

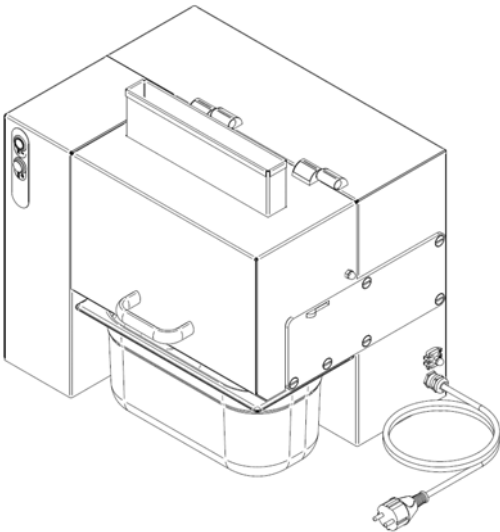
8 - Malfunctions and remedies

8.1 - Malfunctions: causes and remedies

Malfunctions	Causes	Remedies
The machine does not start	The residual current circuit breaker is set to "0"	Set the switch to "I"
	The plug switch is set to "0"	Set the switch to "I"
	The start button does not work	Contact the technical assistance service
	The safety devices are not all present or mounted properly	Check the safety devices
The product is not cut correctly	The knives of the blade roller are blunt	Sharpen the knives or replace them

**AUTHORISED RETAILER**

**DRAKE TENDERISER**



## **7 - Maintenance**

### **7.1 - Instructions**

#### **CAUTION!**

Maintenance and cleaning must always be carried out with the machine at a standstill and disconnected from the mains power supply.

Always keep the maintenance zone clean and dry.

Do not allow unauthorised persons to intervene on the machine.

Parts and tools must be replaced using original spare parts at authorised service centres, or directly by the manufacturer.

### **7.1 - Lubrication**

The machine does not require any lubrication.

### **7.2 - Cleaning the machine**

#### **CAUTION!**

Disconnect the machine from the mains power supply before cleaning it.

Do not clean the machine using a water jet.

Only use non-toxic detergents specifically formulated for cleaning components used with foodstuffs.

The knives are made of AISI 430 grade steel, therefore rust may form if they are left immersed or wet.

We suggest drying them after they are washed.

- Turn the interlocked blade cover (Ref. 4 Fig. 6.4.1) by 90° and push it towards the left: the blade guard will come off.
- Detach the blade cartridge lever (Ref. 5 Fig. 6.4.1).
- Take the cartridge (Ref. 2 Fig. 6.4.1) off the bars of the base using the handle and pull it so that the blade pins detach from the drive mechanism.
- Place the cartridge on the bars of the base (Ref. 1 Fig. 6.4.1).
- Put the blade cartridge and the guards in the dishwasher.
- Wash the base by hand using non-aggressive detergents.
- After completing the cleaning operations, assemble all the components by following the instructions in reverse order (Chapters 6 and 7).

the roller (position “2” Fig. 6.2.3 – the knob will click slightly).

- Insert the scraping combs (Ref. 3 Fig. 6.2.4).
- Move the cartridge using the handle (Ref. 4 Fig. 6.2.3).

### 6.3 - Automatic version

- Raise the interlocked blade guard (Ref. 4 Fig. 6.4.1).
- Place the cartridge on the bars of the base (Ref. 1 Fig. 6.4.1).
- Turn the cartridge lever (Ref. 5 Fig. 6.4.1) so that the blade roller pins insert into the drive pins, until they slot into place.
- Close the interlocked blade guard (Ref. 4 Fig. 6.4.1).
- Press the controls (Ref. 3 Fig. 6.4.1) to switch the machine on or off.
- Take the product with two hands and insert it into the loading mouth; use the pestle if the product gets jammed.

