

VETRON

5064 / 5164 » SERVICE MANUAL

02/2021



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The contents were carefully prepared and checked by the publisher. Due to continuous developments, illustrations, functional steps and technical data may differ slightly.

Updating the documentation

If you have suggestions for improvement or have detected any irregularities, please contact us.

 The documents for the machines can be accessed by logging on <https://www.vetrontypical.com/> downloaded for free.



CE marked after §7 Prod SG



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GENERAL SAFETY INSTRUCTIONS

These operating instructions, the safety instructions and the warning symbols on the machine are intended to ensure the safe operation of the machine in order to prevent the risk of accidents and injury to you and others. Before commissioning, read the safety instructions and the operating instructions of the motor manufacturer.

- » The machine may only be operated in accordance with its intended purpose (for example, welding medium to heavy materials and the associated protective equipment. The relevant country-specific safety regulations must also be observed.
- » The machine must only be commissioned after the relevant operating instructions have been taken into consideration and by appropriately instructed operators.
- » These operating instructions are to be stored at hand.
- » The connection cable must be provided with a country-specific approved mains plug. The mains plug must only be connected to grounded sockets. Here a qualified specialist is necessary.
- » The machine must always have a grounding. Only over this is a normal operation of the machine to ensure.
- » The danger and safety instructions attached to the machine must be followed.
- » When replacing welding tools such as rollers, cutter and tape guide, when leaving the workplace and during maintenance, etc., the machine must be disconnected from the mains.
-> Press the main switch or pull out the mains plug.
- » After switching off always plan cooling down period. Otherwise there is a risk of burns!
- » Machines with compressed air components must be disconnected from the compressed air supply and the residual pressure released before repair or maintenance work. Exceptions to this are performance tests or specific settings.
- » Repairs and all maintenance work should only be carried out by qualified personnel or appropriately instructed persons.
- » It is important to ensure that the anvil and sonotrode wheel are always kept clean.
- » Work on electrical equipment must only be carried out by qualified specialists.
-> If errors are detected, stop the machine immediately.
- » Work on parts and equipment that are live is not permitted. The machine must be disconnected from the mains.
- » For repairs, only spare parts approved by VETRON may be used. In case of infringement the guarantee expires.
- » The machines are to be used only for the purpose intended.
- » If oils, greases, etc., used for the machines and accessories, get in your eyes or on your skin, or should you swallow any of these fluids, wash them immediately and thoroughly, or seek medical attention immediately ,
- » Commissioning of the machine is prohibited until it has been determined that the entire welding unit complies with the provisions of the EC directive and the declaration of conformity has been created.

POINTS TO NOTE BY THE OPERATOR

- » As part of the machine, this operating manual must be available to operating personnel at all times. Before using the machine for the first time, the operator must read this operating manual.
- » The operator has to ensure that the machine is only operated in perfect condition.
- » The operator must ensure that no safety devices are removed or disabled.
- » The operator must ensure that only authorized or properly instructed persons work on the machine.

OPERATING AND SPECIALIST PERSONNEL

- » As part of the machine, this operating manual must be available to operating personnel at all times. Before using the machine for the first time, the operator must read this operating manual.
- » The operating personnel are responsible for setting up, operating and cleaning the machine and responsible for the elimination of faults.
- » Qualified personnel include people with specialist training in electrical / electronics, pneumatics and mechanics.
-> Lubrication, maintenance, repair and adjustment is your responsibility.
- » The operator must refrain from any operation that the safety of the machine is impaired.
 1. Jewelry, necklaces and rings - must not be worn.
 2. The clothes should be tight.
 3. Only authorized persons may be present in the danger area.
- » If changes occur to the machine that affect safety, they must be reported immediately to the operator.
- » The specialist personnel – persons with training in electrical / electronics and mechanics – are responsible for the lubrication, maintenance, repair and adjustment of the machine.
- » Before starting adjustment and repair work, the main switch must be switched off and secured against reclosing.
- » Work on parts that are under tension should be avoided. Exceptions are regulated by EN 50110. After maintenance and repair work, the protective covers must be replaced.
- » Operating and specialist personnel are obliged to observe the safety instructions in the operating instructions during all work.

01. PREFACE

02. SYMBOLISM



DANGER!

This symbol in combination with the word **DANGER**, indicates an imminent danger that may result in serious injury or death.



WARNING!

This symbol in combination with the word **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.



ATTENTION!

This symbol in combination with the word **ATTENTION** may indicate a potentially hazardous situation that could result in minor personal injury.



DANGER OF CUTS!

This symbol indicates that there is an increased risk of cuts here.



CRUSHING!

This symbol indicates that there is a heightened risk of crushing.



RISK OF BURNS!

This symbol indicates that there is an increased risk of burning here.



MAGNET!

This symbol indicates that there is a magnet field.



SAFETY SCREW!

This symbol displays that this screw should not be loosened.



INFORMATION!

This symbol displays information.



ADVICE!

This symbol indicates important information.



HARMFUL TO HEALTH!

May damage certain organs. Can lead to immediate and long-term massive impairment of health, cause cancer, damage genetic material, fertility or development. May be fatal if infiltrated into the respiratory tract.



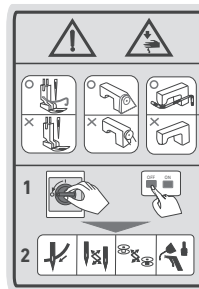
HAZARD TO WATERS!

May cause acute or long-term damage to aquatic organisms such as fish, aquatic insects and aquatic plants in low concentrations.



PROTECTIVE EARTHING!

Earthing one or more points of a network, installation or equipment for the purpose of electrical safety.



DANGER LABEL

Do not work the machine without finger guard and safety covers!
Before adjusting, cleaning, etc. switch off the main switch on the control!



CRUSHING

Bruises and crushing through the anvil and sonotrode wheel **1**.

Make sure that you have sufficient safety distance between the fingers and the anvil and sonotrode wheel.

Risk of injury due to lifting and lowering and the material being pulled in by the anvil and sonotrode wheel.

01. PREFACE

04. PRODUCT INTRODUCTION / INTENDED USE / CONFORMITY DECLARATION

ULTRASONIC-WELDING-MACHINE

The ultrasonic approach has developed as forward looking method for the connection of thermoplastic, innovative and technical materials.

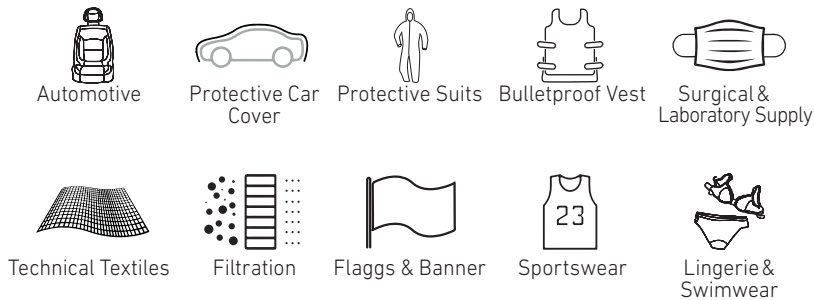
For the connection of technical (weldable) materials, such as protective clothing made of TYVEK, car covers for transport, medical mattresses and pads, clean room clothing, filter, sports gear, etc., an innovative ultrasonic welding machine is indispensable, in order to guarantee the best possible resistance of the welding seam.

The **VETRON 5064** and **5164** (longarm version) with its worldwide unique selling features emerges as the perfect partner for ultrasonic welding techniques. The calibrated height sensor measures the distance between anvil- and sonotrode wheel over the entire perimeter. This ensures an exact concentricity and leads to a perfect welding seam with steady quality. After finishing the distance- and concentricity-calibration, the accuracy of the concentricity is shown on the display.

VETRON offers two sonotrodes made of hardened steel and titanium.

The detachable display/panel guarantees a high process security, since no program or parameter change can be made when removed. Programs can be changed or uploaded to the machine via an USB slot.

Typical applications:



! INTENDED USE!

Any use not approved by the manufacturer is considered improper! Proper use also includes compliance with the prescribed operating, adjustment, maintenance and repair measures.

Damage due to non-intended use is not covered by the manufacturer's liability.

The **VETRON 5064** and its subclasses are ultrasonic welding machines for thermoplastic materials.

CE-CONFORMITY DECLARATION

All **VETRON** machines comply with the applicable European regulations of relevant basic health and safety requirements, which are specified in the declaration of conformity and manufacturer.

Vetron 5064 / 5164 (Standard - Longarm)

Type	Ultrasonic Welding Machine
Ultrasonic frequency	35 kHz
Welding seam width standard	up to 13 mm
Anvil Ø (titan or steel)	25/45 mm
Sonotrode Width	up to 13 mm
Max. speed	40 m/min; Optional 100 m/min
Cut & Seal	Yes with steel wheel / No with titan wheel
Clearance space	5064: 350 x 310 mm 5164: 680 x 130 mm
Netto weight	5064: 41 kg 5164: 74 kg
Gross weight	5064: 51 kg 5164: 97 kg
Operating voltage	AC 230 V / 50 - 60 Hz
Rated power	1000 W
Operating Air Pressure	6 bar
Noise indication	80 dB(A)

Versions and subclasses can be found under:
www.vetrontypical.com

01. PREFACE

06. TRANSPORT - PACKAGING - DISPOSAL - STORAGE FIRST COMMISSIONING / DECOMMISSIONING

TRANSPORT - PACKAGING - DISPOSAL - STORAGE

01. Transport of the machine

All machines are delivered packed.

The product must be checked for shipping damage after delivery. For subsequent damage within the customer's operation, the manufacturer assumes no liability.

Make sure that the products are transported safely and with the utmost care at your facility.

→ Moving machines with EHS (electrically height adjustable) with wheels:

- » Turn off the machine
- » Make sure that the sewing machine head is not tilted back
- » Put the table in the lowest position
- » Pull power and pneumatic connections
- » Release wheel brakes
- » Grab the table top and push the entire machine to the new location
- » Reconnect the electricity and pneumatics and tighten roller brakes

02. Packaging

The packaging material must be disposed of in accordance with local environmental protection regulations.

03. Disposal

The customer is responsible for the proper disposal. Disposal should comply with local environmental regulations.



NOTE!

Parts contaminated with lubricants or oils must be disposed of separately.

04. Storage

When not in use for a long time, the machines must be protected against dirt, moisture and corrosion (for example: by an oil film).

FIRST COMMISSIONING

01. Before operating the machine, clean the machine thoroughly.
02. Please check whether the machine or electrical cables are damaged.
03. Have specialists check that you are allowed to operate the machine with the mains voltage and that it is correctly connected.
04. Connect the machine to the compressed air system. The operating pressure at the filter valve is 6 bar. (See chapter 08.06. Pneumatic connection)
05. All covers must be mounted.

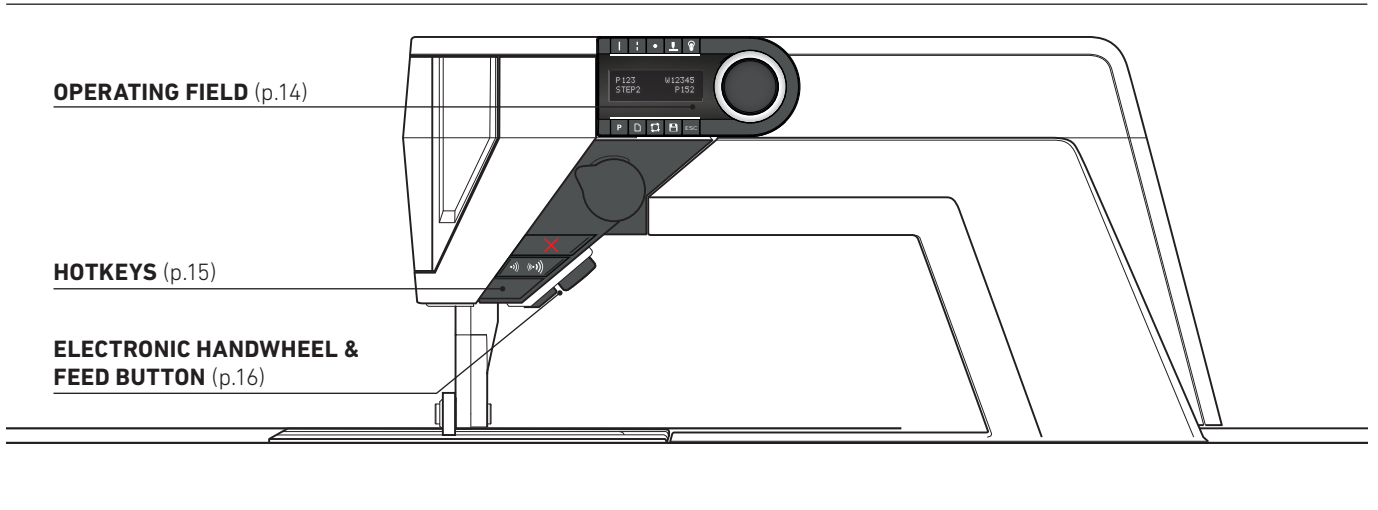


NOTE!

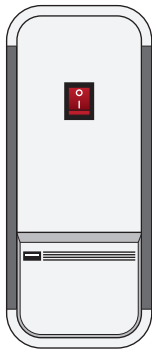
- 1.) Should deviations occur, do not operate the machine!
- 2.) Only connect the machine to a grounded power outlet!

DECOMMISSIONING

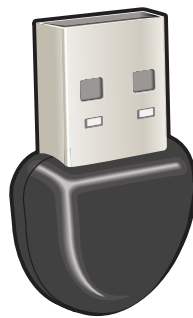
01. Remove cutting or welding wheel; otherwise there is a risk that the wheel will destroy the sonotrode.
02. Switch off the machine at the control.
03. Pull out the mains plug.
04. Disconnect the machine from the compressed air, if available.
05. Clean the machine if necessary.
06. If possible, cover the machine to avoid soiling.



