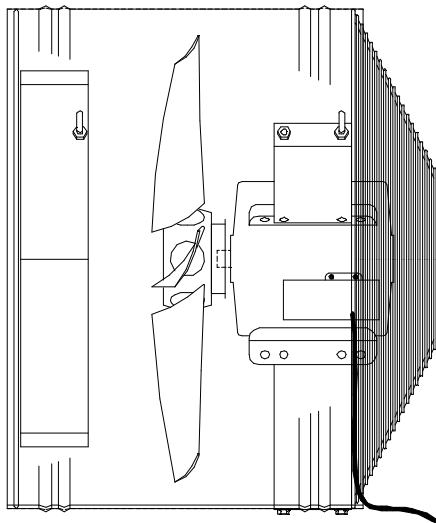




USER MANUAL AND INSTALLATION INSTRUCTIONS



R 14

R 16

R 18

R 20



Congratulations on your purchase!

We're sure you'll be very happy with your new

ERMAF

R 14 - R 20 Ventilator



EC Declaration of Conformity

We declare that the design and model of the machine described above being placed on the market by ourselves complies with the relevant health and safety requirements of the EC Directive.

NOTE

In order to ensure that your new equipment will always work properly and efficiently and to ensure your personal safety, we would ask you the following:

Please read through this User Manual thoroughly and take particular note of the warning and safety instructions before starting up the machine for the first time.




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1. General Information

1.1. Symbols

You will see the following symbols when you read through the User Manual:

	Warning of a general danger
	Warning of dangerous voltage
	Wear protective gloves

1.2. Special safety instructions

	CAUTION	This indicates risks or unsafe processes which can easily cause slight injury or damage to property.
	NOTE	This provides information on how to handle the equipment effectively, economically and in an environmentally sound manner.

1.3. General safety regulations

ERMAF equipment may only be used for the purpose for which it is intended.

Use of the equipment for any other purpose shall be regarded as improper use. The manufacturer will not be liable for any damage resulting from improper use; ..the user shall bear the sole risk thereof.

Proper use of the equipment also entails observing the manufacturer's conditions of operation, maintenance and installation.

Currently applicable accident prevention regulations and all other generally recognized rules of occupational medicine and safety must be observed.

Check all safety and operational equipment

- before starting up
 - at reasonable intervals
 - after any modifications or maintenance work
- to ensure that it is safe and fully operational.

1.4. Electrical equipment

Any work extending beyond the scope of equipment maintenance must be performed by a specialist only.

Always disconnect the appliance from the mains before performing any work on it.

Before starting up the appliance, examine all electrical wiring for any visible defects.

Change any damaged wiring before switching on the appliance.

Have any plug devices that are damaged or destroyed replaced by a qualified electrician.

Do not pull the plug out of the socket by the flex.

Covering electric motors can cause high temperatures to build up, which can destroy the electrical equipment and cause fires.

1.5. Maintenance



Always disconnect the appliance from the mains before working on the electrical equipment!

Repairs should only be carried out by persons who have the training, knowledge or practical experience to ensure that the repair is done properly.

Maintenance, repair and cleaning work should only be carried out with the drive switched off and the motor idle. The same applies to the rectification of functional defects.



Wear protective gloves if there is a danger of injuring your hands!

The user must satisfy himself that the appliance or machine has been returned to its proper state after carrying out repair work. Technical equipment must not be re-started until all safety devices are in place.

Spare parts must as a very minimum correspond to the technical requirements specified by the manufacturer of the equipment. This will be the case if, for example, original spares are used.

1.6. Ordering spare parts

When ordering spare parts, always indicate the following:

- Code no. and description of part or item number with description and manual number for uncoded parts;
- Number of original invoice;
- Electricity supply, e.g. 230/400 V, 3 ph, 50 Hz.

1.7. Liability

Any unlawful alterations to the machine or the software will rule out manufacturer liability for any resultant damage.

1.8. Interruptions

We recommend installing warning systems to monitor your operating equipment. This will protect your animals and plants and consequently your economic existence.

