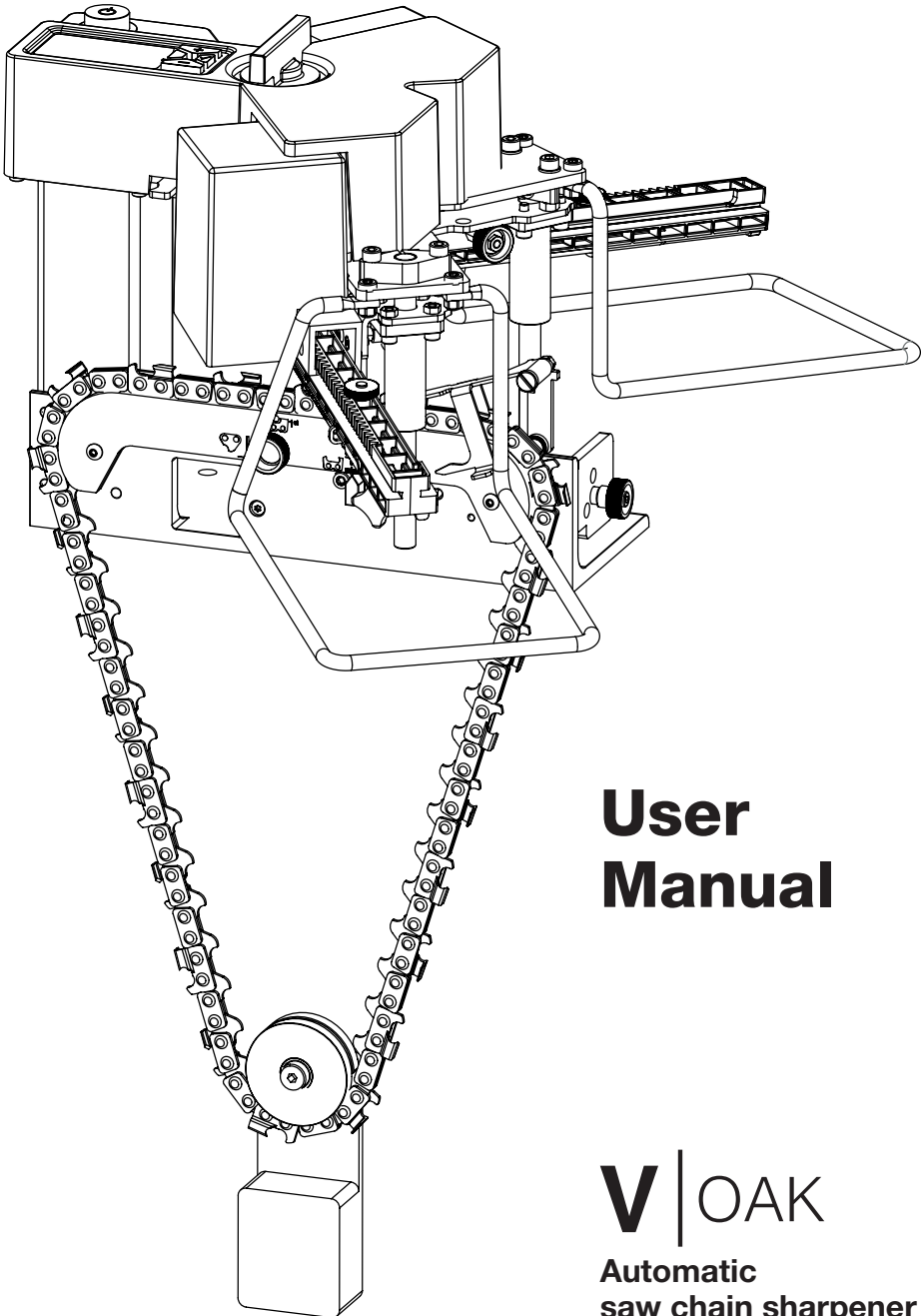


**vallorbe**<sup>®</sup>  
SWISS



## **User Manual**

**V** | **OAK**

**Automatic  
saw chain sharpener**

## ENGLISH VERSION - TRANSLATED VERSION

---



**Read this manual in full before connecting the power supply.**

Damage not covered by the warranty may result from not following the instructions and maintenance in this manual.



**Caution**

The automatic sharpening system may cause physical injury if the safety measures presented in this document are not complied with.



You can update the automatic sharpener by downloading the latest version of the firmware on our website [www.vallorbe.com](http://www.vallorbe.com).



You can see our tutorials videos on our website [www.vallorbe.com](http://www.vallorbe.com).

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The latest version of the current document may be downloaded on our website [www.vallorbe.com](http://www.vallorbe.com).

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# 1 IDENTIFICATION

## 1.1 Document

Type: User Manual

Language: English / EN

## 1.2 Version management

Revision	Date	Author	Description
Version 03	06.2019	TP	Automatic sharpener user guide

## 1.3 Manufacturer

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## 1.4 Copyright

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## 2 GENERAL POINTS

### 2.1 General information

The contents of this document are based on the information available at the time of publication.

Usines Métallurgiques de Vallorbe SA pursue a policy of continuous development. Consequently, we reserve the right to modify or improve without notice any product featured in this manual. Moreover, Usines Métallurgiques de Vallorbe SA disclaims any liability for any errors in this document.

The original version of the document was written in French.

The information contained within this document is the property of Usines Métallurgiques de Vallorbe SA. It has been compiled solely for internal use by the end customer, to the exclusion of any other usage; copying this information or sending it to a third party is prohibited.

### 2.2 Operating environment



**This machine is designed to be used mainly indoors.**



**The environmental conditions of the machine (whether operating indoors or outdoors) must be controlled, to avoid damaging the device:**

- No rain
- Temperature of between -10°C and 50°C
- Humidity level less than 90%, without condensation



The V|OAK device can be connected to a portable power source such as a 12VDC to 24VDC battery.

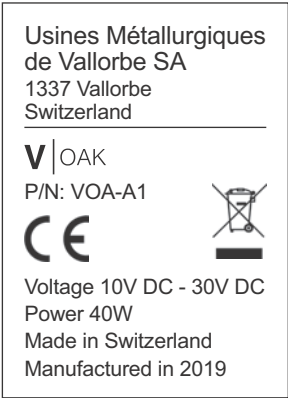
## 2.3 Regulatory information

The device complies with the directives listed below:

Directive/Standard	Description
2014/30/EU	Electromagnetic compatibility (EMC)
2006/42/EG	Machinery Directive (MD)
EN 61000-6-2:2005	Electromagnetic compatibility standard (EMC) - Electromagnetic immunity standard
EN 61000-6-4:2007 + A1:2011	Electromagnetic compatibility standard (EMC) - Electromagnetic emissions standard
EN 60204-1:2006 + A1:2009	Electrical equipment of machines

## 2.4 Identification plate

Identification plate for the V|OAK: automatic sharpener



---

## 2.5 Scrapping

### 2.5.1 Information on recycling



Only technical personnel is authorized to dismantle the machine for scrapping.

This symbol indicates that waste electrical and electronic equipment (WEEE) must not be disposed of with regular waste.



The machine must be scrapped in accordance with directive 2012/19/EU or the environmental standards in force in the country of installation.

The materials comprising the machine must be separated and recycled in a waste recycling centre compliant with the legislation in force in the country of installation. This will help to reduce the environmental footprint and the health & safety impact, while helping to promote recycling.

Contact your local recycling centre for more information.

## 2.6 Aim of the documentation

The documentation provides information required for the appropriate use of the machine. It informs the user so that the operation or maintenance procedures can be performed effectively.

For safety and environmental protection reasons, it is vital to follow the safety instructions contained in the documentation.

## 2.7 Technical assistance

### 2.7.1 Procedure

For any technical service request:

No.	Action
(A)	Get the information from the V OAK device.
(B)	Clearly identify the fault detected.
(C)	Refer to the technical problems part beforehand, and follow the instructions.
(D)	If the problem persists, contact Usines Métallurgiques de Vallorbe SA.

### 2.7.2 Packaging



Keep the V|OAK package, in case the product needs to be returned.

### 2.7.3 Address

Usines Métallurgiques de Vallorbe SA  
Rue du Moutier 49  
CH-1337 Vallorbe  
Switzerland

Tel.       +41 (0)21 843 94 94  
Fax        +41 (0)21 843 94 00  
umv@vallorbe.com  
www.vallorbe.com

---

## 3 SAFETY

### 3.1 General principles

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#### Information

Usines Métallurgiques de Vallorbe SA disclaim all responsibility in the event that these instructions are not observed.



#### Mandatory

The user must have read and understood this document before any intervention on the machine. The manufacturer is not responsible from misuse or use by untrained operators.



#### Caution

Do not modify this equipment or remove the traceability labels. Modifications may increase risks to the user.



#### Caution

This product was designed mainly for indoor use.



#### Caution

Do not use this equipment if it is damaged.

---

#### 3.1.1 Importance of safety requirements

All the safety and protection instructions in this manual must be observed to prevent reversible or irreversible personal injury, material damage or pollution of the environment. Furthermore, the legal regulations, the accident prevention and environmental protection measures, and the recognized technical regulations for appropriate and safe working procedures that are in force in the country and place of use of the machine must be observed.

