PEUGEOT PROFESSIONNELS

WARRANTY 2+2 YEARS

Get a free 2-year warranty

GRAVITATIONAL BAND SAW

PSR250A

IN GOOD HANDS

TRANSLATION OF ORIGINAL INSTRUCTION MANUAL

DE / FR / PT / SP

V170426

WHO ARE WE?

Peugeot Professional Tools was born out of several obvious considerations.

The first was to combine the know-how of **Peugeot**, which has mastered the art of cutting since 1810, with the expertise of **Tivoly**, a metalworker since 1917, in order to create a wide range of machines and tools for construction and maintenance professionals.

It was also a natural step to want to serve craftsmen and small businesses driven by strong family and heritage values.

For these professionals, **Peugeot Outils Professionnels** offers machines and tools designed specifically for their needs. **These tools are reliable, durable,** and **can be repaired in France** and in countries under distribution agreements by local industrial and family partners.

Trustworthy equipment with a longer warranty, logistics, and **French after-sales service.** The assurance of dealing with the people who assembled these tools and know every part that goes into them inside out.

From exceptional projects to everyday work, these tools are designed to withstand the most demanding conditions and stand the test of time.

Peugeot Professional Tools was born out of one obvious fact: that our tools are in good hands. The hands of those who work behind the scenes and give their all to satisfy their customers.

Since 1810, many things have changed, but the hands have remained the same. The hands of enthusiasts, craftsmen, dedicated technicians and installers, workers who are proud of themselves and their achievements.

Peugeot Professional Tools: tools in good hands.

THANK YOU FOR YOUR PURCHASE.

We are delighted that you have chosen Peugeot Professional Tools. Every detail has been designed to offer you an exceptional experience, and we hope you enjoy using it as much as we enjoyed creating it for you.

Your trust is essential to us, and we are delighted to accompany you every step of the way in your experience with the Peugeot Professional Tools brand.

Your purchase comes with a 2-year warranty, extendable to an additional 2 years.

To benefit from this, register at www.peugeot-outils-pro.com

If you have any questions or need assistance, our team is available to provide you with the best possible service.

To contact our after-sales service, visit , call , or email .
+33(0)4.79.89.59.00

Thank you for choosing Peugeot Professional Tools. Your satisfaction is our priority.

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1 INTRODUCTION

For safety reasons, read these instructions carefully before using this machine.
Failure to follow the instructions will result in damage to persons and/or the machine.

This instruction manual is intended for the operator, adjuster, and maintenance technician.

This instruction manual is an important part of your equipment. It provides rules and guidelines that will help you use this machine safely and efficiently. You must familiarize yourself with the functions and operation by reading this instruction manual carefully. For your safety, it is particularly important that you read and observe all recommendations on the machine and in this instruction manual.
These recommendations must be strictly followed at all times when using and maintaining the machine. Failure to follow the safety guidelines and warnings in the instruction manual and on the machine and/or use other than that recommended in the instruction manual may result in machine failure and/or injury.

Please keep this instruction manual with the machine or in a place that is easily accessible at all times for future reference. Ensure that all personnel involved in the use of this machine can consult it periodically.

If the instruction manual is lost or damaged, please contact us or your dealer to obtain a new copy.

Always use PEUGEOT OUTILS PROFESSIONNELS components and parts. Replacing components or parts other than PEUGEOT OUTILS PROFESSIONNELS may cause damage to the machine and endanger the operator.

This manual describes the safety instructions to be followed by the user. It is the responsibility of the employer or user, in accordance with Article L.4122-1 of the Labor Code, to take care of their health and safety and that of other persons affected by their actions or omissions, in accordance, in particular, with the instructions given to them.
The employer must carry out an assessment of the specific risks associated with their activity, must train workers in the use of the machine and in the prevention of these risks, and must appropriately inform workers responsible for the use or maintenance of work equipment of the instructions or guidelines that apply to them.

2 PICTOGRAMS

2.1 MACHINE SAFETY PICTOGRAMS

Meaning of the safety pictograms affixed to the machine (keep them clean and replace them when they are illegible or detached):


Safety footwear must be worn.


Safety glasses must be worn.


Protective gloves must be worn.


Read the instruction manual carefully.


Risk of crushing.


Electrical presence.


Ground connection for metal parts.


Hearing protection must be worn.


Do not wear loose clothing, wide sleeves, bracelets, watches, wedding rings, jewelry, ties, scarves, or any other items that could get caught in the moving parts of the machine.
Wear hairnets for long hair.


Risk of debris and sparks caused by cutting.


Risk of cuts.


Direction of tape installation and scrolling.

2.2 PICTOGRAMS USED IN THIS INSTRUCTION MANUAL


Immediate danger to persons and damage to the machine.



For ribbon replacement and cleaning operations, wear protective goggles and gloves.

✓ Note.


Possible damage to the machine or its surroundings.


Minimum number of personnel required for certain operations.


If necessary, wear respiratory protection to reduce the risk of inhaling hazardous dust.

Technical skill level: operator, user.

Technical skill level: adjuster, maintenance.

Technical skill level: maintenance technician.

Electrical work must be carried out by personnel who are qualified and authorized to perform low-voltage electrical work.

3 SAFETY

3.1 GENERAL SAFETY REQUIREMENTS

To reduce the risk of fire, electric shock, mechanical shock, and personal injury when using power tools, follow basic safety precautions.

This instruction manual only takes into account reasonably foreseeable behavior.

Our machines are designed and manufactured with the operator's safety in mind.
The machine must not be used by young workers under the age of eighteen.

We accept no liability for any damage caused by inexperience, incorrect use of the machine and/or damage to it and/or failure to comply with the instructions and safety rules contained in this instruction manual.
As a general rule, accidents always occur as a result of misuse or failure to read the instruction manual.
We remind you that any modification to the machine will result in our withdrawal of liability.

Check the presence, condition, and operation of all guards before starting work.
Ensure that moving parts are working properly, that there are no damaged components, and that the machine is operating perfectly during start-up.
Only competent and authorized personnel are permitted to repair or replace damaged parts.

Keep the work area clean and tidy.
Ensure that the entire work area is visible from the work position.
Cluttered work areas and workbenches are a potential source of injury.
Do not use the machine outdoors or in very humid conditions. Reserve it for indoor use in a dry, well-ventilated area free from flammable liquids or gases.
Position the machine in a sufficiently lit work area.
Do not allow unauthorized persons, especially children and animals, to touch the tools or electrical cables, and keep them away from the work area.
Turn off the machine when you have finished using it. Always disconnect the power supply.
Never leave the machine unattended while it is running. Only leave the machine when it has come to a complete stop.


Do not force the tape; it will perform better and be safer at the speed for which it is designed.
Do not use belts for tasks for which they are not intended.


Do not damage the power cord.
Never pull on the power cord to remove it from the electrical outlet.
Keep the power cord away from heat sources, greasy areas, and/or sharp edges.
Protect the power cord from moisture and any potential damage.
Check the power cord periodically. If damaged, have it repaired by an authorized repairer.

Defective switches must be replaced by a qualified person or an authorized repairer.
Do not use the machine if the switch does not control the stop or start functions.


Do not overestimate your strength.
Always maintain a stable position and good balance.
Be aware of what you are doing and use common sense.
Do not use the machine when tired.
Always use both hands to operate this machine.

The use of any accessories other than those described in the instruction manual may present a risk of injury to persons.

The user is responsible for their machine and must ensure that:
The machine is used by persons who have been instructed and authorized to do so.
Safety rules have been followed.
Users have been informed of the safety rules.
Users have read and understood the instruction manual.
Responsibilities for maintenance and any repairs have been assigned and observed.
Defects or malfunctions have been immediately reported to an authorized repairer or your dealer.
The machine must be used in the areas of application described in this manual.
Any use other than that specified in these instructions may constitute a hazard.
Mechanical and/or electrical guards must not be removed or bypassed.
No modifications and/or conversions must be made.

PEUGEOT OUTILS PROFESSIONNELS declines all responsibility for damage caused to persons, animals, or objects as a result of failure to comply with the instructions and safety rules contained in this instruction manual.

3.2 SPECIAL SAFETY REQUIREMENTS

Special safety requirements for the band saw.

Before use, the machine must be correctly assembled.
Do not use if the machine is not placed on a flat, stable surface that is free of obstacles and well lit.
Do not operate the machine when the safety guards are removed.
Do not use a welding machine or any other device that could overload the same electrical circuit as the machine.
Fit a blade that complies with the machine's recommendations.
Only use belts recommended by PEUGEOT OUTILS PROFESSIONNELS.
Ensure that the choice of tape and teeth correspond to the material and cross-section of the workpiece to be cut.
Use appropriate cutting speeds.
Ensure that the blade is correctly mounted.
Check that the band is correctly tensioned.
Do not use damaged or deformed blades.
Do not use this machine to cut building materials (concrete, cinder blocks, paving stones, stone, etc.), wood, PVC, or derivatives.
Machine non-ferrous metals (stainless steel, aluminum, copper, lead, zinc, tin, brass, etc.) at an appropriate speed using the speed control (minimum speed for stainless steel, maximum speed for aluminum, for example), with a gradual and correct descent, and with a suitable blade.
Do not stop the belt by hand.
Do not touch the moving belt.
Always keep the belt clean.
Do not clean the belt while it is moving.
The blade can become very hot during machine operation. Wait for the blade to cool before replacing it.
Always keep the band saw frame clean and uncluttered.
Do not add additional accessories for operations for which they are not designed.
Using an inappropriate accessory can lead to accidents.
Keep hands away from cutting areas when the machine is in operation.
Never hold the workpieces by hand; clamp them securely in the vise.
Do not start cutting with the blade against the workpiece.
Do not hit the blade against the workpiece, but apply pressure gradually.
It is very important to prevent cutting fluid from spilling onto the surrounding area, as this creates a slipping hazard.
Always work in a stable position and maintain your balance.
Always wear safety glasses.
Ensure that no one is in the path of debris and sparks caused by cutting.
Always keep the work area clean and uncluttered.
In all cases, stay focused on the task at hand.
For all operations involving a risk of cutting, burning, pinching, catching, entanglement, or crushing, including loading and unloading the parts to be cut, changing the blade, and handling the part to be cut and the vise, stop the machine and wear protective gloves.
Rushing rarely saves time: the blade heats up, becomes dull, and needs to be resharpened. The work is poorly done. The risk of accidents is increased.
Wear hearing protection.
If necessary, wear respiratory protection to reduce the risk of inhaling hazardous dust.
Keep the fan cover clean and uncovered to ensure the machine operates correctly.
Before changing a cutting part or tape, and before performing any operation to position or remove waste material, stop the machine.
Disconnect the power supply for any major operations (maintenance, servicing, etc.).
Replace the vise base when it is worn.
Keep the machine clean and in good condition.
Remove chips regularly.
When cleaning, remove chips that may be sharp and hot while wearing protective goggles and gloves, with the machine turned off, and collect them in bins. Avoid using an air gun; instead, use a clean, dry cloth, brush, long-handled brush, hook, magnetic collector, or vacuum cleaner.
Do not immerse the machine in water or wash it with a pressurized water jet, as this may cause water to penetrate the electrical components.
Do not use solvents or aggressive detergents for cleaning.
When the machine is not in use for a prolonged period, place the bow in the rest position ("LOW" position).
Disconnect the machine and check that the moving parts are locked when transporting the band saw.
Store the machine in a dry place out of the reach of children.

Accidents are generally the result of:

- Lack of accessories that allow the workpiece to be held correctly.
- Disorder: accessories, if available, are not stored away and the operator cannot find them, so does without them.
- Inappropriate or dangerous operating procedures.
- Insufficient training, learning, and/or experience of operators in using the machine.
- Absence of protective covers during machine use.
- Ill-fitting clothing, lack of safety glasses for certain tasks.

3.3 OPERATOR PROTECTION

For operator safety, ensure that non-working parts are always covered by a protective guard.

This machine is designed for a single operator.
The operator must wear appropriate personal protective equipment:

- During use:
  - Safety shoes.
  - Safety glasses.
  - Hearing protection.
  - Protective gloves.
  - Respiratory protection.
- When cleaning the machine or changing the tape:
  - Safety shoes.
  - Safety glasses.
  - Protective gloves.

The operator must wear close-fitting clothing and, if necessary, hair coverings for long hair.
The operator must not wear, for example:

- Loose-fitting clothing with wide sleeves.
- Bracelets, watches, wedding rings, jewelry, ties, scarves.
- Any other objects that could become caught in the moving parts of the machine.

4 DESCRIPTION AND OPERATION

4.1 INTENDED USE OF THE MACHINE

The PSR250A band saw is a machine designed and manufactured solely for making, in regular use (3-5 hours/day) , cuts in ferrous metals (steel, iron, cast iron) and non-ferrous metals (stainless steel, aluminum, copper, lead, zinc, tin, brass, etc.), profiles or solids, using a suitable endless rotating band with lubrication.

The manufacturer declines all responsibility in the event of misuse or cutting of materials other than those mentioned above.
Under proper conditions of use and maintenance, safe operation and performance are guaranteed for several years.
To do this, explore the machine's various functions.

Do not use this machine to cut construction materials (concrete, cinder blocks, paving stones, stone, etc.), wood, PVC, or derivatives.

Machine non-ferrous metals (stainless steel, aluminum, copper, lead, zinc, tin, brass, etc.) at an appropriate speed using the speed variator (minimum speed for stainless steel, maximum speed for aluminum, for example), with a gradual and correct descent, and with a suitable blade.