CONTROL (p. 17)



DONGLE (p. 17)

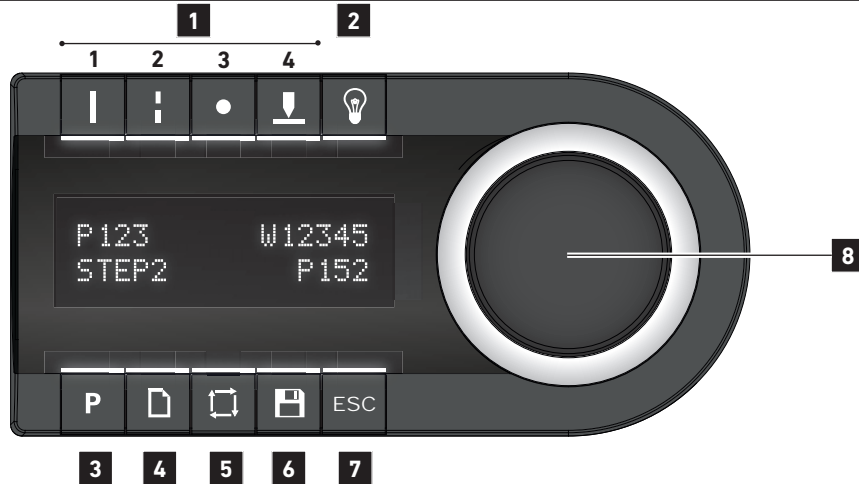


PEDAL (p. 18)



02. OPERATING ELEMENTS

02. VETRON OPERATING FIELD P107



The operating field indicates the current operating states.

Operation takes place via continuous dialog between control and operator.
Depending on the operating state, different texts are displayed.

The following functions are assigned to the **BUTTONS ABOVE AND BELOW THE DISPLAY**:

- 1 TECHNOLOGIES:**
 - 1. Continuous Welding
 - 2. Interval Welding
 - 3. Spot Welding | Puller On/Off
 - 4. Cut & Seal

The technology buttons can also be used as filters during program selection.

- 2 LIGHT ON / OFF**
- 3 PARAMETERS**
- 4 NEW PROGRAM**
- 5 PROGRAM CHAIN**
- 6 SAVE**
- 7 CANCEL**

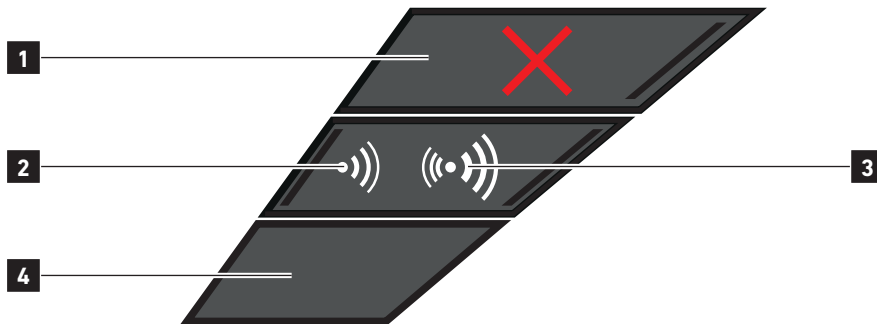
If a technology / function is activated,
this is indicated by illuminating the corresponding LED.

In order to **CHANGE OR SET VALUES**, use the **JOG KEY (8)**:

Turning changes the values; pressing the **JOG KEY** enters the value.
In the following, the operating type is indicated by the following icons:

Input = Press the **JOG KEY**: 

Change = Turn the **JOG KEY**: 



1 SAFETY SWITCH & WHEEL CHANGE

If the safety switch is triggered, the machine is automatically in the wheel change position. The LED lights up red. All functions are locked.

2 ULTRASOUND ON / OFF

Default setting: Ultrasound **ON**, the LED is lit up.
Press this button to travel a distance without welding.
– The LED goes out.

3 ULTRASOUND POWER STAGE 2

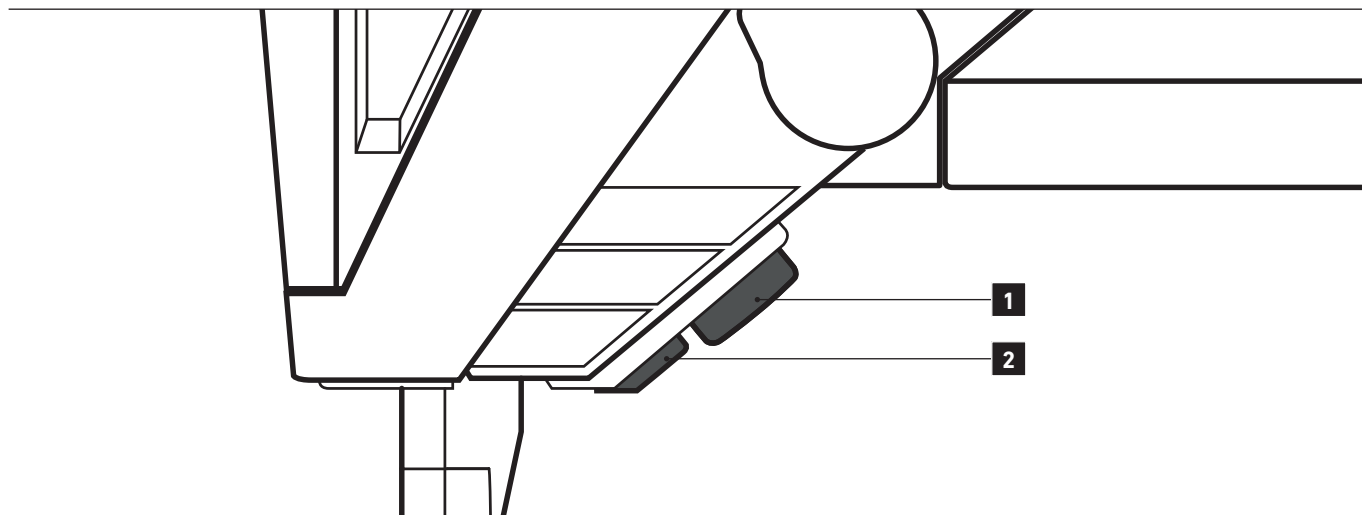
If you pre-programmed a second ultrasound power stage, you can activate this stage via this button. If the second power stage is activated, the adjacent LED is lit up.

4 CUSTOMIZABLE BUTTON

This button can be used to manually advance work steps in interval programs. Pushing the button longer: Sonotrode and wheel runs backwards. Turning direction is adjustable.
– Adjustable in Basicparameter M104.

02. OPERATING ELEMENTS


04. ELECTRONIC HANDWHEEL & FEED BUTTON



1 ELECTRONIC HANDWHEEL

- » Turn the handwheel counterclockwise to travel forward without welding.
- » Turn the handwheel clockwise to travel backward without welding.

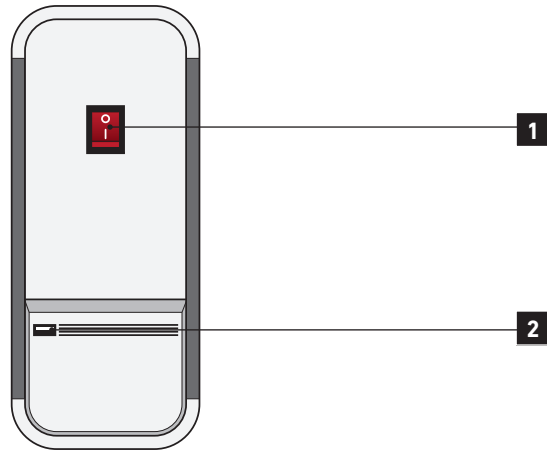
In the following, the operating type is indicated by the following icons:

Pressing the handwheel:  (Function can be customized via program parameters)

Turning the handwheel: 

2 FEED BUTTON

Pulling the button changes the welding direction with welding function.



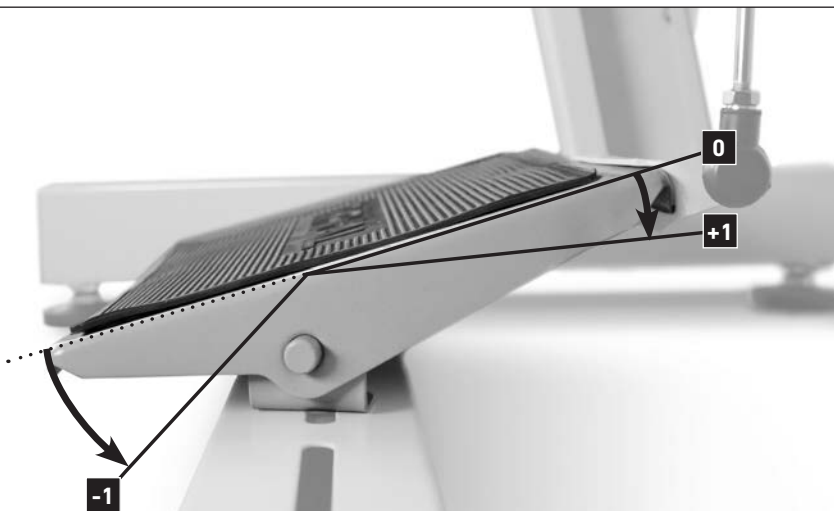
1 MACHINE MAIN SWITCH ON / OFF

2 USB - PORT

Identify yourself using the provided USB dongle.

02. OPERATING ELEMENTS

06. PEDAL



0 IDLE POSITION






+1 WELDING,

Speed depending on programming:

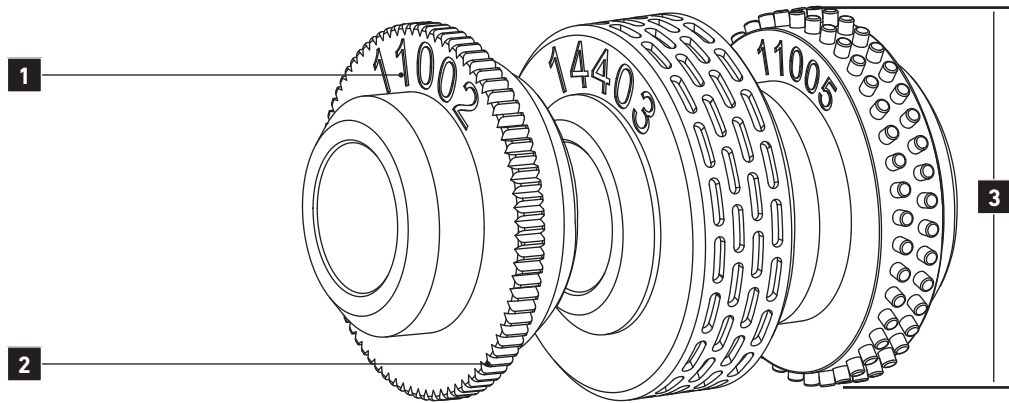
» Constant

» Dynamic (speed via pressure on pedal)

-1 LIFT UPPER TRANSPORT WHEEL

DISPLAY	STEP	DESCRIPTION
» LIGHT ON/OFF		
		The VETRON head module is equipped with LED lighting.
	 Press the LIGHT button	The corresponding LED on the display lights up.
» ADJUST LIGHT INTENSITY		
	 Press the LIGHT button	The corresponding LED lights up on the display.
02	 100% ADJUST LIGHT	Change LIGHT INTENSITY
		Percentage on the display and light intensity of the light are changed.
03	 060% ADJUST LIGHT	
		After 2 seconds without further input, the value is set and the current program number is shown.
04	 P123 W12345 PROGRAM NAME	Machine is ready for operation

02. OPERATING ELEMENTS



It is possible to join weldable materials by using welding wheels.
The different welding wheels are characterized by the following properties:

1 WELDING WHEEL NUMBER

(here: 11002, 14403, 11005)

2 PROFILE respectively surface

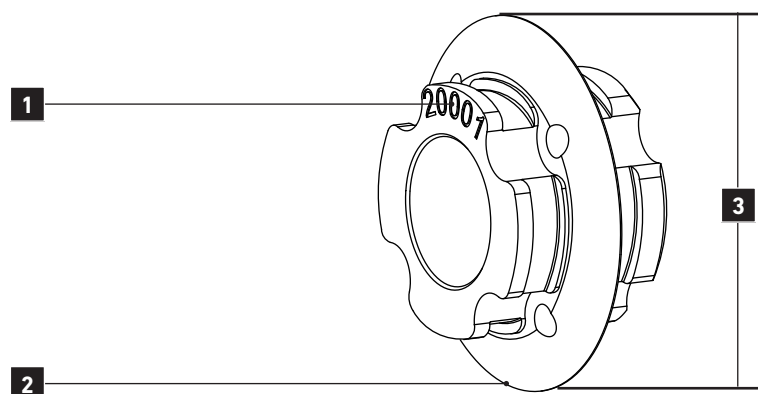
– for the generation of different welding seams

3 DIAMETER

The welding wheels offered by VETRON are available with $\varnothing 25\text{mm}$ or $\varnothing 45\text{mm}$.

03. WELDING WHEELS

02. CUTTING WHEELS

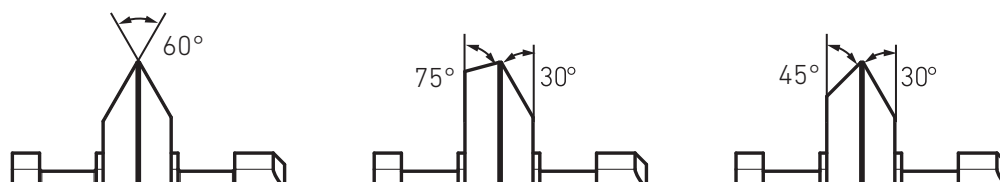


! **NOTICE:**
Can only be used for machines with steel sondrodes!

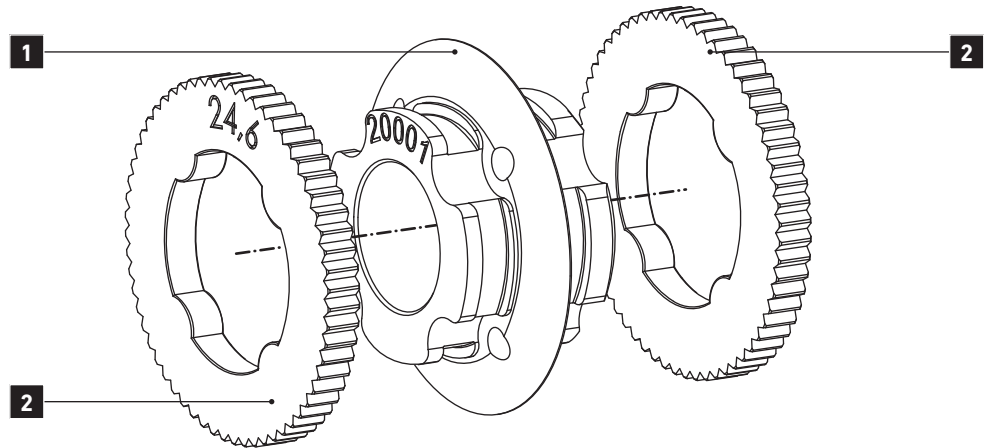
Cutting wheels cut weldable materials and weld the cutting edges.
The different cutting wheels are characterized by the following properties:

1 CUTTING WHEEL NUMBER
(here: 20001)

2 PROFILE
The cutting wheels offered by VETRON are available with different cutting angles.
Examples:



3 DIAMETER
The welding wheels offered by VETRON are available with \varnothing 25mm or 45mm.



In order to improve material transport, (rubber) puller wheels must be used for cutting and individual welding wheels.