#### 3.1.2 Non-compliance with safety regulations

Any non-compliance with the safety and protection regulations, or the legal and technical regulations in force, may lead to reversible or irreversible personal injury, material damage or pollution of the environment.

## 3.2 Notation conventions

Warning and danger pictograms are used in this document and on the machine. They communicate the safety instructions and safety-related information.

### 3.2.1 General pictograms

---



Prohibition  
Mandatory restriction.



Danger  
Warns against serious personal injury or death.



Warning  
Warns against serious personal injury and damage to health.



Caution  
Warns against minor personal injury or significant material damage to the machine or the environment.



Mandatory  
Directive or measure that must be applied.



Information  
Informative comment.



Advice  
Suggestion or recommendation.

---



---

### 3.2.2 Specific pictograms



Mandatory  
Protective gloves must be worn.



Danger  
Risk of cuts to fingers or hands.

---

### 3.3 Important notice for users



Always wear appropriate protect gloves to protect hands from sharp edges.



When the machine is in operation, it is strictly prohibited to bring your hands near the moving part: they could be caught by the rack, resulting in injury.



Sharpening a chainsaw chain may cause dust release. The user must take the appropriate measures to prevent inhalation and ingestion of dust, which could be harmful to their health.



Proper use of this equipment does not generate significant or harmful noise emissions.

---

## 3.4 Required equipment and important notes

### 3.4.1 12 VDC power converter included

---



Use only the power converter provided.



The power converter included may be connected to a correctly earthed single-phase alternating power source, with voltage 110VAC or 240 VAC, 50 or 60 Hz.

Using the equipment with a non-earthed system could expose it to electrical damage.

---

### 3.4.2 Saw chain type

---



It is prohibited to use a saw chain that the machine cannot sharpen. You will find the authorised chain types in the "Operating parameters" chapter.



Non-compliance with this rule could damage the machine and injure the user.

---

### 3.4.3 Sturdy surface with suitable coating

---



Use an industrial workbench or an appropriate solid unit to support this equipment, or any additional consumables. Decent lighting provides clear visibility, and may help prevent accidents and reduce fatigue.

Refer to the "Preliminary assembly" chapter for how to hold the device in position.

---

4

DESCRIPTION OF MACHINE AND ITS COMPONENTS

The V|OAK automatic saw chain sharpener is a device developed for sharpening saw chains with a pitch ranging from 1/4" (6.35 mm) to 0.404" (10.26 mm).

4.1

General data

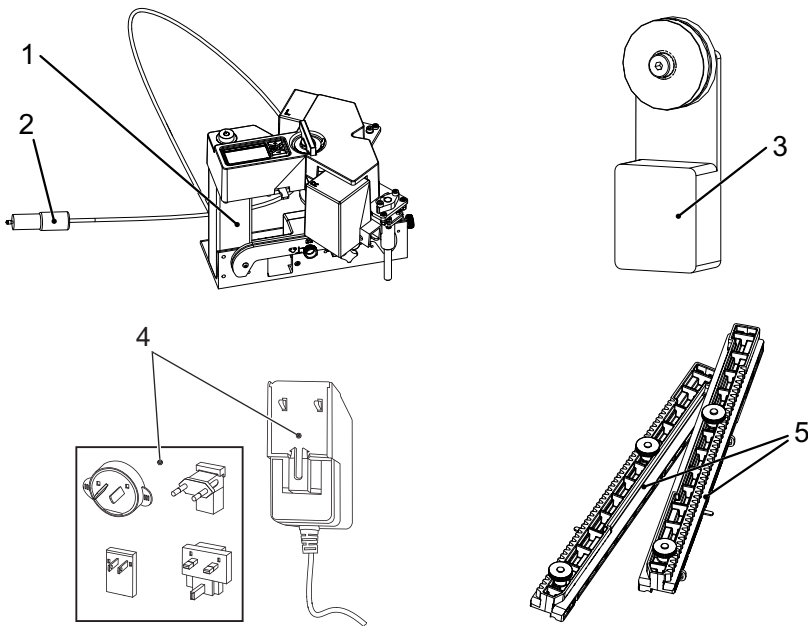
Device technical specifications:

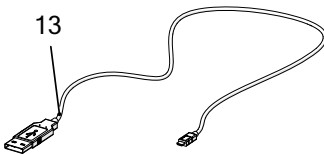
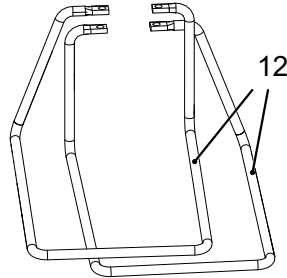
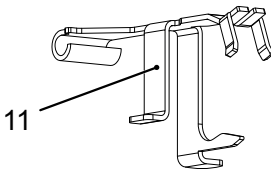
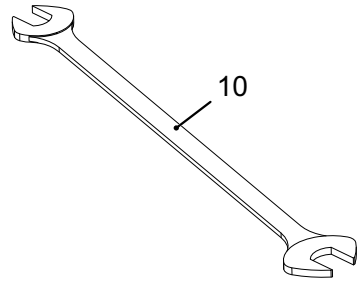
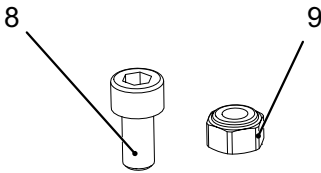
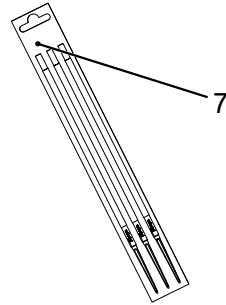
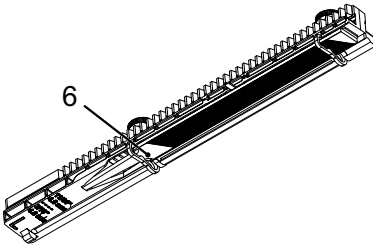
Parameters	Value
Operating voltage, with adapter	110 / 240 VAC
Operating voltage, with battery. Use the cigarette lighter connector (2)	10-30 VDC
Operating current	1.5 - 5A
Power consumption when stationary	2 W
Power consumption in operation	40 W
Force applied by the chain feed motor	40 N
Weight	7 kilos

## 4.2 List of components present in the package

Each V|OAK unit comprises, in addition to the present user manual:

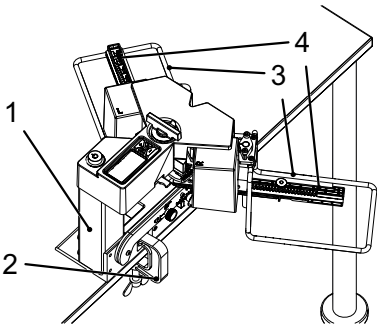
No.	Component	Quantity
(1)	V OAK complete control unit	1
(2)	Cigarette lighter connector	1
(3)	Saw chain tensioner	1
(4)	110-240V power supply and 4 mains fittings (EU, US, UK and AU)	1
(5)	File guides kit	1
(6)	Flat files (mounted on each holder)	2
(7)	T-pack of round files	4
(8)	M3 screw	4
(9)	M3 nut	4
(10)	Fork wrench	1
(11)	.404" chain pusher	1
(12)	Side safety guards	2
(13)	USB-MiniB wire	1





## 5 PRELIMINARY ASSEMBLY

### 5.1 Components to fit



No.	Content
(1)	V OAK automatic sharpener
(2)	Seal clamp (not supplied)
(3)	Side safety guards
(4)	File guides

## 5.2 Assembly instructions

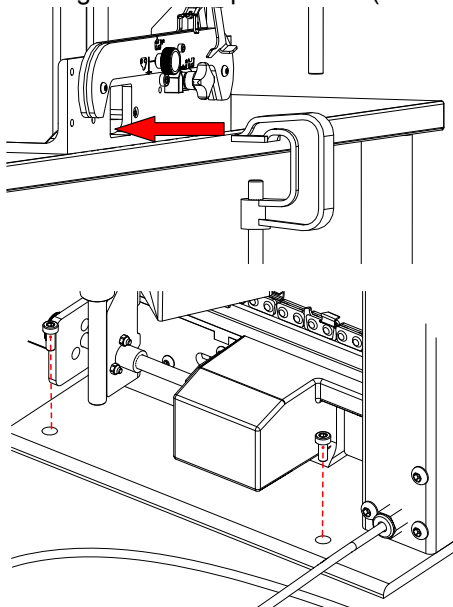


Secure the sharpener, as it could tip over and injure the user. To do so, follow the instructions below:

No.	Description
(A)	Place your V OAK unit upright on a horizontal work surface.
(B)	Secure the sharpener via a seal clamp, or by screwing the device onto a table via the holes provided for this purpose.
(C)	Fit the side safety guards.
(D)	Select and install the correct wall plug according to your geographic area (power supply includes international plugs).
(E)	Connect the power supply to the male port leading out of the sharpener.
(F)	Assemble the file guides before fitting them in the sharpener. The diameter of the round file is chosen according to the chain pitch used. See the decision-making table in the "Operating parameters" chapter.