In case of a power failure, the emergency power unit should automatically switch on.

Power units with cardan transmission for attachment to tractors are also suitable for use as emergency power units. Please consult your property insurance company for more information.

1.9. First Aid

Unless explicitly specified otherwise, there should always be a first aid box at the workplace in case of accidents. Any material removed from the first aid box must be replaced immediately.

If you ask for help, always provide the following information:

- where the accident happened;
- what happened;
- how many persons injured;
- what the risk of injury is;
- who is reporting the accident!

1.10. Discharge

After the installation or repairs of the installation, the packaging and non-usable waste should be delivered to the appropriate places.

The contents of this manual are liable to change without notice.

If you discover any errors or inaccurate information, we would be grateful if you could inform us of these.

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2. Introduction


2.1. Equipment description

As a result of energy-saving measures today's horticulture greenhouses are becoming increasingly airtight giving rise to the need for air circulation fans. In foil covered greenhouses, where air becomes immobile when ventilation windows are closed, ventilators are also required. ERMAF air circulation fans provide the solution to problems such as condensation on crops, inadequate distribution of heat and, hence, temperature differences.

The stainless steel versions are particularly suited for application in, for instance, broiler houses where they can be used in combination with hot air blowers. In extremely long houses the fans will contribute towards a uniform temperature distribution and on optimal house climate. Selection from several models allows for the right fan to be chosen for any house. Thanks to their stainless steel specification the fans can be installed effortlessly and require minimum maintenance.

ERMAF air circulation fans are constructed in stainless steel and offer a favourable cost/quality ratio, high output, low energy consumption and low noise levels. Because of these crucial factors the ERMAF fan is a good choice.

2.2. Special safety instructions

	The R 14 - R 20 are ventilators for use in mentioned rooms. Use of the equipment for any other purpose shall be regarded as improper use. The manufacturer will not be liable for any damage resulting from improper use; the user shall bear the sole risk thereof.
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3. Technical Data

Type		R 14-9	R 16-9	R 18-9	R 20-9
Throw	M	15	25	35	45
Air displacement	m ³ /h	2850	3250	4450	5800
Power	W	130	135	150	155
Revolutions	RPM	980	980	965	965
Noise level	dBA	56	59	62	65
Mains current	A	0,60	0,68	0,74	0,76
Weight	Kg	13	14	15	16

Type		R 14-14	R 16-14	R 18-14	R 20-14
Throw	M	30	40	50	60
Air displacement	m ³ /h	4500	5100	6800	8600
Power	W	230	300	410	425
Revolutions	RPM	1400	1400	1400	1400
Noise level	dBA	61	64	67	70
Mains current	A	1,3	1,4	1,8	1,9
Weight	Kg	13	14	15	16

Voltage : 50 / 60 Hz..... 230 V

The R 14 - R 20 consists of **2 main components**:

1. Shell : used for air supply;
2. Ventilator : this conveys the air into the room.

Description of material:


Shell : high-grade 304 steel /steel.

4. Installation instructions

4.1. Positioning

The number of fans required depends on the size and nature of the room.

4.2. Installation

	CAUTION	The following points must be observed!
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- The appliance must be placed on a horizontal surface or suspended by means of chains.
- Keep the inlet and the outlet of the ventilator free of any obstacles.
The suction end of the ventilator must be at least 1 meter away from the wall.
- The ventilator must not be connected to or inside closed duct/pipe systems.
- Local regulations must be observed for the electricity.

4.3. Connecting to mains

Local authority and electricity supply company regulations must be observed.

Connection values: 230V/ 50Hz

The ventilator is connected to the mains with the supplied plug.

Always use an earthed socket.


When using an extension cable, make sure it has an earth core.

If a malfunction occurs, contact your qualified electrician immediately.

