



Traditionally Innovative

***DURO***



EN

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For more information about the JAC Duro 450 & JAC Duro 600 Semi-Automatic Bread Slicer visit: <https://erikarecord.com/equipment/jac-duro-bread-slicer/>



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## 1 BEFORE COMMISSIONING

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Thank you for choosing a JAC system. It is essential that you read these instructions before installing and commissioning this machine. This will protect you and avoid damaging your machine.

These instructions refer to various illustrations in order to make them easier to understand. These illustrations are at the end of the instructions. Please refer to them whenever you see the following symbols: (fig.X, n°Y).

**To ensure that your machine gives you full satisfaction over the coming years, we invite you to familiarise yourself with the following advice:**

-Enlist the help of your approved agent for installation, commissioning and service support.

-In order to be covered by the 5-year warranty (see terms and conditions set out below), please have your dealer fill in the service booklet when your machine is installed. The service booklet is at the back of your machine.

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## 2 WARRANTY

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**All JAC products are covered by a 5-year warranty.**

This warranty is valid for all parts on your machine, including electronic components but excluding consumables. The warranty takes effect on the date the equipment is installed.

**Subject to the following restrictive conditions:**

- Equipment acquired from an approved dealer;
- Installation carried out by an approved agent;
- Equipment used in accordance with the instructions for use and for the intended purpose for which it was manufactured;
- Equipment serviced on a daily basis in compliance with the instructions for use;
- Regular servicing by the approved agent in compliance with service specifications, with at least one service per year (servicing chargeable to the user).
- Exclusive use of genuine JAC parts.



**If there is no record of servicing by an approved agent and/or if the service booklet has not been filled in correctly, warranty cover will be limited to one year.**

**This warranty does not cover:**

- Replacement of consumables (§9);
- Parts not accepted as defective by our company;
- Problems due to improper use of the equipment;
- Problems due to installation not carried out by an approved agent;
- Parts or problems due to transit damage or improper handling.

**Repairing and/or replacing defective parts during the warranty period does not**

**bring about an extension of said warranty.**

### 3 WARNING

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It is most important that these user instructions be kept with the machine for future reference. Should this machine be sold or transferred to another user, please ensure that the user instructions are handed over so that the new user can be familiarised with its operation and the associated warnings.



**These warnings are given for your safety and that of others. We would therefore ask you to read them carefully before installing and using the machine.**

This machine has been designed for use by authorised adults. Please therefore ensure that children do not touch it or use it as a toy.

This machine is intended exclusively for professional use.

It is dangerous to modify or attempt to modify the specifications of this machine.

After having installed this machine, please ensure that it is not standing on the power cable.

Follow the instructions given for its use.

This machine must be stored and used in an indoor room, protected from moisture and heat.

This machine must be adequately illuminated to operate it.

The noise level of this machine does not exceed 75 dB(A) in accordance with EN ISO 3744.

This machine must be used by one person at a time (unless otherwise specified).

This machine is intended for slicing baked bread which has cooled down.

**This machine is not intended for the following breads and the following materials:**

- Warm bread, stale bread.
- Frozen or partially thawed bread.
- Wholemeal breads with a hard crust and other types of bread with a hard crust.
- Rye breads.
- Non-edible products such as wood, plastic and similar materials.
- Any food that is not included in the bread and loaf cake category.

**The machine may be damaged when cutting bread or materials for which the machine is not intended.**



**Always disconnect the mains supply before cleaning the machine inside/outside and when carrying out maintenance.**

This machine is heavy. Take all necessary safety precautions when handling it.

## 4 TECHNICAL SPECIFICATIONS

### 4.1 Technical specifications

	<b>DURO 450</b>	<b>DURO 450 M</b>	<b>DURO 600</b>
<b>Height (mm)</b>	1243	1243	1243
<b>Width (mm)</b>	663	663	843
<b>Depth (mm)</b>	760	760	760
<b>Entry channel length (mm)</b>	320	320	320
<b>Entry channel width (mm)</b>	590	590	590
<b>Entry channel height (mm)</b>	160	160	160
<b>Packaging (mm)</b>	800 x 860 x 1600	800 x 860 x 1600	800 x 860 x 1600
<b>Net weight (kg)</b>	150	165	175
<b>Net weight + packing (kg)</b>	170	185	195
<b>Motor power rating (kW)</b>	0.49	0.49	0.49
<b>Motor type</b>	Single-phase or three-phase	Single-phase or three-phase	Single-phase or three-phase
<b>220 V - 50 Hz (A)</b>	5	5	5
<b>380 V - 50 Hz (A)</b>	3.2	3.2	3.2
<b>Capacity (loaves/hour)</b>	200<500	200<500	200<500
<b>Noise level (dB)</b>	<75	<75	<75

