

# E-type impulse sealer User manual



***BEFORE USING THE MACHINE PLEASE CAREFULLY READ THE INSTRUCTIONS!***

**Program: v3.4**

DOC000290\_001

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## Version modifications:

### **v4 2020.08.06**

- 1.5 Machine types
- 2.1 Technical parameters
- 2.3 Build up
- 2.6 Weight and dimensions of the packed machine
- 2.7 Machine weight and dimensions without stand
- 4 Adjustments of the machine
- 8.4 The changing of the wear parts / How to change PTFE cover and sealing wire on machines with sealing wire temperature sensor
- 8.6 Wiring diagram with external POC
- 8.7 Wear parts for standard machines
- 8.8 Wear parts for machines with sealing wire temperature sensor
- 8.9 Wear parts structure

### **v3 2020.06.04**

- 1.4 Added Company name and production date to machine data label
  - 2.1 IP class modification
  - 8.3 Added required tools list
  - 8.4 Change the upper PTFE in gloves
  - 8.9 Added decommissioning information
  - 10. Added EC declaration of conformity
- Figure reference correction in all document  
Adding Hacona Kft address to first page

### **v2 2020.04.09**

- 4.1 Switching on the machine
- 5.5 Boxing the machine
- 6.2 Machine overheating
- 8.6 Service

# 1. Introduction

## 1.1 Introduction

You have bought a machine with outstanding features and performance and we thank you very much for your confidence in choosing it. The HACONA system is unique in its kind. The technological development and quality of the components, as well as the materials used in the manufacturing and the testing process are the best guarantee of proper operation and long-lasting liability.

## 1.2 The scope of application

Thanks to its particular operation circuit the machine, can be used both as bag making machine and as a plain sealing machine to seal the filled bags. At the production of bags, the film can be perforated by running it through the perforating machine itself.

## 1.3 Foils that can be used

You can use the following films: PE, LDPE, HDPE, PP, PO, PVC, BOPP and any other laminated films that have a thermoplastic film inside as all thermoplastic films. The maximum material thickness is between 10 - 500µ (Bi-Active 800 µ).

These films are also manufactured and distributed by Hacona Kft. The special features of our films (customized with logo, drawings and text) assure their outstanding reliability, with regard both to compliance with laws in force and to an excellent machine performance.

## 1.4 Machine identification

In every communication with the Manufacturer concerning the machine, always give the type and the serial number of the machine specified on the plate on the rear part of the machine.

<b>hacona</b>		<b>CE</b>	
Type:	<b>E-420</b>	Serial N°:	<b>00001</b>
Supply:	<b>230 [V]</b>	Power:	<b>650 [W]</b>
Frequ.:	<b>50 [Hz]</b>	Current:	<b>3,00 [A]</b>
Weight:	<b>18 [Kg]</b>	Date:	<b>2019.01.01</b>
<p><i>Hacona Kft - 1165 Budapest, Bokenyfoldi ut 106 Hungary</i>  <a href="http://www.hacona.com">www.hacona.com</a></p>			

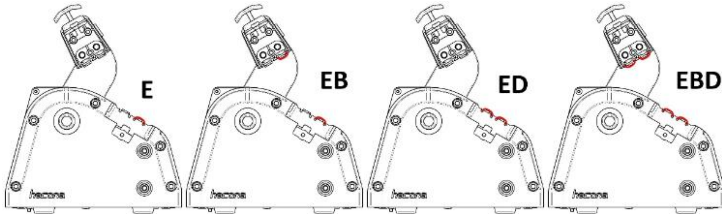
1. fig., Data table



## 1.5 Machine types

for example:

E	I	B	-	4	2	0
---	---	---	---	---	---	---



2. fig., Machine types

**E:** machine family

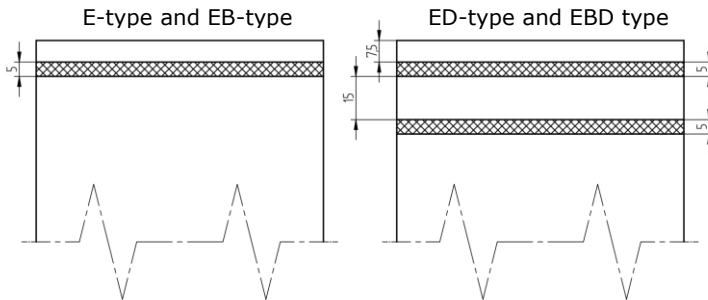
**I:** Inox (silver anodized aluminium surface treatment). The other machines without "I" sign has powder painted surface

**B:** Bi-Active sealing machine is heating the foil from the upper and lower sealing bar. This assures, that the heat flows through the material from both sides and 800 micron foil can be sealed

**D:** Double sealing. The machine makes two normal sealing at one time

**EBD:** Biactive double. The machine makes two better efficiency sealings

**T:** "T" means that the machine is equipped with a sealing wire temperature sensor.  
For example: EIBD-420**T**



3. fig., Sealing types

420: sealing length in millimeters

	E			EB			ED			EI			EIB			EID			EBD			EIBD			
	EU	GB	US	EU	GB	US	EU	GB	US	EU	GB	US	EU	GB	US	EU	GB	US	US	EU	GB	US	EU	GB	
420	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
620	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
820	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗
1020	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
1320	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

- Mass production
- Unique production only
- Not produced

## 2. Technical descriptions

### 2.1 Technical parameters

- Power supply EU and GB: ..... 230V, 50Hz
- Power supply USA: ..... 110V, 60Hz
- Recommended circuit breaker EU / USA: ..... C16A / C15A
- The electric power of every machine during standby mode is less than .... 30 W
- Sealing power and nominal current (only when the machine is sealing)

	Sealing power									Nominal current								
	E			EB, EBD			ED			E			EB, EBD			ED		
	EU	GB	USA	EU	GB	USA	EU	GB	USA	EU	GB	USA	EU	GB	USA	EU	GB	USA
	[W]									[A]								
<b>420</b>	650	1300	1300	2600	1300	2600	3	6	6	12	6	12						
<b>620</b>	900	1800	1800	3600	1800	3600	4	8	8	16	8	16						
<b>820</b>	1250	2500	2500	×	2500	×	5,5	11	11	×	11	×						
<b>1020</b>	1500	3000	×	×	×	×	6,5	13	13	×	×	×	×	×	×	×	×	×
<b>1320</b>	2000	4000	×	×	×	×	8	16	16	×	×	×	×	×	×	×	×	×

*Note: When the sealing starts the starting current is usually much higher than it is described in the previous table*

- Electric shock protection rating: ..... I.st class
- IP protection: ..... IP33 (with option IP 34 or IP43)
- Sealing width: ..... 5mm (0,197 inch)
- Sealing temperature range: .....100-230°

*Settings and temperatures below are informative data only ad applies to standard E-type machine without sealing wire temperature sensor:*

01 - 09	100°C - 120°C
10 - 39	130°C - 160°C
40 - 69	150°C - 190°C
70 - 99	170°C - 230°C

- Safety system: ..... hand pinch protection
- User interface: ..... 3 buttons and two digit numeric display (KPAD)
- Closing (or opening) time of the sealing bar ..... ~ 1 sec
- Sealing wire temperature sensor efficiency (specified types only) ..... no data

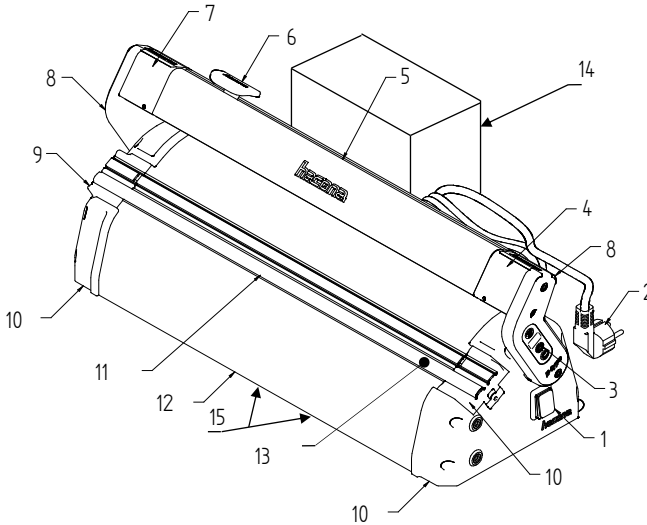
## 2.2 Max. sealable packaging sizes

Type	Max. film width [mm]	Max. film width [inch]
E-420 / EB-420 / ED-420 / EI-420 / EIB-420 / EID-420 / EIBD-420	420	16
E-620 / EB-620 / ED-620 / EI-620 / EIB-620 / EID-620 / EIBD-620	620	24
E-820 / EB-820 / ED-820 / EI-820 / EIB-820 / EID-820	820	32
E-1020 / EB-1020 / ED-1020 / EI-1020 / EIB-1020 / EID-1020	1020	40
E-1320 / EB-1320 / ED-1320 / EI-1320 / EIB-1320 / EID-1320	1320	50

## 2.3 Build up

The main switch is located on the right side of the machine. To switch on, set the main switch to "I".

*Note: When turned on, the main switch lights up in orange.*



4. fig., E-type front

- |                        |                        |   |
|------------------------|------------------------|---|
| 1. Main switch         | 6. Cutting knife       | 11. Sealing wire                                |
| 2. Power plug (EU)     | 7. Sealing bar end cap | 12. Machine frame                               |
| 3. Keypad (KPAD)       | 8. Sealing bar arm     | 13. Sealing wire temperature sensor (ST-SW) *   |
| 4. Sealing bar end cap | 9. Wire tensioner lid  | 14. External sealing power controller (POC) *   |
| 5. Sealing bar profile | 10. Side covers        | 15. Fans (at the bottom of the machine) (FAN) * |

\* indicated types only

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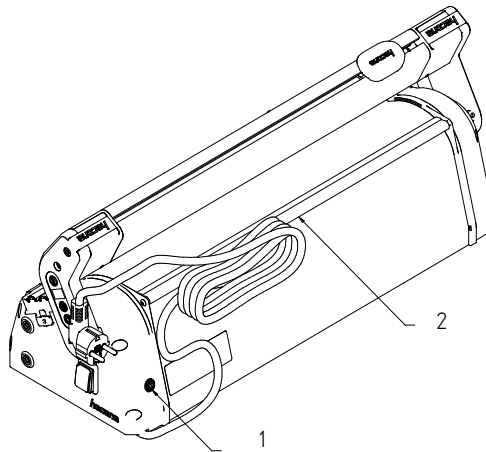
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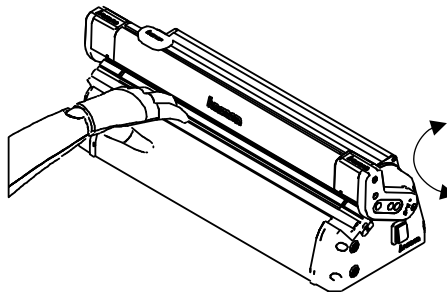


5. fig., E-type back

1. Foot pedal connector    2. Foilstop profile

## 2.4 Safety function

The machine has a built in hand pitch protection. If the fingers are between the sealing bars while they are closing the magnet can not turn on and the motor is still running so the sealing bar will automatically open then close again until you take out your hand.