#### CAUTION:

**Handle the blade cartridge always through the appropriate handle (Ref. 2 Fig. 6.4.1) and protect the hands with Kevlar cut-resistant gloves.**

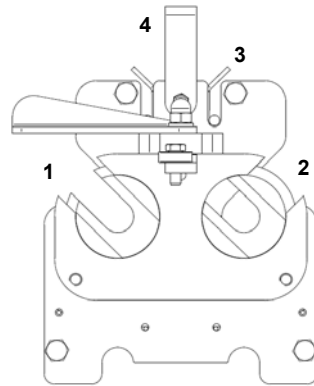


Fig. 6.2.3

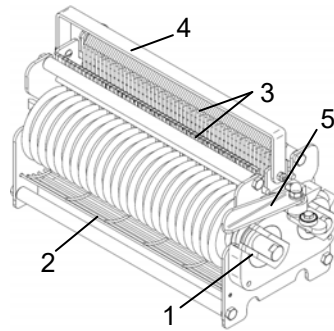


Fig. 6.2.4

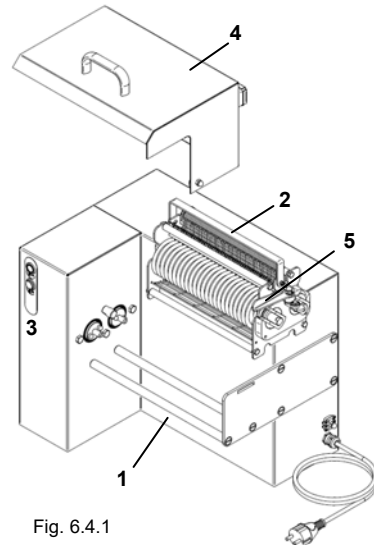


Fig. 6.4.1

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# 1 - Delivery and warranty

## 1.1 - Foreword

### CAUTION!

The symbols used in this manual draw the reader's attention to points and operations that are hazardous to the operator's personal safety or that risk damaging the machine.

Do not use the machine unless you have read and properly understood these notes.

### CAUTION!

For reasons of clarity, some of the illustrations appearing in this manual show the machine or parts of it with its panels or guards removed.

Never use the machine in this condition; only use it when it is fully equipped with the guards and in good working order.

The manufacturer forbids the reproduction, even partial, of this manual or the use of its contents for purposes other than those expressly allowed.

Any breach in this regard shall be punishable by law.

## 1.2 - Storing and using this manual

This manual uses text and illustrations to familiarise users with the machine and explain the instructions and essential criteria for its transport, handling, use and maintenance.

Read this manual carefully before using the machine.

Store this manual with care near the machine so that it can be readily available for future reference.

If the manual is lost or damaged, you can request a copy from your dealer or directly from the manufacturer.

If you sell on the machine, report the new owner's identification and address to the manufacturer.

The manual reflects the state of knowledge at the time of sale of the machine, and cannot be considered inadequate in the light of more recent experience and updates.

The manufacturer reserves the right to update the products and manuals without being obliged to update previous products and manuals, except in exceptional circumstances.

In case of doubt, contact your local service centre or the manufacturer.

The manufacturer is committed to continuously improving its products.

For this reason, the manufacturer welcomes any reports or proposals geared towards improving the machine and/or the manual. The machine is delivered to the customer with the warranty conditions applicable at the time of sale.

Please contact your dealer for any further information.

## 1.3 - Warranty

The user is not authorised to tamper with the machine in any way. Contact the

With the machine connected to the electricity and the accessory tool moving, press the stop button (2). The machine must stop.

## 5.4 - Machine start-up (Fig. 3.1.1)

To start the machine, plug it into the power outlet then press the start button ("1" Fig. 3.1.1).

## 5.5 - Machine stop (Fig. 3.1.1)

To stop the machine, simply press the stop button ("2" Fig. 3.1.1).

# 6 - Using the machine

## 6.1 - Instructions

### CAUTION!

Only authorised personnel may intervene on the machine.

Before using the machine, the operator must ensure that all guards are in place and that the safety devices are present and working efficiently.

If this is not the case, switch the machine off and contact the maintenance supervisor.

Make sure that the product to be tenderised/cut does not have any bones, nerves or others hard parts that can ruin the blades.

The size of the product to be tenderised/cut must have a suitable size for fitting inside the loading mouth.

