

INFACO[®]



TYING MACHINE **AT1000**



ORIGINAL USER GUIDE - EN

OTHER LANGUAGES



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PRECAUTIONS BEFORE USE



IMPORTANT. Read all the safety warnings and all the instructions. Failing to heed warnings and follow instructions may lead to an electric shock, a fire and/or serious injury.

Keep all warnings and instructions for future reference. In the warnings, the term "tool" refers to your battery powered electric tool (with power cord).

PROTECTION OF THE ENVIRONMENT



Observe all country-specific waste disposal rules and regulations.

> Power tools must not be disposed of with household refuse.

> The device, accessories and packaging must be taken to a recycling centre.



> Ask the approved INFACO dealer for up-to-date information on the eco-compatible elimination of waste.

CASE CONTENTS

AT1000 tying machine
AT185BC battery
110/220Vac charger
A power cord
Tool belt
Twine reel dispenser
Pliers
Oil
Instruction manual

As an option:
Second AT185BC battery

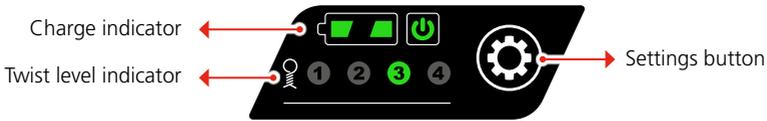


GENERAL PRODUCT VIEW

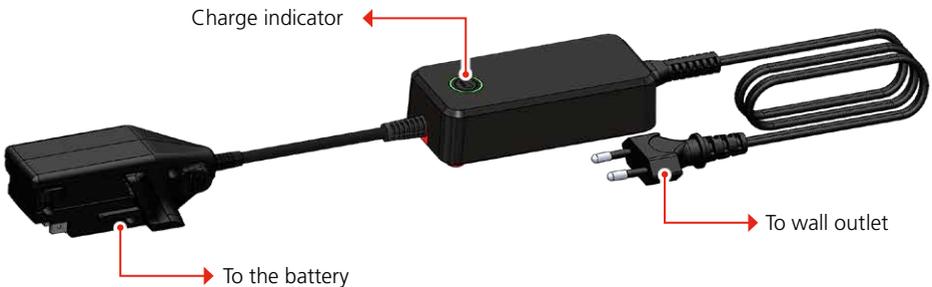
Tying machine



HMI (Human Machine Interface)



Charger



SPECIFICATIONS

AT1000 TYING MACHINE				
Max. Electric	power: 176 W			
Power supply	10.8 V			
Max tie	Ø 28 mm / 1.10"			
Cycle speed	< 0.5s			
Weight	≈ 845 g / 30 oz			
Dimensions	300 mm x 115 mm x 65 mm / 11.8"x 4.5" x 2.6"			
AT185BC BATTERY				
Rated voltage	10.8 V			
Technology	Li-ION - 18/650 - 3S1P mounting			
Capacity	3.35 Ah / 36 Wh			
100% charge time	3 hours			
Autonomy	up to 8000 ties			
Weight	230 g / 8 oz			
Dimensions	80 mm x 60 mm x 65 mm / 3.14" x 2.36" x 2.6"			
CHARGER AT180CC				
Input	110 V / 230 V - 50/60 Hz			
Output	12.525 V - 1.2 A			
Power	110 W			
Fuse	0.5 A			
TIE REELS				
References (sold in boxes of 20 reels)	ATCB36	ATCB40	ATCB44	ATCB236
Wire diameter	0.36 mm / 0.014 inches	0.40 mm / 0.015 inches	0.44 mm / 0.017 inches	2 x 0.36 mm / 0.014 inches
Number of ties	Over 3000 ties			
Length	400 m / 1312 feet			
Tie strength	8 to 12 months			

These specifications are given as an indication only. Under no circumstances may they be considered as contractually binding. They are subject to modification without prior notice in the interests of product development.

Patented equipment.

USER GUIDE

First use

The first time you use the equipment, we recommend you ask the help of your dealer, who is qualified to give you all the advice you need for correct use and good output. It is imperative to carefully read the tool and accessory user manuals before handling or powering up the tool.