1 CUTTING OR WELDING WHEEL
(here: 20001)

2 2x PULLER WHEEL
Diameter specification in millimeters, here: 24.6mm

INSTALLATION:

01. If needed, slide the puller wheels from the left, right, or from both sides onto the respective cutting or welding wheel.
02. Next, install this unit according to section **WHEEL CHANGE** (chapter **03.09**).

03. WELDING WHEELS

GENERAL INFORMATION ABOUT WELDING

The functions listed under the "Welding" menu item are in particular provided for production. Depending on the program selection, you can view all relevant functions and settings on the display by pressing the parameter button.

In the **WELDING** operating mode, you can select the following technologies via the program selection (chapter 03.10., Change program)

01. **CONTINUOUS WELDING** (chapter 04.02 & 04.02.01)
02. **INTERVAL WELDING**(chapter 04.02.02)
03. **SPOT WELDING** (chapter 04.02.03)
04. **CUT & SEAL** (chapter 04.02.04 & 04.02.05)
05. **PROGRAM CHAIN** (chapter 04.03)



WELDING PRINCIPLE

The vibrations of the sonotrode "condense" the material to be joined in the seam area. During this welding process, the material is heated, compressed and transported at the same time (= seam generation).

Please observe the following requirements for an optimum welding result:

- » Select material, which is weldable (thermoplastics) and clean in the seam area. Furthermore, the material to be welded must be suitable for processing using the VETRON 5064 with respect to thickness and consistency.
- » Select the welding wheel suitable for your purposes and make sure that pressure, welding power, welding speed, and welding gap are correctly adjusted.



ADVICE:

The material to be welded and the ambient temperature are decisive for all welding equipment settings. For this reason, optimum settings can be determined using weld tests only.

04. COMMISSIONING & WELDING

02. DEFAULT PROGRAM

In order to enable welding immediately after delivery or to test your machine, you can find a pre-adjusted program, also referred to as "default program", under program number **P000**.

The default program is a continuous welding program at constant speed with the following parameters:

» 001	Program name	
» 002	Continuous Technology	
» 003	Wheel number	W13003
» 004	Gap dimension	0,02mm
» 005	Generator power	60%
»008	Speed	2 m/min
» 011	Pressure (only with 25mm)	60%
» 014	Lifting height (wheel lifting)	3,0mm
» 016	Puller / Speed	+0%
» 201	Ultrasound power stage 2	10%
» 204	Startup delay	0,2 sek
» 205	Start / end speed	10%
» 206	Acceleration	0,05sek
» 207	Differential speed	+0%
» 208	Deceleration	0,2 sek
» 209	Backward welding after stop	0,0mm
» 210	Forward welding after stop	0,0mm
» 211	Generator deactivation time after pedal-0	90%
» 212	Gap increase after pedal-0 until stop	0,1mm
» 213	Lifting delay	0,0 sek
» 214	Wheel type	
» 215	Wheel-equivalent width	

ADVICE!

You may never change or overwrite the default program! The default program was specifically customized for the provided welding sample. If you would like to generate a new program suitable for your material, proceed as described under **04.01. NEW PROGRAM**.

If you use your machine for the first time, or if you reset the operating program, the default program is automatically called up after the determination of the upper and lower reference points (chapter 04.06). Otherwise, activation follows the description under **04.10. CHANGE PROGRAM**.

One dongle for identification purposes is included in the scope of delivery of the basis module.

DONGLE 1 = ACCESS RIGHTS, LEVEL 1 (= ADMINISTRATOR):

- » Assignment of access rights
- » Access to all machine parameters
- » Program generation
- » Program selection
- » Light

DONGLE 2 (OPTIONAL) = ACCESS RIGHTS, LEVEL 2 (= OPERATOR):

- » Program selection
- » Light
- » Wheel change

The administrator has access to all functions and can assign access rights using the respective PC program.

The "**VETRON OPERATOR MANAGEMENT**" program is stored on the administrator dongle and functions as follows:

01. Insert **DONGLE 1** (Administrator) into the USB slot of the computer.
02. Call up the "**VETRON OPERATOR MANAGEMENT**" program.
03. Insert further **DONGLE** into the computer.
04. Enter first name, last name, employee number, as well as the access rights, and click on **SAVE USER DATA**.
05. Select a **SAVING LOCATION** (Dongle) for the authentication file.



To set the access permission, see chapter **05.07. machine parameters 817**.

04. COMMISSIONING & WELDING

04. FIRST COMMISSIONING

01. Thoroughly clean the machine prior to start up (see chapter 06.01.).
02. Make sure that the machine and all electrical cables have no damage.
03. Have specialists verify, whether the machine may be operated using the available grid supply voltage, and whether it is correctly connected.
04. Connect the machine to the compressed air system. The operating pressure at the filter valve is 6 bar. (See chapter 08.06. Pneumatic connection)




In the case of deviations, the machine must **NOT** be started up!

Connect the machine to a grounded power socket only!







04. COMMISSIONING & WELDING

05. SWITCHING ON/OFF

DISPLAY	STEP	DESCRIPTION
» SWITCHING ON		
	1	Switch ON the CONTROL by using the main switch
2		Display for 5 seconds: SW1.17 = Software version (can be different after update) ID00042 = Identification number (consecutive number)
3		Press the pedal forward and remove any material under the welding wheel
4		Machine initializes itself The wheel travels into the starting situation.
5		Machine is ready for operation. P123 = The program number used last is activated. W12345 = Number of the installed wheel
» SWITCHING OFF		
1		Before turning machine off, YOU HAVE TO REMOVE THE WELDING WHEEL!  Sonotrode could be destroyed Remove the welding wheel to prevent it from hitting the sonotrode.
2		Switch OFF the CONTROL by using the main switch.

04. COMMISSIONING & WELDING

06. SELECT LANGUAGE

DISPLAY	STEP	DESCRIPTION
» SELECT LANGUAGE		
1	»  Press the " PARAMETER " button	The corresponding LED on the display lights up.
2	»  Turn the JOG KEY COUNTERCLOCKWISE , until LANGUAGE SELECTION is shown.	
3	»  Confirm	
4	 »  In order to change the language.	The following can be selected: » English » Italian » German » Spanish » French
5	»  Confirm	

04. COMMISSIONING & WELDING

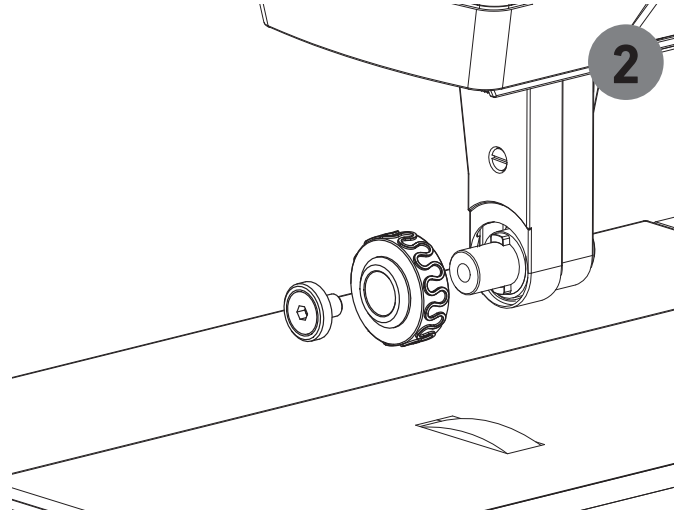
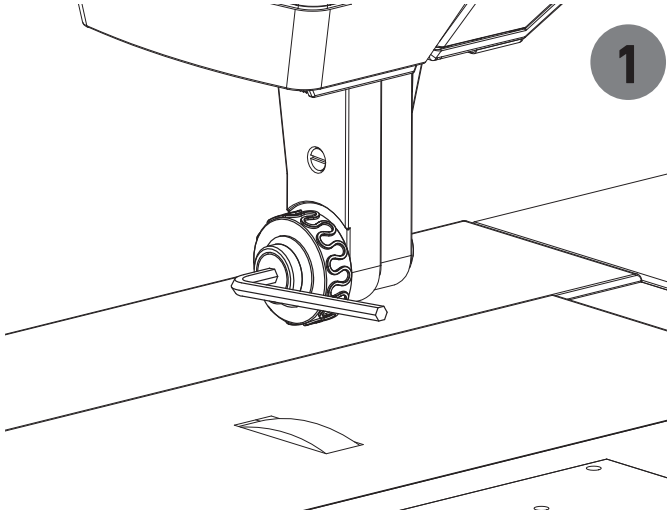
07. WHEEL CHANGE











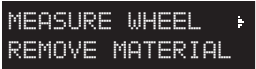

- 1-2



CAUTION!

Replace the anvil wheel only with the machine switched **ON!**
Store the anvil wheel carefully after removal! Any damage to the wheel will negatively impact the welding result!





DISPLAY	STEP	DESCRIPTION
» WHEEL CHANGE		
1	»  Press the X-button.	The machine travels into WHEEL CHANGE POSITION
2	 Loosen the anvil wheel using an Allen key (3mm) and pull it from the bolt (image 1).	Always store the anvil wheel carefully. Preferably in the enclosed storage box.
3	Grease the bolt.	 INFO: Use grease recommended by VETRON only. (INTERFLON Fin Grease LS2, article no. 8546).
4	Slide new anvil wheel onto the bolt and tighten it using the Allen key (image 2).	
5	 »  Change wheel number »  Confirm	The program suggest the wheel stored in the program. If you would like to use the suggested wheel, confirm. Otherwise, enter the requested wheel number.
6	 »  Mark + Confirm = Input	
7	 »  Confirm	
8	 »  Confirm	

04. COMMISSIONING & WELDING

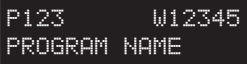












07. WHEEL CHANGE

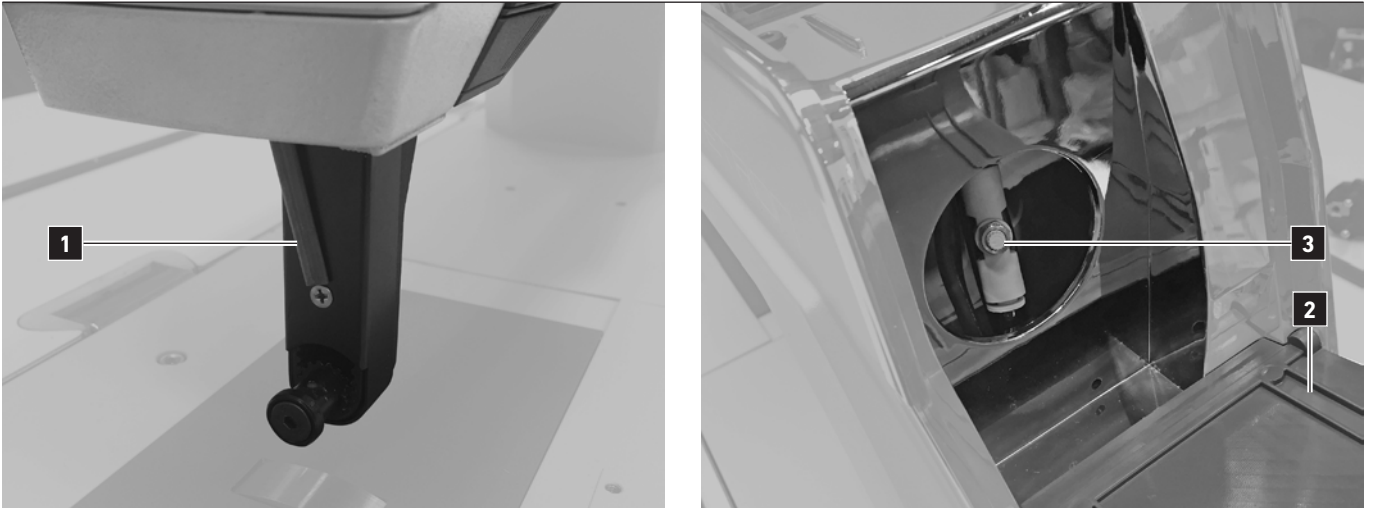
-2-2

DISPLAY	STEP	DESCRIPTION
» WHEEL CHANGE		
	9	Remove any material under the welding wheel.  CAUTION! Danger of crushing!
<pre>PLEASE WAIT... Min-Max: 0-010mm</pre>	10	You can read the concentricity tolerance of the welding wheel in the display.
<pre>P123 W12345 PROGRAM NAME</pre>	11	Machine ready for operation P123 = The program number used last is activated.
	ADVICE:	The measuring process cannot be interrupted. Do not switch the machine off during the measurement!



04. COMMISSIONING & WELDING

08. CHANGE PROGRAM

DISPLAY	STEP	DESCRIPTION
» CHANGE PROGRAM		
1	 » 	Change program.
2	 » 	Select the requested program number. "P" is blinking, wheel Ø is displayed. After 5 seconds without input, the display automatically returns to the previous program
3	» 	Confirm ADVICE: Using the technology buttons you can set filters and display the respective programs only.
4A	 Machine is ready for operation.	
 If the installed wheel does NOT match the wheel stored in the program, the machine requests a WHEEL CHANGE .		
4B		
	YES » 	If you confirm with YES , the machine travels into the wheel change position and the wheel change should be performed (chapter 04.09.)
	NO » 	If you do not want to perform a wheel change, the currently used wheel is shown on the display. PREREQUISITE: The wheel matches the technology of the program.
	» 	
5	 Machine ready for operation.	ADVICE: If your access rights level is 1, you can overwrite the wheel stored in the program with the currently used wheel by pressing the "Save" button.
» CANCEL		
 ADVICE: When the ESC button is pressed during the program selection, the display returns to point 1.		



To adjust the cooling (copper pipe connected to the Anville **1**), open the hinged lid **2** and set the cooling at the adjustment screw **3** of the throttle.