4.2 CHARACTERISTICS

- Steel cast iron bow.
- Belt guides equipped with bearings and carbide plates ensuring excellent resistance to belt wear.
- Adjustable mobile front belt guide.
- Autonomous descent by gravity controlled by a hydraulic cylinder.
- Two-point lubrication system with electric pump.
- Manual blade tension adjustment.
- Belt tension gauge equipped with an electric safety lock.
- Quick-release clamp mounted on a slide with play compensation.
- Two belt speeds.
- Control panel on the front.
- Very low voltage 24 V controls.
- Locking punch stop.
- Removable belt guard equipped with an electric safety lock.
- Motor protection by thermal circuit breaker.
- IP 54 electrical insulation.
- Motor with coaxial gearbox.
- Supplied as standard with:
  - base;
  - M42 bi-metal blade (6/10 teeth);
  - 500 mm adjustable cutting stop.

Capacities of cuts (mm)	Round	Square	Rectangular (L x H)	Opening Vise (mm)	Height of working (mm)	Dimensions Tape (mm)	Speeds tape (m/min)	Power	Power motor (kW)	Weight (kg)	Dimensions (L x W x H)
90	225	225	250 x 150	250	890	2470 x 27 x 0.9	36/72	400 V three-phase	0.59/1.1	212	1800 x 540 x 1730
45° G	150	150	130 x 190								
60° L	90	90	95 x 90								

4.3 ACCESSORIES (OPTIONAL)

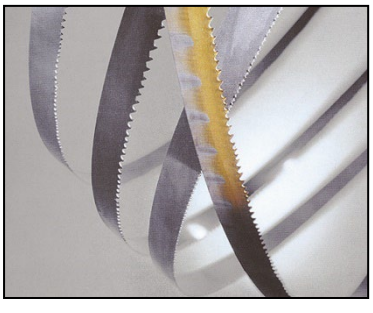
	Length (mm)	Width (mm)	Number of rollers	Diameter rollers (mm)	Height min/max (mm)	Maximum * (kg)	Weight (kg)	Reference
Rolling stock	1000	430	4	60	800 / 1000	700	27	PPM00500001
Rolling stock	2000	430	7	60	800 / 1000	1400	47	PPM00500002
Rolling feed extension	2000	430	7	60	800 / 1000	1400	40	PPM00500003
Rulers with stop	1000	-	-	-	-	-		PPM00500004
	2000							PPM00500005
	3000							PPM00500006
	4000							PPM00500007

4.4 CONSUMABLES (OPTIONAL)

To achieve an excellent cut finish and ensure the ribbon lasts a long time, it is essential to choose the right ribbon teeth, and to adjust the bow descent speed and ribbon speed according to the profile of the part to be cut.
Use original PEUGEOT OUTILS PROFESSIONNELS bands.

Available range:

	Tooth 5/8	Tooth 6/10	Teeth 8/12
Reference	PPA403424800508	PPA403424800610	PPA403424800810



4.5 MACHINE DESCRIPTION

1. Tape tension gauge
2. Tape tension adjustment wheel
3. Brace arm
4. Removable ribbon housing
5. Movable front ribbon guide adjustment handle
6. Front tape guide clamping screw
7. Movable front tape guide
8. Movable front tape guide guard
9. Tape
10. Quick-release lever
11. Fixed rear vise jaw
12. Movable front vise jaw
13. Vise base table
14. Vise wheel
15. Control panel
16. Bow clamping lever
17. Base
18. Frame
19. Cutting fluid pump
20. Bow support
21. Bow spring
22. Hydraulic cylinder
23. Fixed rear tape guide
24. Cutting fluid hose
25. Gear motor
26. Bow

5 INSTALLATION

5.1 PACKAGING

A small anti-humidity bag may be included in the packaging. Keep out of reach of children and dispose of it.

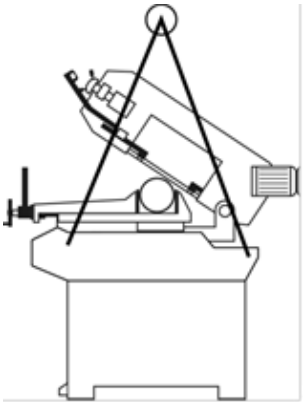
The band saw is packaged in a palletized cardboard box, secured with a tie-down device, for easy handling, transport, and storage.
Use a pallet truck or forklift to move the band saw. Several people are required to set it up.
When unpacking, remove each part of the machine, check its overall condition, and then proceed with assembly.

Check that the machine is clean. The machine is delivered with the ground parts coated with a protective anti-rust oil.
If the product does not appear to be in good condition or if any parts are broken or missing, contact your dealer.
Keep the instruction manual for future reference.

5.2 HANDLING AND TRANSPORT

Given the weight (212 kg) and dimensions of the machine, handling and installation must be carried out using appropriate equipment and with the assistance of several people.
To lift the band saw, use a slinging system (e.g., polyester cables of adequate capacity with the rings provided) and position it in the holes located on either side at the front and rear of the frame, provided for this purpose (see attached figure).

Check that the moving parts are locked and lift the band saw with the utmost care; keep people who are not involved in the lifting away.

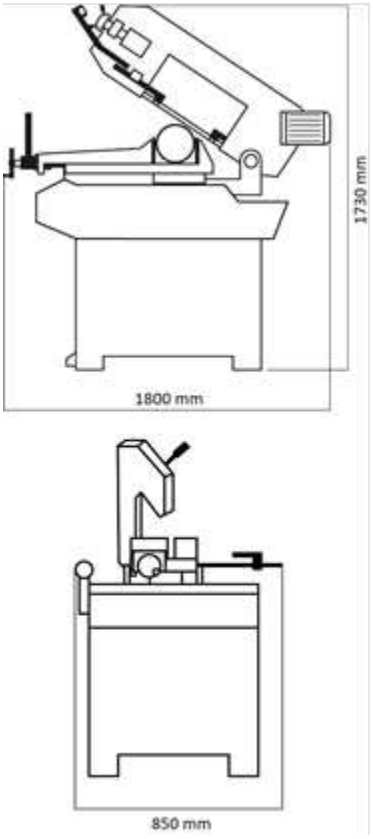


5.3 SETTING UP THE MACHINE

Installation environment

- Power supply voltage in accordance with the machine's specifications
- Ambient temperature between +5°C and +35°C
- Relative humidity not exceeding 90%
- Sufficient ventilation at the installation site
- Work area sufficiently lit for safe working: lighting must be 500 LUX

Consider the location of the machine in the room; it must allow for easy movement and maneuvering. Maintain a minimum distance of 800 mm between the rear of the machine and the wall.
Before installation, fully assemble the base by putting the 4 panels together and check all fastenings (see section 5.4).
Position the base on a sufficiently flat, non-slip floor so that it is as stable as possible.
Then carefully position the band saw on the base. Secure the machine to the base using the fixing bolts and nuts.
Place the machine on a concrete floor approximately 200 mm thick and 100 mm wider than the frame on each side.
Ensure that the floor surface is level and smooth.
Secure the machine to the floor using the appropriate screws (M12) driven into the concrete, so that it is as stable as possible.
Before tightening the screws, check that the band saw is level.
Check that the surfaces of the band saw are free of dust and chips and, if necessary, coat the bare parts with a protective oil film.



5.4 ASSEMBLY

A. Base

- Assemble the four base panels (1/3/4/5) using the fixing screws.

B. Control panel protective plate

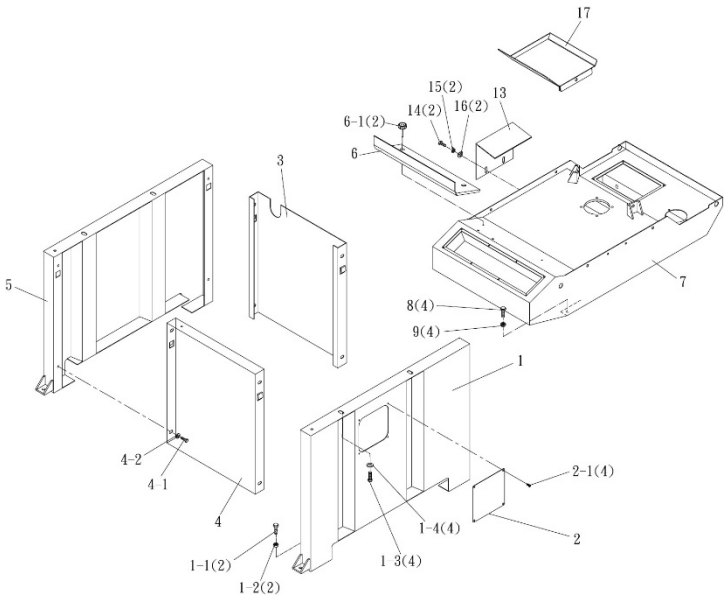
- Securely attach the control panel protective plate (6) using the knobs provided.

C. Part support

- Securely fasten the workpiece holder (13) using the fastening screws.

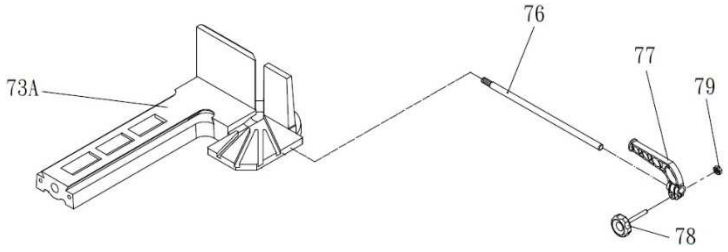
D. Cutting fluid plate

- Correctly position the liquid cutting plate (17) at the rear of the frame.



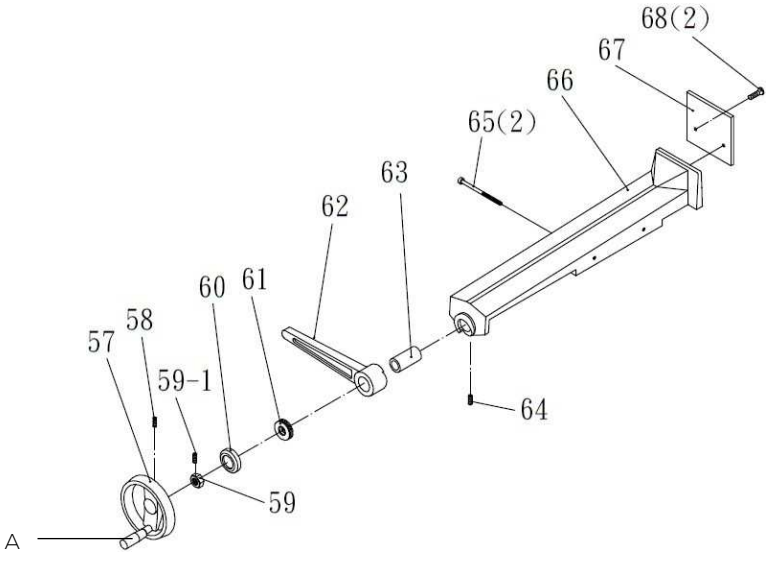
E. Liquid cutting plate

1. Assemble the cutting stop (76/77/78/79) correctly.
2. Screw the cutting stop pin (76) into its seat on the right base of the vise bottom (73A).



F. Vise handle

- Screw the handle (A) onto the vise wheel (57).



5.5 ELECTRICAL CONNECTION

Electrical work must be carried out by qualified personnel authorized to perform low-voltage electrical work.

Electrical presence

Ensure that the supply voltage of the electrical installation corresponds to that of the machine.
Connect using the machine's power cable.
Check that the electrical outlet of the installation is compatible with the machine's plug (3P+T).
The socket used for connection must comply with the "EN 60309-1" standards.
Check that the electrical installation to which the machine will be connected is properly earthed in accordance with current safety standards.
Do not use a welding machine or any other device that could overload the same electrical installation line as the machine.
We remind the user that there must always be a magnetothermal protection device upstream of the electrical installation to protect all conductors against short circuits and overloads.
This protection must always be selected based on the electrical characteristics of the machine, as specified on the nameplate:

- Voltage: 400 V single-phase
- Frequency: 50 Hz
- Motor power: 0.59 / 1.1 kW
- Current: 2.4 / 2.9 A
- Protection rating: IP 54

At the end of the machine's power cable is an electrical plug approved (NF EN 60309-1) in accordance with current regulations. The yellow-green protective conductor is on the corresponding terminal marked (earth logo).

Do not use a welding machine or any other device that could overload the same electrical installation line as the machine.

Use of the machine with a damaged power cable is strictly prohibited.
Regularly check the condition of the power cord, switches, and cable gland.

Use a cable reel with a cross-section and length appropriate for the power of the machine, and unroll it completely.
Electrical connections and extension cords must be protected from splashes and kept on dry surfaces.

Do not remove the plug from the electrical outlet by pulling on the cord; pull only on the plug.

Check the direction of tape feed (there is a pictogram on the machine) and the direction of rotation of the electric pump.
The warranty does not cover damage caused by incorrect connection.

5.6 INITIAL TESTING AND INSPECTION BEFORE FIRST USE

- Check that the band saw is securely attached to its frame, that the frame is attached to the base, and that the base is positioned and secured on a sufficiently flat and non-slip surface so that it is as stable as possible.
- Check that the moving parts are working properly and that there are no damaged components.
- Check that the guards are present, intact, and in good working order.
- Check the condition of the belt.
- Check the up/down movement of the bow, the ribbon cover, and the rotation of the bow.
- Check that the machine operates perfectly when empty.

6 TAPE

Never install damaged ribbon.
Check that the ribbon is clean.
Install a ribbon that complies with the machine's recommendations for use.

Replace the ribbon when the teeth are worn or broken to avoid additional vibrations and imprecise cuts.

The blade can become very hot during machine operation. Wait for the blade to cool before replacing it.