Battery

A full charge must be carried out (see page 12) before the first use of the machine.



The AT185BC Lithium battery **MUST** be recharged using the INFACO Lithium charger (Ref.: AT180CC).

Using a different charger is prohibited as it may cause a serious electrical accident (explosion and/or fire).

Carrying the equipment

- Place the belt around the waist;
- Position the dispenser by passing the hooking ring over the holding strap on the side of your choice;
- The tool belt at the back can be used to store a spare reel and tools (pliers and oil);
- The machine can be hung on the hook on the side opposite the dispenser when moving around or doing anything that requires the hands to be free.



In wet weather, it is recommended to put the spare reel in a waterproof bag to avoid any risk of moisture.

Powering on



Always keep your hands away from the work zone when the machine is powered on.



1. Connect the battery to the machine, the unit is powered on in standby mode.
2. Press the trigger twice to exit standby mode.
3. The product is ready for use.



There is no on/off button on the machine, disconnect the battery to power it off. It has an automatic standby mode after 3 minutes of non-use (power LED flashing green).

PRECAUTIONS FOR USE AND SAFETY

For a full day's use, make sure the battery is fully charged (3 LEDs lit on the product).

Always disconnect the battery from the product for any handling other than tying and **mainly for lubrication, cleaning or maintenance.**

Do not leave the product and/or the battery on the ground, and do not expose them to the elements.

Make sure the battery's protective plastic casing is not cracked and does not seem to have suffered impacts or other damage.

When working, it is normal for the battery temperature to rise (as well as when charging). The recommended operating temperature is between -5°C / 23°F and 35°C / 95°F . Use outside this temperature range may reduce the tool performance.

After using in the rain or in a damp environment it is strongly recommended to store the (disconnected) device outside its case in a heated and ventilated location.

USE

Loading the reel

1. Open the dispenser zipper.
2. Take the twine **from the inside** of the reel and insert it into the dispenser. Do not remove the label holding the reel.
3. Insert the twine into the dispenser's output nozzle.
4. Close the dispenser zipper.



Reel replacement

1. Remove label from empty reel and check that there is no residue inside the **reel**.
2. Check that there is no residue inside the **machine** (see details in the "Maintenance" section page 18).
3. Repeat the same operations as when loading a reel.

Loading the twine

Pass the twine through the opening until it stops, then pull the trigger to load the twine.



Each time the reel is replaced, the first tie may not be correct. Remove the residual twine from the beak, then repeat the tying operation.



Creating a tie



- 1 Take the end of the rod and the trellis wire firmly in your free hand and bring the AT1000 close.



- 2 Insert **the rod + the trellis wire** inside the beak. Pull the trigger to create the tie.



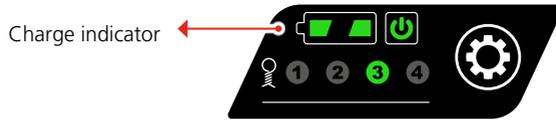
- 3 Remove the rod + the trellis wire from the beak.



- 4 The tie holds the rod to the trellis wire.

Battery charge level

The battery charge level is indicated by the three LEDs on the product's charge indicator.



Battery low state:

When the last LED flashes green, the battery charge is less than 10%.



Battery flat state:

When the battery is completely flat, the product stops. The last LED switches to fast flashing red. The battery must be recharged (see page 12).



Automatic standby switching

The electronics have an automatic standby mode after 3 minutes of non-use (power LED flashing green).

Exiting standby mode

To restart the machine, pull the trigger twice.

Automatic product shut down

The product has an automatic shut down that cuts the power supply to the product if not used for 15 minutes. Pull the trigger once to switch it to standby mode.

Stopping the product

Remove the battery to power off the product.

BATTERY CHARGING

The battery autonomy allows for up to **8000 ties**.

If you plan more ties than that per day we advise **recharging the battery for at least 1 hour** during your lunch break. For additional battery autonomy, consider purchasing a second battery.

Note: A few minutes before your battery is completely flat, the AT1000 may experience a slight loss of performance.