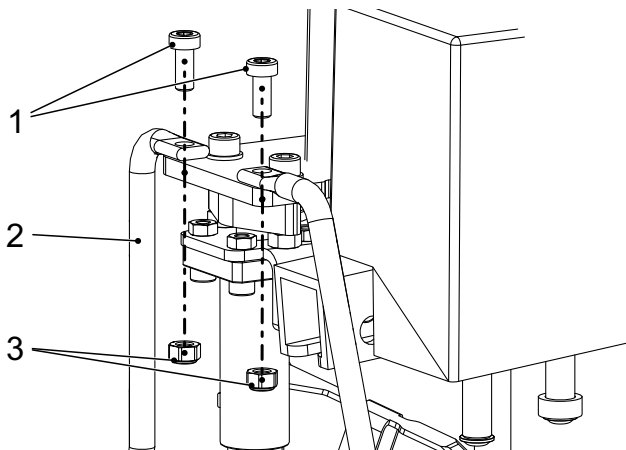
### 5.2.1 (B) - Stabilising the sharpener

Secure the sharpener using a seal clamp or screws (max. diameter 8 mm)

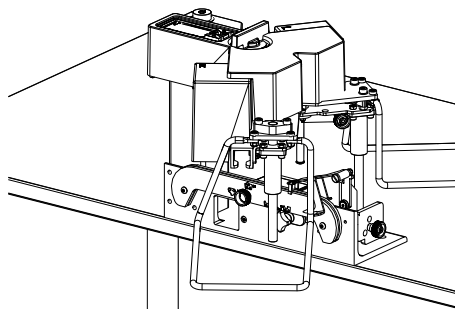


### 5.2.2 (C) - Side safety guards

Fit the side safety guards (2). Use the screws (1) and (3) present the plastic pouch supplied with the package. Use a T25 torx screwdriver, along with the fork wrench provided.



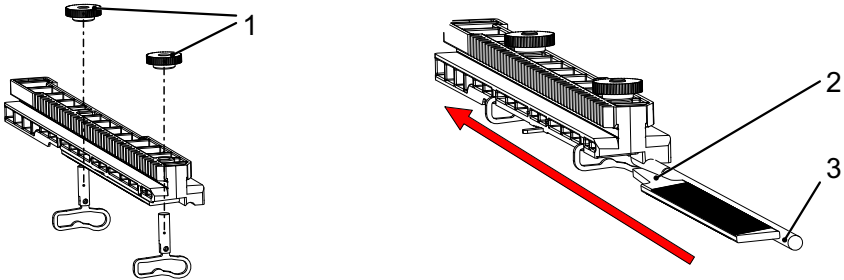
Take care with the fitting direction of the side safety guards - they are not identical. The right-hand side is fitted as presented below:





### 5.2.3 (F) - Fit the file guides

You need to loosen the knobs (1) before you can insert the flat file (2) and the round file (3).

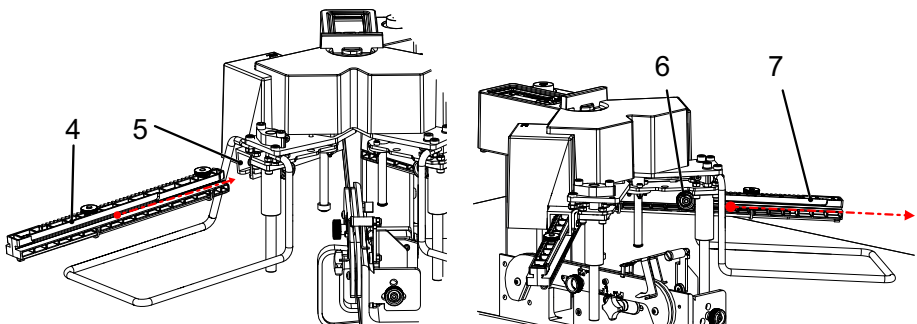


Do not over tighten the knobs (1), you might twist the file guide.

Once the file holders have been equipped with a file of suitable diameter for your chainsaw chain, insert them into the automatic sharpener. The right-hand file holder (4) marked "R", is inserted into the right-hand side part (5) of the sharpener, also marked "R". Repeat the operation with the left-hand side.



If the file guide is slotted into the device correctly, you will hear a "click" when it locks.



To remove the file guides from the sharpener, you need to pull the knob (6) and at the same time extract the file guides (7).

## 6 OPERATING PARAMETERS

### 6.1 Associated equipment

Only the file holders in the table below can be used on the V|OAK device. The automatic sharpener is delivered by default with reference **VLC-100-001**.

Reference	Part	Suitable file diameter (mm)	Suitable file diameter (inches)
VLC-100-001	File holders kit 5.2 - 5.5 mm, right and left	5.2 and 5.5	13/64" and 7/32"
VLC-100-002	File holders kit 4.5 - 4.8 mm, right and left	4.5 and 4.8	11/64" and 3/16"
VLC-100-003	File holders kit 4 mm, right and left	4.0	5/32"



Use the saw chain tensioner whenever using the V|OAK device.

### 6.2 Suitable chains and files

Refer to the table below to find out which saw chain pitches are acceptable for the V|OAK device:

Saw chain pitch	Saw chain type	Suitable file diameter (inches)	Correspondence in (mm)	File holder type
1/4"	square and round	5/32"	4.0	4.0 mm file holder
3/8" low profile	square and round	5/32"	4.0	4.0 mm file holder
0.325	square and round	11/64" and 3/16"	4.5 and 4.8	4.5 - 4.8 mm file holder
3/8"	square and round	13/64" and 7/32"	5.2 and 5.5	5.2 - 5.5 mm file holder
.404"	square and round	.404"	5.5	5.2 - 5.5 mm file holder

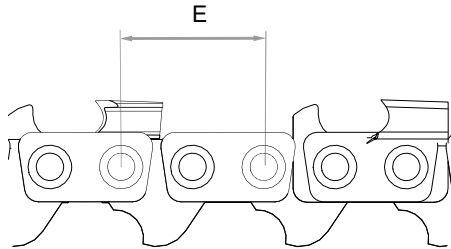
Use on the machine of a saw chain with an unsuitable pitch may damage the V|OAK device and the saw chain.



Refer to the chain manufacturer's instructions for which file to use. You must adhere to the file diameter(s) suitable for each file guide. Otherwise, you could damage the file guide and the saw chain.

### 6.3 Determining the saw chain pitch

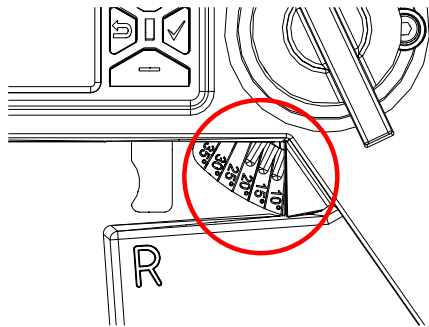
To calculate the pitch of your saw chain, refer to the manufacturer's box, or measure the distance between three rivets and divide it by two.



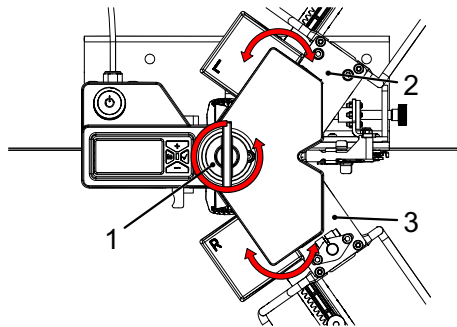
Pitch in inches	Correspondence in millimeters (mm)
1/4"	6.35
.325"	8.25
3/8" - low profile	9.32
3/8"	9.32
404"	10.26

## 6.4 Top-plate angle

It is possible to sharpen a saw chain with a top-plate angle ranging from 10 to 35°. The marking represented in the figure below shows the machine's sharpening angles.



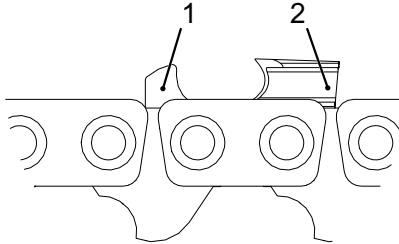
To modify the machine's angle, follow the instructions below:



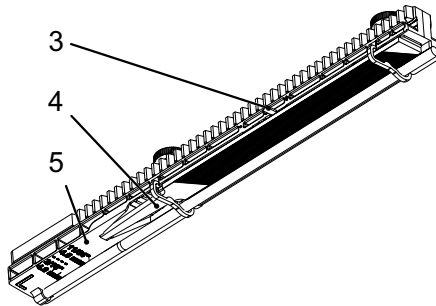
No.	Action
(A)	Loosen the plastic knob (1).
(B)	Set the left and right-hand arms (2 and 3) to the same angle.
(C)	Retighten the plastic knob (1).

## 6.5 Sharpening the depth gauge

When operating the machine, it is possible to sharpen the depth gauge(1) at the same time as the tooth (2).

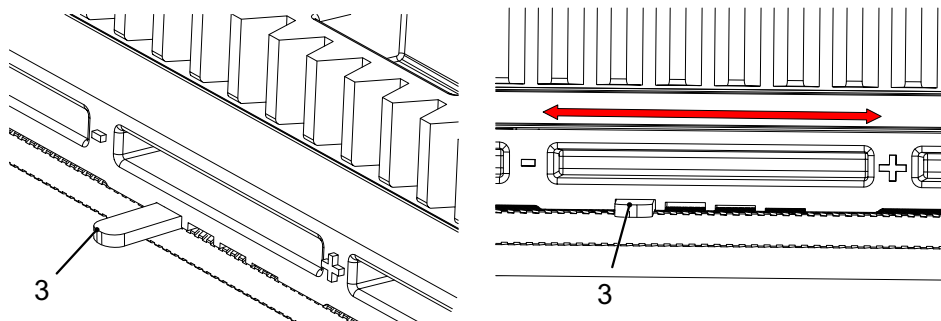


If you do not want to sharpen the depth gauge, remove the flat file (4) and shim (3) from the guide (5).