Only use PEUGEOT OUTILS PROFESSIONNELS blades that comply with the original specifications: 2470 x 27 x 0.9 mm.
Always use 0.9 mm thick bands.


Wearing gloves and protective eyewear is mandatory.

6.1 RECOMMENDED TAPE

A. Material classification

Various parameters such as material hardness, shape and thickness of the workpiece, choice of tape, cutting speed, and bow descent speed must be combined to achieve optimum cutting quality.
Various problems can be solved more easily if the operator is familiar with these specifications.

B. Choice of blade

Bands differ mainly in their construction characteristics, such as the shape and angle of the teeth, the tooth configuration, and the set.
To optimize cuts, match the tooth configuration of the band to the thickness of the profile:

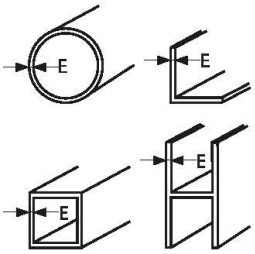
1. Determine the dimensions of the band.
2. Determine the appropriate tooth configuration*:
   - Use the tables opposite.
   - Select the size and shape of the piece to be cut.
   - Find the corresponding tooth configuration.
   - As a general rule, when choosing between two tooth sizes, the finer tooth size will result in a longer blade life.
   - When cutting multiple pieces of the same shape and size in batches, determine the tooth pitch for a single piece and then choose a higher pitch*.

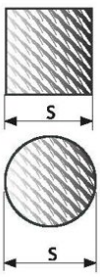
* Tooth configuration (or pitch): number of teeth per inch (1 inch = 25.4 mm) (recommended guideline, consult the blade manufacturer).

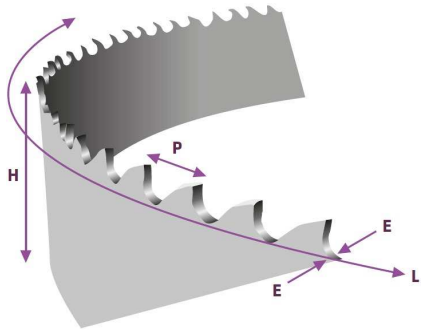
✓ 2470 x 27 x 0.9 mm blade.

Recommendations for the band:

- For cutting solid bars, 6/10 teeth.
- For pipes, thick sections and solid Ø < 50 mm, use 8/12 teeth.
- For thin pipes and profiles, use 10/14 teeth.

Tubes and profiles	Profile thickness (E) (mm)	Tooth pitch (mm)
	1 to 2	14/18
	2 to 3	10/14
	3 to4	8/12
	4 to 5	6/10
	5 to 7	5/8
	7 to 15	4/6
	15 to 25	3/4
	30 to 50	2/3

Solid materials	Solid section (S) (mm)	Tooth pitch (mm)
	5 to 10	14/18
	10 to 15	10/14
	15 to 20	8/12
	20 to 25	6/10
	25 to 50	5/8
	50 to 75	4/6
	75 to 100	3/4
	150 to 200	2/3



E: thickness of the blade back
H: height of the blade measured between the back and the tip of the tooth
L: length of the band (total circumference)

C. Cutting speed and feed rate

The cutting speed (m/min) and feed rate (cm²/min = distance traveled by the teeth during chip removal) are limited by the heat generated near the tooth tips:

- The cutting speed depends on the resistance of the material (R = N/mm²), its hardness (HRC), and the dimensions of the highest section.
- An excessively high feed rate (or downward movement of the bow) tends to cause the band to deviate from the ideal cutting path, producing non-straight cuts both vertically and horizontally.

✓ Recommendations for cutting speeds:

- 20 m/min for steel alloys with a strength of 80 to 130 kg/mm².
- 65 m/min for carbon steels and alloys, strength up to 80 kg/mm².

D. Recommendations for using the blade

- When mounting the blade, it is essential to ensure that the teeth are facing in the correct direction. When positioning it on the guides, care must be taken to ensure that the back of the blade does not come into contact with the guide collars and that it is stretched out straight. The blade must be guided on both sides at all times and without pressure.
- Before starting the machine, ensure that the belt tension is adjusted according to the machine's instruction manual. The tension is determined by the width of the belt. If the belt tension is insufficient, it will cut at an angle; if the tension is too high, the belt will break and the machine will suffer premature wear.
- Each time a new ribbon is installed, perform a break-in period:
  1. Reduce the ribbon speed by approximately 20% and the bow descent speed by 25%.
  2. Run in the ribbon during the first few cuts in a solid section, with the running-in time corresponding to a total cutting area of approximately 300 cm².
  3. Once the break-in period is complete, increase the blade speed and then the bow descent speed to the recommended values.
- The cut is more precise if the blade guides are close to the workpiece.
- To ensure perfect chip removal, the brush must be positioned correctly.
- Lubrication is essential for most metals. For aluminum and its alloys, it helps to remove chips from the teeth in order to obtain a better cut surface. Cast iron, brass, and other non-metallic materials (plastic, graphite, etc.) do not require lubricant.
- The shape of the chips provides information about the cutting pressure and cutting conditions:


Moderate chip winding: correct cutting conditions

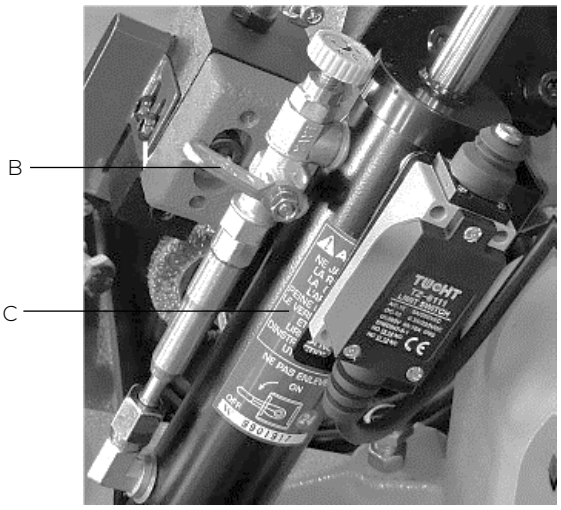

Very tight chip winding or showing bluish shades: feed too high


Very fine or powdery chips: feed too low

6.2 ASSEMBLING/DISASSEMBLING THE RIBBON

A. Principle

1. Raise the bow and lock it in place using the jack.
2. Remove the front movable tape guide guard.
3. Remove the removable tape cover by unscrewing the appropriate screws.
4. Loosen the belt by turning the belt tension adjustment wheel to the left, taking care (risk of the belt springing back).
5. Carefully remove the defective ribbon from the pulleys.
6. Clean the belt guides and pulleys (using a clean cloth) to remove any accumulated debris (the main cause of misaligned cuts).
7. Insert the new blade, paying attention to the position of the teeth, by first positioning it in the blade guides and then on the pulleys.
8. Check that the back of the tape (non-cutting part) rests firmly at the bottom of the tape guides.
9. Apply slight tension to the blade by turning the blade tension adjustment wheel to the right, ensuring that the blade is perfectly positioned on the pulleys.
10. Refit the removable tape cover.
11. Reinstall the front movable tape guide guard.
12. Tension the belt so that the spring washers behind the pressure gauge are fully compressed. This will ensure that the belt is correctly tensioned (the ideal belt tension is 1200 kgs/cm², in the green zone of the pressure gauge). Make sure that the belt tension safety device is engaged.
13. Run the machine empty for 5 minutes to check that the tape is correctly positioned on the pulleys and in the guides.
14. Re-tighten the tape if necessary.

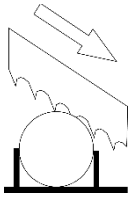


✓ **Loosen the band at the end of the day.**

✓ **To achieve an excellent cut finish and ensure the tape lasts a long time, it is essential to choose the right tape teeth, adjust the bow's descent speed, and set the motor speed according to the profile of the piece to be cut.**

Do not use blades with dimensions other than those specified.

Ensure that the teeth of the band are correctly oriented during installation.
If the teeth of the blade are reversed, twist the blade so that it changes direction.



B. Position of the band on the pulleys

The band must be correctly guided on the pulleys before each use to allow the band to make a straight cut. To do this, the alignment of the tension pulley may need to be adjusted. Misalignment of the tension pulley can cause damage to the band or allow the band to come off the pulleys and damage the removable band guard.

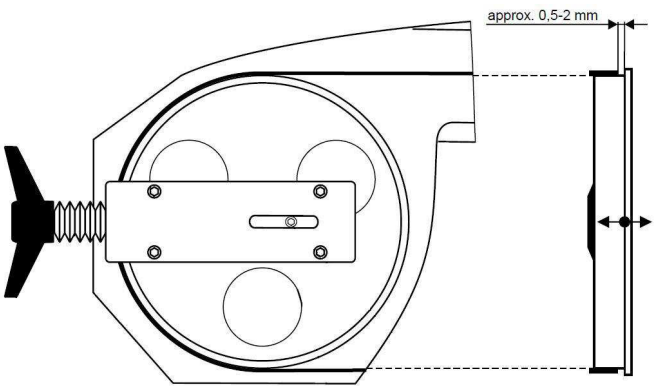
During operation, the tape must be at the correct distance from the pulleys, between 0.5 and 2 mm.

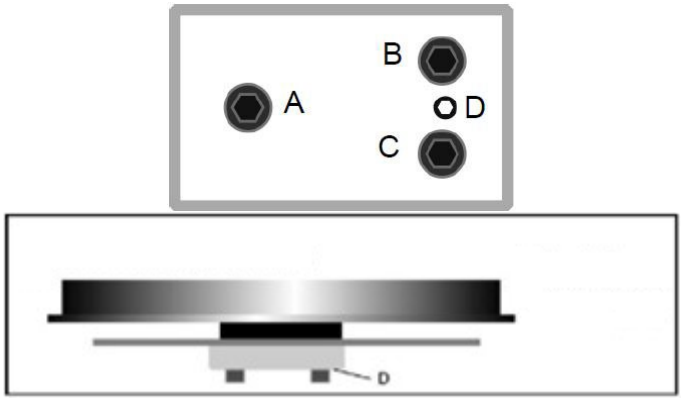
Always use belts with the correct teeth.

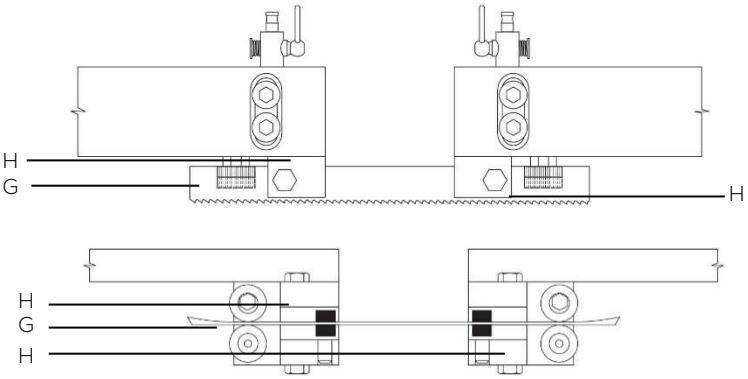
If the belt is incorrectly positioned on the pulleys:

1. Remove the removable belt cover (E).
2. Carefully loosen the belt tension adjustment wheel (F) to the left (risk of belt recoil).
3. Loosen screws A, B, and C.
4. Adjust screw D to adjust the angle of the tension pulley:
   - Turn the adjustment screw D clockwise to move the ribbon closer to the tension pulley.
   - Turn the adjustment screw D counterclockwise to move the tape away from the tension pulley. The further away the tape is, the more likely it is to come loose.
5. Once the adjustment is complete, tighten the screws in this order: A, B, and C.
6. Tighten the tape tension adjustment wheel (F) to the right.
7. Refit the removable belt cover (E) correctly.
8. Start the machine and check the ribbon guide in relation to the pulleys.
9. Repeat this cycle until the ribbon is correctly positioned.

Tension the ribbon correctly so that the spring washers (M) located behind the pressure gauge are completely compressed. This will ensure that the ribbon is correctly tensioned (the ideal ribbon tension is 1200 kgs/cm², in the green zone of the pressure gauge). Make sure that the electrical ribbon tension safety lock is engaged.

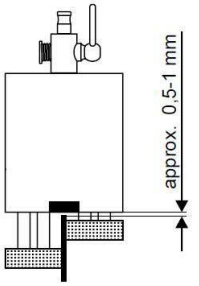






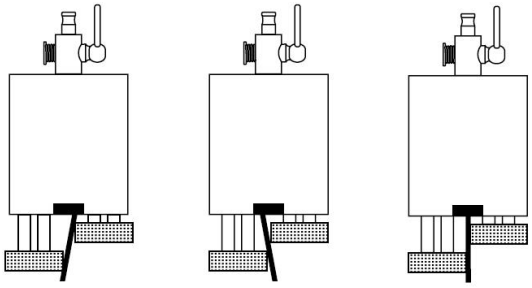
C. Position of the ribbon in the ribbon guides

The ribbon (A) (0.9 mm thick) is guided by two ribbon guides (B) that are installed during adjustment before the band saw is operated.
During operation, the band must have a correct distance of between 0.5 and 1 mm from the band guides.



The adjustment of the bearings and ribbon guides mainly affects the service life of the ribbon and the quality of the cut.

Do not position the blade as shown in the attached figures:



7 USE

Follow the specific safety instructions for the band saw (section 3.2).