**NEVER PUSH THE PRODUCT WITH YOUR HANDS.**

## 6.2 - Preparing the blade cartridge

The machine can be configured with 2 different meat processing rollers:

1 - Tenderising rollers

2 - Cutting rollers

- The "tenderising" system is made up of star-shaped blades (Fig. 6.2.1) that penetrate the meat and cut the nerves so as to make it more tender.
- The "strip-cutting" system is made up of round blades (Fig. 6.2.2) paired with one another that cut the meat into strips; strips of different thickness can be obtained by varying the thickness of the spacers.
- To insert the blade roller, turn the blade cartridge knob so that the slot opens (position "1" Fig. 6.2.3 – the knob will click slightly).
- Insert the roller by gripping it from the ends. **Do not touch the blades with your hands**
- Turn the cartridge knob in the opposite direction to lock

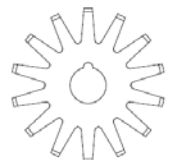


Fig. 6.2.1

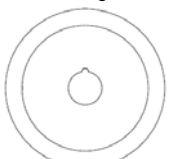


Fig. 6.2.2

#### 4.3.1 - Disposal of packaging

The packaging materials (cardboard, nylon, wood, etc.) can be regarded as solid urban waste. As a result, they can be disposed of freely. Nylon is a polluting substance that releases toxic fumes when burnt. Do not burn or dump it, but dispose of it according to the law. If the machine is delivered to a country where special regulations apply, dispose of the packaging accordingly.

#### 4.3.2 - Handling the machine

##### CAUTION!

Take care when handling the machine: dropping it accidentally can seriously damage it. To avoid muscle injuries, lift the machine by flexing your legs.

#### 4.4 - Electrical connections

##### CAUTION!

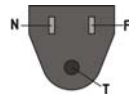
Check that the power supply line has the same specifications as those shown on the machine's rating plate. All interventions must be carried out solely by specialised personnel expressly authorised by the relevant supervisor. Make the connection to a power line equipped with an efficient earthing socket.

##### 4.4.1 - 120 V - 60 Hz single-phase machine

In this configuration, the machine is supplied with a power cable with 3 x 18 AWG. It is connected to a NEMA 5-15P plug. Attach the power cable to the 120 V - 60 Hz single-phase power supply line by installing a 10 A residual-current circuit breaker in between.



Consult the manufacturer for configurations differing from those mentioned above. If the power cable needs to be extended, use a cable of the same gauge as the original cable installed by the manufacturer.



### 5 - Start-up and shutdown

#### 5.1 - Verification of the correct electrical connection

Plug the cable into the power socket;  
Press the run button ("1", Fig. 3.1.1).

##### Note:

In machines connected to a single-phase line and specifically designed for this system, the rotation direction will be defined directly by the manufacturer.

#### 5.2 - Verification of the presence and efficiency of guards and safety devices

With the machine connected to the mains electricity, open the tool cover. The machine must stop.

#### 5.3 - Verification of the efficiency of the emergency stop button (Fig. 3.1.1)

manufacturer if you encounter any anomalies.

Any attempt to dismantle, modify or tamper with any part of the machine by the user or unauthorised personnel will immediately void the warranty and relieves the manufacturer of any liability for damages deriving from such action.

The manufacturer is also relieved of all liability for the consequences of:

- improper installation;
- improper use of the machine by inadequately trained persons;
- use in violation of local regulations;
- lack of or negligent maintenance;
- use of non-original spare parts, not specified for the model in question;
- total or partial failure to follow the instructions.

#### 1.4 - Machine description

The machine you have purchased is a straightforward, compact machine guaranteeing powerful operation and high performance. Since it is used for processing food products, all components that come into contact with the foodstuffs have been carefully selected to ensure the utmost hygiene.

- The casing is made of stainless steel.
- The cover is made of stainless steel for guaranteeing maximum hygiene and facilitating cleaning operations.
- The tools are made of stainless steel to ensure longer durability and maximum hygiene.
- The blade rollers can be rapidly dismantled for quick cleaning.
- Ventilated motors offering the following advantages:
  - extremely constant performance and long motor life;
  - longer actual work time thanks to fewer interruptions;
  - low level of heating so that the processed meat stays constantly fresh and unaltered.

The models appearing in this manual are manufactured in conformity to the **UL 763, CSA 22.2 no. 195 and NSF 8 standards**.

If any accident occurs, the manufacturer shall not be held liable if the machine has been modified, tampered with, had its safety guards removed or is used for purposes other than the intended use specified by the manufacturer.

#### 1.5 - Intended use

The machine is designed and built for tenderising steaks and cutting meat and similar products into strips.

It must be used in a professional setting by qualified operators who have read and understood this manual. Use the machine exclusively when it is securely placed on a solid worktable.