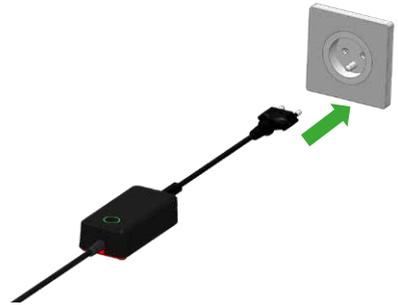
Using the charger

To charge the battery, plug in the charger in a well ventilated area which is free from flammable products, sources of ignition and moisture. The ideal ambient temperature should be between 10°C / 50°F and 25°C / 77°F.

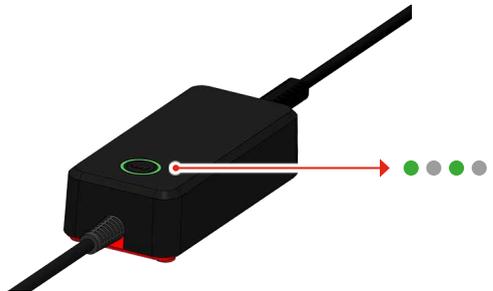
- 1 Connect the power cord to the charger.



- 2 Connect the power cord to the outlet.



- 3 The charger initialises when it is powered on. The status LED flashes green, the charger is ready to use.



Charging the battery

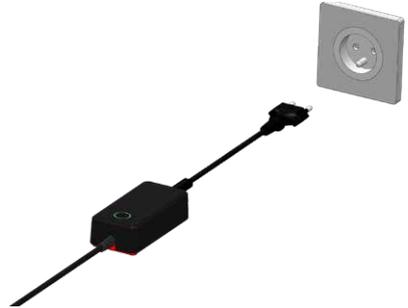


It is strictly forbidden to charge the batteries when the temperature in the room is below 0°C / 35°F or higher than 40°C / 104°F.

During charging, neither the battery nor the charger should be covered, nor should they be close to a heat source or to flammable products.

The time to fully charge an AT185B battery is approximately 3h.

- 1 Start up the charger.



- 2 Connect the battery to the charger's output cable.



- 3 When the battery is connected, the charger detects it and starts charging. The status LED switches to steady yellow.



- 4 Battery 80% charged: the status LED switches to flashing yellow.



- 5 Battery 100% charged: the status LED switches to steady green.



Battery storage instructions

Store the battery and charger in a well ventilated area, free from freezing temperatures, flammable products, and ignition or heat sources, and keep out of the reach of children.

Inter-season storage: the battery must be stored after a full charge. Do not store empty batteries. Even when not in use, the battery charge level decreases. If the battery reaches a highly discharged status, it will no longer charge and will be considered out of service.

Do not store out of service batteries. Return them to an approved INFACO dealer.

Do not store batteries when they are connected to the charger or to a tool.

Do not store the charger connected to the wall outlet.



All failings regarding the storage and safety instructions will void the manufacturer's warranty.



There is a fire hazard if the product suffers damage (impacts, being dropped, exposure to high temperatures, etc.).



According to the 2002/96/EC standard, do not dispose of the battery with household waste, do not burn it or dispose of it in water. Do not open the battery.



Return the battery to an approved INFACO dealer.

Used or defective batteries must be recycled according to the 91/157/EEC directive.

Charger safety

Battery not connected indication:

The charger is connected to the mains power outlet: the status LED flashes green, the charger is ready for a battery.

To attempt to wake up deeply discharged batteries, the charger will apply short pulses.



Error indication:



Contact the nearest dealer in the following cases:

- LED off (●): the battery voltage is too high. Check the battery voltage;
- 2 flashes (● ● ● ●): the battery is connected to the charger with an incorrect polarity;
- 3 flashes (● ● ● ● ● ●): the charger output is short-circuited. Check the output cable connection;
- 4 flashes (● ● ● ● ● ● ● ●): the battery voltage is too low to be recharged safely;
- 5 flashes (● ● ● ● ● ● ● ● ● ●): the safety timer has expired. Check the battery condition or capacity;
- 6 flashes (● ● ● ● ● ● ● ● ● ● ● ●): defective battery.