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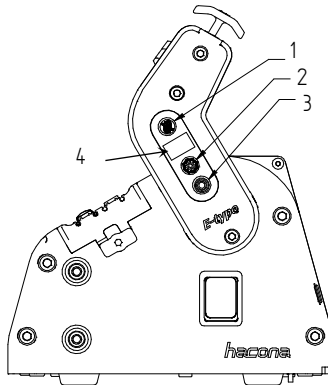
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6. fig. Hand pinch protection

## 2.5 Machine interface (KPAD)

There are three buttons on the right of the machine and a small display.



7. fig., User interface (KPAD)

1. Setting the sealing time (upper button)- the first number is changing
2. Setting the cooling time (middle button)- the second number is changing
3. The function button (lower button)
4. Two digit numeric display

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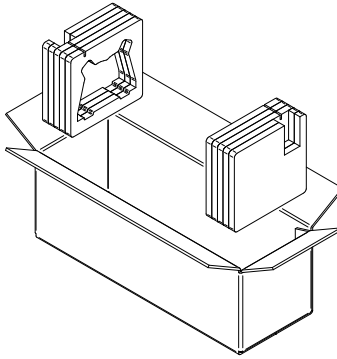
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## 2.6 Weight and dimensions of the packed machine



8. fig., The packaging of the machine

Type	Size [mm] / [inch] Length x Width x Height	Weight [kg] / [pounds]
E-420 / EB-420 / ED-420 / EI-420 / EIB-420 / EID-420	732,8 x 262,8 x 265,6 mm 28.8 x 10.3 x 10.45 "	17,8 kg / 39 lb
E-620 / EB-620 / ED-620 / EI-620 / EIB-620 / EID-620	932,8 x 262,8 x 265,6 mm 36.7 x 10.3 x 10.45 "	20,5 kg / 45 lb
E-820 / EB-820 / ED-820 / EI-820 / EIB-820 / EID-820	1132,8 x 262,8 x 265,6 mm 44.6 x 10.3 x 10.45 "	25,3 kg / 55 lb
E-1020 / EB-1020 / ED-1020 / EI-1020 / EIB-1020 / EID-1020	1332,8 x 262,8 x 265,6 mm 52.5 x 10.3 x 10.45 "	28,5 / 62 lb
E-1320 / EB-1320 / ED-1320 / EI-1320 / EIB-1320 / EID-1320	1632,8 x 262,8 x 265,6 mm 64.3 x 10.3 x 10.45 "	33,3 / 73 lb
EIBD-420	732,8 x 400 x 265,6 mm 28.8 x 16 x 10.45	20 kg / 44 lb
EIBD-620	932,8 x 400 x 265,6 mm 36.7 x 16 x 10.45	23,7 kg / 52 lb

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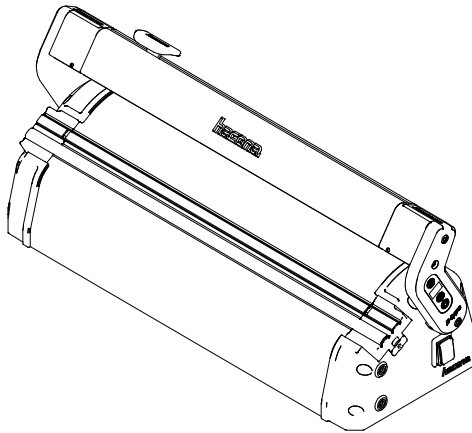
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## 2.7 Machine weight and dimensions without stand



9. fig., E-type

Type	Size [mm] / [inch] Length x Width x Height	Weight [kg] / [pounds]
E-420 / EB-420 / ED-420 / EI-420 / EIB-420 / EID-420	600 x 213 x 240 mm 23.6 x 8.4 x 9.5 "	16,6 kg / 36 lb
E-620 / EB-620 / ED-620 / EI-620 / EIB-620 / EID-620	800 x 213 x 240 mm 31.5 x 8.4 x 9.5 "	19,0 kg / 41 lb
E-820 / EB-820 / ED-820 / EI-820 / EIB-820 / EID-820	1000 x 213 x 240 mm 39.4 x 8.4 x 9.5 "	23,5 kg / 51 lb
E-1020 / EB-1020 / ED- 1020 / EI-1020 / EIB-1020 / EID-1020	1200 x 213 x 240 mm 47.3 x 8.4 x 9.5 "	26,5 kg / 58 lb
E-1320 / EB-1320 / ED- 1320 / EI-1320 / EIB-1320 / EID-1320	1500 x 213 x 240 mm 59 x 8.4 x 9.5 "	30,9 kg / 68 lb
EIBD-420	600 x 380 x 240 mm 23.6 x 14.9 x 9.5 "	18,8 kg / 41,4 lb
EIBD-620	800 x 380 x 240 mm 31.5 x 14.9 x 9.5 "	22,2 kg / 48,9 lb

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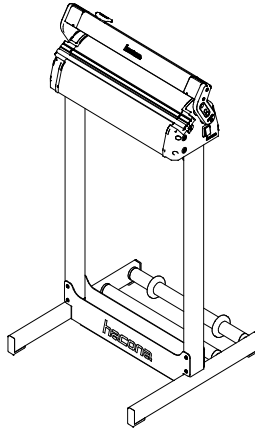
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## 2.8 Machine weight and dimensions with stand



10. fig., E-type with stand

Type	Size [mm] / [inch] Length x Width x Height	Weight [kg] / [pounds]
E-420 / EB-420 / ED-420 / EI-420 / EIB-420 / EID-420	550 x 560x 1040 mm 21.6 x 22 x 40.9 "	26,6 kg / 58 lb
E-620 / EB-620 / ED-620 / EI-620 / EIB-620 / EID-620	750 x 560 x 1040 mm 29.5 x 22 x 40.9 "	30 kg / 66 lb
E-820 / EB-820 / ED-820 /EI-820 / EIB-820 / EID-820	950 x 560 x 1040 mm 37.4 x 22 x 40.9 "	35,6 kg / 78 lb
E-1020 / EB-1020 / ED-1020 / EI-1020 / EIB-1020 / EID-1020	1150 x 560 x 1040 mm 45.3 x 22 x 40.9 "	39,6 kg / 87 lb
E-1320 / EB-1320 / ED-1320 / EI-1320 / EIB-1320 / EID-1320	1450 x 560 x 1040 mm 57 x 22 x 40.9 "	45,6 kg / 100 lb

### 3. Machine installation

#### 3.1 Transport and positioning of the machine

Handle the machine with the greatest care at transport and positioning. Cut the strap with scissors and remove the machine out of the carton box. The machine has to be placed in dry and well ventilated room on stable floor, so that the working flow is not impeded.

#### 3.2 Environmental conditions

Place the machine in a suitable environment, free from humidity, gases, explosives and combustible materials.

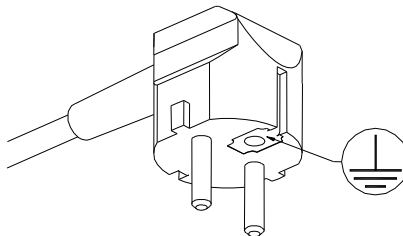
Working environmental conditions:

Temperature: from +5°C to +40°C  
Relative humidity: from 30% to 90%, without condensation

#### 3.3 Electrical connection

**OBSERVE HEALTH AND SAFETY REGULATIONS!  
GROUNDING OF THE UNIT IS OBLIGATORY**

Before executing electrical connections, make sure the mains voltage matches the one on the plate on the back part of the machine and the grounding contact complies with the safety rules in force. In case of doubts concerning the mains voltage, contact the local public Electric Works.



11. fig., Power plug (EU)

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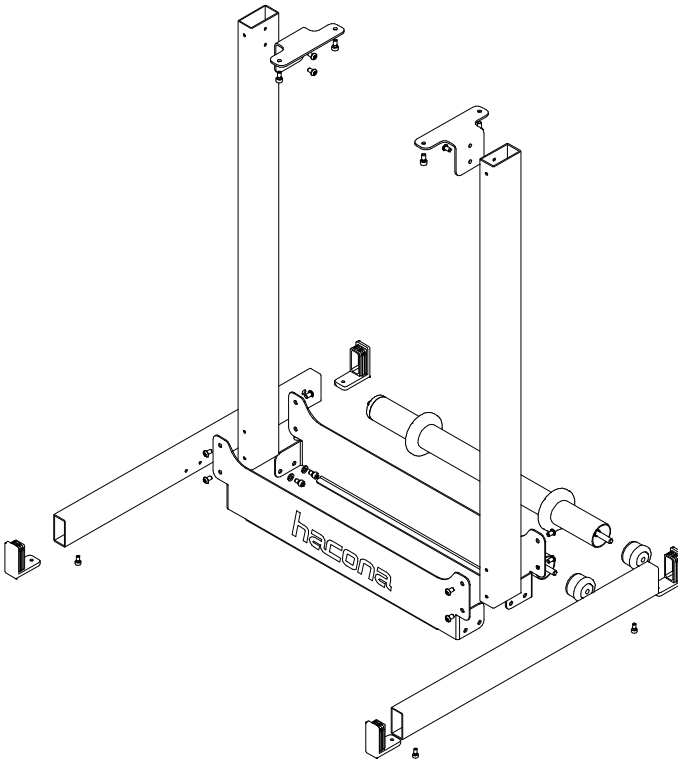
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### 3.4 Using the machine without stand

The machine can be used without fixing on a table or on a stable surface when no support are available.

### 3.5 Assembling the support and the accessories

Assemble the stand, table and the stand table as shown below. Care should be taken when assembling, to tighten the bolts in any case.