**CAUTION! The product to be processed must not be larger than the loading mouth.**

#### 1.6 - Improper use

The machine must only be used for its intended purposes; in particular:

- Do NOT use the machine for processing food products other than meat and

similar.

- Do NOT use the machine unless it has been properly installed with all its guards in good working order and correctly fitted, to prevent the risk of serious personal injury.
- Do NOT access any of the electrical components without having first disconnected the machine from the mains power supply: **risk of electric shock**.
- Do NOT process products larger than the loading mouth.
- Do NOT wear clothing that fails to comply with the accident-prevention regulations.
- Consult your employer for information on the applicable safety regulations and the personal protective equipment to be worn.
- Do NOT start the machine if it has a fault.
- Before using the machine, make sure that any potentially hazardous conditions have been adequately eliminated. If you notice anything unusual in its operation, shut down the machine and inform the maintenance supervisors.
- Do NOT allow unauthorised persons to intervene on the machine.

Urgent treatment in case of accidents caused by electricity involves first detaching the injured person from the conductor (since the person is usually unconscious). This is highly hazardous. In this instance, the injured person is also a live electrical conductor; touching them directly would mean suffering electric shock. It is advisable to disconnect the contacts directly from the line's power supply valve; should this not be possible, move the victim away using insulating material (wooden or PVC sticks, fabric, leather, etc.). First-aid medical assistance should be requested promptly and the injured person should be taken to hospital.

### 1.7 - Specific equipment details

Citing the "Model", "Serial number" and "year of manufacture" of the machine will help our technical assistance service to respond to your requests rapidly and effectively. We recommend specifying the machine model and serial number whenever you contact the technical assistance service. This information appears on the rating plate shown in Fig. 1.7.1. As a reminder, we suggest writing the data of the machine you have purchased in the box below:

Model .....
Serial no. ....
Year of manufacture.....
Type.....

A = Model  
 B = Power supply  
 C = Motor power  
 D = Motor frequency Hz  
 E = Weight  
 F = Amperage  
 G = Year of manufacture  
 H = Serial no.  
 I = Manufacturer  
 L = Barcode

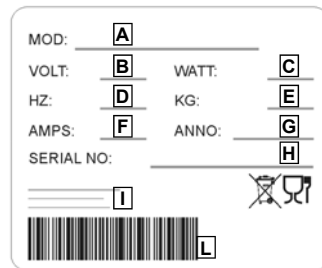
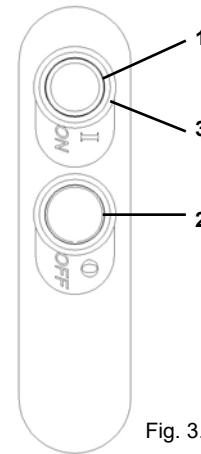


Fig. 1.7.1

## 3 - Controls and indicators

### 3.1 - List of controls and indicators



#### 1 - Run button

- Press to start the machine.

#### 2 - Stop button

- Press to stop the machine.

#### 3 - Start button LED

- Lights up when the start button is pressed.

Fig. 3.1.1

## 4 - Factory testing, shipping, delivery and installation

### 4.1 - Factory testing

The machine you have purchased has been tested at our plants to verify its correct operation and proper adjustment. The tests were conducted using materials similar to those processed by the user.

### 4.2 - Delivery and handling

All shipped material is carefully checked prior to being handed over to the shipping agent. Unless otherwise agreed with the customer, the machine is wrapped in nylon and strapped to the pallet. It is then covered with cardboard, which is also strapped to the pallet. When you receive the machine, check the condition of its packaging. If you notice any damage to the packaging, sign the delivery note with the following note: "Goods accepted with reservation..." and the reason. If you notice any damage to the components of the machine after opening the package, report it to the shipping agent within three days from the date shown on the documents.