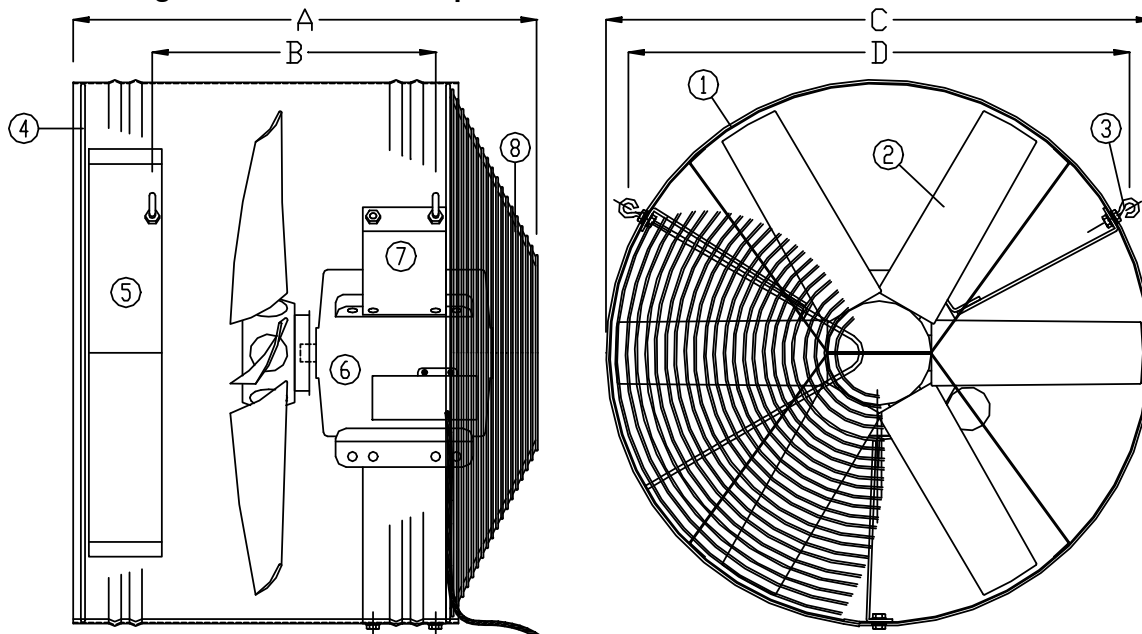
Possible causes of a malfunction may be:

- a) no - or too low voltage.
- b) the ventilator is blocked.
- c) the fanmotor or startercapacitor are faulty.
- d) the thermic fuse in the fanmotor is activated; let it cool down.

5. Maintenance

	Do not use water to clean the appliance! Inadequate cleaning can result in damage by fire.
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Have your appliances checked and adjusted at least once a year. The appliance must be thoroughly cleaned of dust at regular intervals and after every throughput. Do not use water. Clean with a compressor.

6.1. Diagram for R 14 bis R 20 parts list

Note: Please quote the appliance number when ordering!

6.2. Parts list for R 14 to R 20

No	Description	R 14	R 16	R 18	R 20
1	Mantle White Mantle stainl. steel	N52820005 N52820001	N52700025 N52700021	N52710005 N52710001	N52720005 N52720001
2	Fan	354, 14mm N52700012	403, 14mm N52700013	455, 14mm N52700014	506, 14mm N52700015
3	Suspension eye M6	N50800600	N50800600	N50800600	N50800600
4	Safety grille outlet	EB35 N52700006	EB40 N52700007	EB45 N52700008	EB50 N52700009
5	Cross piece complete	14" N52820003	16" N52700023	18" N52710003	20" N52720003
6	Motor 900 rpm	Elnor BX 327 EVI N52700001			
	Motor 1400 rpm	Elnor BX 335 AR N52700155			
7	Motor bracket	N51600050	N51700011	N51400205	N51500015
8	Safety grille inlet	BG300 N52700002	BG350 N52700003	BG400 N52700004	BG450 N52700005
A	Length mantle mm	445			
B	Distance suspension	270			
C	Ø mantle mm	367	418	468	517
D	Distance suspension	353	397	440	483