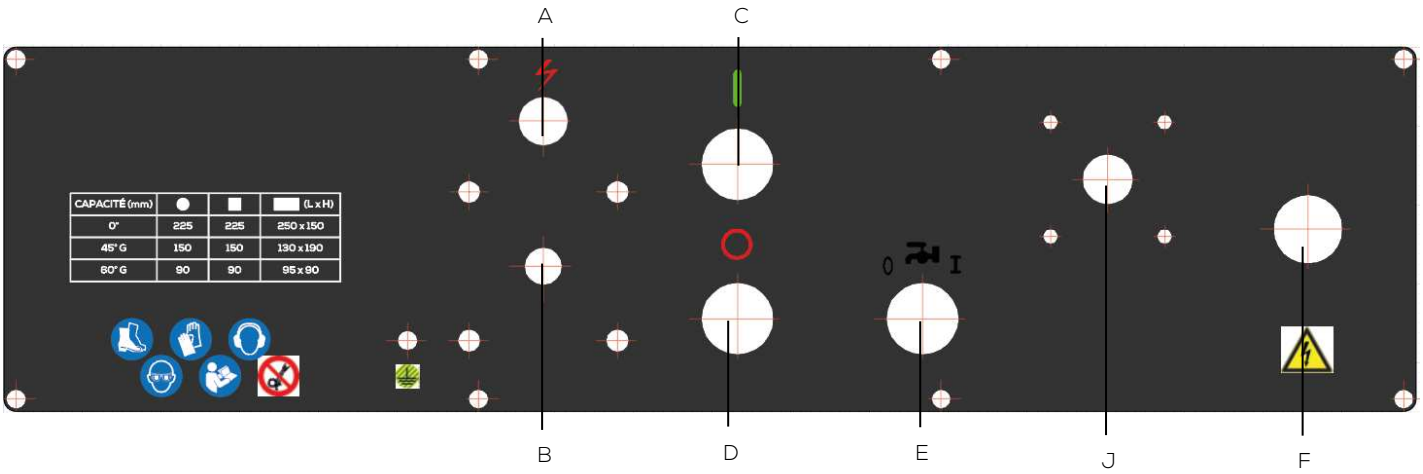
Before starting operation, familiarize yourself with the controls.

Wearing appropriate personal protective equipment is mandatory.

Before performing any maintenance or servicing, disconnect the machine.

7.1 CONTROL DEVICES

A. Control panel



A. POWER INDICATOR LIGHT
- The indicator light is on if 24V power is flowing to the control panel.
- The indicator light remains on if a safety device is activated.

B. LOCKABLE MAIN SWITCH
- Position "0": machine power off.
- Position "1": machine power on.

C. START SWITCH
- Pressing the green "I" switch activates the machine's ribbon and cutting fluid pump.

During operation, the bow must be raised so that it does not come into contact with the electrical safety lock at the end of the cut. Otherwise, the machine will not operate.

D. OFF SWITCH
- Pressing the red "0" switch deactivates the machine's ribbon and cutting fluid pump.

When the red "0" switch is pressed, the bow continues to descend if the hydraulic cylinder potentiometer is not set to "0" or if the hydraulic cylinder lever is not locked.

E. CUTTING FLUID SWITCH
- Position "0": the cutting fluid pump is inactive.
- Position "1": the cutting fluid pump is activated (when the green "I" switch is activated).

F. HANDLE LOCK SHUTDOWN
- General machine stop.

When the lock-in emergency stop button is pressed, the bow continues to descend if the hydraulic cylinder potentiometer is not set to "0" or if the hydraulic cylinder lever is not locked.

J. TAPE SPEED SWITCH
- Position "0": belt inactive.
- "TURTLE" position: 36 m/min (low speed suitable for solid or hard materials).
- "HARE" position: 72 m/min (high speed suitable for thin-walled profiles and tubes).

Only change the cutting speed when the band is stopped.

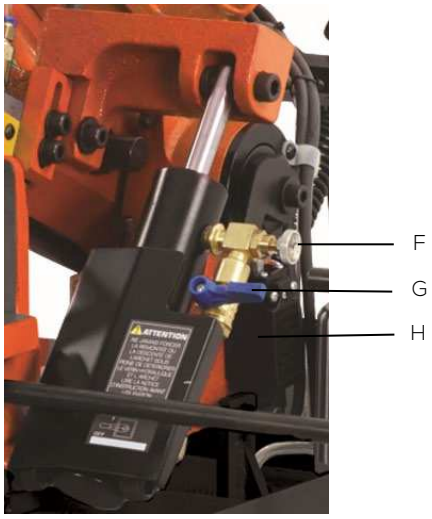
B. Hydraulic cylinder

Thanks to the hydraulic cylinder, the descent of the bow is continuously adjustable in order to adapt the cutting conditions to the shape of the piece to be cut (thin profiles, solid pieces, etc.) and the nature of the piece:

H. ARCH DESCENT SPEED KNOB:
- Allows you to vary the speed of the bow's descent.

I. BOW DESCENT LEVER:
- Allows the bow descent to be locked in the "horizontal" position.
- Allows the bow to be immobilized in an intermediate position without having to return to the upper position.
- Allows the bow to descend to the "vertical" position.

J. CUTTING END MICROSWITCH:
- At the end of the cut, the tape and the cutting fluid pump stop.



Never force the bow to move up or down, as this may damage the hydraulic cylinder and the bow.

7.2 ADJUSTMENTS

Disconnect the machine's power supply before performing these operations.

A. Angle cuts

The band saw can be used to make cuts at 0°, 45° left, 60° left, and intermediate angles:

1. Set the bow to the "HIGH" position.
2. Loosen the bow clamping lever (A) to the left.
3. Turn the bow support (B) using the bow arm (4 fig.1) and set the desired angle using the scale (C) (the angle stops are located at 0° and 60° left).
4. Tighten the bow clamping lever (A) to the right.

Lock the bow clamping lever firmly to prevent the bow from changing position during cutting.

B. Vise assembly

The clamp is equipped with a quick-release lever (A) with a movable front jaw travel of approximately 5 mm:

1. Place the workpiece against the fixed rear vise jaw (E).
2. Move the front movable vise jaw (F) approximately 2 mm toward the workpiece using the vise wheel (G).
3. Quickly tighten the vise on the workpiece using the lever (D) before cutting.
4. Ensure that the workpiece is securely clamped in the vise to prevent it from moving during cutting.
5. For a second cut in the same workpiece, loosen only with the quick-release lever (D).

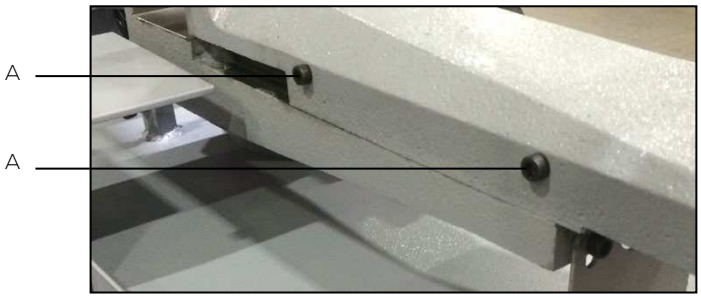
Vise opening: 250 mm maximum.

Before making a cut, ensure that the workpiece is securely clamped in the vise to prevent it from moving during cutting.
Do not place workpieces to be cut on the vise assembly:
- **During cutting.**
- **When a part is already inserted in the vise.**

Adjusting the vise wedge:

There may be some lateral play in the vise. The wedge that holds the vise to its support is misaligned. This lateral play can be adjusted using the screws (A) on the left side of the vise:

1. Open the vise as wide as possible.
2. Loosen the adjustment screws (A) on the vise set.
3. Carefully tighten the first adjustment screw on the vise set (to the right of the movable front jaw) until you feel the screw (through a support ball) resting on the bar that pushes into the groove.
4. In this position, tighten the screw.
5. Use the vise wheel to move the vise so that the next vise adjustment screw is in the same position as the previous screw.
6. Repeat steps 3, 4, and 5 until the vise is completely closed and therefore adjusted.



C. Tensioning the tape

Before starting the machine, the ribbon must be sufficiently tensioned to ensure proper cutting:

- Turn the ribbon tension adjustment wheel (A).
- Ensure that the ribbon tension microswitch (B) is engaged.
- The ideal tension for the tape is 1200 kg/cm², in the green zone of the pressure gauge (C).

✓ Loosen the tape at the end of the day.

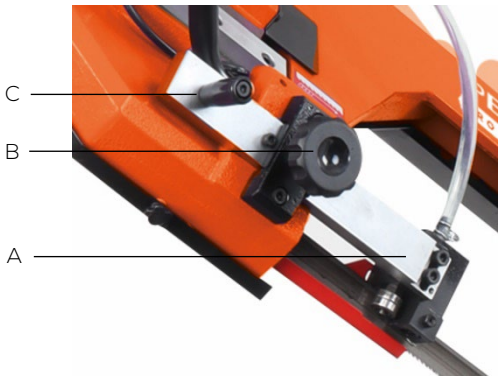
If the tape tension is insufficient or if the tape breaks, the machine will not start due to the tape tension microswitch.

Use original tapes to ensure correct tape tension.

D. Movable front tape guide

To achieve an optimal cut and work safely, adjust the movable front tape guide (A) as close as possible to the workpiece!

1. Loosen the clamping handle (B) on the movable front blade guard (A).
2. Slide the movable front blade guard (A) as close as possible to the workpiece using the adjustment knob (C), so as not to interfere with the end of the cut (there is a stop on the guide).
3. Tighten the clamping handle (B) on the movable front blade guide (A).



Perform this adjustment each time the workpiece dimensions change.

Make sure to adjust the movable front band guide so that it does not touch the bottom of the vise at the end of the cut.

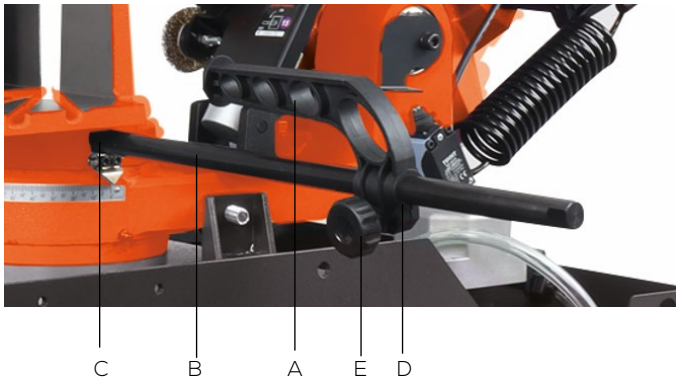
E. Bow balancing spring

The bow is balanced by means of a tension spring (A). Avoid changing the original/factory setting of the spring. Otherwise, too much tension would prevent the bow from descending automatically.
However, if the bow appears to be more or less balanced, tighten or loosen the spring using the crank (B).

F. Cutting stop

The length of the piece to be cut can be adjusted using the cutting stop (A):

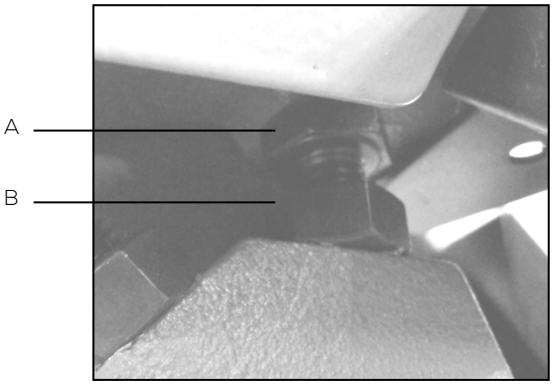
1. Screw the cutting stop pin (B) into its seat on the right base of the vice (C), then lock it in place.
2. Slide the cutting stop support (D) onto the pin (B) to the desired cutting length, then tighten the support (D) using the adjustment screw (E).
3. Adjust the stop (A) if necessary.
4. Place the workpiece to be cut in the vise so that its end touches the stop (A).
5. Lock the workpiece in the vise.
6. Check the length of the workpiece.



G. Bow downstroke

The bow downstroke can be adjusted using the depth stop (A) located underneath the bow (the stop is factory-set):

1. Place the bow in the "LOW" position.
2. Loosen the lock nut (B).
3. Tighten or loosen the stop screw (A) as needed.
4. Then retighten the lock nut (B).

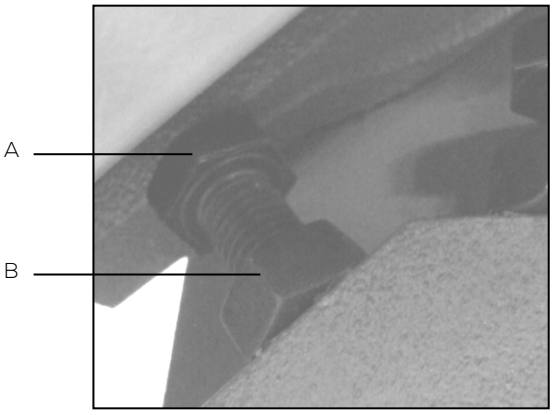


The stop screw must not be tightened too far, as this will cause the tape to cut into the vise base.
Ensure that the stop screw is always at the correct height before starting the machine.

H. Archery return stroke

The return of the bow stroke can be adjusted using the bow height stop (A) located underneath the bow (the stop is factory-set):

1. Loosen the stop screw (A).
2. Tighten or loosen the lock nut (B) as needed.
3. Adjust the maximum cutting height of the bow (leave a margin of approximately 5 to 10 mm between the tape and the piece to be cut).
4. Then retighten the stop screw (A).
5. Check the height using the workpiece inserted in the vise.
6. At the end of the cut, manually raise the bow to the set height.