### 4.3 - Installation

#### CAUTION!

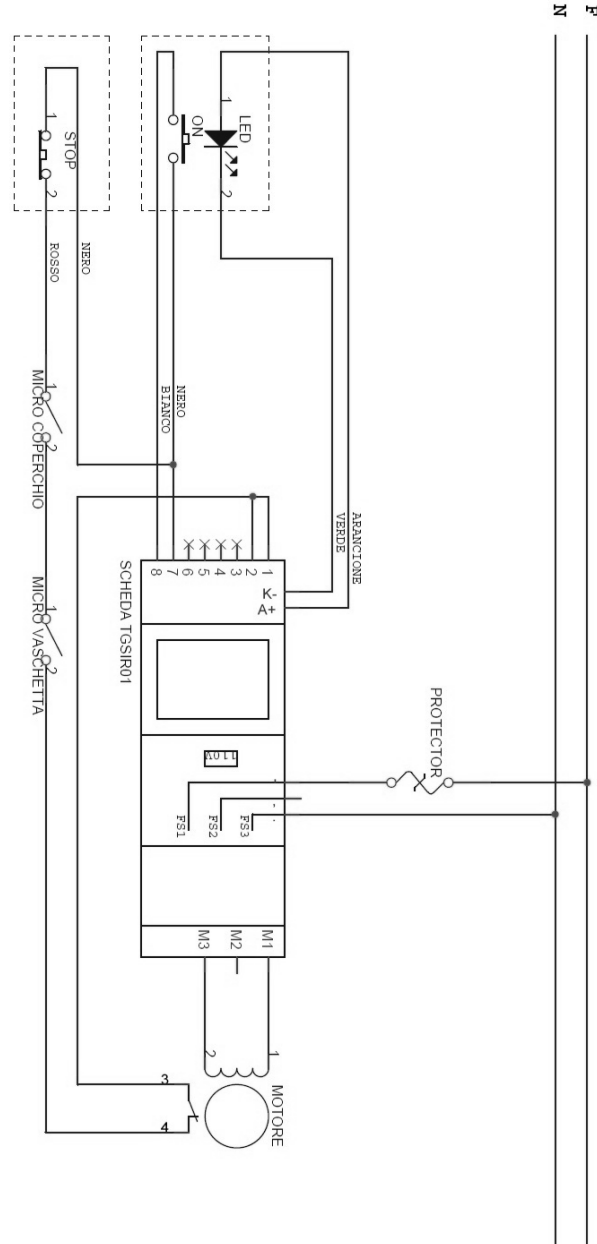
The installation zone must be level and solid, while the surface on which the machine rests must provide stable and safe support. Moreover, the machine must be placed where there is ample space around it. This will facilitate manoeuvring during work phases and ensure easy access for subsequent maintenance operations. Provide adequate lighting around the machine to ensure good visibility for the operator using it.

Remove the cellophane wrapping and any other packaging present inside.

**CAUTION!** Do not alter the data on the rating plate for any reason.

2.5 - Wiring diagrams

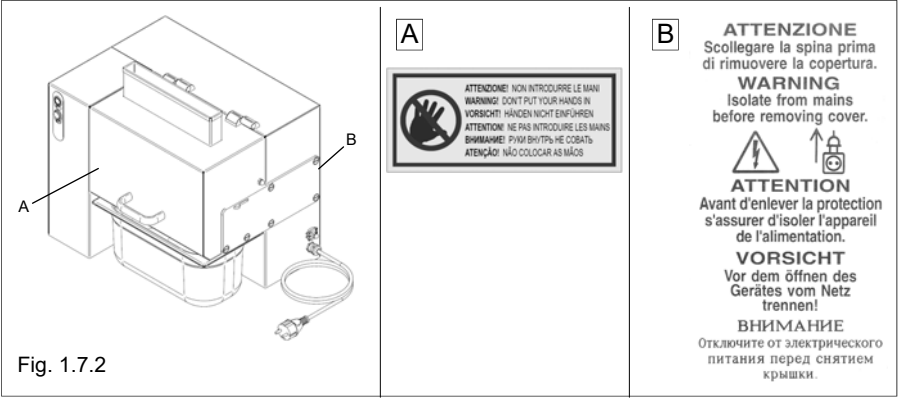
2.5.1 - Single-phase wiring diagram



1.7.1 - Warning and danger signs (Fig. 1.7.2)

**CAUTION!** Do not intervene on the electrical components when the machine is connected to the mains power supply. You risk getting an electric shock. **Observe the warnings signalled by the signs. Failure to do so could lead to personal injury.**

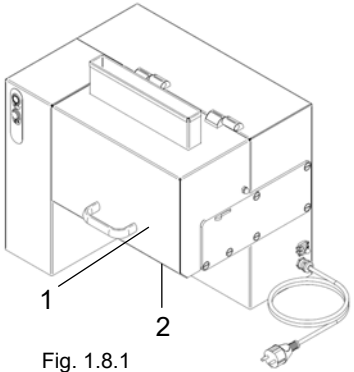
Make sure that the signs are always present and legible.  
If they are not, apply or replace them.