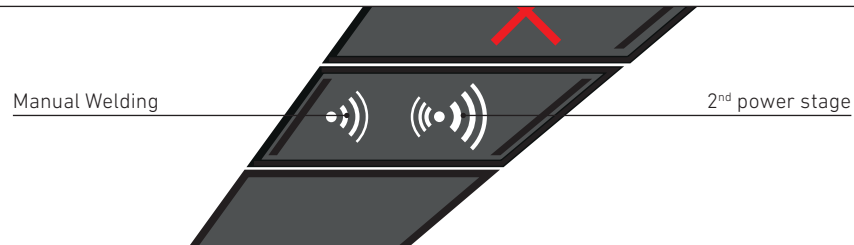
- »  stronger cooling
- »  weaker cooling

The cooling switches at welding start on, and automatically together with the fans of sonotrode unit off.

04. COMMISSIONING & WELDING

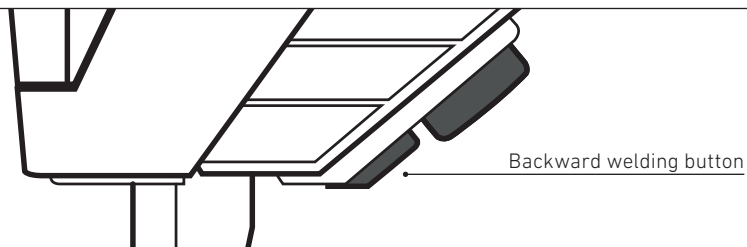
10. WELDING - MANUAL INTERVENTION DURING WELDING

In principle, all welding programs are defined via the values previously entered into the parameters.

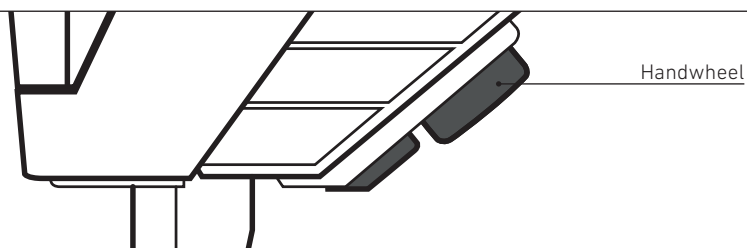


However, during welding you can manually perform the following operations using the center button on the head module:

- » **SWITCH ULTRASOUND ON** or **OFF**
- » Activate a **SECOND POWER STAGE**
(e.g., on transitions from thin to thick material and vice versa)



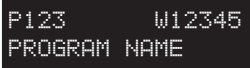







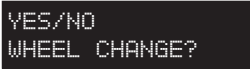




In order to manually **WELD INTO THE OTHER DIRECTION**, pull the backward welding button. This function is particularly suited for overwelding at the end of a weld seam.



In order to **TRAVEL** a distance **FORWARD OR BACKWARD WITHOUT ULTRASOUND**, turn the handwheel.

04. COMMISSIONING & WELDING

11. CONTINUOUS WELDING PROGRAMS

DISPLAY	STEP	DESCRIPTION
» CONTINUOUS WELDING PROGRAMS		
1		»  Change program number
2		»  Set the CONTINUOUS PROGRAMS filter
3		»  Select requested program. After 5 seconds without input, the display automatically returns to the previous program
4		»  Confirm
5A		Machine is ready for operation.
 If the installed wheel does NOT match the wheel stored in the program, the machine requests a WHEEL CHANGE .		
5B		
	YES	»  Confirm If you confirm with YES, the machine travels into the wheel change position and the wheel change should be performed (chapter 04.09.)
	NO	»  Mark NO If you do not want to perform a wheel change, the currently used wheel is shown on the display. PREREQUISITE: The wheel matches the technology of the program.
		»  Confirm
6		Machine ready for operation. ADVICE: If your access rights level is 1, you can overwrite the wheel stored in the program with the currently used wheel by pressing on the "Save" button.

04. COMMISSIONING & WELDING

12. INTERVAL WELDING PROGRAMS

-1-2

DISPLAY	STEP	DESCRIPTION
» INTERVAL WELDING PROGRAMS		
P123 PROGRAM NAME	» Change program number	In order to only show programs suitable for the selected technology, you can set filters by using the technology buttons
	» Set the INTERVAL PROGRAMS filter.	
P123 PROGRAM NAME	» Select requested program.	After 5 seconds without input, the display automatically returns to the previous program
	» Confirm	
P234 PROGRAMNAME	Machine is ready for operation.	



If the installed wheel does **NOT** match the wheel stored in the program, the machine requests a **WHEEL CHANGE**.

5B	YES/NO WHEEL CHANGE?	
	YES	» Confirm
	NO	» Mark NO
		» Confirm
6	P234 PROGRAMNAME	Machine ready for operation
7		Press pedal.
	P234 PROG NAME	1234mm N01
	P234 PROG NAME	300mm N02

If you confirm with **YES**, the machine travels into the wheel change position and the wheel change should be performed (chapter 04.09.)

If you do not want to perform a wheel change, the currently used wheel is shown on the display.

PREREQUISITE:

The wheel matches the technology of the program.

ADVICE:

If your access rights level is 1, you can overwrite the wheel stored in the program with the currently used wheel by pressing on the "Save" button.






As soon as you press the pedal forward and start welding, the display is switched. Instead of the wheel number, the distance still to be traveled of the current work step (here: N01) is shown (in live mode).

If the first work step is finished, the display automatically switches to the next step.

04. COMMISSIONING & WELDING









12. INTERVAL WELDING PROGRAM

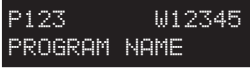












- 2-2

DISPLAY	STEP	DESCRIPTION
»	INTERVAL WELDING PROGRAMS	
»	CANCEL	
	ADVICE: »  cancels the interval program and restarts at its beginning. »  cancels the program chain step by step.	
	ADVICE: If you canceled the interval program and would like resume welding from a certain position, proceed as follows. »  Turn the HANDWHEEL to travel without ultrasound. » Using the CUSTOMIZABLE BUTTON on the head module, you can skip work steps.	

04. COMMISSIONING & WELDING

13. SPOT WELDING

DISPLAY	STEP	DESCRIPTION
SPOT WELDING PROGRAMS		
P123 W12345 PROGRAM NAME	»  Change program number.	In order to show programs suitable for the selected technology only, you can set filters by using the technology buttons.
	»  Set the SPOT WELDING PROGRAMS filter	
P123 W12345 PROGRAM NAME	»  Select requested program.	After 5 seconds without input, the display automatically returns to the previous program
	»  Confirm	
4A P234 PROGRAMNAME	Machine is ready for operation.	
 If the installed wheel does NOT match the wheel stored in the program, the machine requests a WHEEL CHANGE .		
4B YES/NO WHEEL CHANGE?		
YES	»  Confirm	If you confirm with YES , the machine travels into the wheel change position and the wheel change should be performed (chapter 04.09.)
NO	»  Mark NO	If you do not want to perform a wheel change, the currently used wheel is shown on the display. PREREQUISITE: The wheel matches the technology of the program.
	»  Confirm	
5 P234 PROGRAMNAME	Machine ready for operation.	ADVICE: If your access rights level is 1, you can overwrite the wheel stored in the program with the currently used wheel by pressing on the "Save" button.

DISPLAY	STEP	DESCRIPTION
» CUT & SEAL		
1	 »  Change program number.	In order to show programs suitable for the selected technology only, you can set filters by using the technology buttons.
2	»  Set CUT & SEAL filter	
3	 »  Select requested program	After 5 seconds without input, the display automatically returns to the previous program
4	»  Confirm	
5A	 Machine is ready for operation.	
 If the installed wheel does NOT match the wheel stored in the program, the machine requests a WHEEL CHANGE .		
5B		
	YES »  Confirm	If you confirm with YES , the machine travels into the wheel change position and the wheel change should be performed (chapter 04.09., step 2)
	NO »  Mark NO »  Confirm	If you do not want to perform a wheel change, the currently used wheel is shown on the display. PREREQUISITE: The wheel matches the technology of the program.
6	 Machine ready for operation.	ADVICE: If your access rights level is 1, you can overwrite the wheel stored in the program with the currently used wheel by pressing on the "Save" button.

04. COMMISSIONING & WELDING

15. CHAIN WELDING PROGRAM





- 1-2

DISPLAY	STEP	DESCRIPTION
» CHAIN WELDING PROGRAM		
	Change program number.	In order to only show programs suitable for the selected technology, you can set filters by using the technology buttons.
	Set PROGRAM CHAIN filter.	
	Select requested program number.	After 5 seconds without input, the display automatically returns to the previous program
	Confirm	
	Machine ready for operation	P345 = Higher-level (activated) program number W12345 = Currently installed wheel number SCHR1 = Current work step P038 = Program number for the current work step
	Depending on the programming of the program chain, the NEXT WORK STEP IS ACTIVATED VIA:	
	S = Press customizable button W = Lift wheel via pedal HW = Press handwheel K = Press knee button*	In order to switch from one work step to the next, execute the activation type shown on the display: S : Press the customizable button on the head module W : Press backward on the pedal HW : Press the electronic handwheel on the head module K : Press the knee button*
	As soon as the current work step is completed, activate the change as described under point 6 (in our example, the change takes automatically place via the traveled distance). Subsequently, the next work step is automatically initiated.	
	

04. COMMISSIONING & WELDING

15. CHAIN WELDING PROGRAM

- 2-2

DISPLAY	STEP	DESCRIPTION
»	CHAIN WELDING PROGRAM	
»	CANCEL	
	ADVICE:	
	» 	cancels the program chain and restarts at its beginning.
	» ESC	cancels the program chain step by step.
	ADVICE:	
	If you canceled the interval program and would like resume welding from a certain position, proceed as follows:	
	» 	Turn the HANDWHEEL to travel without ultrasound.
	» Using the CUSTOMIZABLE BUTTON on the head module, you can skip work steps.	

* The knee button is available as an option.

04. COMMISSIONING & WELDING











16. ERROR MESSAGES DURING WELDING

-1-2

DISPLAY	STEP	SOLUTION
» ERROR MESSAGES		
E2	Pressure system can't initialize	Stepper, sensor PCB, Cables
		Check pressure mechanical system and sensor PCB
E3	Anvil sensor no response	Magnet strip, gap, cables
		Check magnet strip and its gap to encoder chip on PCB
E5	Memory full	Head Base memory full
		Delete unused programs
E7	EEPROM memory too small	Sytem error
		Call VETRON
E8	Number of Parameters too high	Reserved parameter space overflow
		Call VETRON
E9	Head PCB no response	Cable, PCB damaged
		Check cables, call VETRON
E10	Auto gap processor error	Check if sensor is ok » Red-LED = Information that power is on » Green-LED = Information that sensor is correct adjusted and in correct position
		» If green-LED is not lit, please adjust sensor or change sensor » Check if plug and socket of S1 is ok » Make a Master Reset 1 (Basic Parameter 999). If it is not working, make a Master Reset 2 (Basic Parameter 999) NOTE: Before you make a Master Reset 2, make a Backup for all programs in Data-Manager
E11	Stepper error	Stepper driver malfunction
		Restart, check cables
E13	Position read error	Stepper position read error
		Check stepper motor and cable connections
E14	Interval memory full	Maximum interval reached
		Reduce interval steps
E15	No interval programmed	Interval programm without interval setting
		Add interval(s) to program
E16	Index overrun	Memory full
		Call VETRON
E17	EEPROM PAR R/W error	Head Base PCB damage
		Change PCB, call VETRON
E19	Parameter default load	Some parameters loaded with full default value
		Click to continue

DISPLAY	STEP	SOLUTION
» ERROR MESSAGES		
E20 Foot motor		
.....		
E21 Pressure motor		
	Cable broken, bad connection, Stepdriver multifunction	Restart, check cables
E22 Anvil motor		
.....		
E23 Sonotrode motor		
.....		
E25 GEN. UEBERLAST	Material welding no longer takes place or with interruption	<ul style="list-style-type: none"> » Check coaxial plug connection from generator to converter » Replace sonotrode unit (module)
.....		
		Check if:
		<ul style="list-style-type: none"> » Generator is turned on » Generator plug is inserted in the connector strip below the table top » Check connector on generator including adapter (interface). Replace interface if necessary
E26 US.GEN.NO POW.	Power supply or control for generator is interrupted	<ul style="list-style-type: none"> » Check generator connector on fan switch. If necessary, replace fan switch or generator connection cable » Check B2 plug connection to fan switch. If necessary, replace fan switch or connection cable. » Check B2 connection on the Vetron control YSC-8340 and replace control or connection cable if necessary.












04. COMMISSIONING & WELDING





DISPLAY	STEP	DESCRIPTION
» CREATE NEW PROGRAM		
1	»  Press the "NEW PROGRAM" button.	The corresponding LED on the display lights up.
2	<p>CREATE PROGRAM CHOOSE TECH</p> <p>Select the requested TECHNOLOGY:</p> <p>»  or »  or »  or »  or » </p>	<p>The following functions are referred to as "TECHNOLOGIES":</p> <ul style="list-style-type: none"> » CONTINUOUS welding (chapter 05.02.01.) » INTERVAL welding (chapter 05.02.02.) » SPOT welding (chapter 05.02.03.) » CUT & SEAL (chapter 05.02.05. & 05.02.05) » PROGRAM-CHAIN (chapter 05.03.) <p>ADVICE: The „CUT & SEAL“ technology is only active for steel sonotrodes .</p>
» CANCEL		
	<p>ADVICE: In order to go one step back during program creation, press the „ESC BUTTON“:</p> <p>» </p>	
	<p>ADVICE: In order to completely cancel program creation, press the "NEW PROGRAMM" button:</p> <p>»  Next, to following confirmation prompt is shown:</p>	
YES/NO QUIT W/O SAVE	Confirm if you would like to exit the program without saving. Otherwise, select „ NO “.	