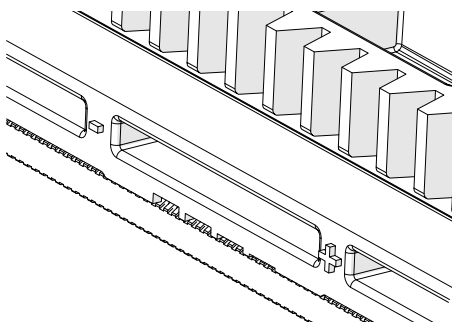


Sharpening of the depth gauge height is set manually.

Loosen the knobs, then move the shim (3) toward the "+" on the file guide if you want to sharpen the limiter deeper; and in the opposite case toward the "-". After adjustment, retighten the knobs.



It is possible to remove the shim (3) if you want a higher depth gauge than with the "-" position. See the below picture:



A too low depth gauge increases the risk of kick back.



The user must watch out for wear on the flat file, to ensure optimal sharpening of the depth gauge.



Use a depth guide to check the height of the depth gauge. Then refer to the manufacturer's instructions to determine the suitable height for your saw chain and your use.

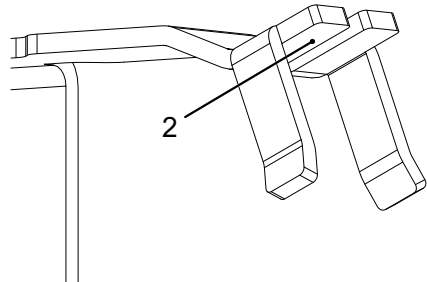
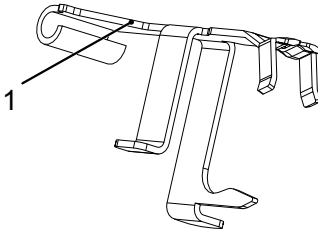
## 6.6 Chain pusher

Two chain pushers are provided with the sharpener. The chain pusher needs to be changed according to the pitch of the chain to be sharpened.

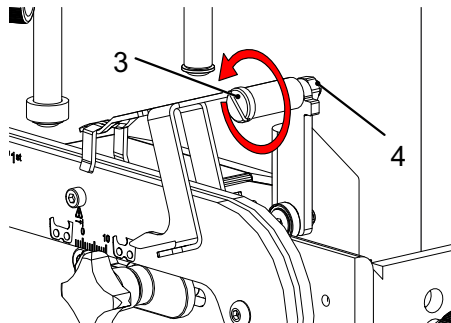
The standard chain pusher is fitted on the sharpener by default.

Chain pitch	Suitable chain pusher
1/4"	Standard chain pusher
3/8" low profile	Standard chain pusher
0.325	Standard chain pusher
3/8"	Standard chain pusher
.404"	.404" chain pusher

The standard chain pusher (1) can be distinguished from the .404" chain pusher (2) by the curve present under its end.

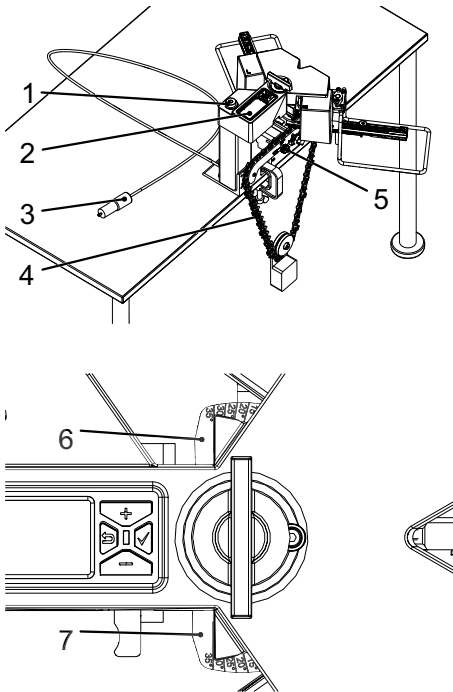


To change the chain pusher, remove the screw (3). Use the fork wrench supplied in the package to hold the nut (4) in position.



# 7      STARTING UP AND OPERATING THE V|OAK

Familiarise yourself with the following components:



No.	Content
(1)	On-Off button
(2)	LCD display
(3)	Male cigarette lighter connector
(4)	Saw chain
(5)	Groove width setting knob
(6)	Left-hand sharpening position
(7)	Right-hand sharpening position



## 7.1 Fitting and setting the machine components

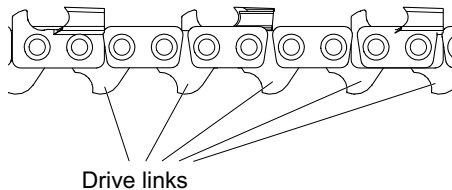
Once your V|OAK unit has been assembled and secured, follow the steps below:

No.	Description
(A)	Connect the power supply to a wall outlet, and plug in the cigarette lighter connector.
(B)	Press the On-Off button.
(C)	Position your sawchain once you have determined the number of links on it. Make sure that the chain is clean and undamaged. If the chain cannot be inserted between the two drive parts, loosen the knob provided. Check that the chain runs smoothly, by sliding it over the sharpener.
(D)	Set the desired sharpening angle. To determine the suitable sharpening angle, refer to the operating parameters chapter. By default, we advise an angle of 35°C. The two arms must be set to the same angle.
(E)	Use the file guides and round file diameter suitable for the chainsaw chain to be sharpened. Refer to the table in the "Operating parameters" chapter.

### 7.1.1 Positioning the chainsaw chain



First, make sure that the saw chain is clean and undamaged.

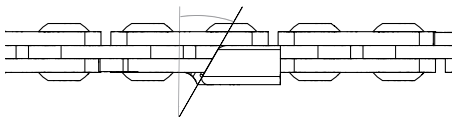


Count the number of drive links in the chain. This data will be requested upon start-up of the sharpener.

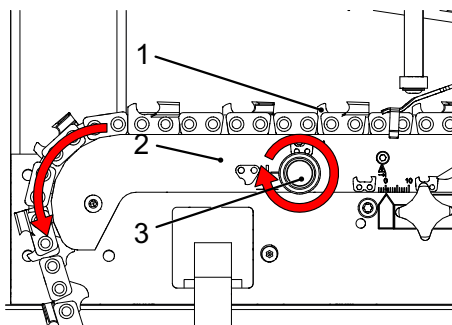


Determine the saw chain top-plate angle, so that you can then select an appropriate sharpening angle. To do so, refer to the chain manufacturer's instructions.

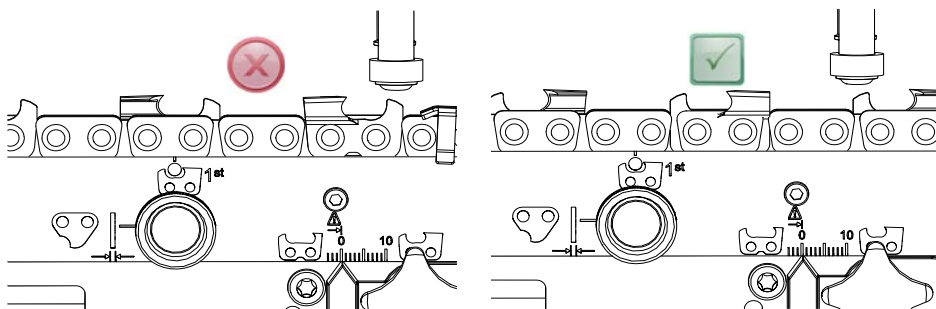
Top-plate angle



Position the saw chain (1) on its holder (2). If necessary, tighten or loosen the link width setting knob (3). The saw chain must be able to run smoothly over the sharpener, and remain pressed against the holder (2).

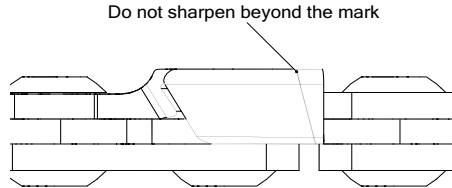


Position your saw chain with the depth gauge toward the left of the machine.





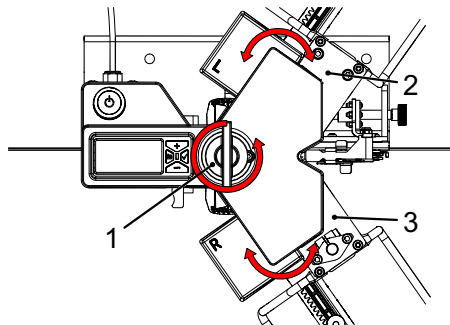
Mark indicating the correct sharpening angle for the top cutting edge, and the minimum permissible tooth length. If this mark is reached during sharpening, the chain must be replaced.