<b>Heavy duty motor</b>	optional
<b>Bagger-blower</b>	optional
<b>4 cm added height</b>	optional
<b>8 cm added height</b>	optional
<b>Rear safety cover</b>	optional
<b>Double slice thickness</b>	optional
<b>Daily incremental counter</b>	optional
<b>Special colour</b>	optional
<b>Special blades</b>	optional

### 4.2 Detailsofmaterialsindirectcontactwiththe bread.

**Infeed table:** STAINLESS STEEL 430

**Loaf pusher:** STAINLESS STEEL 430

**Loaf holder:** STAINLESS STEEL 430

**Blades:** Steel

**Outfeed table:** STAINLESS STEEL 430

**Bagger:** STAINLESS STEEL 430

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## 5 INSTALLATION AND COMMISSIONING

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### 5.1 Unpacking the machine:

Machines are delivered from our works on pallets, strapped and protected with cardboard. First of all, the packaging must be examined and any damage caused in transit must be declared directly to the carrier.

- A. Remove the cardboard and the packaging bag from the machine.
- B. Remove straps, taking particular care when they are released by cutting.
- C. Detach the machine from its pallet by removing the wooden battens wedging the castors.
- D. Take the machine off the pallet. Make sure you do this with at least two people in order to lower it as gently as possible onto the floor.
- E. Please fit the adjustable bagger stop to the bagger (fig.10, n°20).

**After unpacking your machine, check that it has not been damaged in transit. Notify us of any defects.**

### 5.2 Positioning:

In order to achieve excellent performance and long-term reliability, choose a location that is:

Well ventilated, shielded from direct sunlight and away from sources of heat, with a sturdy surface free from vibration.

### 5.3 Electrical connection:

**IMPORTANT:** This machine must be earthed.

It is recommended that the system be protected with a fuse and an RCD.

Your mains electricity supply to the machine must be protected as indicated below:

- North America: 15 A protection;
- Rest of the world: 16 A protection.

For machines equipped with a variable speed drive, it is imperative that they be connected to a junction box on a circuit fitted with a 300 mA RCD.

Note: Any problem resulting from any other type of connection will not be covered under warranty.

Before connecting your machine to the mains supply and in order to prevent the motor from burning out when it is switched on, it is important to check that the mains supply matches the machine specification (see machine nameplate).

This machine complies with Machinery Directives 2006/42, 2006/95, 2004/108 and is CE marked as proof of this.

Please familiarise yourself with the safety pictograms displayed on the machine:



This pictogram indicates a cut hazard. You will find it at the front of the machine around the loaf positioning area (fig.7, n°16).

You will find the circuit diagram for the machine on the back of the electrical enclosure door (fig.7, n°17).



This pictogram indicates an electrocution hazard. Please isolate the machine before carrying out any work on it. You will find it at the back of the machine close to the power cable and inside the machine on the electrical enclosure (fig.7, n°18).

#### **5.4 Commissioning:**

Before commissioning, ensure that there are no extraneous objects interfering with the machine's moving parts.

For machine operation, please refer to the "Operation" chapter.

#### **5.5 Danger:**

If the user or the machine is in danger, you must use the main isolator switch to cut the power supply to the machine.

Remove the plug from the power socket before any maintenance and/or servicing work.

Do not touch the blade, even if it is stationary.

To replace the blade, have the work done by your approved dealer.

Always wear cut-resistant gloves when replacing the blade or when working in the vicinity of the blade.

Any maintenance work or replacement of parts must be carried out by a qualified individual.

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## **6 CONTROLS AND SAFETY FEATURES**

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### **6.1 Controls:**

Your slicer is fitted as standard with an emergency stop button.

Your slicer may be fitted with a start button as an option (fig.11, n°23) (BEF – BEM).

### **6.2 Work area:**

The work area is at the front of the machine (fig.3, n°15).

### 6.3 Safety features:

This machine is equipped with:

A lever that operates machine start-up and bread slicing. Releasing the lever causes the machine to stop.