05. PROGRAMMING

02. CONTINUOUS WELDING AT CONSTANT SPEED

-1-2

DISPLAY	STEP	DESCRIPTION
» CONTINUOUS WELDING AT CONSTANT SPEED		
	1	»  Press the "NEW PROGRAM" button The corresponding LED on the display lights up
	2	»  Press the "CONTINUOUS WELDING" button The corresponding LED on the display lights up
FIX/DYNAMIC SET SPEED TYPE	3	You are prompted to define the Speed Type (Constant / dynamic).
	4	»  Confirm CONSTANT Regardless of the pressure on the foot pedal the welding speed is constantly the same.
MANUAL? SET GAP	5	GAP ADJUSTMENT If you would like to manually set the gap, confirm using the rotary button (step 5A). Otherwise, use the rotary button and confirm „Automatic“ selection (step 5B).
	5A	MANUAL GAP ADJUSTMENT
MANUAL? SET GAP	» 	Confirm MANUAL
0,05mm TRIAL SET GAP	» 	Change VALUE
		TEST* whether the gap is correctly set. If the value is correct, confirm with » 
	5B	AUTOMATIC GAP ADJUSTMENT
MANUAL? SET GAP	» 	Mark AUTOMATIC
AUTOMATIC? SET GAP	» 	Confirm AUTOMATIC
PLACE MATERIAL	» 	Insert material. As soon as you are done, confirm with »
PRESS BUTTON GAP:0.05	» 	Confirm. The lower value indicates the current distance from welding wheel to sonotrode.
10.0 m/min TRIAL SET SPEED	» 	Change VALUE Enter the MAX. WELDING SPEED.












DISPLAY	STEP	DESCRIPTION
» CONTINUOUS WELDING AT CONSTANT SPEED		
	7	TEST* , whether the welding speed is correctly set. If the value is correct, confirm with» 
	8	»  Change VALUE Enter the WELDING POWER 60% power is specified as default value.
	9	TEST* , whether the maximum power is correctly set. If the value is correct, confirm with » 
	10	SAVE (chapter 05.05.)

* You can test the settings (welding gap, speed, and power) at any time, while adjusting the values.

05. PROGRAMMING

02.01. CONTINUOUS WELDING AT DYNAMIC SPEED









-1-2

DISPLAY	STEP	DESCRIPTION
» CONTINUOUS WELDING AT DYNAMIC SPEED		
	1	»  Press the "NEW PROGRAM" button
		The corresponding LED on the display lights up
	2	»  Press the "CONTINUOUS WELDING" button:
		The corresponding LED on the display lights up
FIX/DYNAMIC SET SPEED TYPE	3	You are prompted to define the Speed Type (Constant / dynamic).
	4	»  Mark DYNAMIC .
FIX/DYNAMIC SET SPEED TYPE	5	»  Confirm DYNAMIC
MANUAL? <> SET GAP	6	GAP ADJUSTMENT
		If you would like to automatically set the gap, confirm using the roary button. (step 6A). Otherwise, use the rotary button and confirm „Manual" selection (step 6B).
	6A	MANUAL gap adjustment
MANUAL? <> SET GAP		»  Confirm MANUAL
0.05mm TRIAL SET GAP		»  Change VALUE
		TEST* whether the gap is correctly set. If the value is correct, confirm with » 
	6B	AUTOMATIC gap adjustment
MANUAL? <> SET GAP		»  Mark AUTOMATIC
AUTOMATIC? < SET GAP		»  Confirm AUTOMATIC
PLACE MATERIAL ✖		Insert material As soon as you are done, confirm » 
PRESS BUTTON GAP: 0.05		»  Confirm
		The lower value indicates the current distance from welding wheel to sonotrode

05. PROGRAMMING

02.01. CONTINUOUS WELDING AT DYNAMIC SPEED

-2-2
















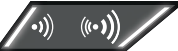




DISPLAY	STEP	DESCRIPTION
» CONTINUOUS WELDING AT DYNAMIC SPEED		
7 10.0 M/MIN TRIAL SET MAX SPEED	»  Change VALUE	
8	TEST* , whether the maximum welding speed is correctly set. If the value is correct, confirm with » 	
9 2.5 M/MIN TRIAL SET MIN SPEED	»  Change VALUE	
10	TEST* , whether the minimum welding speed is correctly set. If the value is correct, confirm with » 	
11 60% TRIAL ADJUST POWER	»  Change VALUE	Enter the MAXIMUM WELDING POWER . 60% power is specified as default value.
12	TEST* , whether the maximum power is correctly set. If the value is correct, confirm with » 	
13 40% TRIAL ADJUST MIN POWER	»  Change VALUE	Enter the MINIMUM WELDING POWER . A minimum possible value of 38% is specified as default value
14	TEST* , whether the minimum power is correctly set. If the value is correct, confirm with » 	
15	SAVE (chapter 05.05.)	

* You can test the settings (welding gap, speed, and power) at any time, while adjusting the values.

05. PROGRAMMING

02.02. INTERVAL WELDING AT CONSTANT SPEED


-1-2

DISPLAY	STEP	DESCRIPTION
» INTERVAL WELDING AT CONSTANT SPEED		
	1	»  Press the "NEW PROGRAM" button The corresponding LED on the display lights up
	2	»  Press the "INTERVAL WELDING" button The corresponding LED on the display lights up
	3	GAP ADJUSTMENT 05.01.01. Continuous welding at constant speed, step 3
		If you would like to automatically set the gap, confirm using the rotary button. Otherwise, use the rotary button and confirm „Manual“ selection.
4		»  Change VALUE
5		TEST* , whether the welding speed is correctly set. If the value is correct, confirm with » 
6		»  Change VALUE
7		TEST* , whether the power is correctly set. If the value is correct, confirm with » 
8		SELECT THE INTERVAL PROGRAMMING TYPE. TEACH-IN MODUS (step 8A) as well as NUMERICAL INPUT (step 8B) can be selected.
8A	TEACH - IN MODUS	
		»  Confirm TEACH-IN.
		»  Change VALUE Enter the speed for program creation
		»  Confirm VALUE.
		»  Define using the shown button, whether the first section should be traveled with or without ultrasound or with power stage 2.
TRAVEL THE FIRST SECTION		
		»  Confirm VALUE. The traveled distance is automatically calculated and shown. Are you satisfied with this value, confirm. Otherwise, repeat the section determination by pressing the ESC button and repeat the last two steps.
		»  Define using the shown button, whether the first section should be traveled with or without ultrasound or with power stage 2.

DISPLAY	STEP	DESCRIPTION
---------	------	-------------

» INTERVAL WELDING AT CONSTANT SPEED

TRAVEL THE SECOND SECTION

The traveled distance is automatically calculated and shown. If you are satisfied with value, confirm. Otherwise, repeat the section determination by pressing the  button and repeat the last two steps. If you are done with section programming, continue with **STEP 9: SAVE**.

8B NUMERICAL INPUT

TEACH IN? <>
INTERVAL PROG

»  Mark **NUM INPUT**

NUMBER INPUT? <>
INTERVAL PROG

»  Confirm **NUM INPUT**

0000mm N01
INTERV. DIST.1


» 

Define using the shown button, whether the first section should be traveled with or without ultrasound or with power stage 2.

»  Change **VALUE**

»  Confirm **VALUE**

XXXXmm N01
INTERV. DIST.2

» 

Define using the shown button, whether the first section should be traveled with or without ultrasound or with power stage 2.

»  Change **VALUE**

»  Confirm **VALUE**

ENTER FURTHER SECTIONS.

As soon as you are done, press  continue with **STEP 9**


9 **SAVE** (chapter05.05.)

» CANCEL



ADVICE:

»  the interval program completely aborts and returns to the beginning.

»  breaks gradually, i.e. the display returns to the beginning of the last step



ADVICE:



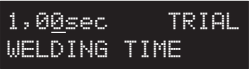


If you canceled the interval program and would like resume welding from a certain position, proceed as follows:

»  Turn the **HANDWHEEL** to travel without ultrasound.



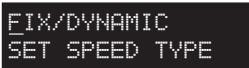







» Using the **CUSTOMIZABLE BUTTON** on the head module, you can skip work steps.

05. PROGRAMMING

02.03. SPOT WELDING

DISPLAY	STEP	DESCRIPTION
» SPOT WELDING		
1	»  Press the " NEW PROGRAM " button	The corresponding LED on the display lights up
2	»  Press the " SPOT WELDING " button	The corresponding LED on the display lights up
3	GAP ADJUSTMENT 05.01.01. Continuous welding at constant speed, step 3	
4	 »  Change VALUE	The generator power amounts to 100%, the welding result is controlled by time.
5	TEST* , whether the power is correctly set. If the value is correct, confirm with » 	
6	SAVE (chapter 05.05.)	
















* You can test the settings (welding speed and power) at any time, while adjusting the values.

DISPLAY	STEP	DESCRIPTION
» CUT & SEAL AT CONSTANT SPEED		
	»  Press the "NEW PROGRAM"	The corresponding LED on the display lights up
	»  Press the "CUT & SEAL" button	The corresponding LED on the display lights up
		You are prompted to define the Speed Type (Constant / dynamic).
	»  Confirm CONSTANT	Regardless of the pressure on the pedal, the welding speed remains constant.
	»  Change VALUE	
	TEST* , whether the welding speed is correctly set. If the value is correct, confirm with » 	
	»  change VALUE	
	TEST* , whether the power is correctly set. If the value is correct, confirm with » 	
	SAVE (chapter 05.05.)	













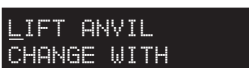



* You can test the settings (welding speed and power) at any time, while adjusting the values.

05. PROGRAMMING

02.05. CUT & SEAL AT DYNAMIC SPEED

DISPLAY	STEP	DESCRIPTION
» CUT & SEAL AT DYNAMIC SPEED		
	1	»  Press the " NEW PROGRAM " button
	2	»  Press the " CUT & SEAL " button
	3	You are prompted to define the Speed Type (Constant / dynamic).
	4	»  Mark DYNAMIC
	5	»  Confirm DYNAMIC
	6	»  Change VALUE Enter the MAXIMUM WELDING SPEED
	7	TEST* , whether the speed is correctly set. If the value is correct, confirm with » 
	8	»  Change VALUE Enter the MAXIMUM WELDING POWER
	9	TEST* , whether the maximum power is correctly set. If the value is correct, confirm with » 
	10	»  Change VALUE Enter the minimum welding power. 40% power is specified as default value.
	11	TEST* , whether the minimum power is correctly set. If the value is correct, confirm with » 
	12	SAVE (chapter 05.05.)





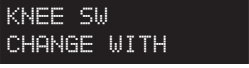







* You can test the settings (welding speed and power) at any time, while adjusting the values.

DISPLAY	STEP	DESCRIPTION
» CREATE PROGRAM CHAIN		
1	»  Press the "NEW PRGRAM" button	The corresponding LED on the display lights up
2	»  Press the "PROGRAM CHAIN" button	The corresponding LED on the display lights up
3		Select the program (=P001) necessary for the 1st work step 001ProgName = Program name
4	»  Change PROGRAM NUMBER	
5	»  Confirm PROGRAM NUMBER	
6		Select how you would like to switch from the current to the next work step. The following options can be selected over _ Default: » CUSTOMIZABLE BUTTON on the head module (6a) » LIFTING THE WHEEL VIA PEDAL (6b) » pressing the HANDWHEEL (6C) » pressing the KNEE BUTTON (6D)
6A	Switching via the CUSTOMIZABLE BUTTON on the head module	
		»  Select SOFT KEY
		»  Confirm SOFT KEY
6B	Switching via LIFTING THE WHEEL VIA PEDAL	
		»  Select WHEEL LIFTING
		»  Confirm WHEEL LIFTING
6C	Switching via HANDWHEEL	
		»  Select HANDWHEEL

05. PROGRAMMING

03. CREATE PROGRAM CHAIN

-2-2

DISPLAY	STEP	DESCRIPTION
» CREATE PROGRAM CHAIN		
	» 	Select HANDWHEEL
.....		
6D Switching via KNEE BUTTON		
	» 	Select KNEE BUTTON
	» 	Confirm KNEE BUTTON
.....		
7		Continue with work step 3. As soon as all work steps are programmed, continue with step 8 SAVE .
.....		
8	SAVE (chapter 05.05.)	
.....		
» CANCEL		
ADVICE:		
	» 	the program chain completely aborts and returns to the beginning.
	» 	breaks gradually, i.e. the display returns to the beginning of the last step.
.....		
ADVICE:		
	If you canceled the interval and would like resume welding from a certain position, proceed as follows:	
	» 	Turn the HANDWHEEL to travel without ultrasound.
	»	Using the CUSTOMIZABLE BUTTON on the head module, you can skip work steps.

DISPLAY	STEP	DESCRIPTION
---------	------	-------------

» SAVE

1A You have created a **NEW** program and would like to save it under a **NEW** number

	<p>» In order to change the program number</p> <p>» Confirm or</p> <p>» Cancel</p>	<p>The software suggests the next available program number (=P234 in the example). If you would like to assign a different number to the program, change the number by turning and then pressing the Jog key.</p>
--	---	---

	<p>» In order to change the program name</p> <p>» Mark + Confirm = Input</p> <p>» Cancel</p>	<p>You can confirm the program name letter by letter by turning and then pressing the Jog key.</p>
--	---	--

1B You have created a **NEW** program or would like to overwrite an **EXISTING** program

	<p>» In order to change the program number</p>	
--	---	--

	<p>» Confirm or</p> <p>» Cancel</p>	<p>Already existing programs can be recognized by the text "OVERWRITE PROGRAM"</p>
--	---------------------------------------	---

	<p>» Confirm or</p> <p>» Cancel</p>	
--	---------------------------------------	--

	<p>» In order to change the program name</p> <p>» Confirm or</p> <p>» Cancel</p>	
--	---	--

» CANCEL



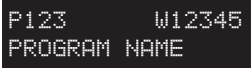













ADVICE:






In order to go one step back during saving, press the "**ESC BUTTON**": »

05. PROGRAMMING

05. PROGRAM CHANGE VIA PARAMETERS

-1-2

DISPLAY	STEP	DESCRIPTION
» PROGRAM CHANGE VIA PARAMETERS		
	1	Call up the program, whose parameters you would like to change (see 03.10. Change program)
	2	»  Press the " PARAMETERS " button The corresponding LED on the display lights up
	3	Turn the JOG KEY CLOCKWISE , in order to enter the PROGRAM PARAMETERS Turn the JOG KEY COUNTERCLOCKWISE , to first find MACHINE PARAMETERS . If you continue turning, ADMINISTRATION as well as SERVICE is shown.
	4	CHANGE PROGRAM PARAMETERS (Example)
		»  In order to change the parameter number
		»  Confirm
		»  In order to change the value
		TESTING & TRIAL WELDING. The values are set to "online", i.e., you can now immediately test, whether the setting fits your application. If this is not the case, you can change the value and test again, and finally »  Confirm
		The display returns to the parameter selection
	5	SAVE - You have two choices to save your changes:
	5A	You would like to save the existing program with the changes applied.
		»  Press the " PARAMETERS " button
		»  Confirm to save your changes and exit the Parameters menu.
	5B	You would like to save the existing program with the changes applied, or to save it under a different program number
		»  Press the " SAVE " button (chapter 05.05.)