## 7.1.2 Setting the sharpening angle

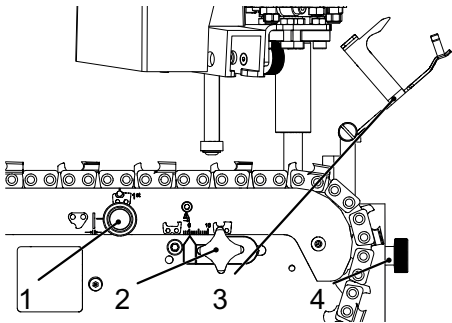
Follow the actions in the sequence below:

No.	Action
(A)	Loosen the plastic knob (1).
(B)	Set the left and right-hand arms (2 and 3) to the same angle.
(C)	Retighten the plastic knob (1).



## 7.2 Initialising the machine

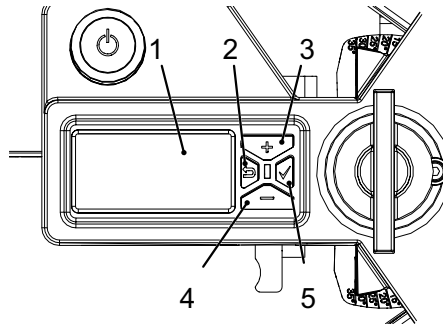
Once you have made the initial settings, refer to the LCD display on the sharpener to follow the machine's instructions. Familiarise yourself with the following components too:



No.	Description
1	Groove width setting knob
2	Chain pusher stop knob
3	Chain pusher
4	Chain pusher feed knob

## 7.2.1 User interface - LCD screen

The automatic sharpener sends information to the user via a digital display. The following buttons must be used to send input required for operation:



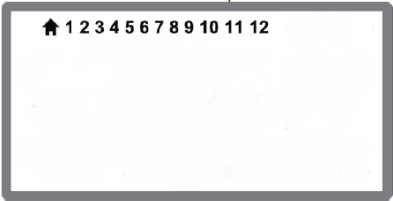
No.	Description
1	LCD display
2	Back button
3	"+" button
4	"-" button
5	Confirm button



The sharpener's recommendations must be followed. Otherwise, the company may not be held responsible for any deterioration in the machine.

### 7.2.2 User interface menus

The menus are represented on the LCD display as per the representation below:



The sharpener stores the parameters from the last sharpened chain.

Menu	Description
Home	Displays the number of links and the pitch of the last chain. Displays whether the previous grinding was successful.
1	Set the number of chain drive links.
2	Set the chain teeth frequency.
3	Set the chain irregularities.
4	<b>Manually</b> set the drive links width.
5	<b>Manually</b> set the first tooth to be ground.
6	Set the orientation of the first tooth to be sharpened.
7	Set the chain pitch.
8	Set the number of file strokes.
9	Set the grinding pressure.
10	Enter the file used, file wear displayed.
11	<b>Manually</b> set the chain pusher stop to its minimum.
12	Start grinding. Manually set the mechanical stop to its maximum (right).



The new information in each menu is shown in red on the LCD display.



To switch between menus, press the "Confirm" button. The "Back" button is used to go back to the previous menu. Pressing and releasing the "Back" button will access the previous menu. Pressing and holding the "Back" button will access the "Home" menu.

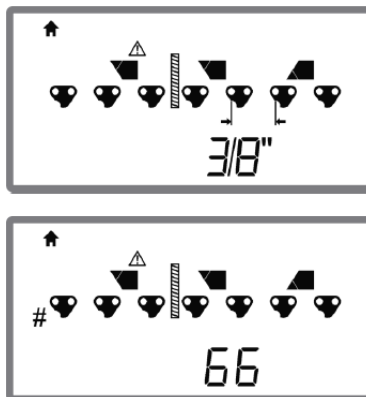


It is possible to quickly confirm all the menus above by pressing and holding the "Confirm" button if you wish to sharpen a chain as per the stored parameters.

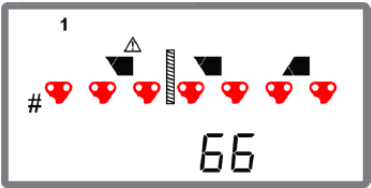
If the currently selected file is worn out, menu #10 will be displayed. You will then need to turn over or replace the round files.

### 7.2.3 Home menu

This menu alternately displays the saw chain pitch and the number of drive links in the current configuration.

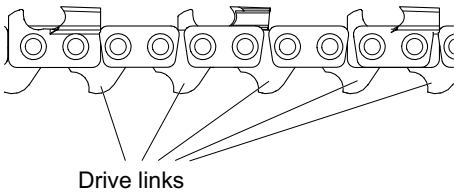


### 7.2.4 Menu #1 - Number of links



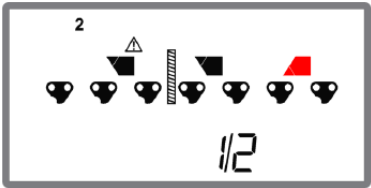
This menu is used to set the number of drive links in the saw chain. Press "+" and "-" to add or remove links.

Press and hold the buttons for automatic incrementation.

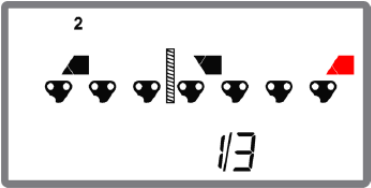


### 7.2.5 Menu #2 - Teeth frequency

STANDARD



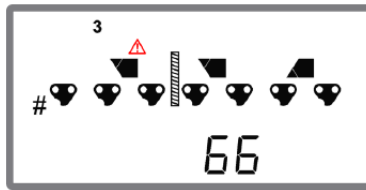
SKIPTOOTH



Press "+" and "-" to change the teeth frequency.



## 7.2.6 Menu #3 - Irregularities



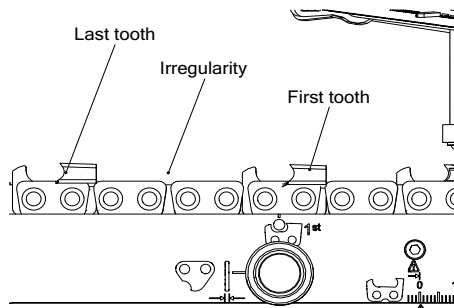
This menu is displayed in case of any irregularities.

There are two types of irregularities:

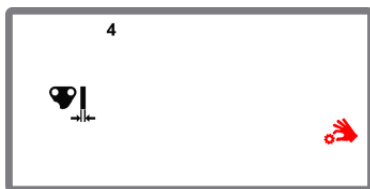
- 2 teeth on the same side
- Spacing irregularity between drive links



The saw chain must be placed on the machine with an irregularity between the last and first teeth to be sharpened. See the example below:



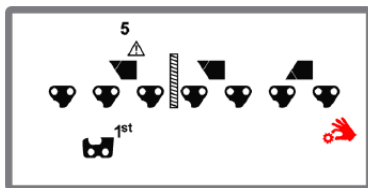
## 7.2.7 Menu #4 - Groove width



This menu requests the user to manually set the groove width.

Run the saw chain over the machine's chain guide, and tighten the groove width setting knob. When the saw chain is lifted, loosen the knob until the saw chain remains flat.

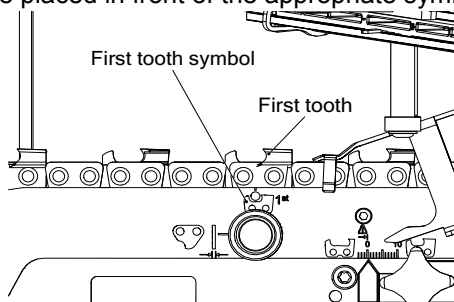
## 7.2.8 Menu #5 - First tooth positioning



Position the first tooth to be sharpened.

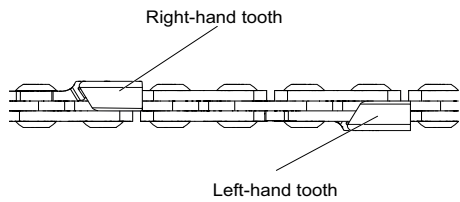
If the chain does not have any irregularities, it is preferable to select the first tooth to be the most worn out.

The 1st tooth must be placed in front of the appropriate symbol.

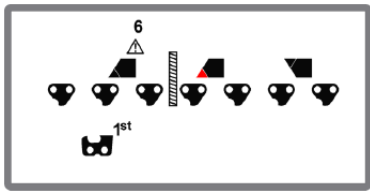


7.2.9     **Menu #6 - First tooth orientation**

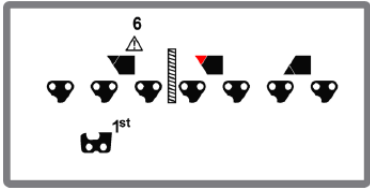
This menu asks the user the orientation of the first tooth, whether it is on the left or right-hand side.



Left-hand tooth

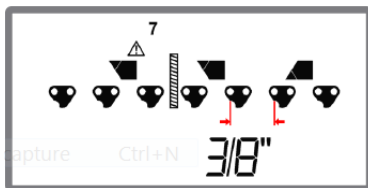


Right-hand tooth



Use the "+" and "-" buttons to change the tooth orientation.

## 7.2.10 Menu #7 - Saw chain pitch



Set the chain pitch.