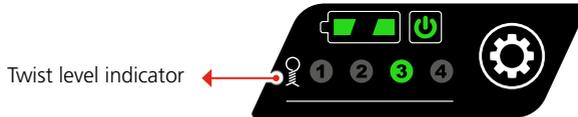


The INFACO lithium charger (ref.: AT180CC) is only for use with AT1000 Lithium batteries (Ref: AT185BC). It is not suitable for other batteries.

TWIST LEVEL ADJUSTMENT



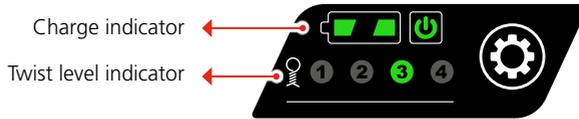
Always keep your hands away from the work zone when the machine is powered on.



- The number of twists can be set from 3 to 8 depending on the selected level. Four different levels are available. The number of twists increases the strength and tightness of the loop. **The setting for a standard knot is segment 3.**
- To adjust the number of twists, briefly press the settings button several times to reach the required value.

Ask your dealer for advice on the best setting for your region, the type of twine you should use and the way you should tie it.

LED INDICATIONS



The product is operational



Steady green LED: the product is ready for use.



1 flashing green LED: the product is in standby mode. Pulling the trigger twice will exit standby mode.

Overheating pause (temporary product shutdown)



1 flashing orange LED: the tool has overheated, wait for the machine to cool down.

Battery flat (Product shutdown)



1 flashing red LED: battery flat. It must be recharged (see page 12).

Safety (product shutdown)



1 steady red LED: machine fault. Unplug the battery to power it off, then plug it back in to turn your machine back on. If the problem persists, contact a dealer.

Twist indicator

The twist indicator is used to determine the fault.



Level 1: Twine output jam



Level 2: Reel/cutting jam



Level 3: Stem jam



Level 4: Internal problems

If the problem persists, contact a dealer.

SERVICING



Always remove the battery before working on the product



Product cleaning

- 1 Locate ridges where beak meets the body and press down while pushing forward.



- 2 Open the top cover by pulling back and lifting it.



- 3 Raise the press roller towards the top cover.



- 4 Clean all residue from the twine passage.



- 5 Check that there is no residue in the beak, otherwise clean it.

- 6 Proceed in reverse order to close the machine (operation 3 to 1).

Recommendations: avoid using any corrosive products that could damage the machine. When in doubt, contact INFACO for the choice of products to be used.



Always remove the battery before working on the product



Replacing twisting mechanism

- 1 Open the beak by pressing ridged area down while tilting it forward.



- 2 Use the "Torx T8" bit. Unscrew the screw while holding the twisting mechanism.



- 3 Remove the old twisting mechanism and replace it with the new one.



- 4 Use the "Torx T8" bit. Screw in the newly provided screw while holding the twisting mechanism.

- 5 Close the machine beak.

Lubrication (once per week)

- 1 Open the beak by pressing the ridged area down while tilting it forward.



- 2 Open the top cover by pulling back and lifting it.



- 3 Raise the press roller towards the top cover.



- 4 Lubricate the press roller shaft using the oil provided in the case. **Do not apply oil to the roller teeth.** Lower the press roller, then close the top cover holding it down while pushing it towards the beak to clip it in place.



- 5 Lubricate the clamp. Close the beak.



The tying machine is ready for use.

/ YEARLY MAINTENANCE

Every year or every 400,000 ties, it is strongly recommended to carry out an annual check. This will let you start the next season under the best conditions and in complete safety.

Annual maintenance advice:

- Clean the inside of the machine (dust, cut wires);
- Check clearances/bearings/wire guides;
- If necessary, replace the knife/clamp/twister;
- Check and lubricate the gears/cam.

/ TROUBLESHOOTING

Failed tie

Repeat the tie process. If the problem persists proceed as follows:

1. Open the beak.
2. Check that there is no residue that could prevent the passage of the wire.
3. Use the pliers to clean the residue from the knife area.
4. Check that the wire is in good condition.
5. Close the beak.
6. The tying machine is ready for use.