DISPLAY	STEP	DESCRIPTION
»	PROGRAM CHANGE VIA PARAMETERS	
»	CANCEL	
	ADVICE:	In order to go one step back while changing the program, press the "ESC" button: » 
	ADVICE:	In order to completely cancel changing the program, press the "PARAMETERS" button »  Next, the following confirmation prompt is shown:
		Confirm if you would like to exit the program without saving. Otherwise, select "NO".

05. PROGRAMMING

06. PROGRAM PARAMETER LIST

-1-3

#	PARAMETER	DYNAMIC		DYNAMIC		DYNAMIC		DISPLAY
		□	□	□	□	□	□	
001	Program name	.	.	.	.	.	.	001 TEST PROGRAMNAME
002	Technology							
	Continuous welding at CONSTANT speed	.						002 CONTINUOUS PROGRAM MODE
	Continuous welding at DYNAMIC speed		.					002 CONTIN DYN PROGRAM MODE
	Interval welding at CONSTANT speed			.				002 INTERVAL PROGRAM MODE
	Interval welding at DYNAMIC speed				.			002 INTERVAL DYN PROGRAM MODE
	Spot welding				.			002 SPOT WELDING PROGRAM MODE
	Program-Chain							002 PGR LINK PROGRAM MODE
	Cut & Seal at CONSTANT speed					.		002 CUT&SEAL PROGRAM MODE
	Cut & Seal at DYNAMIC speed						.	002 CUT&SEAL DYN PROGRAM MODE
003	Wheel number	.	.	.	.	.	.	003 W00000 WHEEL NUMBER
004	Gap dimension	.	.	.	.	.	.	004 0.05mm GAP
005	Generator power	.		.	.	.		005 60% POWER
006	Minimum generator power		.	.			.	006 38% MIN POWER
007	Maximum generator power		.	.			.	007 100% MAX POWER
008	Feed	.	.			.		008 2.5 m/min SPEED

MIN	MAX	DEFAULT	UNIT	EXPLANATION
-	-	-		Program name, free choice
-	-	-		Cut & Seal, Constant, Interval
-	-	-		
-	-	-		
-	-	-		
-	-	-		
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-	-	-		
0.02	14	0.02	mm	Measure between the wheel and the sonotrode
38	100	60/100	%	Selection: Constant and Interval: 60% Spot-, Cut & Seal-, chain welding and all dynamic Technology: 100%
38	100	38		at DYNAMIC speed only
38	100	100		at DYNAMIC speed only
0,5	40	2	m/min	Welding speed



ADVICE:
Cutting wheels are to be used for welding machines with steel sonotrode only.

W00000—P003: 0-99 | P215: 0-99 | P214: 0-9

05. PROGRAMMING

06. PROGRAM PARAMETER LIST

-2-3

#	PARAMETER	DYNAMIC						DISPLAY
		█	█	█	█	●	▾	
009	Minimum speed		•		•		•	009 2.5 m/min MIN SPEED
010	Maximum speed		•		•		•	010 10.0 m/min MAX SPEED
011	Pressure (at Ø 25mm only)	•		•		•	•	011 60% PRESSURE
012	Minimum Pressure (at Ø 25mm only)		•		•		•	012 50% MIN PRESSURE
013	Maximum Pressure (at Ø 25mm only)		•		•		•	013 150% MAX PRESSURE
014	Wheel lifting	•	•	•	•	•	•	014 3.0 mm LIFT ANVIL
015	Welding time					•		015 1.00 sec WELDING TIME
016	Puller speed	•	•	•	•	•	•	016 +0% Puller % Speed
022	Numerical Input: Step N1							
	Section		•	•				022 11.0 mm N1 DISTANCE
	Ultrasound ON/OFF/Boost		•	•				022 OFF N1 ULTRASONIC
	Transition to next step		•	•				022 NONSTOP N1 END FUNCTION
	Insert working range		•	•				022 INSERT A STEP
	Delete working range		•	•				022 DELETE STEP
022	Numerical Input: Step N2							
	Section		•	•				022 11.0 mm N2 DISTANCE
	Ultrasound ON/OFF/Boost		•	•				022 OFF N2 ULTRASONIC

MIN	MAX	DEFAULT	UNIT	EXPLANATION
0	10	2.5		
2,5	40	10		at DYNAMIC speed only
1	150	60	%	Pressure from the stepper motor of height regulation
50	150	50		at DYNAMIC speed only
1	150	150		at DYNAMIC speed only
0,2	24	3.0	mm	Machine parameter: ø 25 mm
0,2	24	3.0	mm	Machine parameter: ø 45 mm
0,1	2,5	1,0	sek	
-10	+30	0	%	Percent value from Puller speed
				Value from programming
		ON		Selection: ON | OFF | BOOST
		Nonstop		Selection: Nonstop | Stop | Lift Wheel
				A new step respectively a new section is inserted after the current section. The next work steps are automatically shifted to the back.
				The current work step is deleted. The next work steps are automatically shifted to the front.
				Value from programming
		ON		Selection: ON | OFF | BOOST

05. PROGRAMMING

06. PROGRAM PARAMETER LIST

-3-3

#	PARAMETER	DYNAMIC		DYNAMIC		DYNAMIC		DISPLAY
		□	□	□	□	□	□	
	max. 20 steps			•	•			
090	Work step 01: Program-number							090 P123 SP1 PROG NUMBER
	max. 20 steps							
201	Ultrasound power stage 2	•	•	•	•	•	•	201 50% BOOST POWER
204	Startup delay	•	•	•	•	•	•	204 0.1 SEC START DELAY
205	Start / End speed	•	•	•	•	•	•	205 80% ST/END SPEED
206	Acceleration	•	•	•	•	•	•	206 0.10 SEC ACCELERATION
207	Differential speed	•	•	•	•	•	•	207 +0% DIFF SPEED
208	Braking effect	•	•	•	•	•	•	208 0.10 SEC DECELERATION
209	Backward welding after stop	•	•	•	•			209 0.0 mm BACKWARDS
210	Forward welding after stop	•	•	•	•			210 0.0 mm FORWARDS
211	Generator deactivation time after Pedal-0	•	•	•	•	•	•	211 50 ADVANCED OFF
212	Gap increase after Pedal-0 until stop	•	•	•	•	•	•	212 0.05 mm END GAP INC.
213	Lifting delay	•	•	•	•	•	•	213 1.0 SEC END WAIT TIME
214	Wheel type	•	•	•	•	•	•	214 08 WHEEL TYPE
215	Wheel - equivalent width	•	•	•	•	•	•	215 45 WHEEL EQUIVWIDTH

MIN	MAX	DEFAULT	UNIT	EXPLANATION
				Existing programs can be selected
0	100	10		Power increase value, if „Boost“ is activated
0	2.0	0,2		Time between „Welding ON“ and starting of the anvil wheel
10	100	10	%	% of the adjusted speed, slow by start and stop
0	0.5	0,05		Time from minimum to maximum speed
-20	+20	+0		Difference between anvil speed to sonotrode speed
0	0.5	0,02		Time, for the last vibrations of the sonotrode at Welding process and for the outlet of welding
0	10	0	mm	
0	10	0	mm	
0	100	90	%	% of P208
0	0,5	0,1		The gap is stepwise (linearly) increased. At the end, the wheel travels down again
0	2,5	0,0	sec	Time between welding end and “upper anvil wheel” position in sec
				Wheel-Number (readable from the table)
				Wheel-Number (readable from the table)

05. PROGRAMMING

07. MACHINE PARAMETER LIST

-1-4

#	PARAMETER	DISPLAY DE	MIN	MAX	DEF.	UNIT
103	Jog key function	M103 POWER Rotakey func#	-	-	OFF	-
104	Soft key function	M104 REVERSE Soft key Func	-	-	Off	-
201	Sonotrode stepper motor	M201 3,300 AMP Sono Current	50	6.000	3.300	AMP
202	Welding wheel stepper motor	M202 3,300 AMP Anvil Current	50	6.000	3.300	AMP
203	Welding wheel lifting motor	M203 4,000 AMP Lift Current	50	6.000	4.000	AMP
204	Welding pressure motor	M204 2,000 AMP Press Current	50	2.500	2.500	AMP
205	Puller current	M205 2500 puller current	50	4500	2500	-
206	Puller gap motor current	M206 1500 puller gap cur	50	2500	1500	-
304	Pressure reference point	M304 420 Pressure Ref Pt	-32000	32000	400	-
306	Puller home position	M306 400 puller home pos	-32000	32000	400	-
307	Feed speed of the sonotrode wheel during automatic gap measurement	M307 1.0 m/min Gap: Speed	0,5	40	1,0	m/min
308	Power (ampl.) during automatic gap measurement	M308 65 Gap: Amplit	50	100	65	-
309	Power during automatic gap determination	M309 20 Gap: Power	10	100	20	-
310	Pressure during automatic gap determination	M310 70 Gap: Pressure	0	150	70	-
311	Initial gap for automatic gap measurement	M311 20.0 mm Init Gap	3	50	20	mm
312	Material thickness factor	M312 5.0 mm Thickness Factor	1	100	40	-
319	Pedal value for pedal -1	M319 71 Pedal -1 Pos	0	255	71	-
320	Pedal value for pedal 0	M320 111 Pedal 0 Pos	0	255	111	-

EXPLANATION

To choose from: OFF | HEAT | WELDING SPEED. | GAP DIMENSION | PRESSURE

To choose from: OFF | Next Program | Backward

Stepper motor values – specified by the manufacturer

Stepper motor gets the reference point via the sensor on the shaft, stepper motor version

–

Feeding speed when automatic gap measuring

Ultra sonic from amplitude when automatic gap measuring

Power value when automatic gap measuring

Pressure determination when automatic gap measuring

Start gap when automatic gap measuring

Gap factor at automatic gap measuring

Pedal position, you can adjust it if necessary

Pedal position, you can adjust it if necessary

05. PROGRAMMING

07. MACHINE PARAMETER LIST

-2-4

#	PARAMETER	DISPLAY DE	MIN	MAX	DEF.	UNIT
321	Pedal value for pedal +1	M321 250 Pedal +1 Pos	0	255	250	-
322	Foot rise delay	M322 0.10sec Air foot delay	0	1	0,1	sec
323	Max feed	M323 40.0m/min Max feed rate	0,5	40	40	m/min
324	Max amplitude scale	M324 100 Max Amp. Scale	50	100	100	-
403	Minimum gap (Steel sonotrode)	M403 0.02mm Min Gap (Steel)	0	1	0,02	mm
404	Minimum gap (Titanium sonotrode)	M404 0.05mm Min Gap (Titan)	0	1	0,05	mm
405	Pressure	M405 100 Max Pressure	0	150	150	-
406	Welding wheel speed relative to sonotrode speed	M406 100 Anvil/Son Speed	90	110	100	-
407	Diameter of the sonotrode wheel	M407 104.0 mm Sonotrode Diamtr	20	200	104	mm
408	Diameter of the reference welding wheel	M408 26.0 mm Ref.Anvil Diam.	15	200	45	mm
409	Toothed belt wheel of the sonotrode stepper motor Z1	M409 18 Sonotrode Z1	1	100	18	tooth
410	Toothed belt wheel of the sonotrode stepper motor Z2	M410 30 Sonotrode Z2	1	100	30	tooth
411	Upper position for pedal	M411 5.0 mm Anvil Up Pos	1	24	5	-
412	Anvil upper position	M412 28.42 mm Anvil Ref Pos	150	500	Determined previously	-
413	Anvil backlash	M413 10 Anvil Backlash	0	30	10	-
415	Welding wheel height change per full step	M415 0.1373mm Gap/Step	0	0,50	Determined previously	-
416	Welding wheel height change per encoder pulse	M416 0.0150mm Gap/Enc Pulse	0	0,05	Determined previously	-
420	Puller referenz position	M420 42.0mm Puller ref. Pos	10	200	42	mm

EXPLANATION

Pedal position, you can adjust it if necessary

Delay between discharge of compressed air and anvil lifting

Max welding feed

Limit with how much % the generator of the max. power works

Minimum gap of the steel sonotrode

Minimum gap of the titanium sonotrode

Stepper motor pressure, adjustable, stepper motor version

Differential speed between anvil and sonotrode

Diameter of the sonotrode

Diameter of the zero wheel (required for sensor calibration, stepper motor version)

Number of the teeth of the gears on the sonotrode

Maximum value for P014/Anvil is in the upper end position



Advice:

These values shouldn't be changed!