12. fig., Assembling the support

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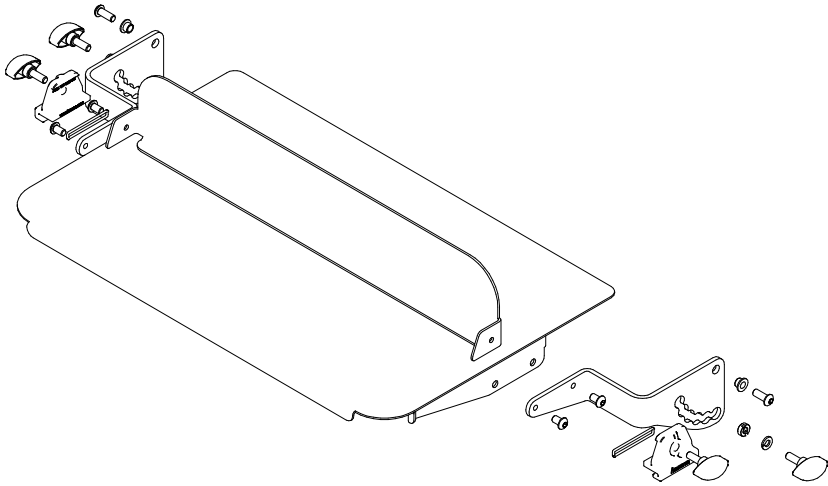
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13. fig., Assembling the table

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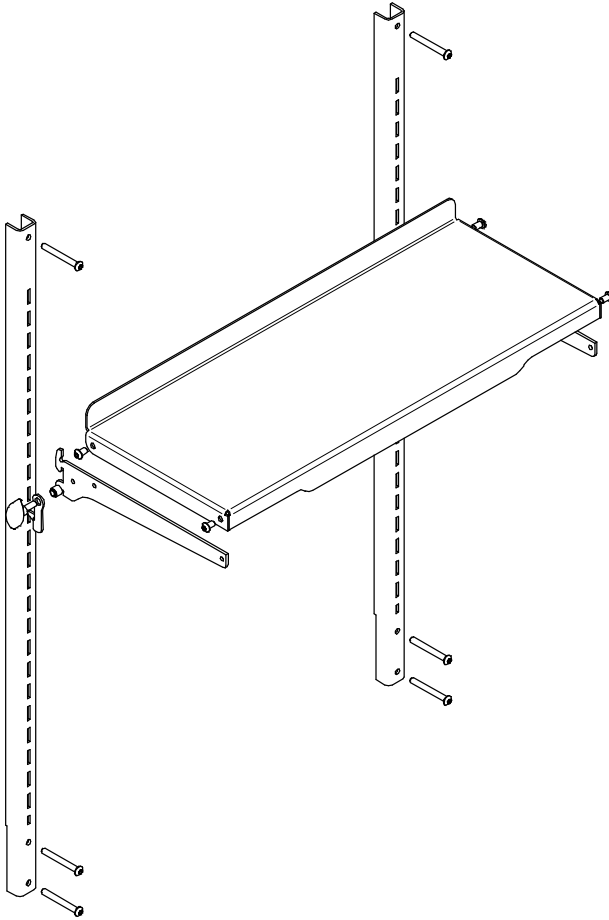
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14. fig., Assembling the support table

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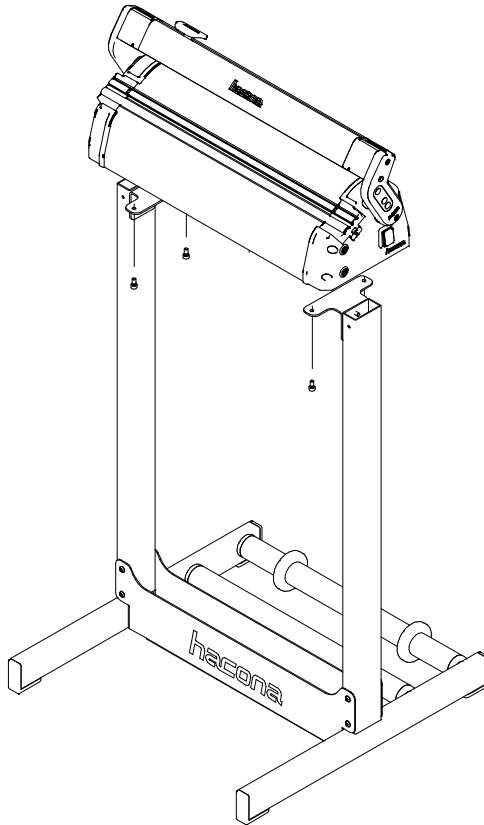
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### 3.6 Mounting the machine to the stand



15. fig., Mounting E-type to the stand

### 3.1 Accessories

On the following link you can check the accessories list for the E-type machine:

<https://hacona.com/en/pricelist/accessories-etype>

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## 4. Adjustments of the machine

### 4.1 Switching on the machine

The machine can be turned on with the Main switch (2.3). The KPAD is showing on the display numbers for example:

04 blink 3.2 blink 3.3 blink 12.

The 04 is the machine type (see the table below), 3.2 is the CPU program version, 3.3 is the KPAD program version and 12 is the sealing and cooling setting that has been set before the machine was turned off.

Machine type	E-420	ED-420	EB-420	E-620	ED-620	EB-620	E-820	ED-820	EB-820	E-1020	ED-1020	EB-1020	E-1320	ED-1320	EB-1320
Setting	4	74	94	6	76	96	8	78	98	10	70	90	13	73	93

16. fig., Machine type code on KPAD

EBD machine must have EB machine setting.

If the machine is equipped with **sealing wire temperature sensor** then the machine type has a point in below. For example:

9.4 blink 3.2 blink 3.3 blink 12.

If the machine is

#### Attention:



**Check the machine type on the KPAD and in reality. Hacona takes no responsibility if the electronic boards are changed and the machine will be faulty because of different machine types. Sealing wire can be overheated.**

If the sealing bar is in open state when the machine is turned on then the sealing bar closes and holds for one sec, then opens again and stops.

If the sealing bar is closed when the machine is turned on then the sealing bar opens and closes then hold for one sec in the closed position. Then the sealing bar opens again and stops.

After the sealing bar stops movement on the KPAD after the second digit a LED point can be seen. This means that the machine is in the **base position**.

### 4.2 Sealing time

If the machine is in base position, the sealing time can be set with the 1. (upper) button on the KPAD (2.5). After one second later the display blinks and the KPAD setting is saved. The machine after restart remember for this setting.

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The **standard** E-type machines does not have built in temperature sensor. The sealing times are calculated by the program (ASCC – Adapted sealing cycle control) and is depending by the sealing setting set by the user and the rate of the sealing cycles. The sealing parameters don't have to be readjusted after continues work with the machine. For example: the sealing for the 31 program is not the same for the first time sealing and if the cycle is restarted in 5 sec, 10 sec etc. After 1 sec of inactivity the sealing parameters are the same.

The sealing time is affected by the temperature of the sealing wire at the E-type machines with **sealing wire temperature sensor**. The starting sealing time is set the same as the standard machines with the upper button. If the setting is 0 then the machine will seal until the temperature reach the desired set temperature. The sealing time equals with the first character on the display. For example: if the setting is 9 then the start sealing time is 9 sec.

**Attention:**



**The three buttons must be pressed with finger tip. It is forbidden to press the buttons with finger nails, because the foil may be torn.**

### 4.3 Cooling time

If the machine is in base position, the cooling time can be set with the 2. (middle) button on the KPAD. (2.5). After one second later the display blinks and the KPAD setting is saved. The machine after restart remember for this setting.

The cooling time depends of the cooling time setting and the sealing time and is calculated by the program. The time **1** from the **01** program and the **31** program is not the same. In 01 program the cooling time is 0,8 sec and in program 31 the cooling time is 2,3 sec.

For **standard** machine in details please see table below.

		Sealing time setting									
		0	1	2	3	4	5	6	7	8	9
Cooling time setting	1	0,8	1,3	1,8	2,3	2,9	3,5	4,2	4,9	5,6	6,4
	2	1,6	2,1	2,6	3,2	3,8	4,5	5,2	5,9	6,7	7,5
	3	2,4	2,9	3,5	4,1	4,8	5,5	6,2	7	7,8	8,7
	4	3,2	3,8	4,4	5,1	5,8	6,5	7,3	8,1	9	9,9
	5	4	4,6	5,3	6	6,7	7,5	8,3	9,2	10,1	11
	6	4,8	5,5	6,2	6,9	7,7	8,5	9,4	10,3	11,2	12,2
	7	5,6	6,3	7	7,8	8,6	9,5	10,4	11,3	12,3	13,3
	8	6,4	7,1	7,9	8,7	9,6	10,5	11,4	12,4	13,4	14,5
	9	7,2	8	8,8	9,7	10,6	11,5	12,5	13,5	14,6	15,7

17. fig., Cooling time depending the setting [sec] - for standard machines

For the machines with **sealing wire temperature sensor** the cooling time is calculated below:

cooling time =  $0,33 * \text{sealing time} + 0,5 * \text{the second character on display}$

For example: if on the display is 34 then the cooling time =  $0,33 * 3 + 0,5 * 4 = 3$  sec

#### 4.4 Sealing temperature (machines with sealing wire temperature sensor only)

If the machine is in base position, the sealing temperature can be set with pushing both the 1. (upper) and the 3. (lower) buttons on the KPAD. (2.5). The display will start to blink and it shows the sealing temperature divided with ten. (for example if it shows 11 it means that the sealing temperature is 110°C)

To modify this setting use the 1. (upper) and 2. (middle) buttons.

To save this setting press and hold the 3. (lower) button for 2 sec. After saving the later the display blinks quicker and the KPAD setting is saved. The machine after restart remember for this setting.

The sealing temperature can be set between 70°C and 230°C.

#### 4.5 Cooling temperature (machines with sealing wire temperature sensor only)

If the machine is in base position, the cooling temperature can be set with pushing both the 2. (middle) and the 3. (lower) buttons on the KPAD. (2.5). The display will start to blink and it shows the cooling temperature divided with ten. (for example if it shows 07 it means that the cooling temperature is 70°C)

To modify this setting use the 1. (upper) and 2. (middle) buttons.

To save this setting press and hold the 3. (lower) button for 2 sec. After saving the later the display blinks quicker and the KPAD setting is saved. The machine after restart remember for this setting.

If the cooling temperature is bigger then 0 then after the sealing the machine will open only when the sealing wire's temperature will be smaller then the set cooling temperature. With this setting the cooling time that has been set before has no effect. With this setting all sealings quality will be similar.

If the cooling temperature is set to 0, then after sealing the machine will open after the cooling time, no matter how big is the temperature of the sealing wire. In this case can happen that the foil became creasy after the sealing bar opens.

The cooling temperature can be set between 10°C and 200°C.

## 4.6 Cycle time

The machine's cycle time is the sum of the sealing time, cooling time and the opening and closing times of the sealing bar.