The chain pitch is generally specified on the box provided by the saw chain manufacturer.



The V|OAK device cannot sharpen all chains. Refer to the table in the "Operating parameters" chapter.



Modify the chain pusher according to your saw chain's pitch. Refer to the "Operating parameters" chapter.

Press "+" and "-" to modify the chain pitch.

### 7.2.11 Menu #8 - Number of file strokes right and left

Set the number of file strokes for the right and left gouges. It is possible to configure a number of strokes from 0 to 99.

Press "+" and "-" to increase or decrease the number of file strokes.

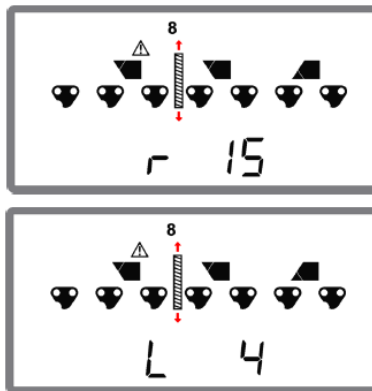


For regular sharpening, we recommend between 5 and 10 file strokes. Depending on the degree of deterioration of the chain, or if modifying the cutting angle, a higher number of file strokes may be required.



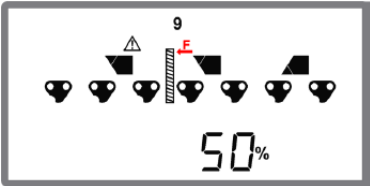
In case of irregular gouges length, different number of file strokes for the right and left gouges can be selected (catch up mode).

If you set the number of stroke equals to 0 on one side, only the other side will be sharpened. For instance: if the left side number of strokes is set to 0, only the right side gouges will be sharpened



If you insert a number of file strokes equals to 0 on the left and right side, the sharpener will display error 15.

7.2.12 Menu #9 - Sharpening pressure



This menu is used to set the sharpening pressure. The device can apply a force of up to approximately 40N. The force is represented as a percentage (%)

Sharpening pressure is determined by the saw chain wear. Please refer to the following table:

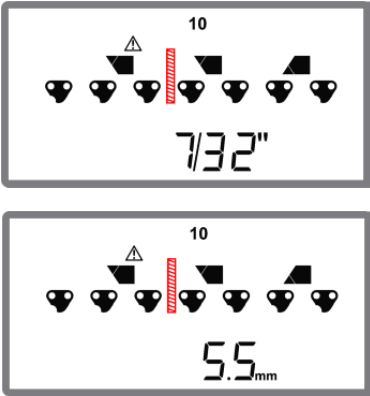
Saw chain wear	Recommended pressure
Normal wear	10-50%
Damaged	50-100%

Press "+" and "-" to increase or decrease the sharpening force.

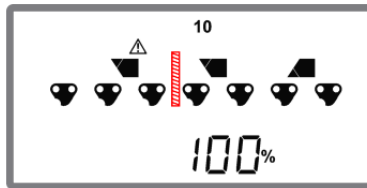
7.2.13 Menu #10 - Round file wear warning



It is advisable to mark the round file tang with some felt to foolproof the 180° rotation.

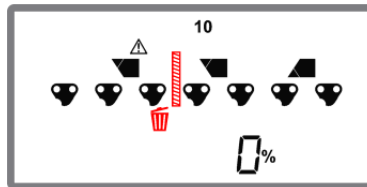
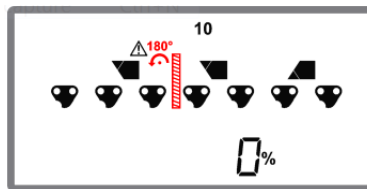


The file currently in use is indicated. It alternately displays the value in inches and millimeters.



After you confirm, the screen shows the file wear (100%: new file, 0% file to be turned over or replaced).

When the file wear reaches 0%, the device will request you to turn it over (180° rotation symbol) or replace it (dustbin symbol).



Once you have performed the action, press and hold the "+" button for a few seconds so that the file wear value is returned to 100% (new file or surface).



The device is programmed to store the wear of the file diameter used. It is advisable to replace the file (or turn it 180°) only when requested by the machine. This function was developed for Vallorbe Swiss Made files.

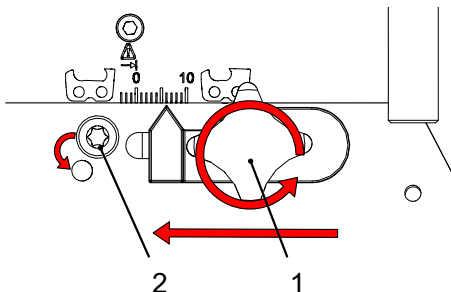


To reinitialise the wear counter, press and hold the "-" button.

## 7.2.14 Menu #11 - Chain pusher stop manual setting

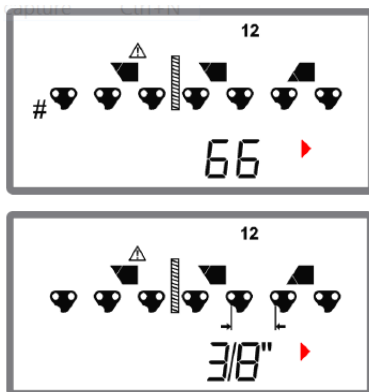


Loosen and position the knob (1), and position the stop as far left as possible from the slide.



Note the position of the screw (2). If your chain has a 1/4", .325" pitch or is worn, move the screw to its second position.

## 7.2.15 Menu #12 - Sharpening confirmation



Confirm start of the sharpening operation with previously defined settings. This menu alternately displays the number of drive links and the pitch.



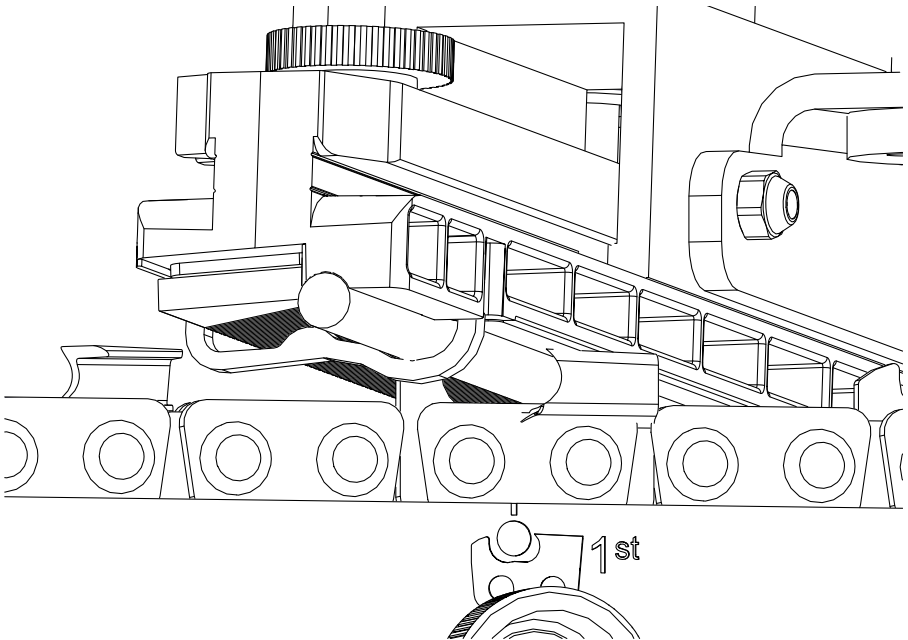
## 7.3 Sharpening

Once the sharpening operation has been confirmed (menu #12 on the LCD display, see previous chapter), the machine will be initialised.

- 1 - Finding the file guides withdrawn position
- 2 - Finding the vertical movements top position
- 3 - File lowered into the first gouge to be ground

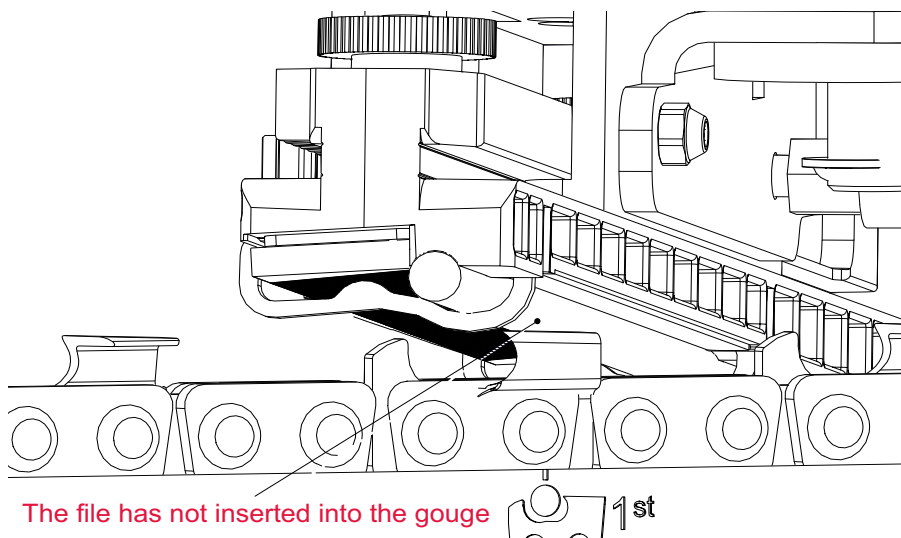
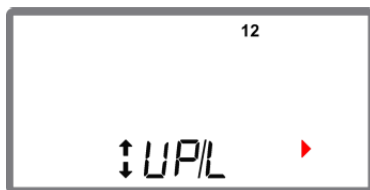


Make sure that the file is correctly inserted into the gouge as shown in the figure below:



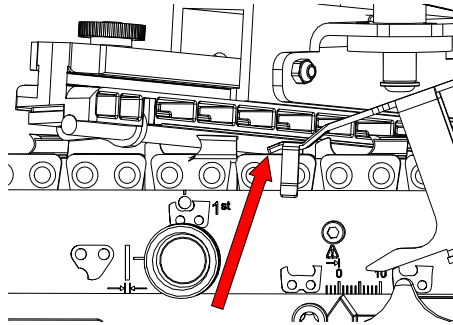


If the file does not lower into the gouge, use the "+" button (move up) and "-" button (move down) to manually control the vertical movement of the motor when the screen displays "UP/L" or "UP/R".

