

hauwo



Instruction manual

from version 3.0

hd 680 DE

9.693.009

Version 2.02



Table of Contents

1	<i>Introduction</i>	3
2	<i>Before starting</i>	4
2.1	Finding your way around these operating instructions	4
2.2	Correct use	5
2.3	Assembly and function	6
2.4	Sealing process sequence	6
2.5	General safety instructions	7
2.6	Cleaning	7
2.7	Installation	8
3	<i>Basic functions</i>	9
3.1	Commissioning	9
3.2	Operation	10
3.3	Temperature setting	11
4	<i>Fault clearance and maintenance</i>	12
4.1	Fault clearance checklist	12
4.2	hawo Customer Service	13
4.3	Maintenance plan	13
4.4	Spare parts service	13
4.5	Spare parts order – product number allocation	15
4.6	Sealing die	15
4.7	Guide die	16
4.8	Spare parts order – Overview	17
5	<i>Technical data</i>	18
5.1	Circuit and wiring diagram 230V	18
5.2	Circuit and wiring diagram 100 / 115V	19
5.3	Specifications	20
6	<i>Declaration of conformity</i>	21

1 Introduction

Preface

First of all we would like to sincerely thank you for buying the cycle sealing machine.

In these instructions you will find information about the machine, its function and operation.



Please read these operating instructions thoroughly before putting the machine into operation so that you become familiar with its capabilities and can use its functions optimally.



Always keep these instructions close to the machine.



Important notice:

This machine is a film rotary sealing machine for closing sterile barrier systems.

Please observe chapter "Correct use" in these operating instructions in this respect.

In accordance with the purpose, CE certification based on the EU Directives indicated below has been affixed: 2006/42/EG, 2011/65/E6 and 2004/108/EG.

Directive 93/042 EEC is not applicable to welding and sealing machines.

The limit values of IEC 60601-1 cannot be used with electrical re-tests.

The manufacturer shall accept no liability whatsoever for damage caused by tests which are not listed in the Declaration of Conformity.

In the event of conversion work or interventions to the machine undertaken without the express written permission of the manufacturer, the warranty shall be deemed void and any liability for physical or material damage shall be transferred to the operator.

Note

Because we are constantly improving our products we reserve the right to update these operating instructions and the functions described in them accordingly. Should you nevertheless notice errors or points that are unclear, please let us know about them.

These operating instructions are valid for products as from the date of manufacture of 05/2019

hd 680 DE	Before starting	Chapter 2
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2 Before starting

2.1 Finding your way around these operating instructions

<p>Chapter 2 Before starting</p>	<p>In this chapter you will find information about using the machine correctly, its function and advice about operation and installation.</p> <p>PLEASE READ THIS ESSENTIAL INFORMATION!</p>
<p>Chapter 3 Basic functions</p>	<p>Adjusting and operating the machine are explained here.</p>
<p>Chapter 4 Fault clearance and maintenance</p>	<p>Instruction on finding disturbance sources and rectifying malfunctions. Here you will find out about necessary servicing, wearing parts and spare parts as well as about the allocation of product numbers for spare parts orders.</p>
<p>Chapter 5 Technical data</p>	<p>Here you see the circuit and wiring diagram as well as the machine specification.</p>
<p>Chapter 6 Declaration of Conformity</p>	<p>In this chapter you will find the Declaration of Conformity for the rotary sealing machine.</p>

hd 680 DE	Before starting	Chapter 2
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2.2 Correct use

The machine is only designed for trade and industrial use and must only be used for the prescribed purpose.

SEALING MATERIALS

Sealable paper pouches in accordance with EN ISO 11607-1/EN 868-4	x
Sealable pouches and reels in accordance with EN ISO 11607-1/EN 868-5 of film and paper according EN 868-3	x
Sealable pouches and reels according ISO 11607/EN 868-5 of film and uncoated nonwoven materials of polyolefines according EN 868-9 ¹	x (approval and/or tests necessary)
Aluminium-laminate film	x (approval and/or tests necessary)
Sealable PA/PE on request	on request