		Sealing time setting									
		0	1	2	3	4	5	6	7	8	9
Machine length	420	3,8	4,4	6,8	9,1	6,2	8,5	10,9	8,4	11	15
	620	4,1	4,7	8,3	9,9	6,7	11	13	8,9	13,4	17,1
	1020	4,6	5,3	8,1	10,6	7,4	10,5	13,1	9,8	15	19,4
	1320	4,7	5,5	8,4	11,3	7,6	10,7	13,8	10	15,7	18,8

18. fig., Machine cycle time depending of machine length (if the cooling time = 2) [sec] – for standard machines

## 4.7 ED and EB function

In the ED-type machines with the function button (2.5) the second sealing can be turned on when the machine is not sealing.

In the EB-type machines the function button is always turned on because the upper sealing wire function can not be turned off.

In the normal E-type machines the function button can not be turned on because there is no second sealing wire in the machine.

After modify this setting wait for one second until the display blinks and the KPAD setting is saved. The machine after restart remember for this setting.

In the EBD machines the ED function can not be turned off. This machine will always make two sealings.

## 4.8 Start the sealing

The sealing can be started after the machine is in the base position with two modes:

- pushing the foot pedal
- pulling the sealing bar for 2-3 centimeters

## 4.9 Sample sealing

After the machine is turned on and it is in the base position you have to set the sealing, and cooling time and the ED function. The proper sealing and cooling time depends on the thickness and the kind of the packing film.

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To make a test sealing you have to adjust the **sealing** time to **0** and **cooling** time to **1**. Place the bag between the sealing bars and then start the sealing. The built-in SNS sensor observes the position of the sealing bar and the electro magnet makes the needed pressure, and keeps the sealing bar closed during the adjusted sealing- and cooling time.

If the bag is not sealed properly (the bag stays open), **restart the machine then** raise the sealing time by one then make a new try.

The test sealing should always start at low (**01** setting) and if necessary, increase the sealing value one by one.

**Attention:**



**For a good sealing it is recommended that the cooling time be set to the same or higher value as the sealing time.**

**Otherwise, the sealing wire and the transformer may be damaged by overheating.**

## 4.10 Operation of the cutting knife

While the foil is sealed and before the sealing bar is opened, the foil can be cut with the cutting knife.

The blade is pulled back by spring for safety reasons. By pressing the knife head down and moving it right or left, you can cut the excess foil during the sealing time. The same procedure can be used to create a bag from hose foil.

*Note: You get the best cutting result, if the cutting head is pushed down in the middle of the film and then moved left and right.*

### !!! ATTENTION DANGER !!!



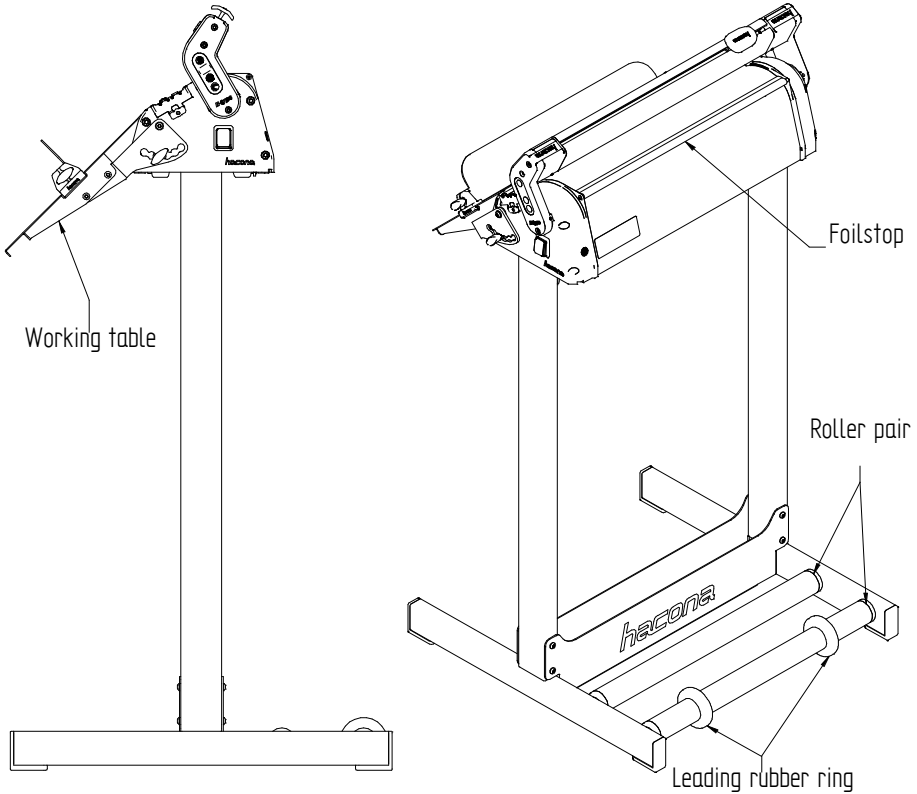
**Never operate the cutting device (push the cutting head down and move it left and right) when the sealing bar is open!!! Each time before the machine will be used check if there is no damage on the cutting device and if the cutting knife is on its proper position!**



**If the machine is upside down on the table, then the knife is usually out. Risk of injury!**

## 4.11 Positioning the film reel

Place the foil reel in the center of the roller pair on the back of the machine stand.



19. fig., Positioning the film reel

Place the leading rubber rings next to the two sides of the foil roller so that it runs loosely. Pull up the foil at the back of the machine and lead it under the foilstop.

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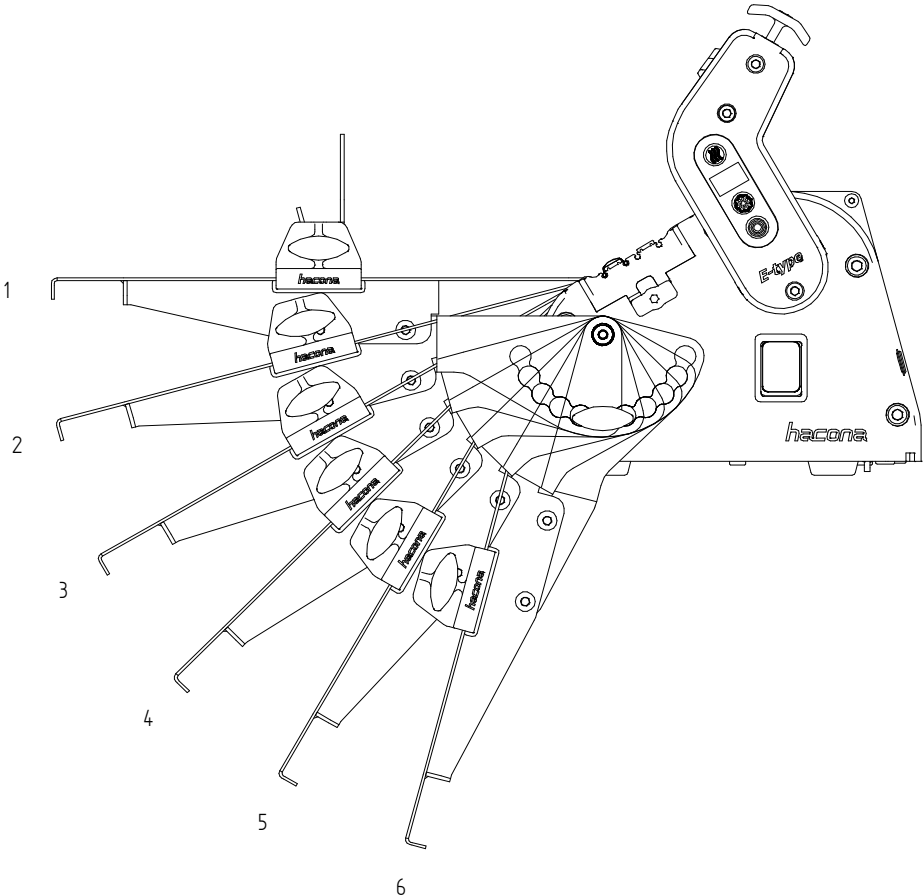
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## 4.12 The use of the working table and bag support (option)

The tilt angle of the working table can be adjusted in six positions from the horizontal to the almost vertical. To adjust the support table, unscrew the knob on its side and then screw it back after adjusting the correct angle.

The position of the bag support can be adjusted stepless. Make sure that the bag support is parallel with the sealing wire.



20. fig., Positions of the working table

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## 5. Advanced adjustments of the machine

### 5.1 Activate the security lock

The sealing, cooling and function settings can be locked with the using of an own password. After activating the security lock, the settings can not be modified only after the security lock is inactivated.

For activating the security lock do the followings:

- push at the same time the upper and the middle button on the KPAD (2.5) for **3 sec**
- the numeric display is starting to blink and writes 00
- write a 2 digit number (for example 57) 00 can not be set!
- push the lower button for 1 sec
- the numeric display is blinking quicker
- release the lower button, the security lock is activated

### 5.2 Deactivate the security lock

When the security lock is activated the user can not make modification on the settings. After pushing any button on the KPAD (2.5) the display is blinking for one time and the setting is not modified.

For deactivating the security lock do the followings:

- push at the same time the upper and the middle button on the KPAD (2.5) for **3 sec**
- the numeric display is starting to blink and writes 00
- write the password that you give when you activate the security lock (for example 57)
- push the lower button for 1 sec
- the numeric display is blinking quicker
- release the lower button, the security lock is deactivated

### 5.3 Deactivate the security lock with Master password

If the security lock code has been forgotten then the security lock can be deactivated with using a Master code.

For deactivating the security lock with a Master password do the followings:

- push at the same time all buttons (upper, middle and the lower) on the KPAD (2.5) for **3 sec**
- the numeric display is starting to blink and writes 00
- write the **49** password then push the lower button
- the numeric display is writes 00 again and still blinks
- write the **28** password then push the lower button for **3 sec**
- the numeric display is blinking quicker



- release the buttons, the security lock is deactivated

## 5.4 Cycle counter

The KPAD is counting the number of sealing cycles that has been made with the machine. This is an absolute counter can not be deleted.

For reading the cycle counter please do the followings:

- push at the same time all buttons (upper, middle and the lower) on the KPAD. (2.5) for **3 sec**
- the numeric display is starting to blink and writes 00
- write the **11** password then push the lower button
- the numeric display is writes 00 again and still blinks
- write the **97** password then push the lower button for **3 sec**
- the numeric display is blinking quicker
- release the lower button
- the display stops blinking and writes 01
- push the lower button
- the display blinks one time and writes two digits for example 00
- the display blinks again and writes two digits for example 01
- the display blinks again and writes two digits for example 23
- the display blinks again and writes two digits for example 45
- the display stops blinking and writes 01

The displayed cycle is 00012345 so 12.345 cycles has been made with this machine.