**A safety cut-out** that prevents the machine from operating if the front table on a Misch type machine is in the open position (fig.11, n°22).

**A safety cut-out** that prevents the machine from operating if the cover (for machines fitted with a rear cover) is open (fig.13, n°27).

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## 7 OPERATION

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Braked castors must be locked while the machine is in operation (fig.1, n°11).

**Switch on the power to the machine at the start of the day using the emergency stop (fig.1, n°10).**

**After switching on using the emergency stop and if your machine is fitted with a Misch lubrication system (BEF - BEM) the knife start button (fig.2, n°14) must be pressed in order to release the loaf pusher from the blades.**

**Operating procedure (fig.4)**

- A. Pull the lever towards you. If your machine is fitted with a rear cover (optional) (BEG – BEG ETL - BET), the cover will open automatically when the lever is operated.
- B. While pulling and holding the lever, place the loaf on the rear table (fig.3, n°14), between the blades and the moving section.
- C. Release the lever gently. This action will cause the loaf to be pushed through the blades. Retrieve your sliced loaf once the lever has returned fully to its released position.

At the end of the day, press the red **emergency stop** button (**fig.1, n°10**) to switch the power off to the machine.

**Tip:** Have a qualified individual check blade tension after the first few days of operation.

**Capacity:** Number of loaves sliced per day: 6,000 (depending on the type of bread).

Loaf size (L x W x H) (cm):

12 x 6 x 6 min. - 44 x 31 x 16 max. (on 450 wide slicers)

12 x 6 x 6 min. - 58 x 31 x 16 max. (on 600 wide slicers)

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## 8 MAINTENANCE

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### 8.1 Daily, by a trained operator.

- A. Check whether you need to empty the crumb tray (fig.1, n°7).
- B. Clean the tables (fig.1, n°6) (fig.3, n°14) using a brush.
- C. Use a dry cloth to clean the inside.
- D. Use a damp cloth to clean the outside.

## 8.2 Every 25,000 loaves and/or at least once a year, by an approved agent.

Remove the plug from the socket (fig.2, n°13).

Check the condition of the cutting blades (fig.1, n°3).

If you notice a deterioration in cutting quality, the cutting blades must be replaced (JAC part number: 610026 in the JAC Spare Parts catalogue).

If the blades need to be replaced, do so in accordance with the blade replacement procedure (fig.5, 6).

NB: Do not overtighten the blades, as this risks distorting the frames.

Sweep and vacuum the inside of the machine.

Check bearing condition, then lubricate them.

Lubricate the actuator joints.

Check that your approved agent has recorded his work in your service booklet in order to maintain your 5-year warranty cover.

### **Additional maintenance for models with lubrication**

**The oil to be used is: 7940019 (as quoted in the JAC “spare parts” catalogue).**

**Or a food-grade liquid vegetable oil with a natural antioxidant.**

**Every 1,000 loaves or every 15 days,** by a trained operator:

Add the dose of food-grade oil (100 to 150 ml) required to impregnate the felt pads on the carriage (operate the carriage advance button to enable access to the oil filler plug).

**Every 25,000 loaves and/or at least once a year,** by an approved agent:

Remove the plug from the socket.

Replace the pusher felt pads.

## 8.3 Blade replacement.

Always wear cut-resistant gloves (EN 388:2003 version B= 5) and safety footwear when replacing the blade or when working in the vicinity of the blade.

Ensure that the plug on your machine (fig.2, n°13) has been disconnected from the mains.

**Non-Misch machines (BEF – BEH – BEL – BEL ETL – BER – BEZ)**

(fig.5)

- A. Remove the two screws for the rear table and slide it rearwards in order to clear the front table.
- B. Release the bagger by removing the left and right-hand thumbscrews and remove the two cover screws.
- C. Open the cover and remove the two screws for the front table.
- D. Remove the front table.
- E. On the upper part of the front frame, remove screws **A**, which secure the frame to the polypropylene strips (never remove the strips from the frame, as you risk altering factory settings).
- F. Lay the frame down forwards. Replace the blades on the rear frame (place something to protect yourself on the front frame blades). Remove the blade-tightening Allen screws **B**. Replace the blades, checking that they locate correctly in the swing arm pins. Retighten the blades by tightening screws **B**, with the blades remaining on the frame as a reference.