NON - SEALABLE MATERIALS

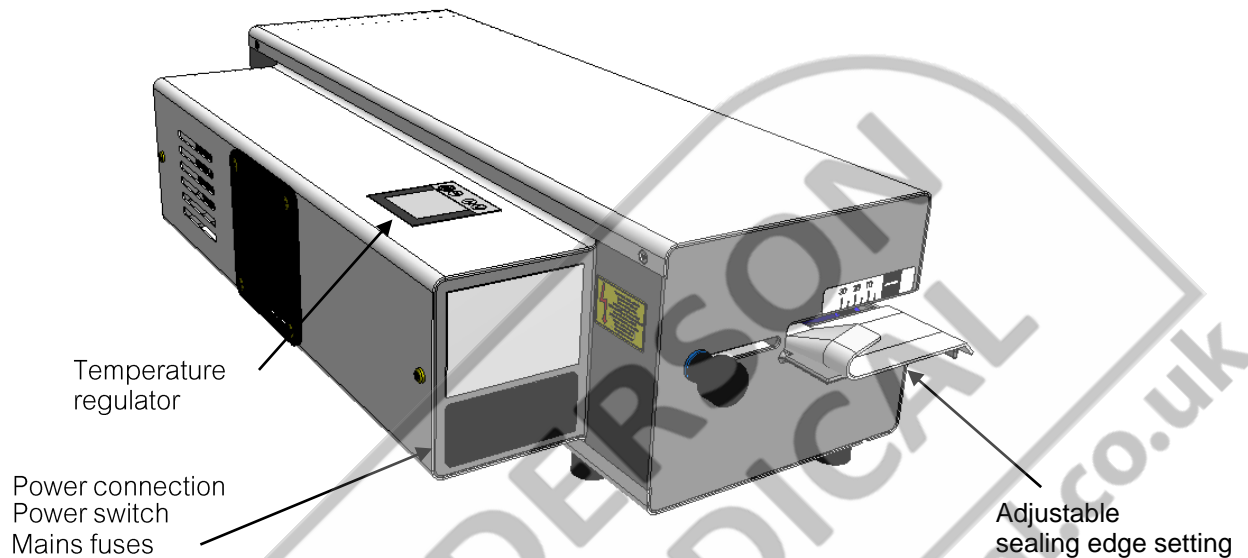
Polyethylene films	Soft PVC films
Hard PVC films	Polyamide films
Polypropylene films	Coated HDPE

The correct sealing temperature for the packaging materials being used must be identified by means of test sealing's (DIN 58953-7).

The device output depends on the condition of the sealing material used.

¹Not applicable for sealable pouches and reels according EN ISO 11607-1/EN 868-5 of plastic and uncoated nonwoven materials of polyolefines according EN 868-10.

2.3 Assembly and function



2.4 Sealing process sequence

- Step 1:** After the sterilisation packaging has been inserted the transport switches on automatically.
- Step 2:** The sterilisation packaging is now transported and the sealing seam area is heated up by the heating dies positioned above and below to the sealing temperature set.
- Step 3:** The sealing seam, which is now heated up, is pressed through the sealing rolls and thus sealed.
- Step 4:** The completed sterilisation packaging is transported to the withdrawal side.
- Step 5:** If no further material to be sealed is fed in the transport switches off after approximately 30 seconds.

2.5 General safety instructions



The machine must not be installed or operated by persons under the age of 14.

The machine must not be operated without supervision.

If the machine is not being used, switch it off or unplug at the power outlet.

The machine should only be cleaned with a dry or slightly damp cloth.

It is forbidden to operate the machine under the influence of drugs or alcohol.

Do not operate the machine if the power cable or the power plug are damaged. Do not use the machine if it does not operate correctly or it is damaged in any way. In case of damage of the power cable or of the machine, you have to bring your machine to an authorized service center

Warning! Never clean the machine wet!



Keep your hair, clothing and gloves away from moving parts! Loose clothes, jewellery or long hair can be caught in moving parts.



Your appliance contains valuable materials which can be recovered or recycled. Leave it at a local civic waste collection point. This appliance is labeled in accordance with European Directive 2002/96 EC concerning used electrical and electronic appliances equipment-WEEE).

The directive determines the framework for the return and recycling of used appliances as applicable throughout the EU.

2.6 Cleaning

Before cleaning, disconnect the mains plug from the socket and disconnect the device from the power supply with the plug. Clean the device only with a dry or damp soft cloth and a mild cleaning agent. (E.g.: isopropanol, spirit, etc.)

Do not allow any water to find its way into the device.

Caution! Never wet clean the device!

2.7 Installation



The unit must not be installed or operated in potentially explosive atmospheres.