For exit do the followings:

- restart the machine
- Or
- set the 01 parameter to 00 then push the lower button

## 5.5 Boxing the machine

For any reason the machine must be put back in its original box. The machine's sealing bar must be closed, but in the base position the sealing bar is open. In this case set the 00 setting then start the machine which will close without seal. Now it can be turned off.

Or you can also turn off then after few seconds turn on again the machine, and when the sealing bar is closed turn it off.

Now you can put the machine back in the box.

## 6. Conditions and limits in the use of the machine

### 6.1 Items which cannot be packed



**It is strictly prohibited to pack the below listed products, to avoid damages to the machine and serious injuries to the operator in charge: Wet and unstable products, liquids of any kind, flammable and explosive materials and any other materials and products not listed but which might harm the operator and cause damages to the machine.**

### 6.2 Machine overheating

Starting from CPU v3.3 program version the machines has a built in overheating protection. If the temperature inside the machine is higher then 65°C degrees then the machine will seal once then will stop for one minute. The LD4 Cool led is blinking on the CPU. The sealing can not be started with pushing the foot pedal nor with pulling the sealing bar.

If the temperature still rises and becomes higher then 80°C then the machine stops working until the temperature goes below 60°C.

The KPAD starting from v3.3 program version is also showing the temperature. The function button is flashing twice and the two digit numeric display is flashing once showing the temperature inside the machine. For example 75°C is shown: 75. If the temperature is bigger then 100°C for any reason then the first point will show it (for example 125°C is shown: **2.5**)

If the machine has fans on the base boards then they are always turned on. One of them is sucking the air, the other is blowing the air out from the machine frame.

If the **external sealing power controller** (POC) is connected the fan will turn on when the temperature inside the POC is bigger then 60°C.

## 7. Safety standards

### 7.1 Warnings

#### Attention:



**Immediately after sealing it is strictly prohibited to touch the sealing wire. It may cause serious burns!**



**Never operate the machine with broken sealing wire. In this case you have to change immediately the sealing wire and the PTFE cover!**



**Check whether the machine is screwed properly to the support!**



**Check before every use, there is no damage on the cutting device and that the cutting knife is in the proper position!**



**Check it the foil reel on the foil holder roller pair is positioned as prescribed!**

## 8. Maintenance of the machine

### 8.1 Precautions for maintenance interventions



**BEFORE PROCEEDING TO MAINTENANCE, SWITCH THE MACHINE OFF AND DISCONNECT IT!**

### 8.2 Cleaning

The machine does not need any special cleaning. Remove any scraps stuck on to the sealing area. Use a slightly wet cloth for the cleaning of the machine. It is recommended to use a normal glass-detergent. Do not use detergents which contain solvent.

#### **Attention:**



**Be sure to turn the machine off and unplug the power cord before every cleaning!**

### 8.3 Required tools

For maintenance or changing wear parts the following tools will be needed:

- protective gloves
- pliers
- Allan key (hex key) set
- small flat screwdriver
- isopropanol or acetone
- wiping cloth

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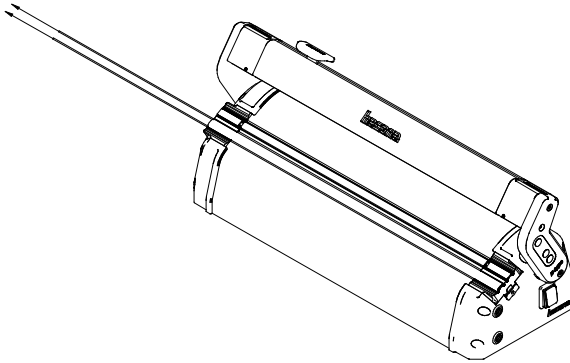
## 8.4 The changing of the wear parts

### How to change PTFE cover and sealing wire

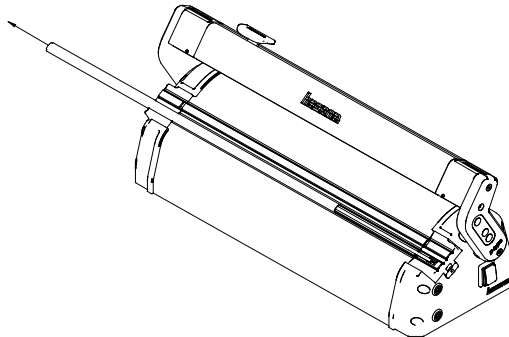
If the PTFE cover and/or the sealing wire of the sealing bar is damaged or broken it has to be replaced.

First remove the two perlon wires (21. fig.), then remove the PTFE cover from the groove (22. fig.).

*Note: Perlon wire can be removed most easily by pushing out the old one with the new perlon wire slightly and then grab and pulling the protruding piece on the other side.*



21. fig., Remove the perlon wire



22. fig., Remove the PTFE cover

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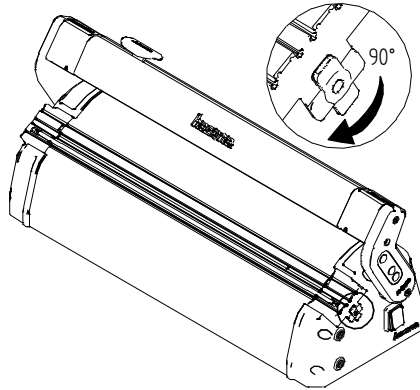
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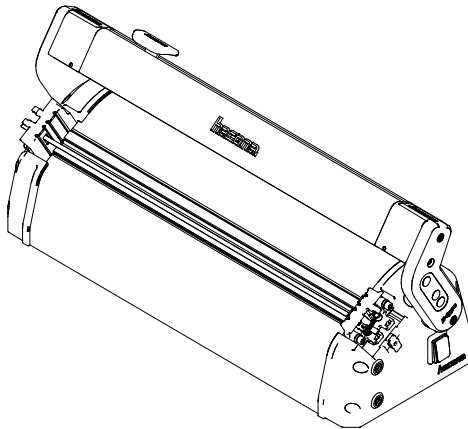
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Turn the sealing wire tensioner latch on both sides by 90 ° (23. fig.) to open the thread tension lid (24. fig.), to remove the sealing wire, the lower PTFE and the self-adhesive silicone profile (25. fig.).



23. fig., Turning the latch of tensioner



24. fig., Opening the lid of tensioner

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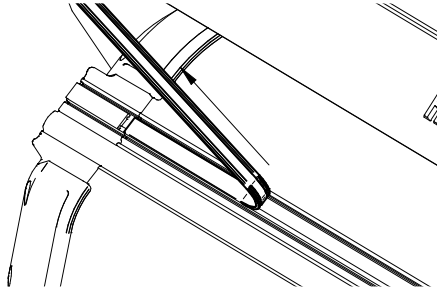
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*Note: Remove the self-adhesive silicone profile slowly to minimize the glue residue on the surface*



25. fig., Remove the silicone profile

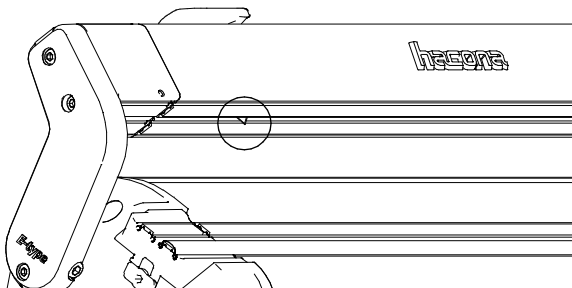
## **DANGER OF INJURY!!!**

### **Attention:**



**When replacing the self-adhesive silicone profile, take care of the sharp cutter in the sealing bar!**

**Use only original spare parts from Hacona!**



26. fig., Cutting knife

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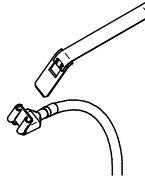
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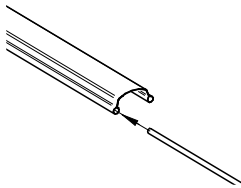
Before stick up the new self-adhesive silicone profile, **carefully remove the glue residue** from the machine body and then stick it up. Then, stick up the new lower PTFE.

Insert the new sealing wire and attach it to the faston terminal (27. fig.).

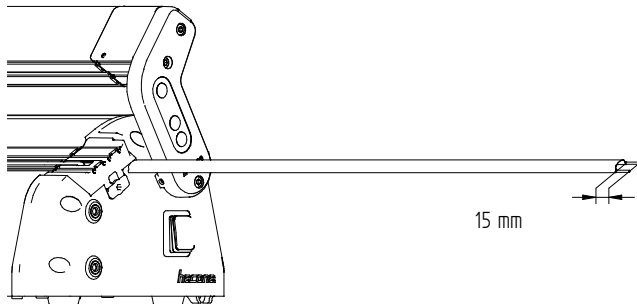


27. fig., Connect the sealing wire to the faston terminal

Lead the perlon wires into the PTFE cover (28. fig.) so that it approx. 15 mm protrude out of it, then carefully lead the new PTFE cover into the groove with its empty end on forward (29. fig.) to the full length of the machine. Then push in the remaining 15 mm perlon wire completely.



28. fig., Lead the perlon wire into the PTFE cover



29. fig., Lead the PTFE cover into the groove

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## How to change PTFE cover and sealing wire on machines with sealing wire temperature sensor

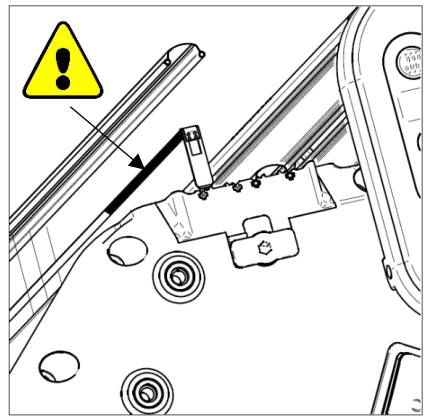
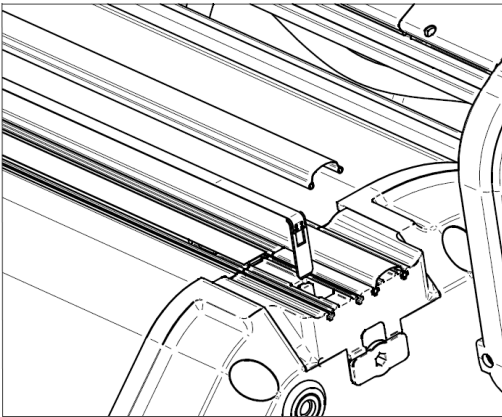
**VERY IMPORTANT!!!**

**Attention!**



**The first lower sealing wire be black painted version. This painted side should be seen by the temperature sensor.**

**Place the painted side of the sealing wire on the right side of the machine**



**If normal sealing wire is placed, or the painting on the sealing wire is in bad position, then the sealing wire, PTFE cover, lower PTFE and even the silicone rubbers can be burn after the first sealing! This is because the temperature sensor can not sense the mirror surface.**