1.8 - Guards and safety devices

**CAUTION!** Before using the machine, make sure that its safety devices are properly positioned and in good working order. Check that they are present and work properly at the start of each shift. If not, notify the maintenance supervisor.

1. Stainless steel cover interlocked with the loading mouth.
2. Lower protective grille



**CAUTION!** Do not tamper with the safety devices for any reason.

## 1.9 - Work position

To optimise work with the machine, the operator should assume the position shown in Fig. 1.9.1.

## 1.10 - Vibrations

The vibrations which the machine transmits to the work surface are negligible.

## 1.11 - Environmental conditions

The machine is designed to work in the following environmental conditions:

- minimum room temperature:  $-5^{\circ}\text{C}$
- maximum room temperature:  $+40^{\circ}\text{C}$
- relative humidity: 50% at  $40^{\circ}\text{C}$

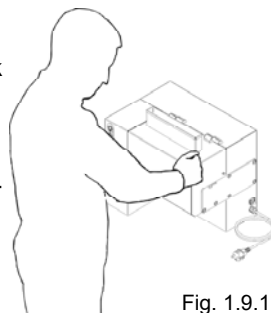


Fig. 1.9.1

## 1.12 - Lighting

The machine must be installed in a place that ensures adequate natural and artificial lighting as required by local regulations in the country of installation. At all events, the lighting must comply with the local regulations in force in the country of installation and should not generate hazardous reflections. The lighting system must ensure clear reading of the control panels and the start and stop buttons must be clearly identifiable.

## 1.13 - Safety equipment

No special equipment is required. We advise using regulatory rubber gloves suited for working with food products.

# 2 - Technical specifications

## 2.1 - Main parts

To aid comprehension of the manual, the main components of the machine are listed below and shown in Fig. 2.1.1.

### 2.1.1 - Electrical machine

1. Cover for tools with loading mouth
2. Casing
3. Machine controls
4. Tray for collecting the processed product

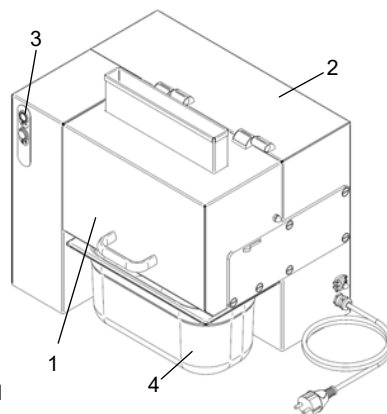


Fig. 2.1.1

## 2.2 - Technical specifications

	Power	Power source	Revolutions	Rollers length
	watt/hp	V/Hz	rpm	mm
<b>DRAKE</b>	370/0,5	120/60	120	250

## 2.3 - Machine dimensions and weight

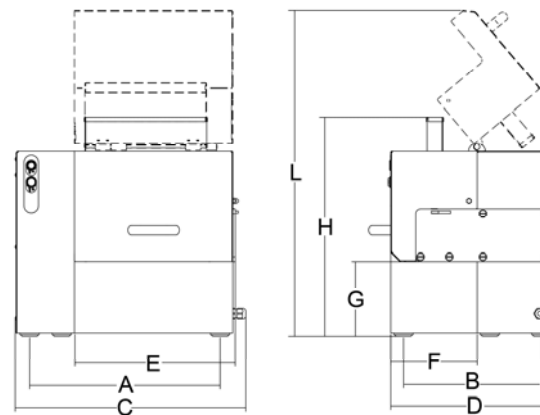


Fig. 2.3.1

	A	B	C	D	E	F	G	H	L	Net weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
<b>DRAKE</b>	397	287	480	390	330	180	157	460	685	35

## 2.4 - Noise level emitted

The readings of the noise levels emitted by the machine indicate that the equivalent noise level is below 70 dBA. On request, the manufacturer can provide a copy of the noise test.