7.3 CUTTING FLUID

Disconnect the machine from the power supply before performing this operation.
To clean, remove any chips that may be sharp and hot, wearing protective goggles and gloves, and collect them in containers. Avoid using a blow gun; instead, use a clean, dry cloth, brush, long-handled brush, hook, magnetic collector, or vacuum cleaner. Do not use solvents or aggressive detergents.

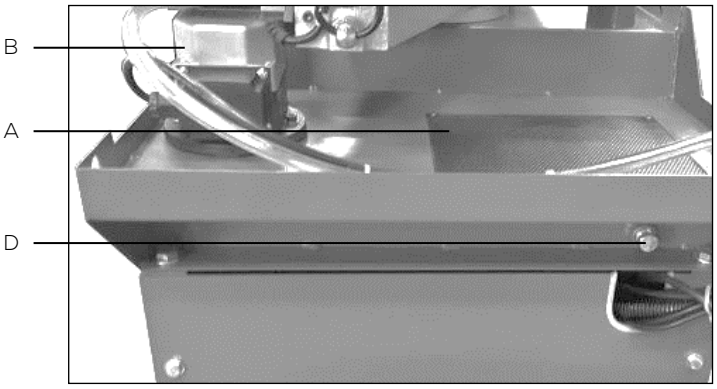
It is very important to prevent cutting fluid from spilling onto the surrounding area, as this creates a slipping hazard.

The band saw has a two-point lubrication system powered by an electric pump:

- Ensure that a sufficient quantity of cutting fluid (composed of water and soluble oil) is introduced into the reservoir located in the frame at the rear of the machine (remove the grille (A) beforehand).
- The cutting fluid tank has a capacity of 6.5 liters.
- Dilute the soluble oil according to the percentages specified by the product manufacturer (generally 10% to 15%).
- The spray is provided by a cutting fluid pump (B) that draws fluid from the tank.
- Set the cutting fluid pump switch to the "I" position.
- The cutting fluid pump is activated when the green "I" switch is activated.
- Adjust the flow rate using the tap (C) located at the rear of the bow.
- Ensure that there is sufficient cutting fluid to lubricate the band generously.
- Lubrication is essential for most metals. It helps to remove chips from the blade, resulting in a better cut surface finish.

Cleaning the lubrication system:

1. Drain the cutting fluid using the drain screw (C) located at the rear of the machine.
2. Remove the grille (D) located on the frame at the rear of the machine and clean it.
3. Remove the cutting fluid pump, clean it and the hoses.
4. Clean the filling tank.
5. Replace the drain screw (C).
6. Fill the filling tank (approx. 5 liters).
7. Replace the pump and grille (D).



Electrical specifications of the pump:

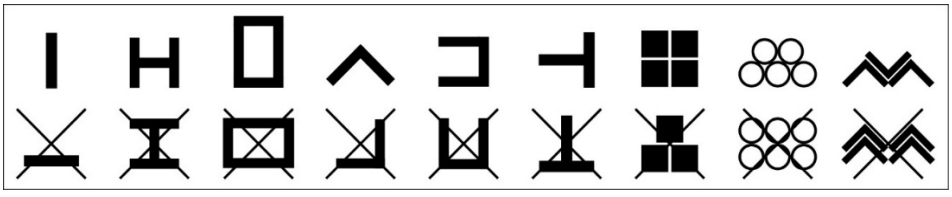
- Power: 32 W
- Voltage: 400 V
- Frequency: 50 Hz
- Current: 0.1 A

7.4 POSITION OF PARTS IN THE VISE

Never hold the parts to be cut by hand.

To ensure precise cuts, optimum performance, and increased blade life, the figures below show recommendations for clamping parts in the vise according to their shape (for straight cuts at 0°).
The parts to be cut must be placed directly between the jaws without any other objects in between.

Always ensure that the workpiece is perpendicular to the blade and that the guides are as close as possible to the workpiece. The blade guides must not exert any pressure on the blade. Obviously, the blade teeth must protrude sufficiently from the guides. An incorrectly mounted and clamped workpiece will cause damage to the teeth.



7.5 CUTTING PROCEDURE

Wearing appropriate personal protective equipment is mandatory.

All operations relating to the cutting procedure must be carried out when the machine's bow is in the rest position and the band is stopped.

Keep hands away from the cutting areas when the machine is in operation.
Before positioning the part or removing cutting waste, stop the machine.

Always use the vise: workpieces being cut must be securely clamped in the vise to prevent them from flying off.

During use, there is a risk of sparks or hot metal debris being projected.

Do not apply excessive pressure to the blade. Machining performance is not improved by applying high pressure to the blade, but the service life of the blade and the machine will be reduced.

A. Cutting instructions

1. If necessary, adjust the depth stop correctly (see section 7.2).
2. Check that the band is correctly tensioned (see section 7.2).
3. Set the hydraulic cylinder bow descent lever to the "OFF" position.
4. Set the hydraulic cylinder bow lowering speed knob to "0."
5. Set the bow to the "HIGH" position.
6. Set the bow to the desired cutting angle (see section 7.2).
7. Insert the workpiece to be cut into the vise at the desired length (check its positioning) (see sections 7.2 and 7.4).
8. Clamp the workpiece using the vice.
9. Ensure that the workpiece to be cut is securely clamped in the vice to prevent it from changing position during cutting.
10. Adjust the front movable blade guide (see section 7.2).
11. Connect the machine's power supply (see section 5.5).
12. Set the lockable main switch (B fig. 2) to position "1" to turn on the power.
13. Unlock the safety stop (F fig.2) and/or reconnect the safety devices (electrical safety interlocks).
14. Select the blade speed corresponding to the material to be cut using the blade speed switch in the "SLOW" or "FAST" position (J fig.2).

    Only change the cutting speed when the blade is stopped.
15. Press the green "I" switch (C fig.2) to start the band.
16. Activate the cutting fluid pump with the switch in the "I" position (E fig. 2).
17. Adjust the cutting fluid flow rate using the tap located at the rear of the bow (see section 7.3).
18. Set the hydraulic cylinder blade descent lever to the "ON" position.
19. Adjust the speed at which the bow descends toward the workpiece using the bow descent speed knob on the hydraulic cylinder.
20. Do not hit the ribbon on the workpiece to be cut, but apply gradual and correct pressure; do not start cutting with the ribbon against the workpiece.
21. Ensure that no one is in the path of debris and sparks caused by cutting.
22. At the end of the cut, the blade and the cutting fluid pump will stop thanks to the electrical safety lock at the end of the cut.
23. Deactivate the cutting fluid pump by setting the switch to the "0" position (E fig.2).
24. Carefully raise the bow once cutting is complete and lock it in place.
25. Open the vise.
26. Remove the cut piece.

B. Shutdown

- Press the red "0" switch (D fig.2) to turn off the band and the cutting fluid pump.
- Set the blade speed switch to the "0" position (J fig.2) to stop the blade.
- Press the lockable emergency stop button (F fig.2).
- Set the lockable main switch (B fig.2) to the "0" position to turn off the power.

✓ At the end of the day, loosen the tape and put the bow in the rest position ("LOW" position).

7.6 OPERATING INCIDENTS

A. Tape jammed in the part

Protective gloves must be worn.

1. Stop the machine by pressing the emergency stop button.
2. Carefully raise the bow.
3. Carefully open the vise.
4. Carefully remove the workpiece.
5. Check the condition of the tape and replace it if necessary.

Replace the belt if it is damaged (e.g., broken teeth).

B. Restarting a cycle following a punch stop with engagement

1. Unlock the emergency stop.
2. Carefully raise the bow.
3. Press the green "I" button to start the ribbon and the cutting fluid pump.

C. Power failure

1. Carefully raise the bow.
2. Press the green "I" button to activate the tape and the cutting fluid pump.

The machine is equipped with a very low voltage electrical system (24 V TBT) with a voltage failure device (preventing any accidental restart).

7.7 TAKING THE MACHINE OUT OF SERVICE

If the band saw is not to be used for an extended period of time, it is recommended to proceed as follows:

1. Unplug the power cord from the power supply.
2. Loosen the blade.
3. Set the bow to the rest position ("LOW" position).
4. Release the return spring.
5. Empty the cutting fluid reservoir.
6. Carefully clean and lubricate the machine.
7. Cover the machine if necessary.

7.8 TABLE OF FAULTS AND SOLUTIONS

PROBLEMS	SOLUTIONS
Premature wear:	Reduce speed. Increase the pressure of the bow to keep the teeth in contact with the material. Use a lubricant suitable for the material being cut. Spray the cut excessively for mild, extra mild, and non-ferrous steels. Check that the tape is mounted in the correct direction.
Belt vibrations during cutting:	Increase or decrease the speed of the ribbon. Increase the pressure. Increase the ribbon tension. Use a finer pitch. Hold the workpiece more firmly.
Tooth breakage:	Use a finer pitch (for thin materials) or increase the pitch in other cases. Reduce the pressure. Hold the workpiece more firmly. Reduce the feed rate.
Insufficient surface finish:	Increase the cutting speed. Reduce pressure. Use a finer pitch. Lubricate the cut.
Convex or concave faces or tape kickback:	Reduce the feed rate. Increase the tension of the tape. Use a larger band pitch. Adjust the movable tape guide as close as possible to the workpiece. Adjust the play of the ribbon guides as close as possible to the ribbon. Reduce the pressure.
Premature ribbon breakage:	Reduce the speed. Reduce the pressure. Decrease the ribbon tension. Check the surface condition of the tape pulleys. Adjust the movable ribbon guide as close as possible to the workpiece. Lubricate the cut. Check the tape welding parameters.
Chip jamming in the tooth:	Use a larger pitch. Reduce the bow descent. Increase the cutting speed. Lubricate the cut.
Poor contact between the belt and the guides:	Check the alignment of the tape pulleys. Check the wear on the band guides and replace them if necessary.
Insufficient sawing speed:	Increase the cutting speed. Use a larger pitch. Increase the pressure. Lubricate the cut.
Premature disappearance of the band track:	Belt too wide for the radius to be cut. Reduce the cutting speed.

	Lubricate the cut.

8 MAINTENANCE

Before performing any maintenance or servicing, disconnect the machine.
Wear gloves and protective eyewear, and use a clean, dry cloth, brush, long-handled brush, hook, magnetic collector, or vacuum cleaner for all cleaning operations (especially for removing chips, which may be sharp and hot).

Do not use a blow gun to remove machining chips.
Do not use solvents or aggressive detergents for cleaning.
Do not immerse the machine in water or wash it with a water jet.

Chips are often very sharp and hot. Do not touch them with your bare hands.

To maintain the efficiency of the machine and its components, it is necessary to perform maintenance.
Below are the most important maintenance tasks, which can be classified according to their frequency as daily, weekly, monthly, and semi-annual tasks.
Failure to perform the prescribed tasks will result in premature wear and tear and reduce the performance of the machine.

8.1 DAILY MAINTENANCE

- Clean the machine as normal to remove any chips that have accumulated (collect them in bins).
- Clean the cutting fluid outlet holes to prevent excess fluid from accumulating.
- Check that the motor ventilation grilles are clear.
- Check and refill the cutting fluid reservoir.
- Check that the belt is not worn and/or the teeth broken.
- Check that the protective covers, safety devices, and stop mechanisms are working properly.

8.2 WEEKLY MAINTENANCE

- Thoroughly clean the machine, removing any chips from the cutting fluid reservoir (collect them in containers).
- Remove the pump from the cover, clean the suction filter and the cutting fluid suction area.
- Clean the tape guides (bearing and cutting fluid outlet holes).
- Clean the ribbon pulley housings and the ribbon sliding surfaces on the pulleys.
- Check that the screws are tight.

8.3 MONTHLY MAINTENANCE

- Coat exposed parts with a protective oil film.
- Drain the cutting fluid (see section 7.3).
- Check that the belt guide components are working properly.
- Check that the screws on the motor, pump, and protective covers are tight.
- Check the power cable and replace it if necessary.

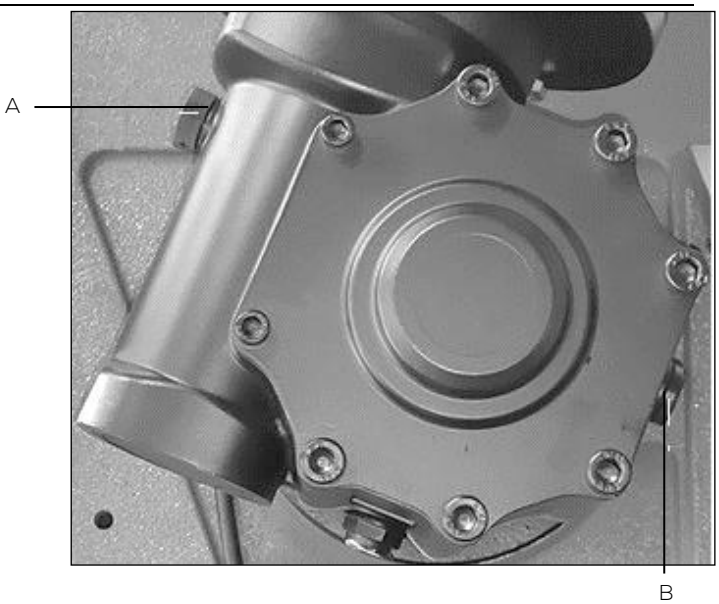
8.4 SIX-MONTHLY MAINTENANCE

- Test the continuity of the equipotential protection circuit.