See the following section for more information on change steps: *8.4 The changing of the wear parts / How to change PTFE cover and sealing wire*

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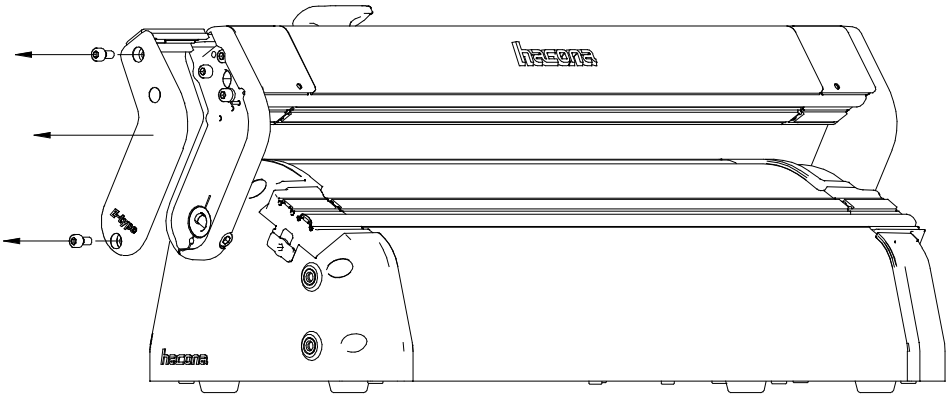
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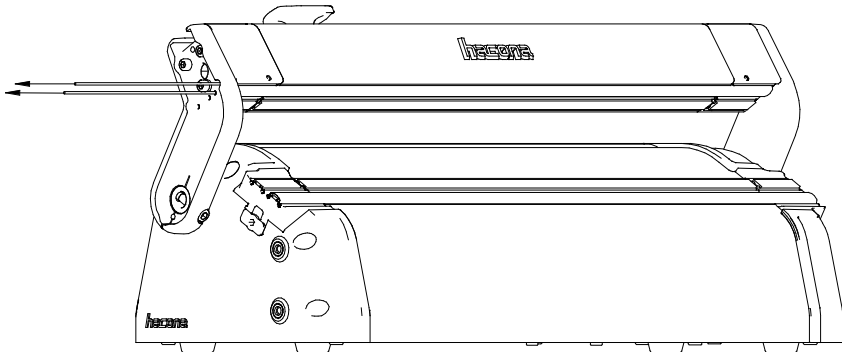


## Replacing the upper PTFE cover and the sealing wire

The replacement of the upper PTFE cover and the sealing wire is similar to replacing the lower parts only in this case, the left arm cover should be removed (30. fig.) to perlon wires can be pulled out (31. fig.).



30. fig., Remove the left arm cover



31. fig., Pull out the upper perlon wires

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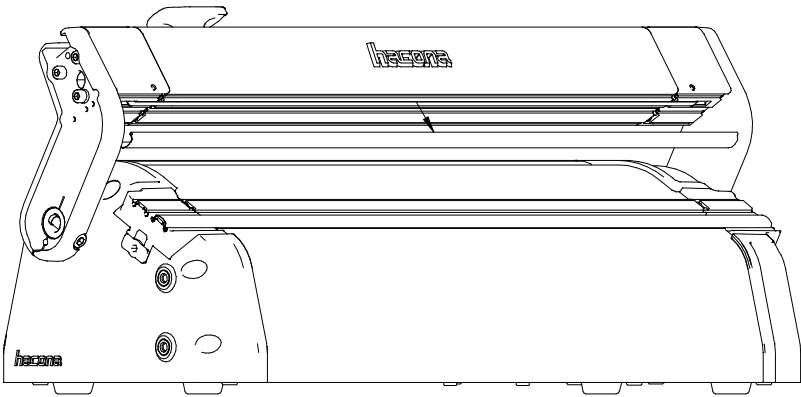
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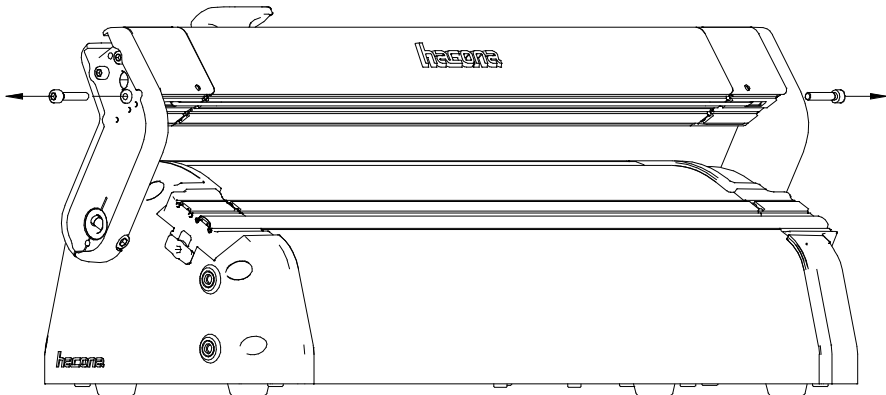
Then the upper PTFE cover can be removed (Figure 26).



32. fig., Remove the PTFE cover

After removing the two screws (33. fig.), you can open the sealing wire tensioners (34. fig.) to remove the sealing wire, the lower PTFE and the self-adhesive silicone profile.

*Note: Remove the self-adhesive silicone profile slowly to minimize the glue residue on the surface*



33. fig., Remove the two screws

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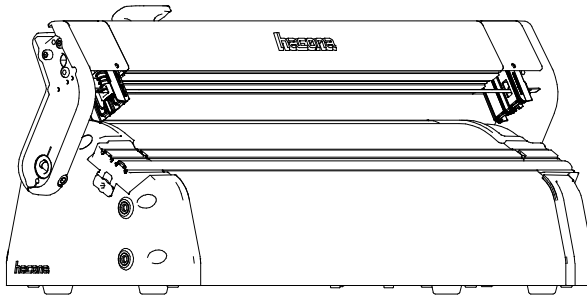
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34. fig., Open the sealing wire tensioner

## **DANGER OF INJURY!!!**

### **Attention:**



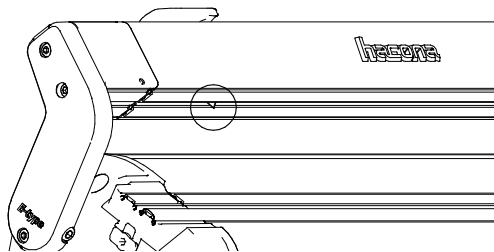
**In all cases, wear protective gloves during the work!**

### **Attention:**



**When replacing the self-adhesive silicone profile, take care of the sharp cutter in the sealing bar!**

**Use only original spare parts from Hacona!**



35. fig., Cutting knife

Before stick up the new self-adhesive silicone profile, carefully remove the glue residue from the machine body and then stick it up. Then, stick up the new lower PTFE, then insert the new sealing wire and attach it to the faston terminal (36. fig.).

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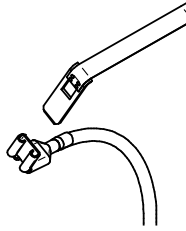
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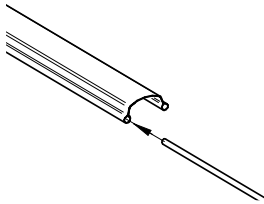
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36. fig., Connect the sealing wire to the faston terminal

*Note: To facilitate the assembly, lead the perlon wire to both apertures of the PTFE cover before installing it and then remove it.*



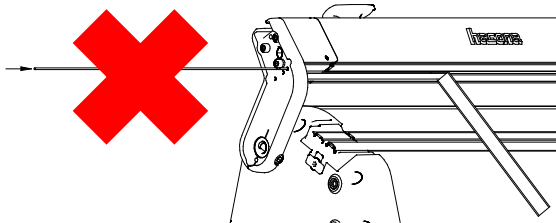
37. fig., Lead the perlon wire to PTFE cover

Insert one side of the PTFE cover into the second groove (from the front) and gently pushing perlon wire through the arm, so that it go into the PTFE cover aperture which was inserted into the groove, thereby fasten it in place. Repeat the same with the second side of the PTFE coating, which should inserted into the first groove of the sealing bar.

**Attention:**



**The PTFE cover should always be in the groove when pushing the perlon wire! The perlon wire have not pull in the PTFE cover into the groove, as this may lead to the PTFE cover being torn!**



38. fig., Incorrect insertion of PTFE cover

## How to change the cutting blade

To replace the blunt or damaged blade, press the head of cutting knife assembly as if a foil was cut. Pull the blade out from its holder with a plier. Replace it to new one.

### **DANGER OF INJURY!!!**

#### Attention:

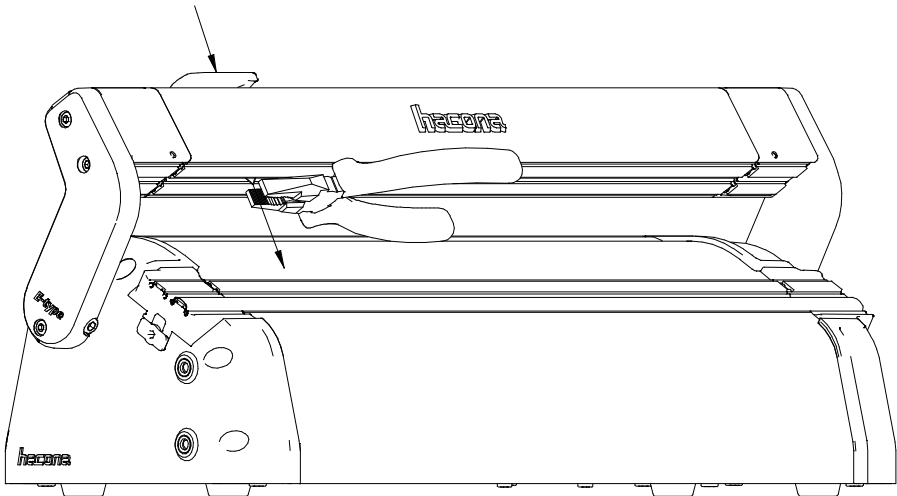


**In all cases, wear protective gloves during the work and remove or insert the blade with pliers!!**

#### Attention:



**Use only original spare parts from Hacona!**



39. fig., Replace the cutting blade

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## How to change the cutting knife assembly

### **DANGER OF INJURY!!!**

#### **Attention:**



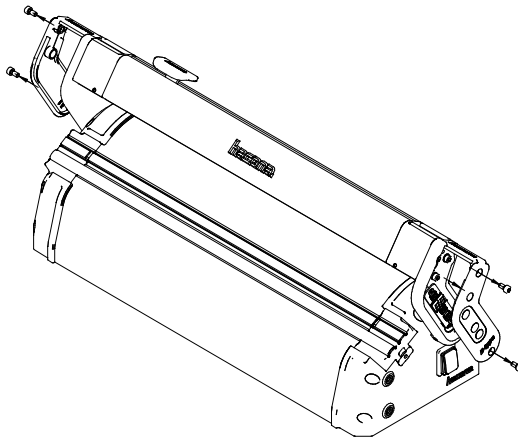
**In all cases, wear protective gloves during the work and remove or insert the blade with pliers!!**

#### **Attention:**



**Use only original spare parts from Hacona!**

Worn or damaged cutting knife assembly should be replaced. Remove the plastic arm covers (40. fig.).