Referenz position from puller

05. PROGRAMMING

07. MACHINE PARAMETER LIST

-3-4

#	PARAMETER	DISPLAY DE	MIN	MAX	DEF.	UNIT
421	Puller up position	M421 10.0mm Puller up pos.	5	40	10	mm
422	Puller down position	M422 0.0mm Puller down pos.	0	6	0	mm
423	Puller wheel diameter	M423 25.0mm Puller diameter	20	50	25	mm
424	Puller wheel lift speed	M424 20mm/sec Puller up speed	2	100	20	mm/sec
425	Puller wheel lowering speed	M425 20mm/sec Puller DN speed	2	100	20	mm/sec
426	Amplitude delay	M421 mm Refpos Puller	20	500	200	-
427	Puller wheel forward stroke	M427 10 Puller preRun	0	100	10	-
701	Operating program version	M701 1 Software Version	-	-	1	-
702	Hardware version	M702 1 Hardware Version	-	-	1	-
703	Serial number	M703 00001 Serial Number	1	32000	1	-
704	Sonotrode type	M704 STEEL Sonotrode Type	-	-	-	-
706	Welding time (Generator ON)	M706 123.67 H Welding time	-	-	-	h
708	Operating time (Machine ON)	M708 723.72 H Working time	-	-	-	h
710	Anvil up / down cycles	M710 2748 Anvil cycles	-	-	-	-
807	Current lowering of the sonotrode stepper motor	M807 1 Sono Half Curr	0	2	1	-
808	Current lowering of the welding wheel stepper motor	M808 1 Anvil Half Curr	0	2	1	-
809	Current lowering of the welding wheel stepper motor	M809 1 Lift Half Curr	0	2	1	-
810	Current lowering of the welding wheel lifting motor	M810 1 Press Half Curr	0	2	1	-

EXPLANATION

Upper end position of the puller

Lower end position of the puller

Diameter of the puller wheel

Puller speed during acceleration

Puller speed during lowering

Delay between two amplitudes order during dynamic welding

Puller wheel rotates during the lowering of the puller device

When the operating program is overwritten and/or if the control is updated, the version number is automatically updated

Hardware version

Serial number of the machine

1 = Steel sonotrode | 2 = Titanium sonotrode

hours

hours

The number of times the cylinder has been operated, how many strokes the machine has made

Set current:

1 = lowered / cold

2 = full current / warm

1 = power saving mode on

2 = power saving mode off

05. PROGRAMMING

07. MACHINE PARAMETER LIST

-4-4

#	PARAMETER	DISPLAY DE	MIN	MAX	DEF.	UNIT
811	Puller current is lowered	M811 0 Puller half cur	0	2	1	-
812	Current from Gapmodule is lowered	M812 0 pullGap half cur	0	2	1	-
813	Direction of the sonotrode wheel stepper motor	M813 0 Sono Direction	0	1	0	-
814	Direction of the welding wheel stepper motor	M814 0 Anvil Direction	0	1	0	-
815	Direction of the welding wheel lifting motor	M815 0 Lift Direction	0	1	0	-
816	Direction of the welding pressure motor	M816 0 Press Direction	0	1	0	-
817	Switching ON/OFF: User administration	M817 0 User USB Dongle	0	1	0	-
818	Puller rotate direction	M818 0 puller dir.	0	1	1	-
819	Puller gap direction	M819 1 pull Gap dir.	0	1	1	-
820	Puller unit	M820 PULLER OFF Puller Module	-	-	OFF	
821	Anvil type	M821 25 mm Anvil Type	25	45	-	mm
822	Pressure type	M822 2 Pressure type	1	2	1	-
823	Pedal flip-flop	M823 0 Pedal Flip Flop	0	1	0	-
824	Encoder correction	M824 0 Encoder Corr.	0	1	0	-
901	Language	M901 English Language	-	-	-	-
902	Max. LED brightness	M902 6X Light Max	1	10	6	-
904	Gap correction	M904 1 Gap correction	0	40	0	-
999	Cold start	M999 0 Cold Start	0	2	0	-

EXPLANATION

Set current:

1 = lowered / cold

2 = full current / warm

1 = power saving mode on

2 = power saving mode off

Rotation direction of the stepper motor, you can adjust it if necessary

1 = Any machine function can be activated via USB stick only

0 = Any machine function can be activated without USB stick

This parameter can be changed via USB stick only

Rotation direction of the stepper motor, you can adjust it if necessary

–

You can select between: OFF | ELECTRIC | AIR

You can select between: 25 mm | 45 mm

You can select between: 1. = ELECTRIC | 2. = AIR

Automatic welding function: 0 = OFF | 1 = ON

Is the determined nominal and actual value of the sensor on the magnetic strip not the same, the parameter controls the height to the same value.

You can choose: GERMAN | ENGLISH | FRENCH | SPANISH | ITALIAN

brightness limit

Gap correction between wheel and sonotrode

1 = Reset height measuring system parameters

2 = Reset factory settings (reset all informations and programs)

05. PROGRAMMING

08. CANCEL

Depending on the function, **canceling** may be realized differently:

- » For example, when creating a new program (chapter 05.01.), you can stepwise go backward using the **ESC button** in order to change previously entered values. If you would like to completely exit the **"New program"** function, press the **"New program"** button.
- » The details, how to cancel, are described at the end of the respective chapter.



ADVICE!

All data is stored in xls-file format!

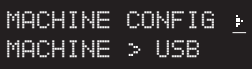





DISPLAY	STEP	DESCRIPTION
» ADMINISTRATION		
1	» Press the " PARAMETERS " button	The corresponding LED on the display lights up.
2	» In order to navigate to data administration	Turn the Jog key counterclockwise!
3	» Confirm	The " PARAMETERS " LEDs are illuminated.
4	Using » select from the following functions	
4A Copy INDIVIDUAL PROGRAMS from the machine TO YOUR USB DONGLE		
	» Confirm	
	» In order to select the program to be copied	PRE ADJUSTMENT: The current program is shown. If you would like to copy a different program, turn the Jog key.
	» Confirm	
4B Copy INDIVIDUAL PROGRAMS from your USB dongle TO THE MACHINE		
	» Confirm	
	» To select the machine, on which the program was created	You can copy individual programs from different machines. PRE ADJUSTMENT: The number of the current machine. If you would like to copy a program, which was created on a different machine, select it using the Jog key.
	» Confirm	
	» In order to select the program to be copied	
	» Confirm	

06. ADMINISTRATION

01. READ / WRITE PROGRAMS / SETTING MANAGEMENT

-2-3

DISPLAY	STEP	DESCRIPTION
» ADMINISTRATION		
4C	DELETE INDIVIDUAL PROGRAMS from the machine	
	» Confirm	
	» In order to select the program to be deleted	PRE ADJUSTMENT: The current program is shown. If you would like to copy a different program, turn the Jog key.
	» Confirm	
4D	DELETE ALL PROGRAMS from the machine	
	» Confirm	
4E	Copy ALL PROGRAMS from the machine TO YOUR USB DONGLE	
	» Confirm	
4F	Copy ALL PROGRAMS from your USB dongle TO THE MACHINE	
	» Confirm	
	» In order to select the machine, on which the program was generated	PRE ADJUSTMENT: You can copy all programs from one of your machines. The number of the current machine. If you would like to copy the programs of a different machine, select them using the Jog key.
	» Confirm	
4C -4F		Please wait, until all programs are copied onto your USB dongle. Next, the display automatically switches to the current program again.

DISPLAY	STEP	DESCRIPTION
» ADMINISTRATION		
4G	Copy MACHINE PARAMETERS from the machine TO YOUR USB DONGLE	
	»  Confirm	
4H	Copy MACHINE PARAMETERS from the USB dongle to the machine	
	»  Confirm	
	»  In order to select the machine, whose parameters should be copied	You can copy all parameters from one of your machines. DEFAULT SETTING: The number of the current machine. If you would like to copy the parameters of a different machine, select them using the Jog key.
	»  Confirm	

06. ADMINISTRATION




02. UPDATE THE OPERATING PROGRAM



ADVICE!

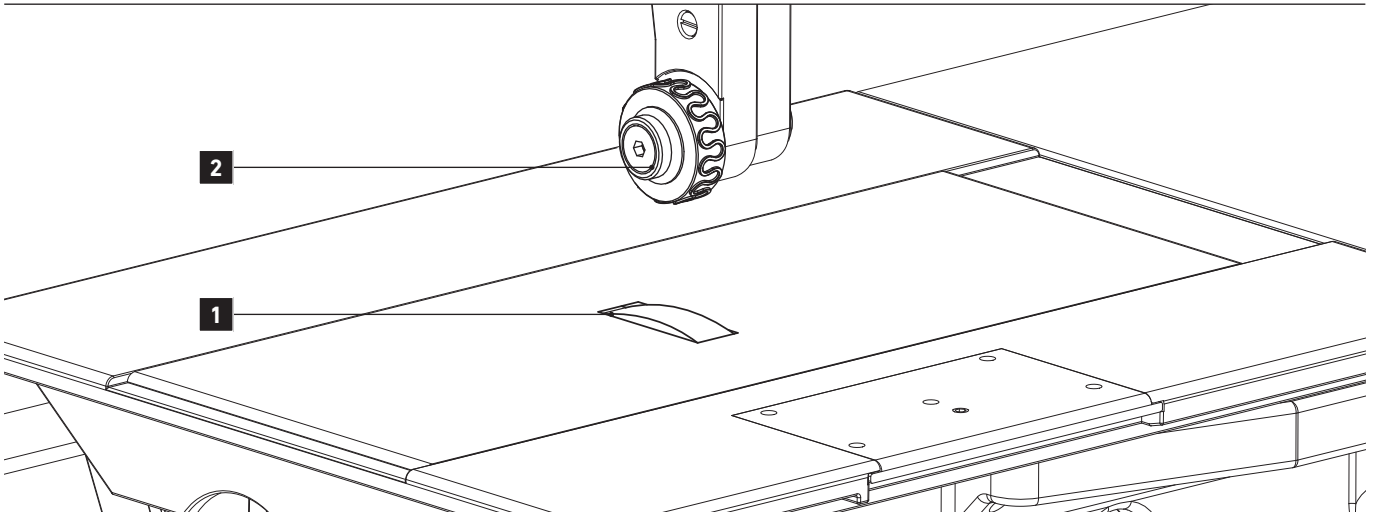
Our program Updates you can download on www.vetrontypical.com

Copy the current Update on your USB-Dongle and proceeds as follows:

DISPLAY	STEP	DESCRIPTION
» UPDATE THE OPERATING PROGRAM		
1	When the machine is switched off, plug in your DONGLE .	= Identify
2	Turn the machine on the main switch ON . Wait a second and press the JOG KEY .	
3	Initialising... » 	
4	Update firmware turn wheel »  Confirm	
5	2012-01-11XIA Welding You want to update the COMPLETE firmware	
6	»  Press the " PARAMETER " button	
PROGRAMMING 1/5 PROGRESS 10%		1/5: Update 1 of 5
PROGRAMMING 5/5 VERIFY OK		
PROGRAMMING PROGRESS 10%		
PROGRAMMING VERIFY OK		
7	Update success Please reboot!	Turn the machine on the main switch OFF and ON again.

07. MAINTENANCE & CARE

01. SONOTRODE & WELDING WHEEL CLEANING



ATTENTION!

Switch the machine off and have it cool down!
Risk of burns in the case of contact with the sonotrode!

Clean the sonotrode as well as the welding wheels (= transport rollers) as needed.

Sonotrode **1** and welding wheel **2** must be kept clean.
Remove possibly adhering welding residues using a **brass wire brush**.



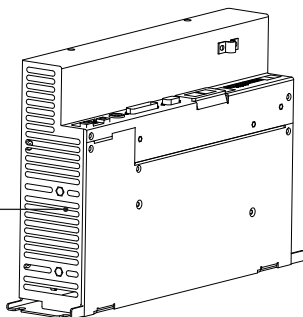
ADVICE:

Use **brass wire brushes** for cleaning only.
Otherwise you may damage the sonotrode and the welding wheel.

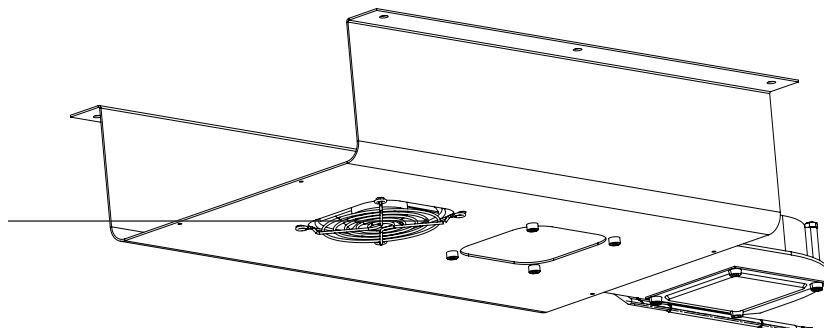
07. MAINTENANCE & CARE

02. FAN

Airfilter Generator



Airfilter ventilator tub



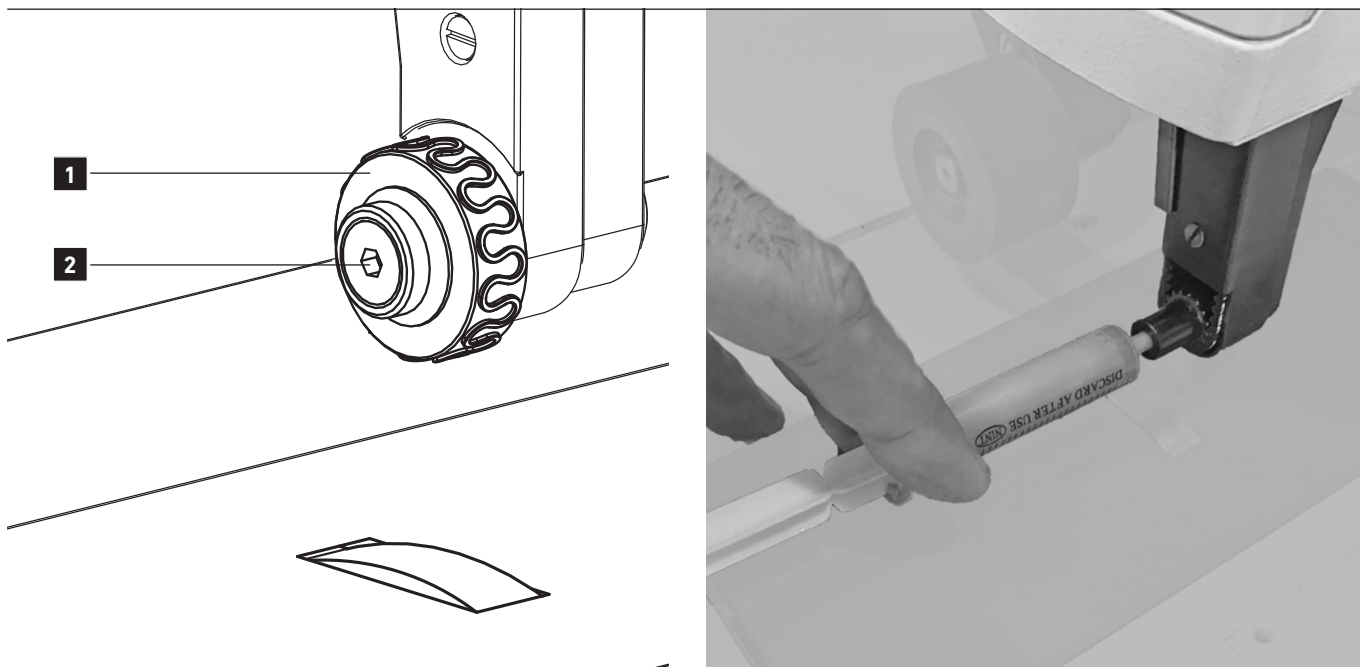
ATTENTION!

Switch the machine off and have it cool down!
Risk of burns in the case of contact with the sonotrode!



ADVICE:

Make sure that the generator fan is unobstructed.
In the case of high contamination levels you must equip
the fan with respective filters!



