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Safety instructions

For your protection

- **Read the operating instructions in full before starting up and follow the safety instructions.**
- Keep the operating instructions in a place where they can be accessed by everyone.
- Ensure that only trained staff work with the appliance.
- Follow the safety instructions, guidelines, occupational health and safety and accident prevention regulations.
- **Caution - Magnetism!** Effects of the magnetic field have to be taken into account (e.g. data storage media, cardiac pacemakers ...).
- Wear your personal protective equipment in accordance with the hazard category of the media to be processed. Otherwise there is a risk from:
 - splashing and evaporation of liquids
 - ejection of parts
 - release of toxic or combustible gases.

- Use only the AC adapter supplied
- Set up the appliance in a spacious area on an even, stable, clean, non-slip, dry and fireproof surface.
- The base plate must be clean and intact.
- Check the appliance and accessories before hand for damage each time you use them. Do not use damaged components.
- Reduce the speed if
 - the medium splashes out of the vessel because the speed is too high
 - the appliance is not running smoothly
 - the container moves on the base plate.
- Beware of hazards due to:
 - flammable materials
 - combustible media with a low boiling temperature
 - glass breakage
 - incorrect container size
 - overfilling of media
 - unsafe condition of container.
- The appliance may heat up when in use.
- Process pathogenic materials only in closed vessels under a suitable extractor hood. Please contact IKA if you have a questions.
- Do not operate the appliance in explosive atmospheres, with hazardous substances or under water.
- Only process media that will not react dangerously to the extra energy produced through processing. This also applies to any extra energy produced in other ways, e.g. through light irradiation.
- Safe operation is only guaranteed with the accessories described in the "Accessories" chapter.
- The centre of gravity of the assembly must lie within



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the surface on which it is set up.

- The appliance must only be disconnected from the mains supply by pulling out the plug-in power supply unit.
- The socket for the the plug-in power supply unit must be easily accessible.
- The appliance starts up again automatically following a cut in the power supply.
- Abrasion of the dispersion equipment or the rotating accessories can get into the medium you are working on.
- When using the PTFE-coated magnetic bars, the following has to be noted: *Chemical reactions of PTFE occur in contact with molten or dissolved alkaline and alkaline-earth metals, as well as with fineparticeld powders of metals of the 2. and 3. group of the periodical system at temperatures above 300-400 °C. Only elementary fluorine, chlorine trifluoride and alkaline metals do attack PTFE, halogen hydrocarbons have a reversible swelling effect.*

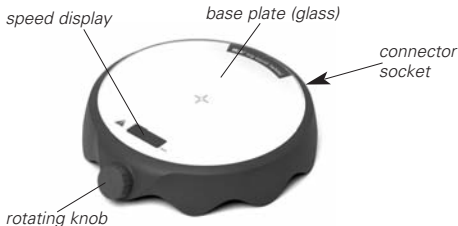
(Source: Römpps Chemie-Lexikon and „Ullmann“ Bd.19)

To the protection of the equipment

⚠ Caution: Equipment may not be poured over with aggressive media! Equipment never under water set!

- The voltage stated on the nameplate must correspond to the mains voltage.
- Do not cover the device, even partially e.g. with metallic plates or film. This results in overheating.
- Protect the appliance and accessories from bumps and impacts.
- Ensure that the base plate is kept clean.

Operator's control



Unpacking

- Unpacking
 - Please unpack the device carefully
 - In the case of any damage a fact report must be set immediately (post, rail or forwarder)
- Delivery scope
 - Magnetic stirrer
 - Plug-in power supply
 - Operating instruction

Correct use

- Use
 - for mixing liquids
- Range of use
 - Laboratories
 - Pharmacies

- Schools

Starting up

- Set the knob to the left stop
- Place a magnetic rod in a vessel which is penetrable for magnetic field lines and fill the vessel with the medium to be processed.
- Place the vessel on the centre of the base plate.
- Connect the appliance to a socket (the voltage stated on the nameplate must correspond to the mains voltage).

All elements of the display will flash briefly. All important safety functions will be tested. Subsequently, the software-version is indicated. The appliance is operable after this check.

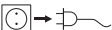
- Set the speed using the knob

The displayed value will flash until the desired motor speed is reached.

Maintenance

The appliance is maintenance-free.

Cleaning



Only use cleansing agents which have been recommended by IKA.

Use to remove:

Dyes	Isopropyl alcohol
construction materials	water containing tenside, isopropyl alcohol
Cosmetics	water containing tenside,

Foodstuffs
Fuels

isopropyl alcohol
water containing tenside
water containing tenside

- Do not allow moisture to get into the appliance when cleaning.
- Wear protective gloves during cleaning the devices.
- Before using another than the recommended method for cleaning or decontamination, the user must ascertain with IKA that this method does not destroy the instrument.

Accessories

IKA - stirring bars:

TRIKA® 25

IKAFLON® 30

Stirring bar remover

Warranty

In accordance with IKA warranty conditions, the warranty period is 24 months. For claims under the warranty please contact your local dealer. You may also send the machine direct to our factory, enclosing the delivery invoice and giving reasons for the claim. You will be liable for freight costs.

The warranty does not cover worn out parts, nor does it apply to faults resulting from improper use, insufficient care or maintenance not carried out in accordance with the instructions in this operating manual.

Technical data

Power supply unit

Input	VAC 100 - 240
	A 0,3
	Hz 50 - 60
Output	VDC 12
	7,2W.LPS (limited power source)
Protection class	2 (double insulated) <input type="checkbox"/>

Unit

Operating voltage	VDC 12
	mA 300
Ambient temperature	°C +5 to +40
Ambient humidity (relative)	% 80
Operating time	% 100
EN 60529 protection class	IP54
Pollution degree	2
Oversvoltage category	II
Operation at a terrestrial altitude	m max. 2000 above sea level
Dimensions	mm 205 x 185 x 45 (big squid) 160 x 145 x 45 (color squid)
Weight	kg 0,63 (big squid) 0,55 (color squid)

Motor

Speed range	rpm 0 - 2500
	<i>0 - 2000rpm at 50 rpm steps</i>
	<i>2000 - 2500rpm at 100 rpm steps</i>
Power consumption	W 3
power output	W 2
Stirring quantity max. (H ₂ O)	l 1,5 (big squid) 1,0 (color squid)

Base plate

Diameter base plate	mm 160 (big squid) 120 (color squid)
Material	glass