8.5 SPECIAL MAINTENANCE

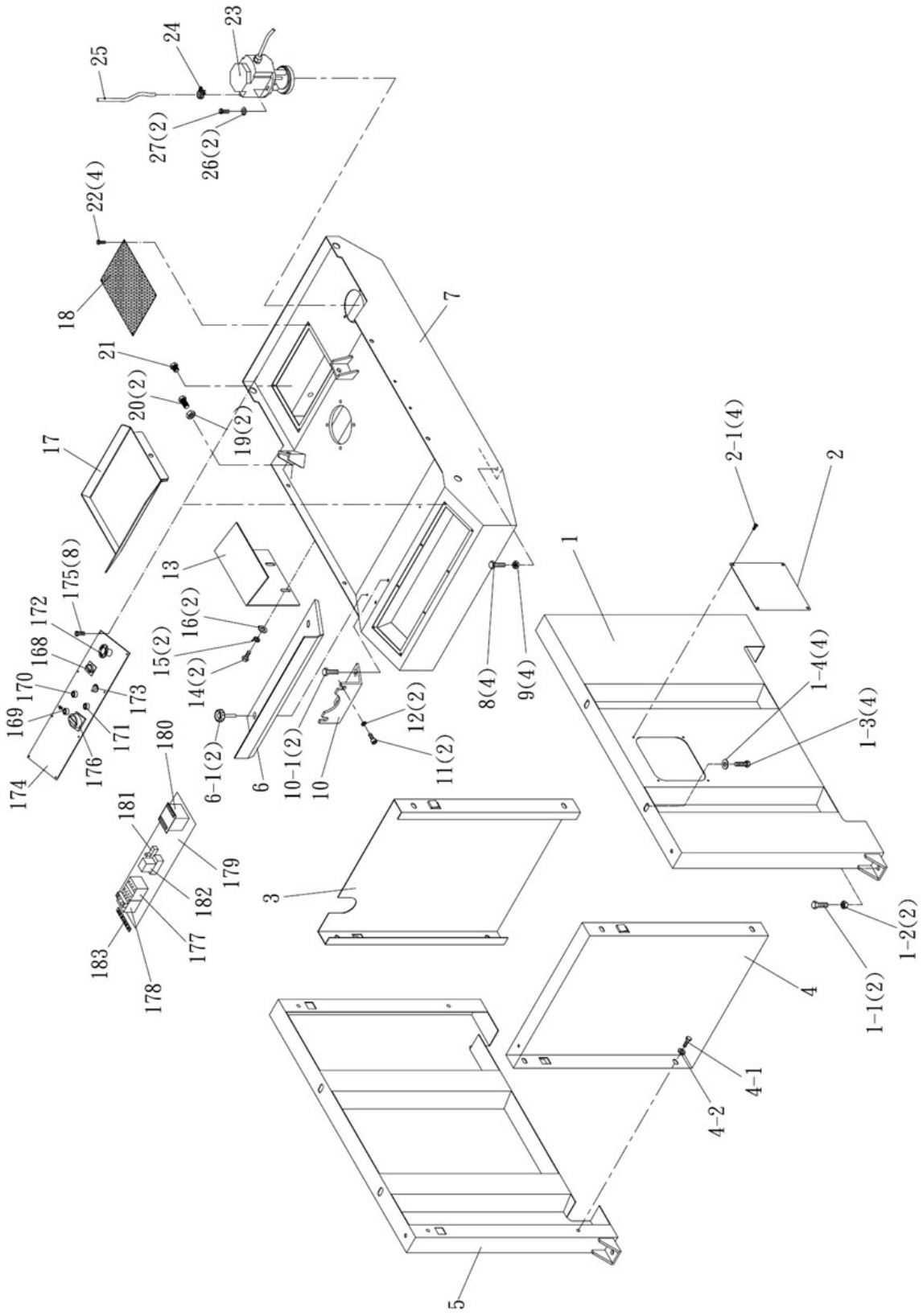
The motor reducer requires periodic oil changes.
The oil must be changed during the first 6 months of use and every year thereafter.
The motor reducer has a capacity of 0.49 liters.
To drain the motor reducer:

1. Disconnect the machine.
2. Lift the bow and lock it in place.
3. Loosen the oil filler cap (A).
4. Loosen the drain screw (B).
5. Replace the drain screw (B) once the oil has completely drained.
6. Put the dipstick in the rest position ("LOW" position).
7. Fill with oil through the hole in the filler cap (A).
8. Do not exceed the average oil level.



9 EXPLODED VIEW

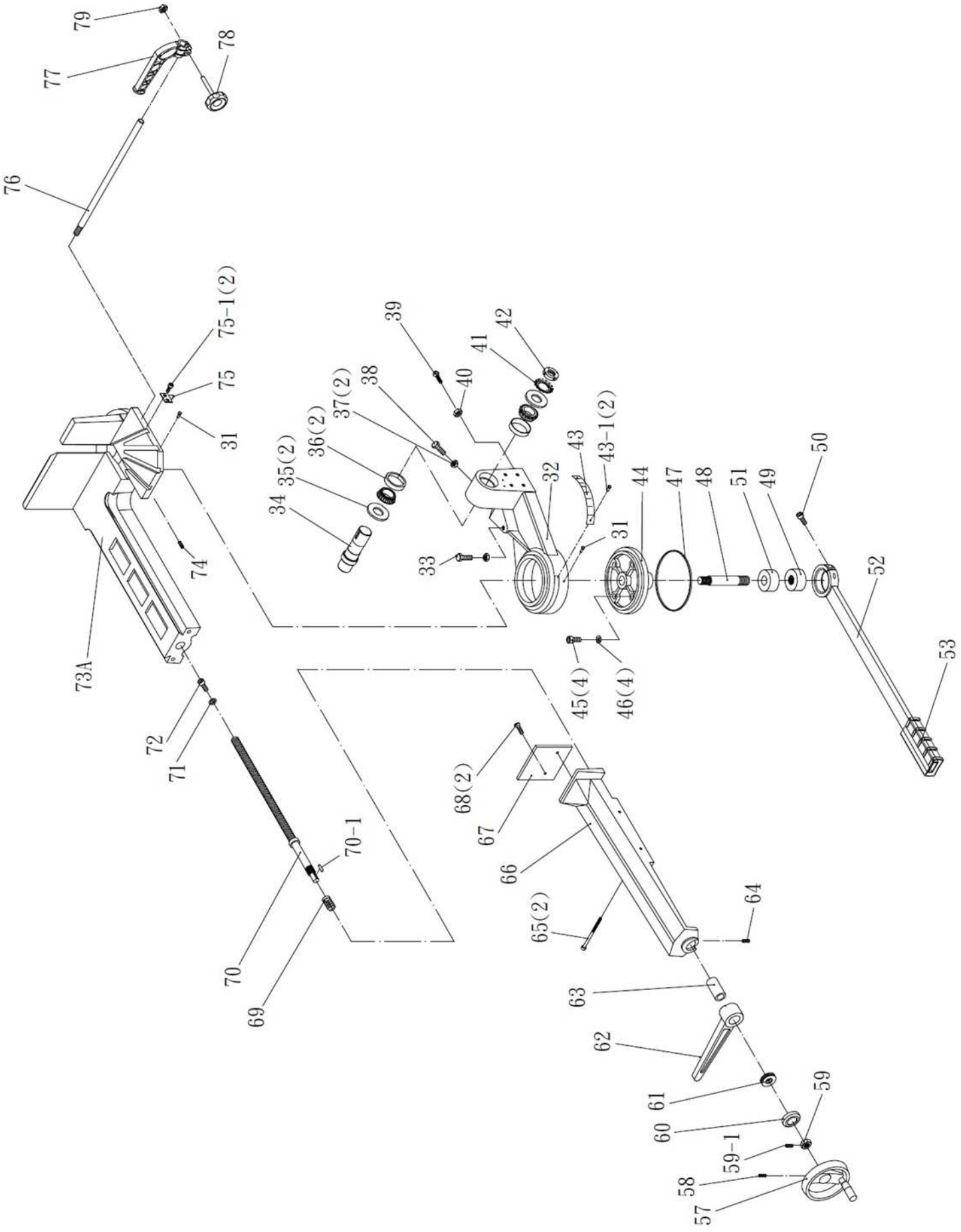
EXPLODED VIEW OF PSR250A FRAME (VIEW 01)



PARTS LIST EXPLODED VIEW FRAME PSR250A (VIEW 01)

Part	Description	Quantity
001	RIGHT BASE PANEL	1
001-1	M12x40 HEXAGON HEAD BOLT	2
001-2	HEX NUT M12	2
001-3	M10x20 HEXAGON HEAD BOLT	4
001-4	FLAT WASHER 10x25x2	4
002	STRAIGHT BASE PANEL PLATE	1
002-1	M5x8 HEXAGONAL CYLINDRICAL HEAD SCREW	4
003	REAR BASE PANEL	1
004	FRONT BASE PANEL	1
004-1	M8x16 HEXAGONAL CYLINDRICAL HEAD SCREW	8
004-2	FLAT WASHER 8x18x2	8
005	LEFT BASE PANEL	1
006	CONTROL PANEL PROTECTIVE PLATE	1
006-1	M8x30 KNOB	2
007	FRAME	1
008	M10x20 HEXAGON HEAD BOLT	4
009	FLAT WASHER 10x25x2	4
010	CLAMP SUPPORT	1
010-1	M8x25 HEXAGON HEAD BOLT	2
011	HEXAGONAL CYLINDRICAL HEAD SCREW M8x20	2
012	M8 SPRING WASHER	2
013	PART SUPPORT	1
014	M10x20 HEXAGON HEAD BOLT	2
015	M10 SPRING WASHER	2
016	FLAT WASHER 10x25x2	2
017	CUTTING FLUID PLATE	1
018	FILTER GRID	1
019	M12 HEXAGONAL NUT	2
02	M12x40 HEXAGON HEAD BOLT	2
021	BLOOD BOLT M3/8"	1
022	M5x8 ROUND HEAD SCREW	4
023	CUTTING FLUID PUMP	1
024	CLAMP 13mm	1
025	HOSE 5/16x1300mm	1
026	FLAT WASHER 6x13x1	2
027	M6x25 HEXAGONAL CYLINDRICAL HEAD SCREW	2
168	TAPE SPEED SWITCH	1
169	POWER INDICATOR LIGHT	1
170	START SWITCH	1
171	OFF SWITCH	1
172	STOP PUNCH WITH LATCH	1
173	LIQUID CUT-OFF SWITCH	1
174	SIDAMO CONTROL PANEL	1
175	M5x8 DOMED HEAD SCREW	8
176	GENERAL LOCKABLE DISCONNECT SWITCH	1
177	ELECTROMAGNETIC CONTACTOR	1
178	THERMAL PROTECTION RELAY	1
179	CONTROL PANEL PLATE	1
180	TRANSFORMER	1
181	2A FUSE	1
182	CUTTING FLUID PUMP RELAY	1
183	GROUNDING PLATE	1

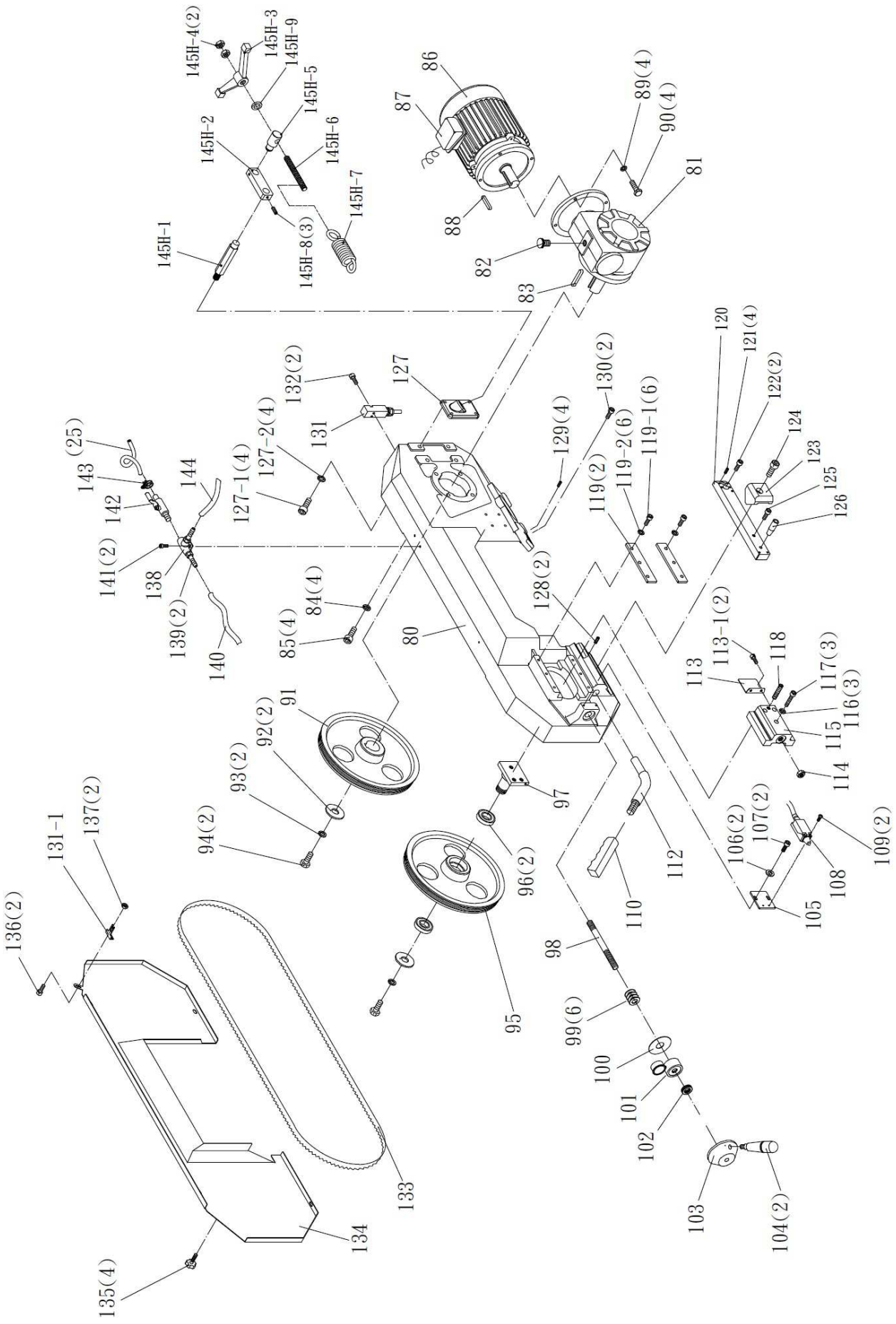
EXPLODED VIEW OF PSR250A CONTROL VISE TABLE (VIEW 02)