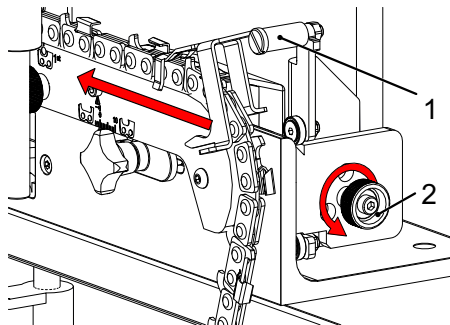




Once the file has correctly entered the 1st gouge, make sure that the chain pusher is placed behind the first tooth to be sharpened. See the figure below:



The initial position of the chain pusher must be set manually. The chain pusher (1) cannot run over a tooth without human assistance. The chain pusher feed can be controlled using the chain pusher feed knob (2).



Only once you have made this configuration, press the "Confirm" button.

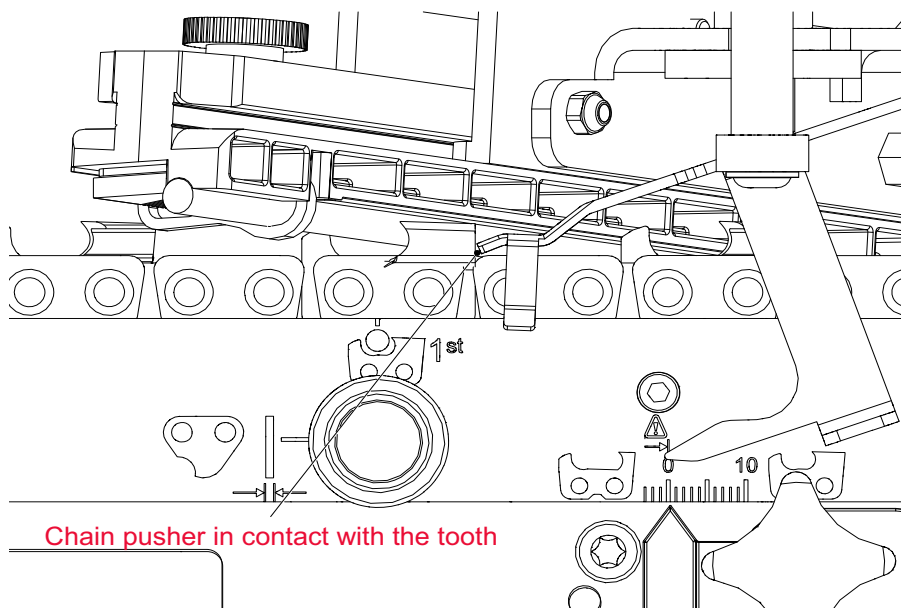
#### 4 - Chain pusher fed forward until contact with the first gouge

The chain pusher will move forward until it comes into contact with the 1st tooth to be sharpened.

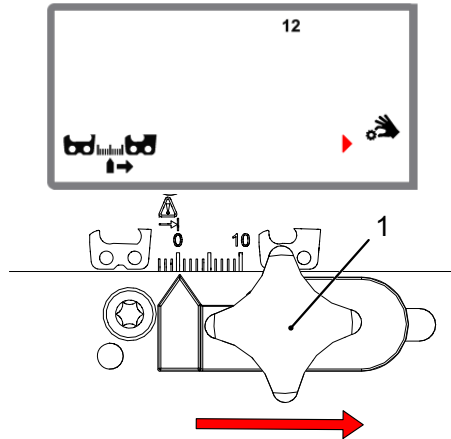


If the chain pusher is not correctly in contact with the 1st tooth, it is possible to control the chain pusher feed via the "+" button (move to the left) and "-" button (move to the right) in addition to the knob (2).

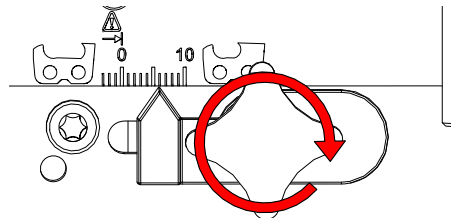
Finally, the chain pusher must be set up as follows before you can proceed to the next step, to ensure a good contact between the tooth and round file.



5 - Move the part (1) to the right until it stops. The machine will remind the user to perform this action as shown by the figure below.



Once the stop is in contact retighten it.



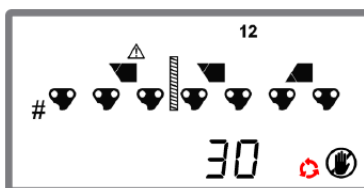
6 - Press the "Confirm" button after positioning the stop.

7 - Sharpening will start

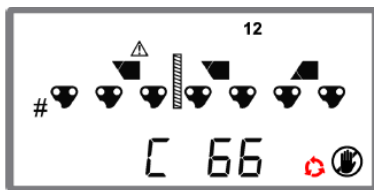


Menu 12 is displayed throughout the sharpening operation.

An incremental counter presents the number of remaining links (in red) before the end of sharpening, see the image below:



If the number of file stroke is different from left to right, the letter "C" (for "Catch up") will be displayed.



## **7.4 User intervention during sharpening**

### **7.4.1 Pause**

Press the back button once.

### **7.4.2 Resuming a paused sharpening operation**

Press the Confirm button to resume sharpening with the same parameters.

### **7.4.3 Cancelling sharpening**

Press the back button twice.

### **7.4.4 Standby mode**

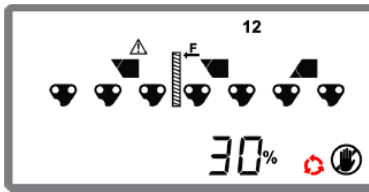
The sharpener switches itself in standby mode after 15minutes of inactivity. While in standby mode the green led will flash slowly.

To exit standby mode, press on one of the 4 buttons to re-activate the display.

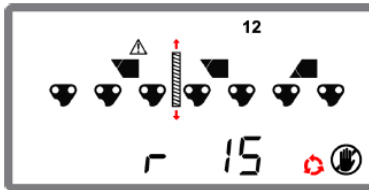
## 7.5 Changing pressure and number of file stroke while sharpening

You can modify the sharpening pressure and the number of file stroke (left and right) during the sharpening operation. Press successively the "validate" button to scroll within the display. Parameters modification is possible by pressing the "+" and "-" buttons.

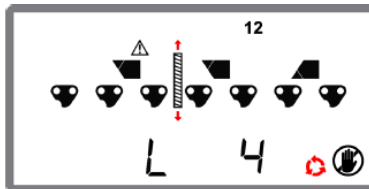
First pressure on the "validate" button allows the modification of the sharpening pressure:



Second pressure allows the modification of the number of right file strokes:



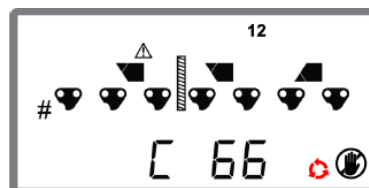
Third pressure allows the modification of the number of left file strokes:



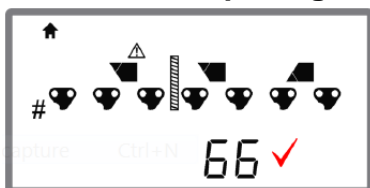
Fourth pressure will display the number of remaining links to be sharpened



Note that "C" is displayed in case the right and left strokes are different.

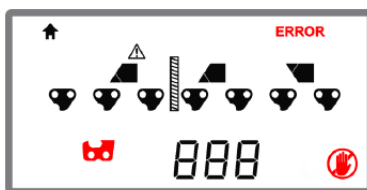


## 7.6 "Home" menu - After sharpening



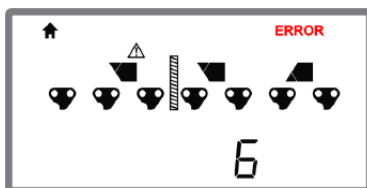
If the sharpening operation was successful, the ✓ sign will appear in the "Home" menu after the operation. Otherwise a red LED will flash to indicate that an error occurred, in addition the word "error" will be displayed.

If a tooth with a crossed-out hand symbol are displayed, it means that one or several teeth were not sharpened. The screen alternately displays their position in relation to the first sharpened tooth.