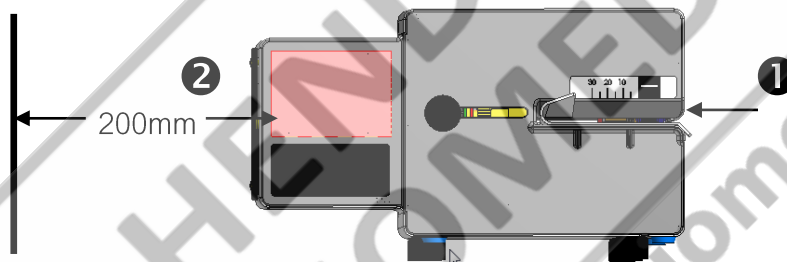
Only use grounded power outlets with a grounding conductor and a stable voltage supply



The machine may only be installed in a dry environment. Heavy dust, steam, dripping water, and splashes of water have a negative impact on the performance of the machine.

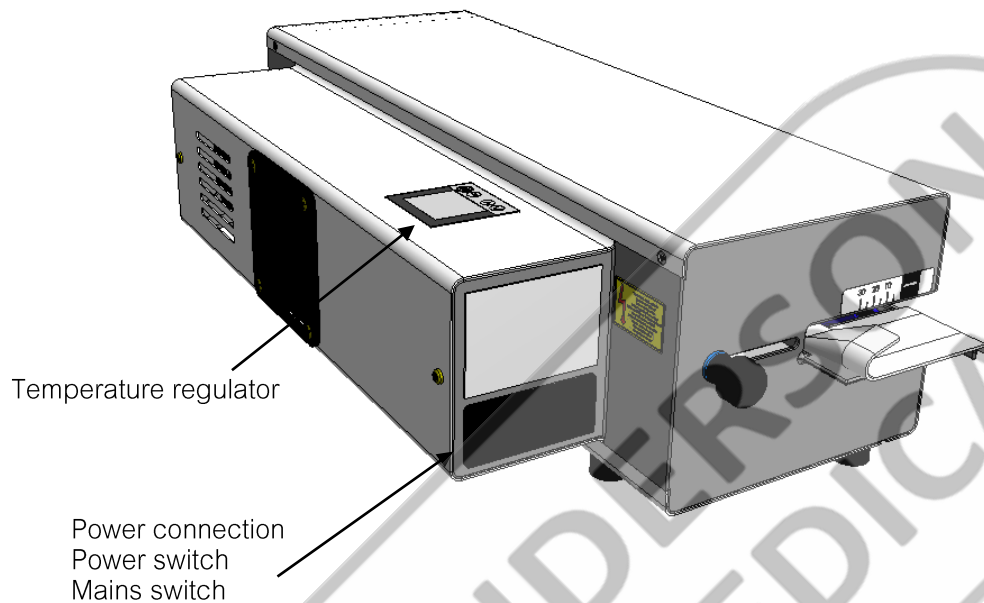
Please make sure the operating voltage conforms to the information on the rating plate on the machine.

- 1 Please do not lift or transport by using the sealing edge adjuster
- 2 Leave a gap of 200mm between the machine and the wall



3 Basic functions

3.1 Commissioning



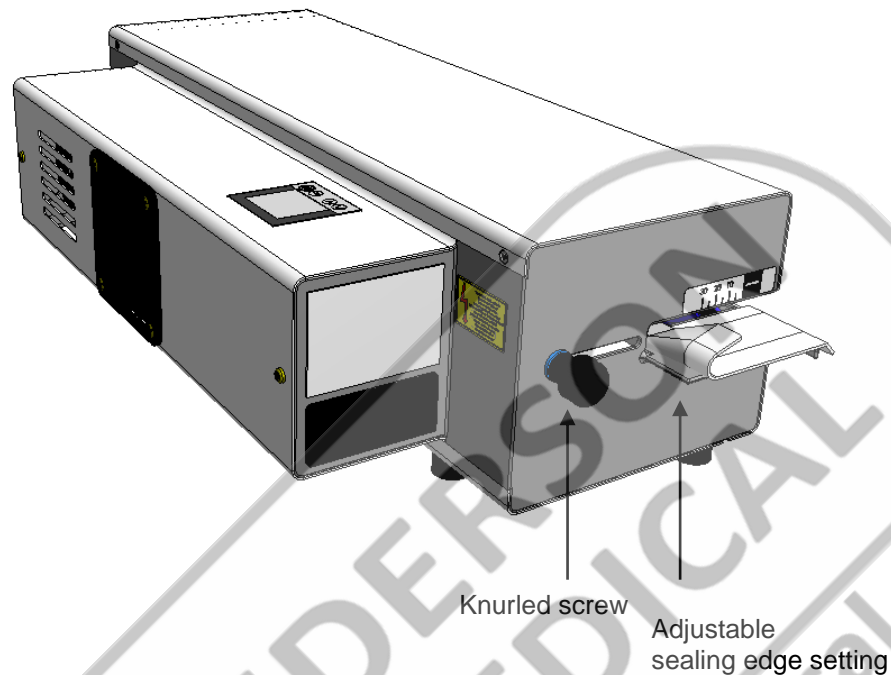
Step 1: Plug power cable into power connection.