PARTS LIST EXPLODED VIEW OF PSR250A VISE TABLE (VIEW 02)

Reference	Description	Quantity
031	OILER 1/16	2
032	BOW SUPPORT	1
033	M10x25 HEXAGON HEAD BOLT	1
034	BOW AXLE	1
035	DUST SEAL 30mm	2
036	BEARING 32006	2
037	M10 HEXAGONAL NUT	2
038	M10x25 HEXAGON HEAD BOLT	1
039	SPRING HOOK	1
040	M12 HEXAGONAL NUT	1
041	M30 TOOTHED WASHER	1
042	M30xP1.5 NUT	1
043	GRADUATION	1
043-1	RIVET 2.3x4	2
044	PIVOT SUPPORT ARCHET	1
045	M8x30 HEXAGONAL CYLINDRICAL HEAD SCREW	4
046	M8 SPRING WASHER	4
047	SEAL 4mm x 518mm	1
048	BOW SUPPORT AXIS	1
049	BOW SUPPORT NUT	1
050	M6x25 HEXAGONAL CYLINDRICAL HEAD SCREW	1
051	BOW SUPPORT SPACER	1
052	BOW CLAMP LEVER	1
053	RUBBER HANDLE 100x37x18mm	1
057	6-1/2" VISE HANDLE	1
058	M8x10 SCREW	1
059	M20x30x9P1.5 NUT	1
059-1	M5x5 SCREW WITHOUT HEAD	1
060	BEARING	1
061	BEARING 51104	1
062	QUICK-RELEASE LEVER	1
063	SPACER FOR QUICK-RELEASE LEVER	1
064	M8x10 SCREW WITHOUT HEAD	1
065	M6x100 HEXAGONAL CYLINDRICAL HEAD SCREW	2
066	MOBILE VISE	1
067	MOBILE VISE JAW	1
068	FLAT HEAD SCREW M6x16	2
069	SPRING 5x31x35mm	1
070	WORM SCREW	1
070-1	KEY 5x5x15mm	1
071	FLAT WASHER 8x18x2	1
072	HEXAGONAL CYLINDRICAL HEAD SCREW M8x16	1
073A	VISE BOTTOM PLATE	1
074	M8x10 SCREW WITHOUT HEAD	1
075	INDEX	1
075-1	M5x8 HEXAGONAL CYLINDRICAL HEAD SCREW	2
076	CUTTING STOP AXLE	1
077	CUTTING STOP Ø19	1
078	M8x30 SCREW	1
079	M8 HEXAGONAL NUT	1

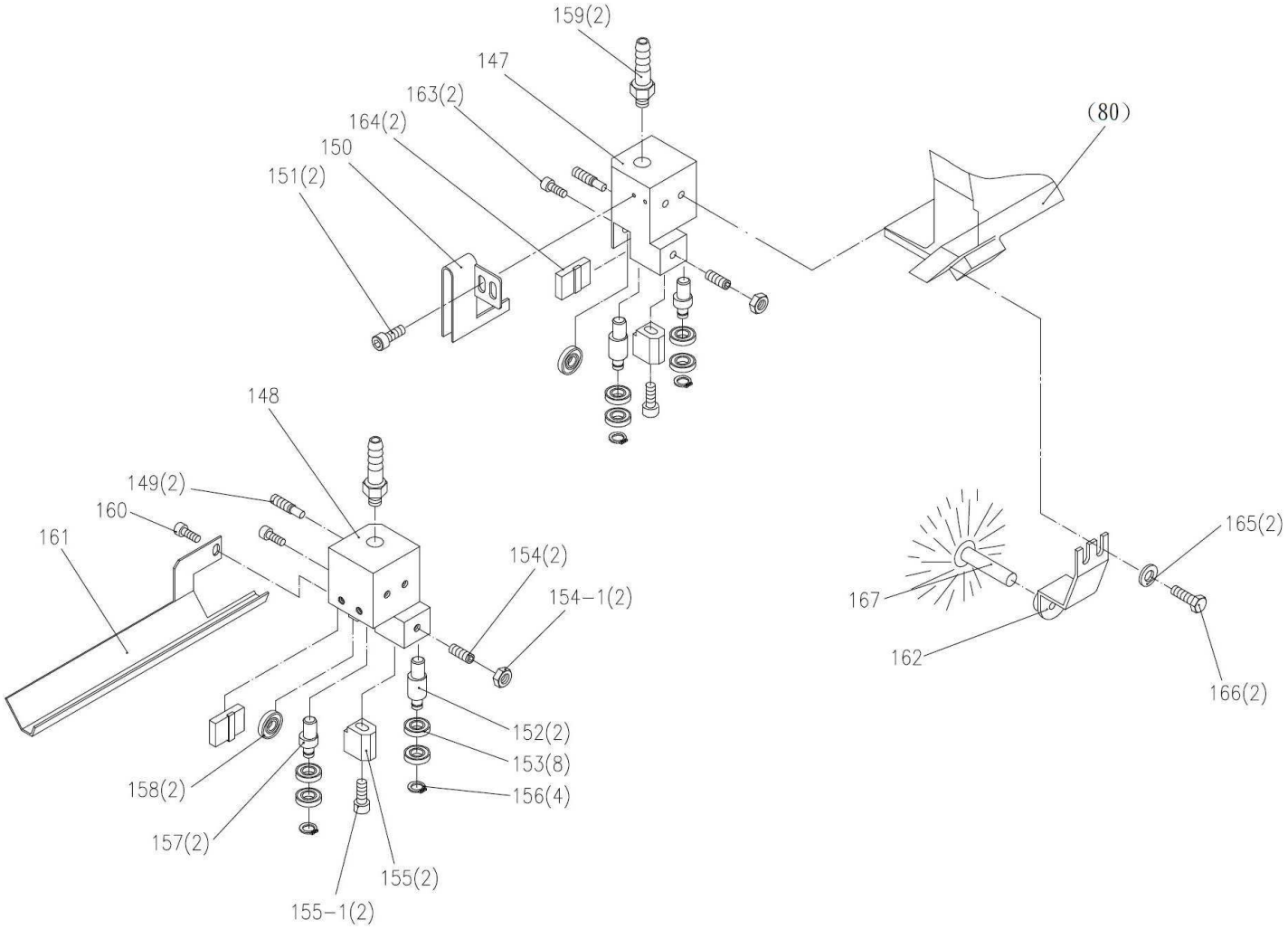
PSR250A BOW EXPLODED VIEW (VIEW 03)



PARTS LIST EXPLODED VIEW OF PSR250A BOUNDARY (VIEW 03)

Reference	Description	Quantity
080	BOW	1
081	REDUCER	1
082	OIL FILLER CAP	1
083	KEY 7x7x25mm	1
084	M10 SPRING WASHER	4
085	M10x40 HEXAGONAL CYLINDRICAL HEAD SCREW	4
086	BAND SAW MOTOR	1
087	MOTOR TERMINAL BLOCK	1
088	KEY 6x6x30mm	1
089	M8 SPRING WASHER	4
090	M8x30 HEXAGON HEAD BOLT	4
091	MOTOR PULLEY	1
092	MOTOR PULLEY WASHER	2
093	M10 SPRING WASHER	2
094	HEXAGON HEAD BOLT M10x25	2
095	TENSION PULLEY	1
096	BEARING 6006ZZ	2
097	TENSION PULLEY AXLE	1
098	TENSION AXLE M16x230	1
099	ELASTIC WASHER TENSION TAPE	6
100	TAPE TENSION PLATE	1
101	TAPE TENSION GAUGE	1
102	BEARING 51103	1
103	TAPE TENSION ADJUSTMENT WHEEL	1
104	TAPE TENSION ADJUSTMENT HANDLE	2
105	ELECTRIC SAFETY LOCK SUPPORT FOR TAPE TENSION	1
106	FLAT WASHER 6x13x1	2
107	M6X12 HEXAGONAL CYLINDRICAL HEAD SCREW	2
108	ELECTRIC SAFETY LOCK TENSION TAPE	1
109	M4x25 HEXAGONAL CYLINDRICAL HEAD SCREW	2
110	BOW ARM HANDLE	1
112	BOW ARM	1
113	TAPE TENSION SLIDE SUPPORT	1
113-1	M6x8 HEXAGONAL CYLINDRICAL HEAD SCREW	2
114	M16 HEXAGONAL NUT	1
115	TAPE TENSION SLIDE	1
116	M10 SPRING WASHER	3
117	M10X40 HEXAGONAL CYLINDRICAL HEAD SCREW	3
118	M10x25 SCREW WITHOUT HEAD	1
119	TAPE TENSION SLIDE PLATE	2
119-1	M8X20 HEXAGONAL CYLINDRICAL HEAD SCREW	6
119-2	M8 SPRING WASHER	6
120	MOBILE FRONT TAPE GUIDE SUPPORT	1
121	M5x5 SCREW	4
122	M8x20 HEXAGONAL CYLINDRICAL HEAD SCREW	2
123	MOBILE FRONT TAPE GUIDE LOCK	1
124	M8X25 HEXAGONAL CYLINDRICAL HEAD SCREW	2
125	M6x8 hexagonal cylinder head screw	1
126	MOBILE FRONT TAPE GUIDE HANDLE M6x60	1
127	SPRING HOLDER	1
127-1	M10x40 HEXAGONAL CYLINDRICAL HEAD SCREW	4
127-2	M10 SPRING WASHER	4
128	M8x10 SCREW WITHOUT HEAD	2
129	M6x12 headless screws	4
130	HEXAGONAL CYLINDRICAL HEAD SCREW M8X25	2
131	ELECTRIC SAFETY LOCK FOR TAPE HOUSING	1
131-1	PIN FOR ELECTRIC SAFETY LOCK FOR TAPE COVER	1
132	M4X30 HEXAGONAL CYLINDRICAL HEAD SCREW	2
133	TAPE	1
134	REMOVABLE TAPE COVER	1
135	M6x12 HEXAGONAL CYLINDRICAL HEAD SCREW	4
136	ROUND HEAD SCREW M4x8	2
137	M4 HEX NUT	2
138	FLEXIBLE T-CONNECTOR	1
139	FLEXIBLE CONNECTION 1/4Px5/16	2
140	HOSE 5/16x900mm	1
141	M5X16 HEXAGONAL CYLINDRICAL HEAD SCREW	2
142	1/4Px5/16 CUTTING FLUID VALVE	1
143	CLAMP 13mm	1
144	HOSE 5/16x400mm	1
145H-1	SPRING AXLE	1
145H-2	SPRING SUPPORT	1
145H-3	SPRING HANDLE	1
145H-4	M16 HEXAGONAL NUT	2
145H-5	SPRING SLEEVE	1
145H-6	SPRING AXLE 16x160mm	1
145H-7	SPRING 6x50x188mm	1
145H-8	M8x10 SCREW	3
145H-9	FLAT WASHER 16x30x3	1

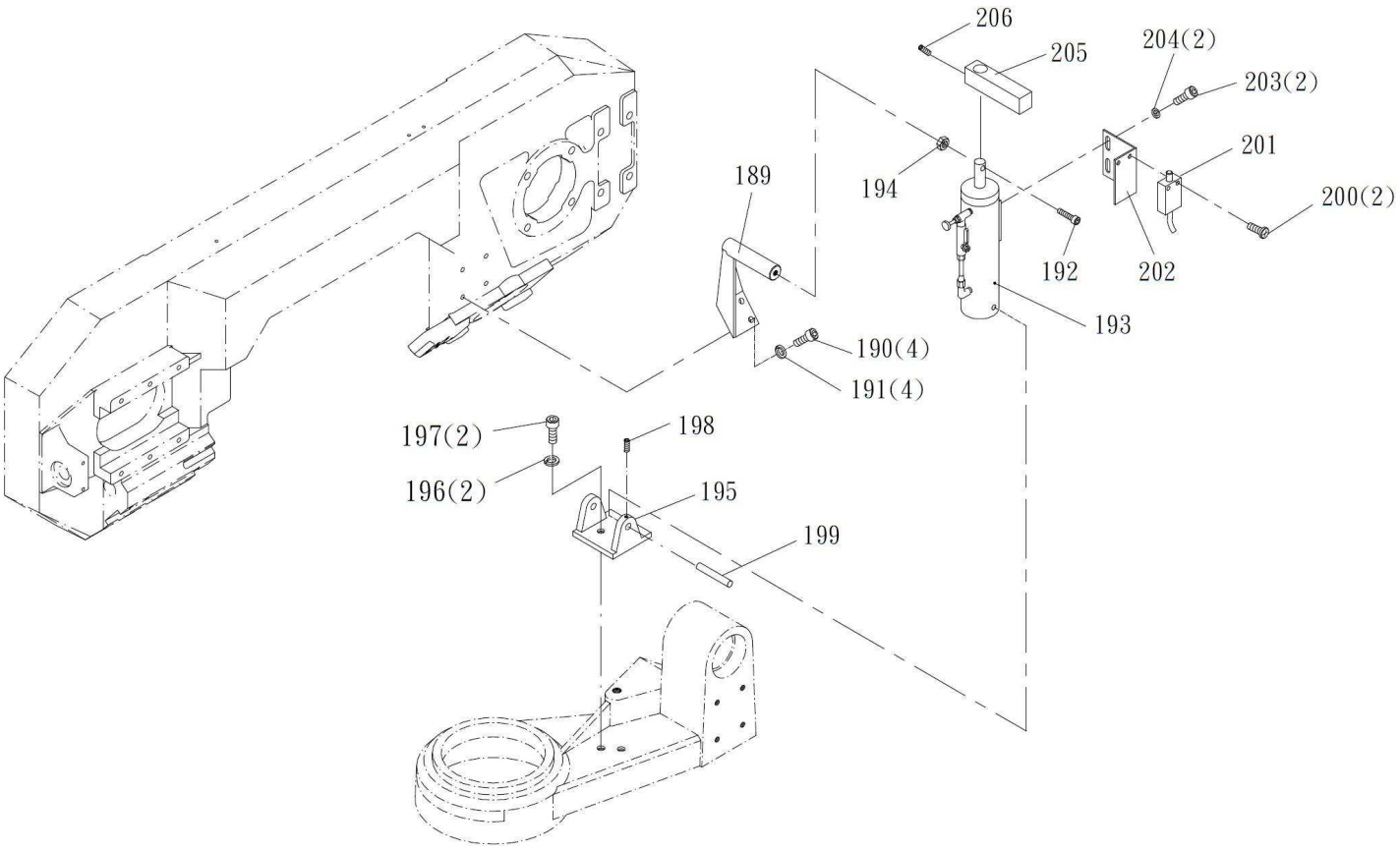
EXPLODED VIEW OF PSR250A TAPE GUIDES (VIEW 04)



