internal surface to rub against each other and damage the bearings.

### START-UP CHECK LIST

Before putting any fan into initial operation the manufacturer's instruction must be followed. Complete the following checklist to make sure that the fan is ready to run.

	Lock out the primary and all secondary power sources.
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	Make sure the foundation or mounting arrangement and the duct connections are adequately designed in accordance with recognized acceptable engineering practices and with the fan manufacturer's recommendations.
	Check and tighten all hold-down (securing) bolts.
	Check the fan assembly and bearings for proper grounding to prevent static electricity discharge.
	Spin impeller to see whether it rotates freely and is not grossly out of balance.
	Inspect impeller for correct rotation for the fan design.
	Properly secure all safety guards.
	Switch on the electrical supply and allow the fan to reach full speed.
	Check carefully for :- (1) Excessive vibration (2) Unusual noise (3) Proper amperage and voltage values
	If any problem is indicated, SWITCH OFF IMMEDIATELY. Lock out the electrical supply, secure the fan impeller if there is a potential for wind

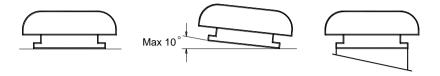
milling. (impeller turning due to a draft through the system). Check carefully for the cause of the trouble and correct as necessary.

The fan may now be put into operation but during the first 8 hrs of running, it should be periodically observed and checked for excessive vibration and noise. Checks should be make of motor input current and motor & bearing temperature to ensure that they do not exceed manufacturer's recommendation. After 8 hrs of operation, the fan should be shut down to check that all set screws and hold-down bolts.

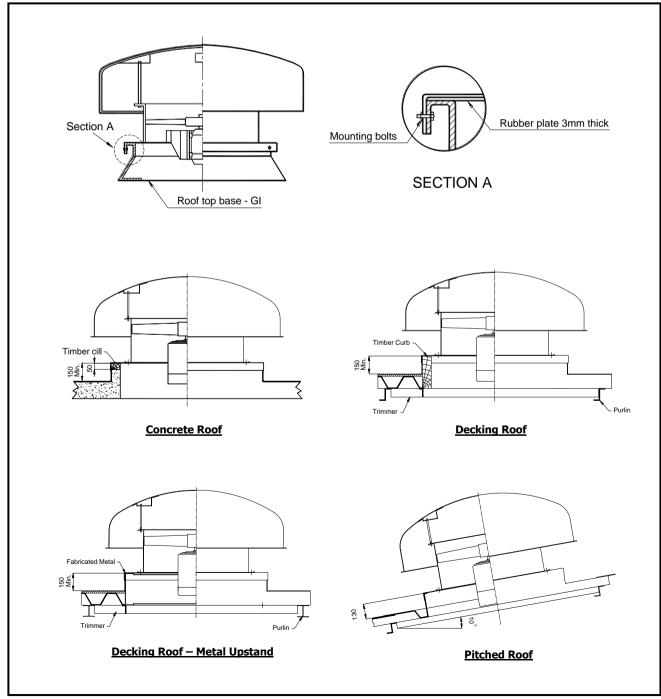


# **INSTALLATION**

• The unit can be installed on almost any type of roof, flat, pitched (max. 10°) or decking.



- Inlet ductwork should be free from obstruction.
- Avoid sharp bends at inlet.
- Installing roof ventilators





# **ROUTINE MAINTENANCE**

Maintenance should always be performed by experienced and trained personnel. Do not attempt any maintenance on a fan unless the electrical supply has been locked out or tagged out and the impeller has been secured.

Under normal circumstances, handling clean air, the system should require cleaning only about a year. However, the fan and system should be checked at regular intervals to detect any unusual accumulation.

The fan impeller should be specially checked for build-up of material or dirt which may cause an imbalance with resulting undue wear on bearings and belt drives. A regular maintenance program should be established as needed to prevent material build-up.

Periodic inspection of the rotating assembly must be made to detect any indication of weakening of the rotor because of corrosion, erosion, or metal fatigue.

# KRUGER GROUP (VENTILATION)

### 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

### CHINA (BEIJING)

### BEIJING KRUGER VENTILATION CO. LTD

Level 7, A Block, Rising International Building, 29 JingHai San Road, BDA, Beijing, P.R.China 100176
Tel. +86 10-67881366 - Fax +86 10-67880566

# Email: krugertj@krugertj.com

### • CHINA (SHANGHAI)

### SHANGHAI KRUGER VENTILATION CO. LTD

No. 500 Yuanguo Road, Anting, Jiading, Shanghai 201814 P.R. China Tel. +86 21-69573266 - Fax +86 21-69573296 Email: shkruger@krugerchina.com

### • CHINA (WUHAN)

### WUHAN KRUGER VENTILATION CO. LTD

No. 805, Huian Ave, Dongxihu District, Wuhan, Hubei, P.R. China 430000 Tel. +86 27- 83248840/83060522/83097505 Fax +86 27- 83261886 Email: whkruger@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

# • INDIA (NORTH)

# KRUGER VENTILATION INDUSTRIES (NORTH INDIA) PVT LTD

Plot No. - 191, Sector - 59, Ballabgarh, Faridabad - 121 004, Haryana, India Tel. +91-9958991660/9717449696 Fax. +91-1294135820 Email: sales.kni@kruqerindia.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

No. 10 Buroh Street #06-06, West Connect Building, Singapore 627564 Tel. +65 68631191 - Fax +65 68631151 Email: mktg@krugerasia.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

### 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

### • 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: gzkruger@krugergz.com

### • CHINA (TIANJIN)

### **TIANJIN KRUGER VENTILATION CO. LTD**

No.168 Anyuan Road, Jingjin Science and Technology Park Wuqing District, Tianjin, China Tel. +86 22-22143480/3481 - Fax +86 22-22143482 Email: krugertj@krugertj.com

### DUBAI

### KRUGER VENTILATION INDUSTRIES, GULF BRANCH

Jebel Ali Free Zone Area (JAFZA) P.O. Box No. 262949, Dubai, UAE Tel. +971 4 8819188/8832017 Fax. +971 4 8832018 Email: johncs@krugerasia.com

### INDIA

### KRUGER VENTILATION INDUSTRIES (INDIA) PVT LTD

Kruger Centre, Mumbai-Nasik Highway, Kalamgaon, Shahapur, Thane 421601, Maharashtra, India Tel. +91 9960558899/9975577211 - Fax +91 2527 240075 Email: sales@krugerindia.com

# 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: mktq@krugerindo.co.id

### • 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: mkta@kruger.com.my

### • PHILIPPINES

### KRUGER M&E INDUSTRIES CORPORATION

FAPI Compound, E. Rodriguez Ave. Tunasan, Muntinlupa City 1773, Philippines Tel. +63 2-8622892/4/6/7, 5534059 - Fax +63 2-8622891 Email: mktg@krugerph.net

# 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

### VIETNAM

### KRUGER VENTILATION INDUSTRIES (VIETNAM) CO. LTD

Lot A7. 2-4, C2 Road, Thanh Thanh Cong IZ, Trang Bang Dist. Tay Ninh Province, Vietnam Tel. +84-276 3585200/01/02 - Fax +84-276 3585199 Email: mktg@krugervn.com