Twine jam



Always remove the battery before working on the product



1

Open the beak by pressing the ridged area down while tilting it forward.



2

Open the top cover by pulling back and lifting it.



3

Raise the press roller towards the top cover.



- 4 Remove the twine jam by smoothing or cutting it. Clean all residues from the twine passage.



- 5 Pass the twine through the knife nozzle, and let it protrude by 5 to 6 cm / 2 to 2.5 inches.

- 6 Lower the press roller, then close the top cover holding it down while pushing it towards the beak to clip it in place.



- 7 Give the twisting mechanism one full clockwise turn to cut the excess twine. If the twisting mechanism stops against the clamp, push the clamp in manually.



- 8 Close the beak. The tool is ready for use.



TRANSPORT AND STORAGE

Transport precautions

Some rules must be followed when shipping using a carrier:

- The assembly must be fully disconnected (product, cable, battery).
- It is compulsory for the battery to be placed in the housing provided in the case. The case must be taped shut correctly to prevent any risk of it opening.

Inter-seasonal storage

During the off-season, remember to recharge your battery before storing it.

The case is intended for the storage or transport of the tying machine, store all the equipment as defined in the case contents section (page 4).

Then store the case in a dry location, **between 10°C / 50°F and 25°C / 77°F** maximum.

SAFETY INSTRUCTIONS

For all handling other than tie operations, the product must be disconnected from the battery.

Important: when the machine is not in use (storage, transport, end of charging, etc.) it is compulsory to disconnect the battery. It is imperative to disconnect the product from the battery for the following operations:

- Putting on or taking off the belt;
- Maintenance or work on the product;
- Any use other than for tying operations;

When the machine is in use, always keep the hands well away from the work zone. Do not work with the product if you are tired or have any disorder that could impair your concentration.

Wear non-slip footwear.

When working at height, use appropriate and adapted resources (scaffolding, platform, etc.).

When using the machine, keep both feet on the ground and keep as well-balanced as possible.

Do not use the equipment if there is a risk of fire or explosion, for example in the presence of flammable liquids or gases.

Never use the equipment at night or in poor light without setting up additional lighting.

Keep the equipment out of the reach of children or visitors.

The device is not designed to be used by persons (including children) with reduced physical, sensory or intellectual capacities, or by any person who does not have experience or knowledge, unless they have received prior training or instructions on the use of the device from a person in charge of their safety.

Never carry the charger by the cord, and do not pull it to disconnect it from the socket.

If one of the cords is defective or damaged, it must be replaced with a genuine cable or assembly from the INFACO factory or from an approved INFACO dealer.

Never try to open the battery for any reason.

Never make any mechanical alterations to the battery, harness, charger or connectors. Never let the battery or charger come into contact with water.

Do not expose the battery or the charger to high temperatures (sun, heating, etc.) above 60°C / 140°F. Do not charge the battery at temperatures below 0°C / 32°F or above 40°C / 104°F.

Do not charge the battery near flammable or explosive materials (fuel, gas, nitrogenated fertilisers, etc.).

Never leave to charge for extended periods without surveillance.

Never use chargers, batteries, cords, etc. other than those sold by INFACO.

Do not use chemicals to clean the machine (product, cords, batteries and charger).

To reduce health risks, INFACO recommends that people wearing a pacemaker should consult a doctor and the pacemaker manufacturer before using this system.

INFACO declines all liability for injuries and/or material damage caused by the use of equipment containing defective parts.

WARRANTY CONDITIONS

INFACO cannot be held liable or accept claims under the warranty, regardless of the cause or legal basis, for any defect, damage and/or prejudice whatsoever resulting from (1) storage, use, maintenance and/or intervention on the equipment by the user contrary to the instructions in this manual (in particular the safety instructions); and/or (2) use of the equipment containing defective parts and accessories. In all cases, the user is required to demonstrate that they have scrupulously respected all equipment storage, use, maintenance and safety instructions.

There is a full one-year warranty on the machine (possibility of an extension to two seasons (see section below).