40. fig., Remove the arm cover

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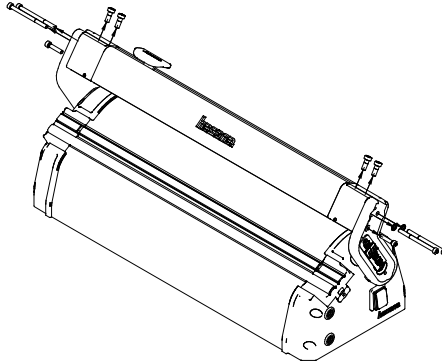
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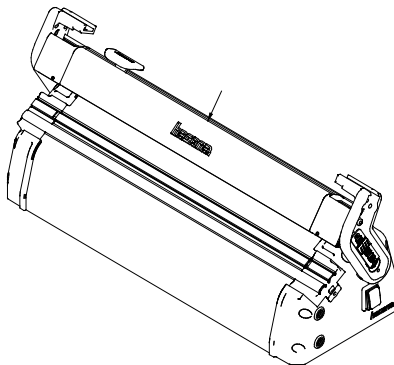
Next, completely unscrew sealing bar retaining screws (41. fig.).



41. fig., Unscrew the retaining screws

Push down the sealing bar between the two aluminum arms (42. fig.).

*Note: If you own EB-type (Bi-active) machine, remove the PTFE cover and the sealing wire according to the section "Replacing the upper PTFE cover and the sealing wire", because the only way to be removed the sealing bar!*



42. fig., Push down the sealing bar

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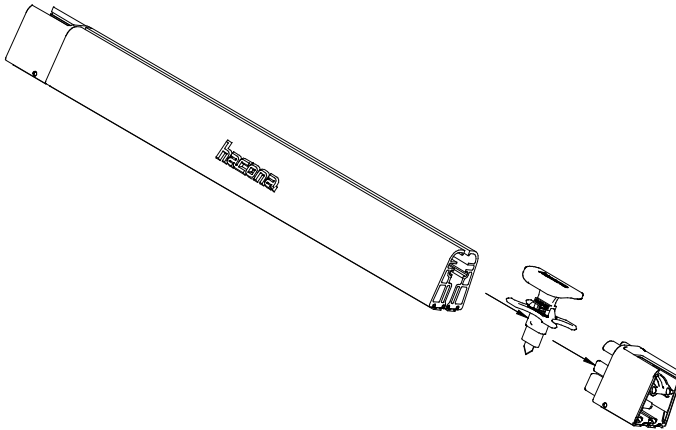
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Remove the sealing bar end cap on one side. Pull out the cutting knife assembly and insert the new one (43. fig.).



43. fig., Remove the cutting knife assembly

After replacing the cutting knife assembly, reinstall the parts in reverse order of the operations described above.

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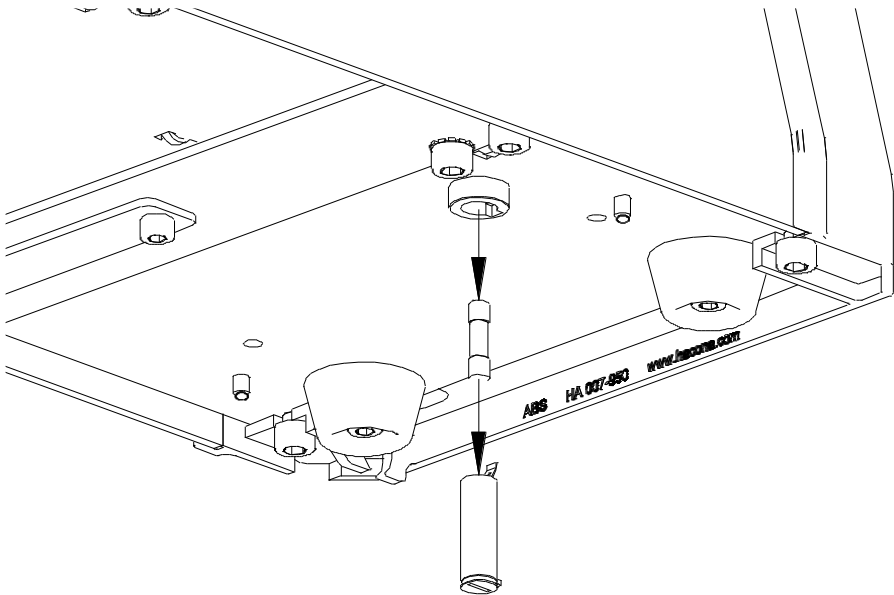
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## Replace the main fuse



44. fig., Replace the fuse

First, unplug the machine from the wall socket! The fuse holder can be found at the bottom right of the machine. After opening the fuse cap, you can pull it out and replace the old fuse to the new one and then close the fuse cap back in place.

### Attention:



**Use only original spare parts from Hacona!**

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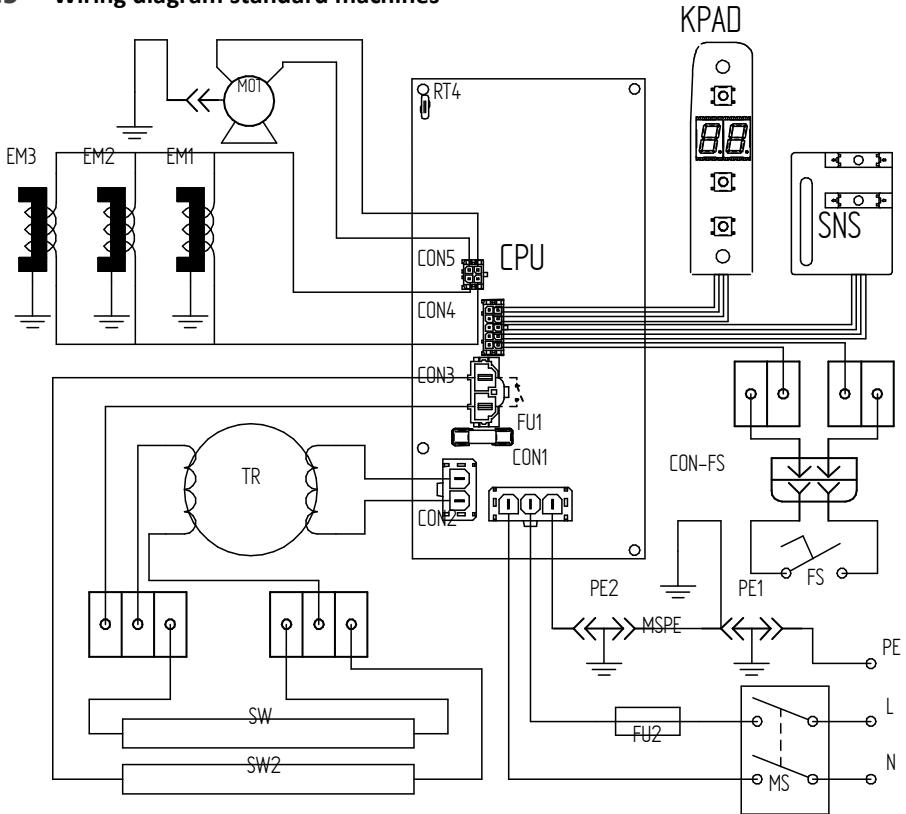
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## 8.5 Wiring diagram standard machines



**CPU:** central processing unit

**FU:** main fuse

**EM1:** electromagnet

**KPAD:** keypad

**FU1:** fuse (motor, magnet and control)

**EM2:** electromagnet (ED-620, 820, 1020, 1320)

**SNS:** sealing bar position sensor

**FU2:** main fuse (sealing, motor, magnet, control)

**EM3:** electromagnet (1320)

**MS:** main switch

**RT4:** multifuse (control)

**SW1:** sealing wire

**MOT:** motor

**PE1:** earth point 1

**SW2:** sealing wire (ED, EB)

**CON:** connectors

**PE2:** earth point 2

**TR:** toroid transformer

**FS:** foot pedal

**MSPE:** main shaft earth point

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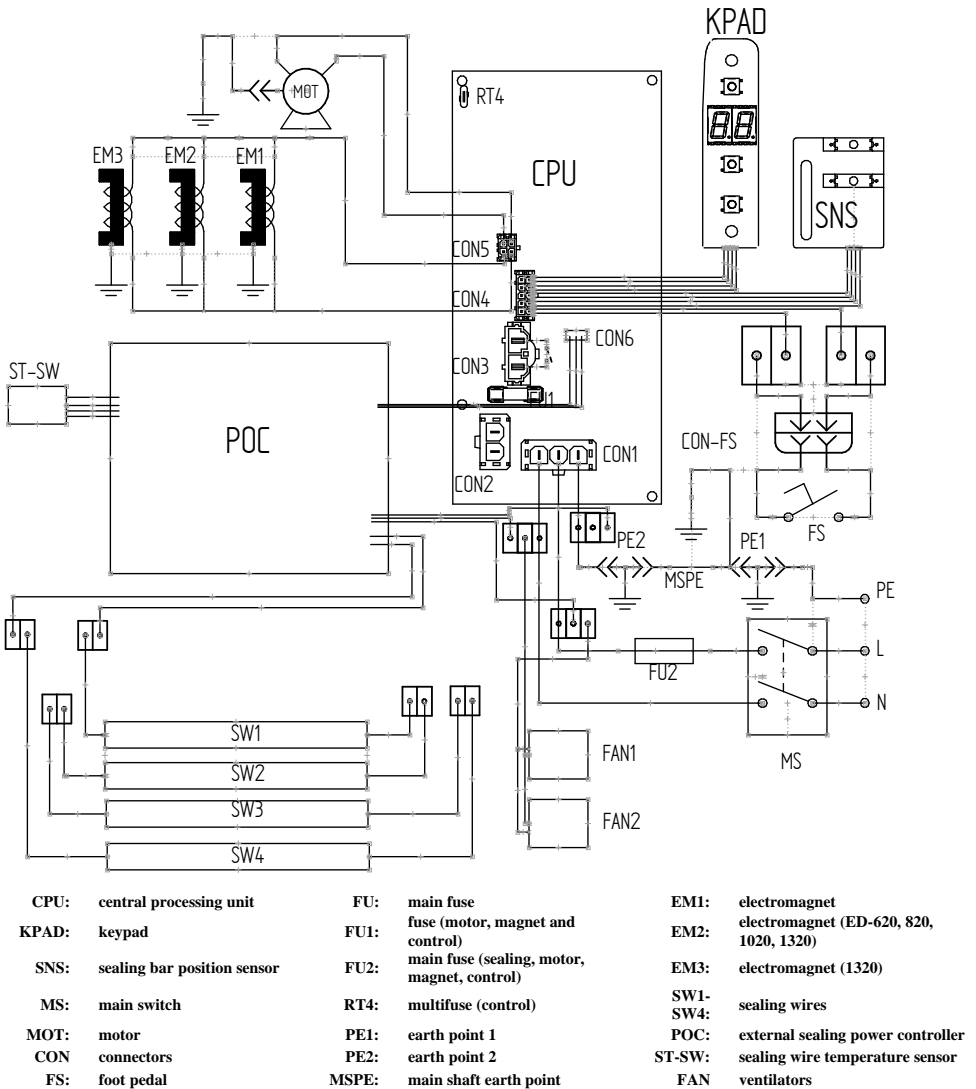
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## 8.6 Wiring diagram with external POC