## Misch machines (BEG – BEG ETL – BET – BEM)

(fig.6)

- A. Pull the lever towards you in order to position the loaf pusher towards the rear of the machine and engage the lug that locks the loaf holder in the rear position.
- B. Remove the two screws for the rear table and slide it in order to clear the front table.
- C. Release the bagger by removing the left and right-hand thumbscrews and remove the two cover screws.
- D. Open the cover and remove the two screws for the front table.
- E. Remove the front table.
- F. On the upper part of the front frame, remove screws **A**, which secure the frame to the polypropylene strips (never remove the strips from the frame, as you risk altering factory settings).
- G. Lay the frame down forwards. Replace the blades on the rear frame (place something to protect yourself on the front frame blades). Remove the locknuts on screws **B**. Remove the blade-tightening Allen screws **B**. Replace the blades, checking that they locate correctly in the swing arm pins. Retighten the blades by tightening screws **B**, with the blades remaining on the frame as a reference. Then tighten the nuts.

**In order not to distort the frame and avoid the risk of dangerous breakages, only replace 1 to 3 blades at a time alternating from left to right.**

Resume the procedure from point 6 for the front frame and refit the front frame and the cover components.

Connect your machine to the mains supply; it is now ready.

Check that your approved agent has recorded his work in your service booklet in order to maintain your 5-year warranty cover.

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## 9 CONSUMABLES

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When ordering spare parts, check with your approved agent which part is required based on the spare parts catalogue issued by the manufacturer.  
Always quote the machine serial number shown on the nameplate.  
Your agent will place the orders with JAC.

### 9.1 List of CONSUMABLES

ITEM CODE	DESCRIPTION	MODEL
7240032	BELT	ALL
5690010	SLIDE PAD, 100 MM	ALL
5690020	FRAME STRIP	ALL
6110001	JAC KNIFE, 13 MM/0.5 MM	DURO 450
6110011	JAC KNIFE, 13 MM/0.5 MM + TEFLON	DURO 450M
6110019	JAC KNIFE, 13 MM/0.7 MM	DURO 600
5310019	LOAF HOLDER SPRING	ALL
5310026	LOAF HOLDER SPRING-PLASTIC RING	ALL
5690151	LOAF HOLDER PAD	ALL
6120002	PUSHER FELT PAD	DURO 450M

## 10 MALFUNCTIONS

Problem	Check
<b>The machine is not running</b>	Connect the machine using the cable (fig.2, n°13).
	Unlock the emergency stop (fig.1, n°10).
	Close the cover.
	Close the door.
<b>The machine is running, but the loaves are damaged or cut unevenly</b>	Check whether the blades need replacing (fig.5,6).
	Leave the bread to cool down for a few hours.
	Feed in a loaf of the specified size.
	Feed in a loaf that is sufficiently firm. If the blades are misaligned, adjust the blades and frames.
<b>The bread vibrates between the blades</b>	If the blades are misaligned, adjust the blades and frames.
<b>The bread is cut too slowly</b>	Check whether the blades need replacing (fig.5,6).
	Check that the loaf holder springs are in place correctly (fig.8, n°19).
<b>The bread tears</b>	If the blades are misaligned, adjust the blades and frames.
	Check that the loaf holder springs are in place correctly (fig.8, n°19).
<b>The bread emerges very slowly or remains between the blades</b>	Check that the loaf holder springs are in place correctly (fig.8, n°19).
<b>The bread is squashed coming out of the blades</b>	Remove a loaf holder spring and repeat your test (fig.8, n°19).

**WARNING:** The machine must be isolated from the power supply before attempting any work on it.



**Should the problem persist, please contact your technician.**

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## 11 LIST OF COMPONENTS IN ILLUSTRATIONS

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Figure	Item	Description
1	1	Bagger Cover Blades Loaf holder
	2	Loaf pusher Front table
	3	Crumb tray Lever Cover
	4	thumbscrew Emergency stop
	5	button Castor Carriage Power
	6	cable Rear table Work area
	7	"Cut hazard" sign
	8	Circuit diagram
	9	"Electrocution hazard" sign
	10	Detachable loaf holder spring
	11	Bagger adjustable stop
2	12	Misch folding table
	13	Misch table safety cut-out
3	14	Misch start button
	15	Misch slicing counter
7	16	ASP blower
	17	Blower switch
	18	Cover safety cut-out
8	19	
9	20	
11	21	
	22	
	23	
	24	
12	25	
	26	
13	27	