The warranty is only applicable when it has been registered with INFACO (warranty card or online declaration on www.infaco.com) at a dealership. Do not hesitate to ask an approved INFACO dealer for assistance in completing your INFACO international manufacturer's warranty declaration.

If the warranty declaration was not made when the tool was purchased, the factory departure date will be used as the warranty start date.

INFACO declines all liability in terms of warranty for devices sold by distributors more than one year from their departure from the factory.

This warranty corresponds to normal use of the equipment and does not cover:

- damage due to poor maintenance or lack of maintenance;
- damage due to incorrect use;
- damage due to normal wear;
- devices that have been dismantled by unauthorised repair agents;
- external factors (fire, flood, lightning, etc.) ;
- impacts and their consequences;
- machines for which the warranty declaration was not made at the time of purchase;
- devices used with a battery or charger of a brand other than INFACO.

Under no circumstances shall the warranty entitle to compensation for any immobilisation of the equipment during the time required for its repair.

The repair or replacement during the warranty period does not extend or renew the initial warranty.

The warranty covers factory labour (on condition that the device has always been serviced) but does not necessarily apply to dealer labour costs.

All work carried out by persons other than authorised INFACO agents will void the INFACO warranty.

In the event of a breakdown, we strongly recommend users of INFACO equipment to contact the dealer who sold them the equipment, or our customer services by dialing +33 (0)5 63 33 91 49.

To avoid all disputes, please note the following procedure:

- **Equipment covered by the warranty:** send it to INFACO carriage paid and the return will be covered;
- **Equipment not covered by the warranty but which was serviced during the previous off-season:** send it to INFACO carriage paid and the return will be paid for;
- **Equipment not covered by the warranty and not serviced during the previous off-season,** send it to INFACO carriage paid and the return will be paid for by the owner, C.O.D. If the cost of the repair were to exceed € 80 excluding VAT, a quote is issued.

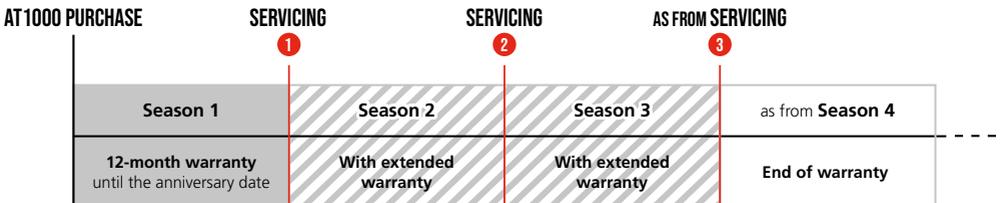
Technical information or customer service:

ANNUAL MAINTENANCE

An extended warranty that covers the first three seasons is available when customers purchase a service package.

Important: in order to benefit from the extended warranty for the first three seasons, it is **imperative** to carry out the paid servicing **at the end of the first season**.

If, during the first 3 seasons following the purchase of your machine, one of the servicings is not carried out, the warranty extension will be cancelled.



WARRANTY DECLARATION OUTSIDE FRANCE

To obtain the validity of the warranty, declare it **WHEN YOU PURCHASE THE TOOL.**

This warranty declaration must be made online, on: **www.infaco.com**

or using this QR code:



Do not hesitate to ask an approved INFACO dealer for assistance in completing your INFACO international manufacturer's warranty declaration.

DEALER PART

Be kept by dealer.

Serial number > Ref >

Surname >

First Name >

Company name >

Full address >

.....

Town/city >

Zipcode >

Phone number >

Purchase date > / /

Comments >

customer signature

ADDITIONAL PART

To validate the warranty, **REGISTER IMMEDIATELY ONLINE ON:**
www.infaco.com, or send this form filled out **IN BLOCK CAPITALS AS SOON AS THE TOOL IS PURCHASED.**

Surname > First name >

Company name >

Full address >

.....