We recommend marking the first tooth will felt so that you can easily find non-sharpened teeth.

If the sharpening operation finishes prematurely, an error will be displayed.



Refer to the "Technical problems" chapter if an error message is displayed.



## 8 TECHNICAL PROBLEMS

### 8.1 List of error messages displayed by the machine

The machine can display an error code during or after sharpening, if the operation was unsuccessful. In this case, refer to the table below:

No.	Correspondence	Action(s) to take
0,1,3 4,14	System error	Pass on the information to UMV
		Reset the software with a USB drive
2	Motor error	Restart sharpening
		If the problem persists, pass on the information to UMV
5	Critical motor temperature	Do not use the machine in an excessively hot environment (>50°C)
		Check the circuit ventilation
6	No motor stop detection	Insert the missing guide(s) into the sharpener
		Restart sharpening
7	Not enough drive links	Enter a number of drive links $\geq 2$ (tooth every two links)
8	Supply voltage too low	Do not use a power supply other than the one provided
		The operating voltage range is 10V to 30VDC
9	Supply voltage too high	Do not use a power supply other than that provided
		The operating voltage range is 10V to 30VDC
10	The file remains stuck in the gouge	Use a smaller-sized file to sharpen the chain
		Reduce the cutting angle to help the file enter and exit the tooth
11	The left and right-hand files are not entering the gouge	Use a smaller-sized file to sharpen the chain
		Adjust the chain pusher stop
		Reduce the cutting angle to help the file enter and exit the tooth
12	The right-hand file is not entering the gouge	Set the left and right-hand files to the same cutting angles
		Restart the chain by hand
13	The left-hand file is not entering the gouge	Set the left and right-hand files to the same cutting angles
		Restart the chain by hand
15	File stroke = 0 on both sides	Insert a number of file stroke different from 0 on one of the side (left or right)

## 8.2 Advanced parameters - operating test

It is possible to check the machine's good functioning via a self-test.

To access the advanced parameters, press and hold the "-" button in the "Home" menu.



The test environment is represented by the gear in the top-left of the display.



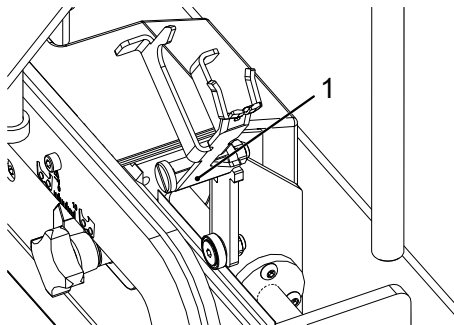
Press the "Confirm" button once to engage the self-test menu.



Press the "Confirm" button again to engage the self-test. The working symbol is displayed while the machine is performing the operation.



Remove the chain from the sharpener, and lift up the chain pusher (1) before starting the self-test.





If no errors were detected during the self-test, the sharpener will return the message "SELF ✓", and the LED will flash green.



Otherwise, if the LED flashes red and an error has been detected, the sharpener will return an error message.



Read this message and contact your dealer for more information on the matter.

## 9 SPARE PARTS

The V|OAK is a robust and reliable electronic system. However, certain components may be worn over time, according to the way the device is used. Contact your distributor to order spare parts or accessories.

### 9.1 Round and flat files

#### 9.1.1 Vallorbe round files

No.	Round files Vallorbe in mm	Correspond- ence in inches	Item code
1	Set of 12 round files, 4 mm	5/32"	LC10000-02-532
2	Set of 12 round files, 4.5 mm	11/64"	LC10000-02-45
3	Set of 12 round files, 4.8 mm	3/16"	LC10000-02-316
4	Set of 12 round files, 5.2 mm	13/64"	LC10000-02-1364
5	Set of 12 round files, 5.5 mm	7/32"	LC10000-02-732

The round files are also sold in boxes of 6, 36 and 60.

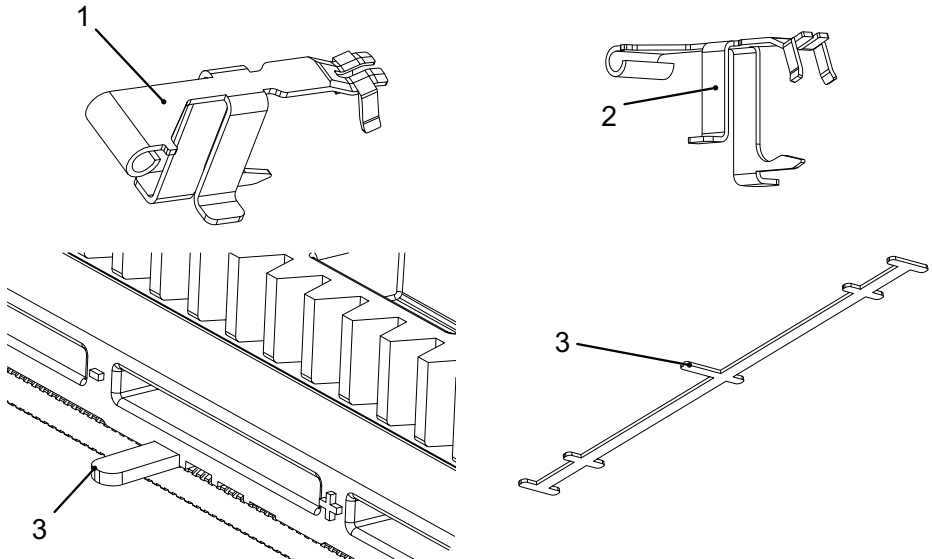
#### 9.1.2 Vallorbe flat file

No.	Flat file Vallorbe	Item code
1	Set of 12 round files, 6"	LC10020-2362-6

## 9.2 File guides kit

No.	Part	Item code
1	Kit of 5.2 - 5.5 mm right and left-hand file guides, with 12 round files and 4 flat files	VLC-100-001
2	Kit of 4.5 - 4.8 mm right and left-hand file guides, with 12 round files and 4 flat files	VLC-100-002
3	Kit of 4 mm right and left-hand file guides, with 12 round files and 2 flat files	VLC-100-003

## 9.3 Spare part



No.	Part	Item code
1	Standard chain pusher	MC200024
2	404" chain pusher	MC200023
3	Flat file shim (sold in two units)	MC200022

## 9.4 Maintenance actions



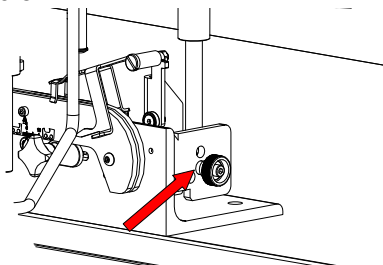
Make sure to comply with the instructions below, in order to keep the device in good working order. Failure to comply with these rules may damage the machine.

### 9.4.1 Aqueous solutions

The V|OAK device must be kept away from any aqueous solution such as water, oil and petrol.

### 9.4.2 Lubrication of the chain pusher screw

If needed lubricate the screw.



You can use the HHS 2000<sup>®</sup> lubricant from WÜRTH or WD 40.

### 9.4.3 Iron filings

It is important to regularly remove the iron filings generated by chain sharpening.



Remove the filings on the sharpener, and on the file guides.  
To do so, use a brush.

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#### 9.4.4 File replacement

Round files must be changed as required by the device. This will enable optimal sharpening in all circumstances.

In the same way as for round files, flat files must be replaced as soon as you observe significant wear on the file.



For optimal use of flat files, we advise turning them over or switching them between two file guides (right and left-hand).



As a general rule, it is advisable to turn over/replace the flat file after five round file replacements.

## 10 DECLARATION OF CONFORMITY

### CE Declaration of Conformity

The following equipment is declared to be in conformity according to the following directives and international standards when the equipment is installed and used in a manner consistent with the manufacturer's recommendations and reference documents.

EMC directive 2014/30/EU

MD Directive 2006/42/EG

Standards: Electromagnetic compatibility (EMC) – Immunity for industrial environments  
EN 61000-6-2:2005

Electromagnetic compatibility (EMC) – Emission for industrial environments  
EN 61000-6-4:2007 + A1:2011

Electrical Equipment of machines  
EN 60204-1:2006 + A1:2009

Product: Automatic chainsaw sharpener: UMV005 – V|Oak

The manufacturer is solely responsible for making this declaration of conformity.  
The technical file is maintained at the company address listed above.

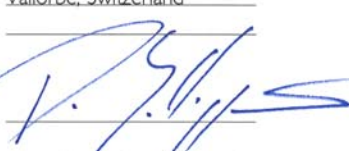
Persons responsible for making this declaration

Name, Surname  
Position/Title  
Place of issue  
Date of issue

René Ronchetti  
CEO  
Vallorbe, Switzerland

François Galloppini  
CTO  
Vallorbe, Switzerland

Signature  
& Stamp



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## 11      **WARRANTY**

The automatic sharpener V|OAK and it's accessories are covered by a one (1) year limited warranty. Warranty covers components, parts and labor.

This warranty excludes consumables, misuse, external contamination from oil or water, lack of maintenance, an eventual electrical surge, impacts or accidental situations occasioned by thirds.



If you experience technical problems or questions, please contact Usines Métallurgiques de Vallorbe SA or one of our authorized representatives in your area.

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Personal notes:

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Personal notes:



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