PARTS LIST EXPLODED VIEW OF PSR250A TAPE GUIDES (VIEW 04)

Reference	Description	Quantity
147	FIXED REAR TAPE GUIDE	1
148	MOBILE FRONT TAPE GUIDE	1
149	TAPE GUIDE BOLT	2
150	FIXED REAR TAPE GUIDE PROTECTION	1
151	M6x8 HEXAGONAL CYLINDRICAL HEAD SCREW	1
152	EXCENTRIC AXIS	2
153	BEARING 608ZZ	8
154	M6x12 SCREW	2
154-1	M6 HEX NUT	2
155	MOBILE CARBIDE SKID	2
155-1	M6x25 HEXAGONAL CYLINDRICAL HEAD SCREW	2
156	CIRCLIP E-7	4
157	CENTRAL AXIS	2
158	BEARING 608ZZ	2
159	FLEXIBLE CONNECTION 1/4Px5/16	2
160	M5x8 HEXAGONAL CYLINDRICAL HEAD SCREW	1
161	MOBILE FRONT TAPE GUIDE PROTECTION	1
162	BRUSH SUPPORT	1
163	M6x8 HEXAGONAL CYLINDRICAL HEAD SCREW	2
164	FIXED CARBIDE SKID	2
165	FLAT WASHER 6x13x1	2
166	HEXAGON HEAD BOLT M6x12	2
167	Ø50 BRUSH	1

EXPLODED VIEW OF PSR250A HYDRAULIC CYLINDER (VIEW 05)

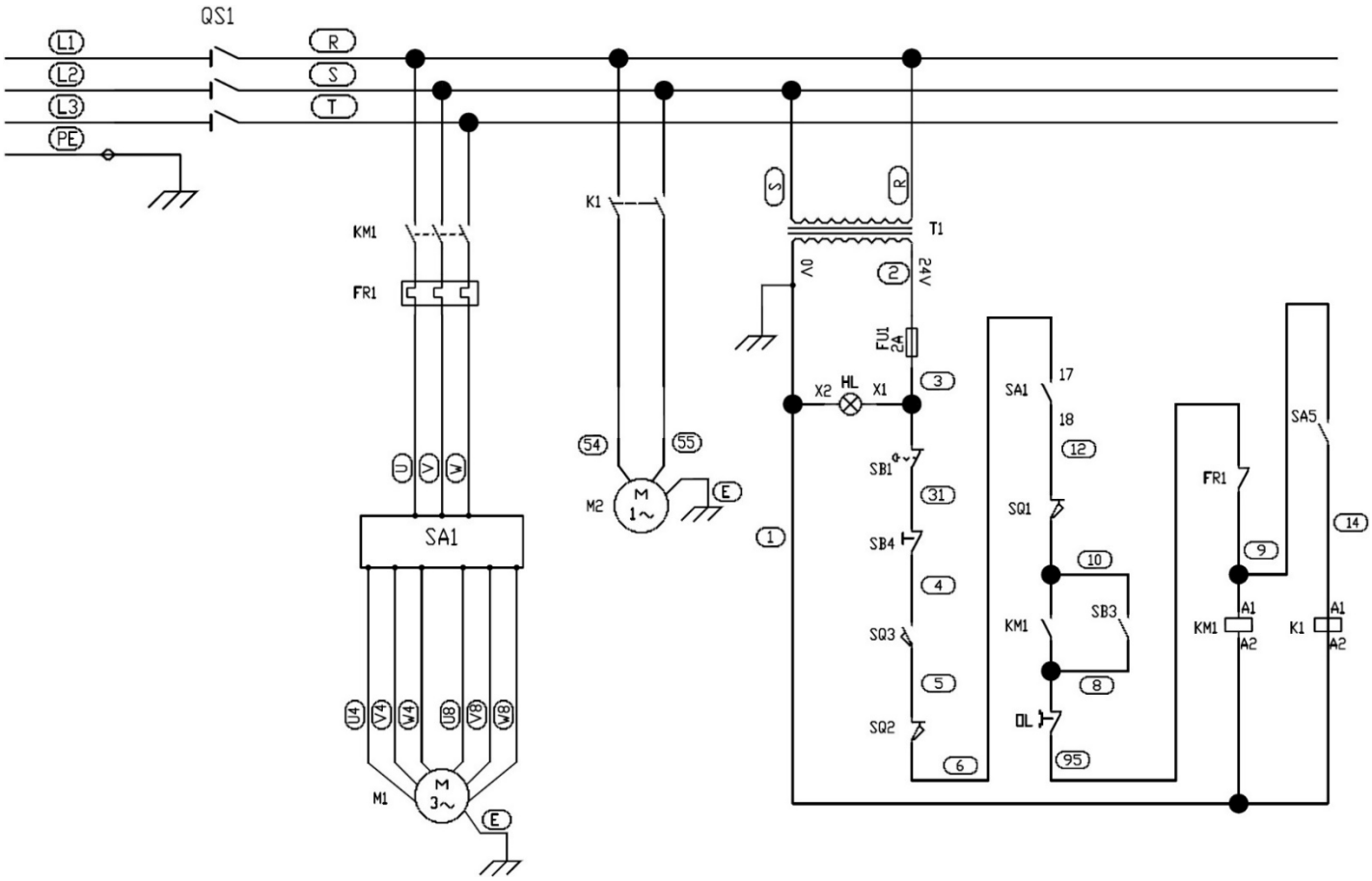


PARTS LIST EXPLODED VIEW OF PSR250A HYDRAULIC CYLINDER (VIEW 05)

Reference	Description	Quantity
189	UPPER SUPPORT HYDRAULIC CYLINDER	1
190	M8X20 HEXAGONAL CYLINDRICAL HEAD SCREW	4
191	M8 SPRING WASHER	4
192	M10X40 HEXAGONAL CYLINDRICAL HEAD SCREW	1
193	HYDRAULIC CYLINDER	1
194	M10 HEXAGONAL NUT	1
195	LOWER SUPPORT FOR HYDRAULIC CYLINDER	1
196	M8 SPRING WASHER	2
197	M8X20 HEXAGONAL CYLINDRICAL HEAD SCREW	2
198	M6x12 SCREW WITHOUT HEAD	1
199	SUPPORT AXLE	1
200	M5x10 ROUND HEAD SCREW	2
201	ELECTRIC SAFETY LOCK AT THE END OF THE CUT	1
202	ELECTRIC SAFETY LOCK SUPPORT END OF CUT	1
203	M6X8 HEXAGONAL CYLINDRICAL HEAD SCREW	2
204	FLAT WASHER 6x13x1	2
205	HYDRAULIC CYLINDER ADJUSTMENT SUPPORT	1
206	M6x12 HEADLESS SCREW	1

10 ELECTRICAL DIAGRAM

ELECTRICAL DIAGRAM PSR250A (VIEW 06)



PARTS LIST ELECTRICAL DIAGRAM PSR250A (VIEW 06)

Reference	Designation	Quantity
QS1	GENERAL LOCKABLE DISCONNECT SWITCH	1
SA1	TAPE SPEED SWITCH	1
FU1	2A FUSE	1
OL	THERMAL SWITCH	1
HL	POWER INDICATOR LIGHT	1
KM1	ELECTROMAGNETIC CONTACTOR	1
KA1	CUTTING FLUID PUMP RELAY	1
SB1	STOP PUNCH WITH LATCH	1
SB3	START SWITCH	1
SB4	STOP SWITCH	1
SA5	LIQUID CUT-OFF SWITCH	1
SQ3	ELECTRIC SAFETY LOCK TENSION TAPE	1
SQ2	ELECTRIC SAFETY LOCKING DEVICE FOR COVER STRIP	1
SQ1	ELECTRIC SAFETY LOCK CUTTING END	1
M1	BAND SAW MOTOR	1
M2	CUTTING FLUID PUMP	1
T1	TRANSFORMER	1
FR1	THERMAL PROTECTION RELAY	1

11 NOISE LEVEL

The data relating to the noise level emitted by this machine during operation will depend on the type of material being ground and the type of grinding wheel. For this reason, the measurement data is relative.

The risk of hearing damage to the operator depends on the length of exposure to noise.
The operator must wear ear defenders or other appropriate personal protective equipment when the sound power exceeds 85 dB(A) in the workplace.

- Sound pressure level (1 m at no load):
  LpA = 75 dB(A)
- Sound power level (1 m at no load):
  LwA = 85 dB(A)

The sound power calculation was performed taking into account factors such as: reverberation at the test site, ground noise absorption, and other factors that may interfere with the measurements. This estimate allows us to state that the degree of error in the values obtained would be around 3 dB(A).

The values given are emission levels and not necessarily levels that allow for safe working. Although there are correlations between emission levels and exposure levels, these cannot be used reliably to determine whether additional precautions are necessary. Parameters that influence actual exposure levels include workshop characteristics, other sources of noise, etc., i.e., the number of machines and neighboring manufacturing processes. In addition, permissible exposure levels may vary from country to country. However, this information allows the machine user to make a better risk assessment.

12 ENVIRONMENTAL PROTECTION

Your machine contains many recyclable materials.
This logo indicates that used machines must not be mixed with other waste.
This will ensure that machines are recycled under the best possible conditions, in accordance with European Directive 2012/19/EU on waste electrical and electronic equipment.
Please contact your local council or retailer to find out where your nearest collection points for used machines are located.
Thank you for your cooperation in protecting the environment.

13 WARRANTY

If the machine is covered by warranty, it must be serviced exclusively by an authorized after-sales service center.
The machine warranty is valid for 2 years from the date of purchase by the user.
This product benefits from an additional 2-year warranty extension, provided that the user registers the product on the PEUGEOT OUTILS PROFESSIONNELS website (www.peugeot.outils-pro.com) within 30 days of the date of purchase. This warranty extension is subject to the same conditions as the initial warranty.
Accessories and consumables are not covered by the warranty.
It is important to keep the invoice, which serves as the warranty certificate.
The warranty is limited to the repair or replacement of defective parts free of charge, after evaluation by the manufacturer.
For any requests for information or spare parts relating to the machine, it is essential to provide the exact information shown on the nameplate.
The warranty does not cover damage caused by the user or by a repairer not approved by Tivoly.

Link to the General Warranty Terms and Conditions:

14 DECLARATION OF CONFORMITY

CE AL DECLARATION OF CONFORMITY "ORIGINAL"

The undersigned (Manufacturer/Importer):

TIVOLY

266 ROUTE PORTES DE TARENTAISE 73790 TOURS-EN-SAVOIE

Declares that the following new machine:

- Designation: GRAVITATIONAL BAND SAW
- Brand: PEUGEOT PROFESSIONAL TOOLS
- Model: PSR250A
- Reference: PPM00300003
- Serial number:

Complies with applicable harmonized legislation:

- **Machinery Directive 2006/42/EC (until January 19, 2027)**
- **EU Regulation 2023/1230 (from January 20, 2027)**

Complies with the essential safety requirements applicable to it:

- **Low Voltage Directive 2014/35/EU**
- **Electromagnetic Compatibility Directive 2014/30/EU**
- **WEEE Directive 2012/19/EU**
- **RoHS-2 Directive 2011/65/EU**
- **REACH 1907/2006**
- **Noise Directive 2003/10/EC**
- **Vibration Directive 2002/44/EC**

Done at TOURS-EN-SAVOIE
On

Stéphane Le Mounier
Managing Director

Person authorized to compile the technical file:

- Mr. LE MOUNIER – TIVOLY – 266 ROUTE PORTES DE TARENTAISE 73790 TOURS-EN-SAVOIE

PEUGEOT PROFESSIONNELS	TIVOLY: Head office: 266 ROUTE PORTES DE TARENTAISE 73790 TOURS-EN-SAVOIE www.peugeot-outils-pro.com	USER SERVICE Tel: +33(0)4 79 89 59 00
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