Town/city > Zipcode >

Phone number >

Arboriculture

Olive growing

Viticulture

Parks and gardens

Email >

Purchase date > / /

Serial number v - Ref >

--	--	--	--	--	--	--	--

Comments >

Dealer stamp

Serial number

--	--	--	--	--	--	--	--

DEALER

To be kept
by dealer
for INFACO customer file



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EQUIPMENT MANUFACTURED IN FRANCE



Manufacturer > *INFACO S.A.S. - 81140 CAHUZAC-SUR-VÈRE (FRANCE)*

Type > *Tying machine*

Ref > *AT1000*

TECHNICAL INFORMATION OR AFTER-SALES

INFACO S.A.S.

Bois de Roziès

81140 CAHUZAC-SUR VÈRE France

Phone: (+33) 05 63 33 91 49 - *Fax:* (+33) 05 63 33 95 57

Email: contact@infaco.fr

Technical videos available on the website: www.infaco.com

DECLARATION OF CONFORMITY (CE)

DECLARACIÓN DE CONFORMIDAD CE / DICHIARAZIONE DI CONFORMITÀ CE

INFACO s.a.s. declares that the new machine indicated below:

INFACO s.a.s. declara que el material nuevo designado a continuación:

INFACO s.a.s. dichiara che la macchina nuova indicata di seguito:

INFACO electric tying machine

Atadora eléctrica INFACO / Lagatrice elettrica INFACO

Brand > INFACO

De marca // Marchio

Model > AT1000

Modelo // modello

Serial number >

N° de serie // N° di serie

Year of manufacture >

Año de fabricación // Anno di fabbricazione

Is compliant with the provisions of directives:

Cumple con las disposiciones de las directivas : // È conforme ai dispositivi delle direttive:

- “Machinery” (directive 2006/42/CEE).
“Máquinas” (Directiva 2006/42/CEE). // “Macchine” (direttiva 2006/42/CEE).
- “Sound emissions from machines used outdoors” directive 2000/14/EC (order of 18 March 2002) amended by 2005/88/CE (order of 22 May 2006).
“Emisiones sonoras de máquinas utilizadas al exterior” Directiva 2000/14/CE (Decreto del 18 de marzo de 2002) modificada por la 2005/88/CE (Decreto del 22 de mayo de 2006).
“Emissioni sonore macchine utilizzate all'esterno” direttiva 2000/14/CE (decreto del 18 marzo 2002) modificata dalla 2005/88/CE (decreto del 22 maggio 2006).

AT1000 Tying machine

Weighted sound pressure level A at the work station, LpA (NF EN 60745-2-11: 2009) 72 dB(A)

Nivel de presión acústica ponderada A en el puesto de trabajo, LpA

Livello di pressione acustica ponderato A sul luogo di lavoro, LpA

Uncertainty *Incertidumbre // Incertezza*

KpA 3 dB(A)

(Measured vibratory emission value, ah (NF EN 12096) 5,3 m/s²

Valor medido de emisión vibratoria, ah // Valore misurato di emissione vibratoria, ah

Uncertainty *Incertidumbre // Incertezza*

1,5 m/s²

- “Electric chargers” (directive 2004/108/EEC) and the national regulations enacting them.
“Cargadores eléctricos” (Directiva 2004/108/CEE) y los reglamentos nacionales que las trasponen.
“Caricabatteria elettrici” (direttiva 2004/108/CEE) e alle regolamentazioni nazionali che le traspongono.
- The person at INFACO authorised to compile the technical file is Mr. ALVAREZ Grégory.
La persona autorizada para elaborar el documento técnico dentro de INFACO es el Sr. ALVAREZ.
La persona autorizzata a costituire il dossier tecnico all'interno di INFACO è Grégory Alvarez.

At > CAHUZAC SUR VERE

Hecho en // Firmato a

On > 01/01/2023

El // In data

M. DELMAS Davy, CEO of INFACO

Presidente de la Sociedad INFACO // Presidente della Società INFACO

Signature

Firma

INFACO undertakes to provide the national authorities the relevant information about the machine. *INFACO se compromete a proporcionar a las autoridades nacionales la información pertinente relativa a la máquina. // INFACO si impegna a fornire alle autorità nazionali le informazioni pertinenti che riguardano la macchina.*



www.infaco.com