LUBRICATE THE BOLT ON THE ANVIL WHEEL **1**

01. Remove the fastening screw **2**.
02. Fill the bolt through the tapped hole with the supplied grease.
03. Now tighten the screw **2** again.



ADVICE:

One time a week minimal!
Only suitable high-performance grease use, for example Interflon Grease HD2

07. MAINTENANCE & CARE

08. ADJUSTMENT

01. IMPORTANT ADVISE REGARDING ADJUSTMENT

The adjustments listed here may only be performed by trained specialist personal. The adjustment instructions refer to a completely assembled machine. Removal and installation of covers necessary for adjustments are not mentioned in the text.

Please observe the order of the following chapters, which corresponds to a meaningful work sequence for a machine to be completely calibrated. If you perform individual work steps only, you must always also consider the previous and next chapter.



CAUTION!

Disconnect the machine from the electrical power grid prior to any adjustments.
Risk of injury due to unintentional startup of the machine!

08. ADJUSTMENT

02. LATERAL ADJUSTMENT OF THE SONOTRODE



ADVICE!

In order to optimally use the complete welding width, you can shift the VETRON welding unit respectively the sonotrode sideways.

Despite the extreme hardness of the sonotrode, damage to the surface of the sonotrode due to high pressure and energy may particularly occur in the case that thick materials are welded.




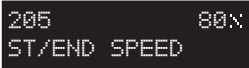
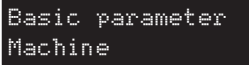




DISPLAY	STEP	DESCRIPTION
» LATERAL ADJUSTMENT OF THE SONOTRODE		
1		Loosen the screws 1 (7 pieces).
2		Slide the sonotrode 2 and the cover 3 in the direction of the arrow.
3		Once the sonotrode is correctly positioned, tighten the screws 1 again.



ADVICE!


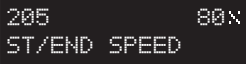

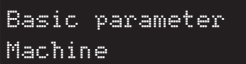

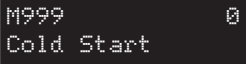



You can find all adjustments applicable to the machine, including resetting the operating program and the states of the digital and analog inputs and outputs under the machine parameters.

Navigate to the machine parameters as follows:

DISPLAY	STEP	DESCRIPTION
» MACHINE PARAMETERS		
1	»  Press the " PARAMETERS " button	The corresponding LED on the display lights up.
2	 Turn the Jog Key counterclockwise, until you can find the Basic Parameters (accessible with access right level 2 only).	
3	 »  Confirm	
4	»  Turn the Jog key counterclockwise in order to find the parameter list.	
5	»  Confirm	
6		The first machine parameter is shown. The M in M103 indicates that this parameter is a machine parameter.

08. ADJUSTMENT

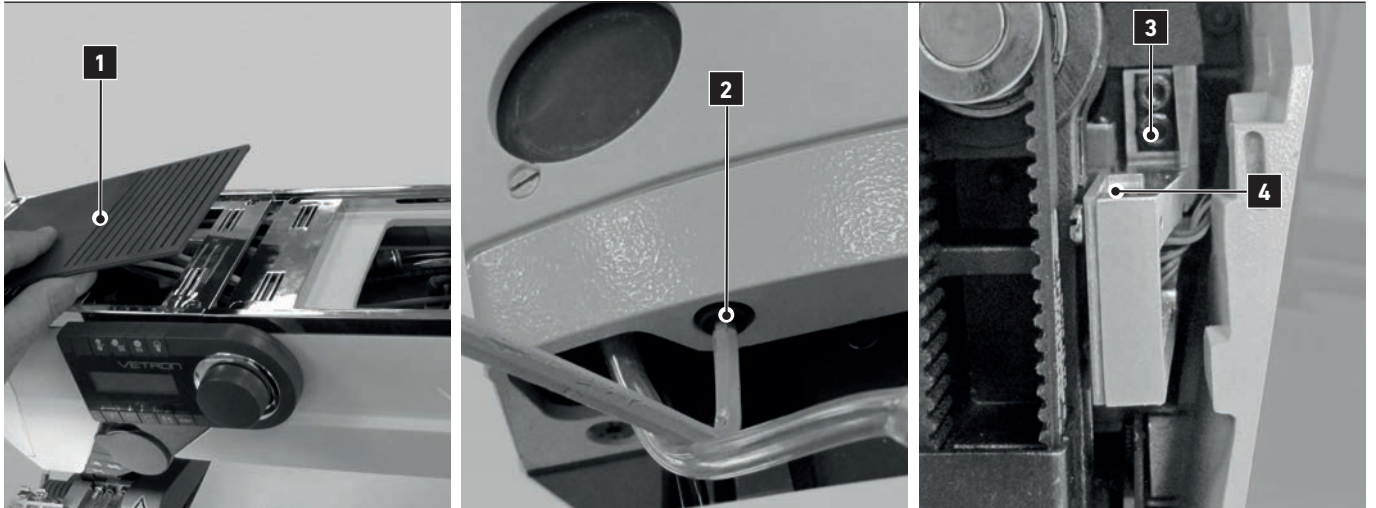
04. RESETTING THE MACHINE PARAMETERS




DISPLAY	STEP	DESCRIPTION
» RESETTING THE MACHINE PARAMETERS		
	1	»  Press the " PARAMETERS " button
	2	Turn the JOG KEY counterclockwise, until you reach MACHINE PARAMETERS (accessible with access right level 2 only).
	» 	Turn the Jog key counterclockwise in order to change the parameter number.
	» 	Confirm
	» 	Confirm = Cold Start
	» 	In order to set the value to " 1 or 2 "
	» 	Confirm
	5	Switch the CONTROL OFF and ON again using the main switch.
		After a new start, the machine parameters are reset.

08. ADJUSTMENT

05. HEIGHT MEASURING SYSTEM

-1-2









DISPLAY	STEP	DESCRIPTION
» HEIGHT MEASURING SYSTEM		
	1	Remove the cover 1 of the head module and release the screws.
	1A	Remove the cover. Loosen screw 2 underneath the head part.
	2	Release sensor carrier 3 .
	3	Turn on the machine.
	4	Tighten screws 2 slightly.
	5	» P Press the Button "PARAMETER"
6		»  To get to the "SERVICE" indicator.
6A		»  Confirm.
7		»  Confirm.

08. ADJUSTMENT

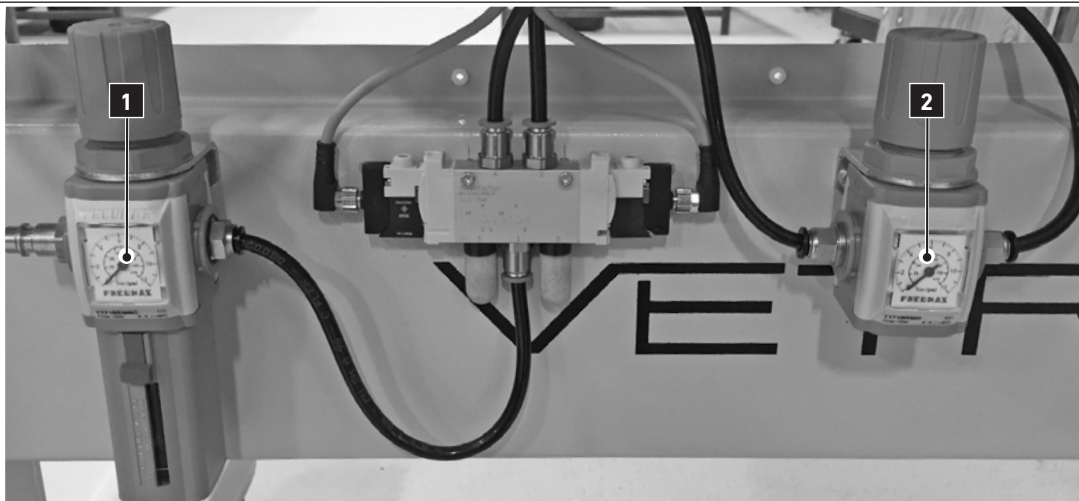
05. HEIGHT MEASURING SYSTEM

-2-2

DISPLAY	STEP	DESCRIPTION
» HEIGHT MEASURING SYSTEM		
8	 In order to get the wheel down.  In order to get the wheel up.	The wheel should slowly move upwards. As long as the wheel is moving, both DIODES 4 have to GLOW . Otherwise, you have to adjust. (see Step 6)
 At a space of ENC (Encoder) POSITION ± 0 mm bis -1,00 mm the GREEN DIODE shouldn't glow. At -1,00 mm STOP TURNING the JOG KEY rightwards!		
9	»  Press to INITIALIZE	ENC position initialize automatically.
10	 »  press and the machine is ready for operation.	Mount the cover again.

ATTENTION!

To avoid damage to the magnetic stripe there should be a gap between sensor and magnetic stripe.



WARNING!

Danger by compressed air

Disconnect the machine from the electrical network before any adjustment work!
Risk of injury if the machine starts up unintentionally.

PRESSURE SETTING:

01. Connect the machine to the compressed air system.
02. The operating pressure at the filter control valve **1** is 6 bar.
03. The pressure of the anvil wheel on pressure control valve **2** is factory set to 3.5 bar.

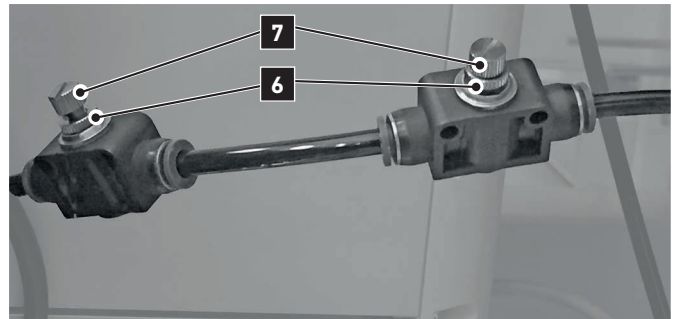
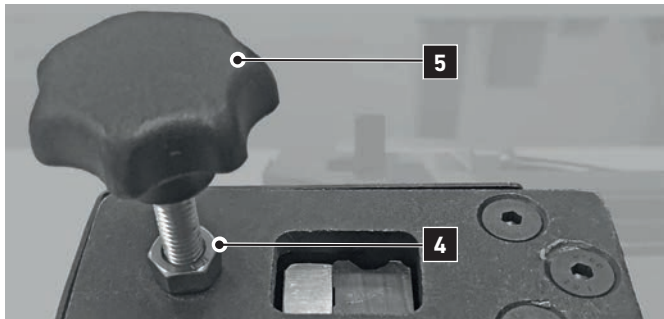
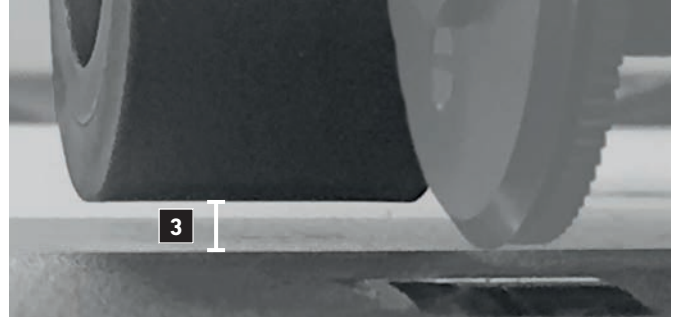
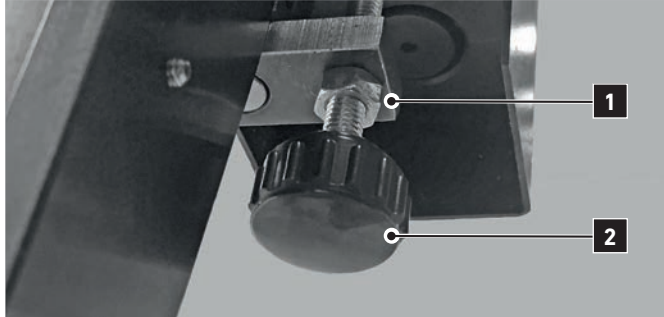


CAUTION







The maximum pressure of the pressure control valve **2** is 4 bar!
Higher pressure can damage the welding unit.

08. ADJUSTMENT

07. PULLER



! **NOTE!**
The throttle valves are located under the table top!

STEP	DESCRIPTION
» PULLER ADJUSTMENT	
» ON / OFF	Push Spot welding button (see 02.02.)
» HEIGHT ADJUSTMENT	<p>Loosen the nut 1 under the housing & turn the adjusting screw 2</p> <p>»  to REDUCE gap 3</p> <p>»  to INCREASE gap 3</p> <p>» Tighten nut 1 after the adjustment</p>
» PRESSURE ADJUSTMENT	<p>Loosen nut 4 on top of the housing & turn the adjusting screw 5</p> <p>»  the pressure becomes LESS</p> <p>»  the pressure becomes MORE</p> <p>» Tighten nut 4 after the adjustment</p>
» UP / DOWN SPEED ADJUSTMENT	<p>Loosen the nuts 6 from the throttle valves & and turn the adjustment screws 7</p> <p>»  the Speed becomes LESS</p> <p>»  the Speed becomes MORE</p> <p>» Tighten nuts 6 after the adjustment</p>

Dear Customer,

we are very sorry to hear that there is an issue regarding one of our products and that you are not satisfied. To fully process your complaint, we need some information from you. Therefore we would kindly like to ask you to complete the below questionnaire and return it back to us. We will then process your complaint in our quality department and send you feedback as soon as possible.

Thank you very much for your understanding and your efforts in advance.

Kind regards,
Your Vetron Typical Europe Team

1. CUSTOMER:

Name:	Country:
Address:	Phone:
Zip code, city:	Email:

2. DEALER:

Name:	Country:
Address:	Phone:
Zip code, City:	Email:

3. MACHINE DATAS:

Product-Type:	Control box type:
Serial number of machine:	Serial number of control box:
Year of manufacturing:	Software release:

4. PROBLEM OR FEATURE REQUEST:

Detailed description:

Date of first error, error count:

Date, Signature:

In order to process the complaint properly, we ask you for the following information:

- » This signed support sheet
- » Original product / part(s) or videos and pictures of the problem

Please send the defective part(s) and completed dokument to:

Vetron Typical Europe GmbH
Clara-Immerwahr-Str. 6
67661 Kaiserslautern / Germany

Phone: +49 6301 320 75-0

Fax: +49 6301 320 75-11

Or contact us by mail:
support@vetrontypical.com



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