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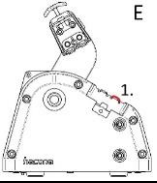
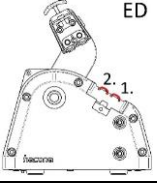
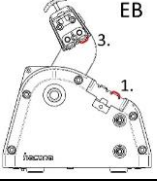
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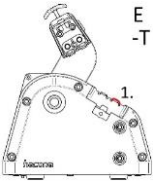
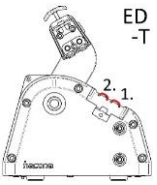
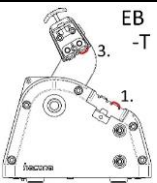
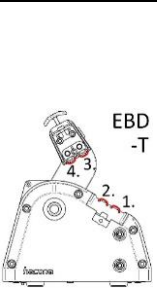
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## 8.7 Wear parts for standard machines

Position	Description	420	620	1020	1320
 <p><b>E</b></p> <p>1.</p>	Sealing wire set	HA 008-476	HA 008-477-	HA 008-479	HA 008-480
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
 <p><b>ED</b></p> <p>2. 1.</p>	ED sealing wire set	HA 010-554	HA 010-555	-	-
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	Sealing wire set	HA 008-476	HA 008-477-	HA 008-479	HA 008-480
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
 <p><b>EB</b></p> <p>3. 1.</p>	Sealing wire set	HA 008-476	HA 008-477-	HA 008-479	HA 008-480
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	EB sealing wire set	HA 009-651	HA 009-652	-	-
	EB PTFE coating set	HA 009-653	HA 009-654	-	-
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
All E-type machines	Cutting knife (complete)		HA 008-160		
	Cutting knife blades		HA 000-414		
	Self-adhesive silicone profile upper (m)		HA 008-217		

## 8.8 Wear parts for machines with sealing wire temperature sensor

Position	Description	420	620	1020	1320
 E -T 1	<b>-T Sealing wire set</b>	HA 010-557	HA 010-558	HA 010-559	HA 010-560
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
 ED -T 1 2	<b>ED-T sealing wire set</b>	HA 010-561	HA 010-562	-	-
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	Sealing wire set	HA 008-476	HA 008-477-	HA 008-479	HA 008-480
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485	
 EB -T 1 3	<b>-T Sealing wire set</b>	HA 010-557	HA 010-558	HA 010-559	HA 010-560
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	EB sealing wire set	HA 009-651	HA 009-652	-	-
	EB PTFE coating set	HA 009-653	HA 009-654	-	-
Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485	
 EBD -T 1 2 3 4	<b>ED-T sealing wire set</b>	HA 010-561	HA 010-562		
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	Sealing wire set	HA 008-476	HA 008-477-	HA 008-479	HA 008-480
	PTFE coating set	HA 008-487	HA 008-488	HA 008-490	HA 008-491
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	<b>EBD sealing wire set</b>	HA 010-552	HA 010-556		
	EB PTFE coating set	HA 009-653	HA 009-654	-	-
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
	EB sealing wire set	HA 009-651	HA 009-652	-	-
	EB PTFE coating set	HA 009-653	HA 009-654	-	-
	Silicone rubber set	HA 008-481	HA 008-482	HA 008-484	HA 008-485
All E-type machines	Cutting knife (complete)			HA 008-160	
	Cutting knife blades set			HA 000-414	
	Self-adhesive silicone profile upper (m)			HA 008-217	

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USD IBAN: HU 23 1176 3165 1320 7018 0000 0000  
SWIFT-BIC: OTPVHUHB

## 8.9 Wear parts structure

	Description	Qty.
Sealing wire set	Sealing wire	1 pcs
	Lower perlon wire	2 pcs
	PTFE cover	1 pcs
	Lower PTFE	1 pcs
	Self-adhesive silicone profile	1 pcs
PTFE coating set	PTFE cover	4 pcs
	Lower perlon wire	4 pcs
Silicone rubber set	Self-adhesive silicone profile	2 pcs
	Self-adhesive silicone profile upper	1 pcs
	Self-adhesive silicone profile for side covers	1 pcs
EB sealing wire set	Sealing wire	1 pcs
	Upper perlon wire	2 pcs
	PTFE cover	1 pcs
	Lower PTFE	1 pcs
	Self-adhesive silicone profile	1 pcs
EB PTFE coating set	PTFE cover	4 pcs
	Upper perlon wire	2 pcs
	Lower perlon wire	2 pcs
ED sealing wire set	Sealing wire	1 pcs
	Upper perlon wire	2 pcs
	PTFE cover	1 pcs
	Lower PTFE thicker	1 pcs
	Lower PTFE	1 pcs
	Self-adhesive silicone profile	1 pcs
Sealing wire set for machines with sealing wire temperature sensor	Special sealing wire	1 pcs
	Lower perlon wire	2 pcs
	PTFE cover	1 pcs
	Lower PTFE	1 pcs
	Self-adhesive silicone profile	1 pcs
ED sealing wire set for machines with sealing wire temperature sensor	Special sealing wire	1 pcs
	Upper perlon wire	2 pcs
	PTFE cover	1 pcs
	Lower PTFE thicker	1 pcs
	Lower PTFE	1 pcs
Cutting knife blades set	Self-adhesive silicone profile	1 pcs
	Cutting knife blades	6 pcs

<https://hacona.com/en/pricelist/wearparts-etype>

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## 8.10 Service

The service is available through our webpage after registration.

<https://hacona.com/en/service/e>

## 8.11 Disassembling of the machine

**Attention:**



**All operations about disassembling must be done by qualified personnel only with mechanical and electrical expertise required to work in security conditions.**

**In all cases, when disassembling the machine, proceed as follows.**

- 1. Unplug the machine from the wall socket.**
- 2. Only then dismount any components of the machine**

## 8.12 Decommissioning

Dispose of disassembled parts in an environmentally friendly manner. Separate materials (aluminum, steel, plastics, etc.) to transfer materials to a reusable system, saving resources.

Electronic waste should be treated as special waste.

## 8.13 Handling of waste

All wastes must be treated, eliminated or recycled according to their classification and to the procedures in force established by the laws in force in the country the equipment has been installed.

## 9. Guarantee

### 9.1 Certificate of guarantee

The guarantee runs for 12 month after the date of purchase under the conditions set forth on the instruction manual. Fill in the warranty with all data requested, tear out along the perforation and send it back to the manufacturer.

### 9.2 Guarantee conditions

The normal guarantee runs for 12 month and goes into force on the date of purchase of the machine. The guarantee covers free replacement or repair of any parts due to defects arising from faulty material. The repairs or replacement are usually carried out at the manufacturers, with transport or workmanship at buyer's charge. If the repair or replacement is carried out at the buyer's place, he shall bear the traveling, transfer and workmanship charges. Work under guarantee can be carried out exclusively by the manufacturer or by the authorized dealer. In order to be entitled to repairs under the guarantee the damaged component has to be sent back to the manufacturer or its authorized dealer for replacement or repairing.

The guarantee is voided:

- In case of failure to mail the CERTIFICATE OF GUARANTEE, duly filled in and signed within 20 days after the date of purchase.
- In case of the device has been unpacked by unauthorized people
- In case of inappropriate installation, power supply, misuse and mishandling by unauthorized people.
- In case of changes made to the machine without prior agreement in writing by the manufacturers
- If the machine is no longer in the property of the first buyer.

Hacona Kft is legally entitled to decline any responsibility for damage to people or things in case of inappropriate installation or connection to the power mains or omissions of connections to earth or in case of any mishandling of the machine.

The manufactures undertake to carry out any variations and changes made necessary by technical and operating requirements.

#### Attention:



**The guarantee is not valid for wear parts!**

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## 10. EC declaration of conformity

The manufacturer and/or his authorized representative established in the Community

HACONA Kft.

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Web: [www.hacona.com](http://www.hacona.com)

declares at own responsibility that the following E-type industrial impulse vacuum sealing machine

Type:.....

Serial number:.....

is in conformity with the health and safety requirements of the following European Directives and harmonized standards.

### Directives

- 2006/42/EC
- 2014/35/EU
- 2014/30/EU

Machinery Directive  
Low Voltage Directive  
EMC Directive

### Standards

- MSZ EN ISO 12100:2011
- MSZ EN 60204-1:2019
- MSZ EN ISO 13849-1:2016
- MSZ EN ISO 14120:2016
- MSZ EN 60335-1:2013
- MSZ EN 60335-2-45:2003

Safety of machinery. General principles for design. Risk assessment and risk reduction  
Safety of machinery. Electrical equipment of machines. Part 1: General requirement  
Safety of machinery. Safety-related parts of control systems. Part 1: General principles for  
Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards  
Household and similar electrical appliances. Safety. Part 1: General requirements  
Household and similar electrical appliances. Safety. Part 2-45: Particular requirements for portable heating tools and similar appliances

### Additional information:

- Person who are responsible for the instruction manual: mechanical engineer or electrical engineer
- The safety examination carried out by: Wenfis Kft (eng. reg. no.: 13-15759).
- Identification number of the safety examination: 005-CE-202004-WENFIS\_HACONA E-Típus

Budapest, .....

Lajos Nagy  
Mechanical engineer,  
managing director