Step 2: Switch machine with power switch to setting "1".
Control light in the switch illuminates.

Step 3: Set the desired sealing temperature on the temperature regulator as described in chapter 3.3.

Step 4: As soon as the set sealing temperature is displayed the machine is heated up and ready for operation.

3.2 Operation



- Step 1:** Set the desired sealing edge width. After the knurled screw has been loosened the lower insertion plate can be set infinitely variably for sealing widths of 0 - 35mm.
- Step 2:** Insert packaging into the machine over the insertion plate from the left.
- Step 3:** Take out sealed packaging at the exit side and briefly leave to cool down.



Inspecting the sealing seam

If points that are not tightly sealed are apparent the sealing temperature must be increased. If the foil melts the set temperature is too high.

In accordance with DIN 58953 -7 the appropriate sealing temperature must be identified by performing test sealing.

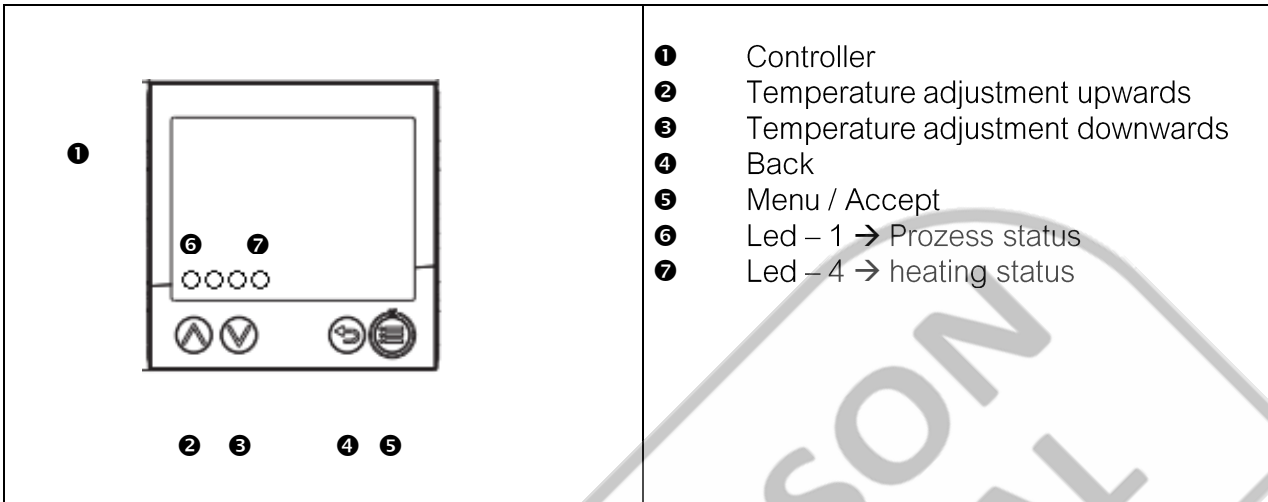
3.3 Process variable

Sealing temperature

The temperature is electronically monitored by means of a temperature sensor. If the temperature deviates from the set point by 5°C (Requirements from DIN 58953-7), the drive is disabled.

hd 680	Basic functions	Chapter 3
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3.3 Temperature setting



- ❶ Controller
- ❷ Temperature adjustment upwards
- ❸ Temperature adjustment downwards
- ❹ Back
- ❺ Menu / Accept
- ❻ Led – 1 → Prozess status
- ❼ Led – 4 → heating status

Temperature adjustment

Press button ❺

Controller „MENU“ [User Level] accept by pressing button ❺ twice

Adjustment of temperature with buttons ❷ [+1°C] ❸ [-1°C]

Accept value by pressing button ❺ → OK is visible in the screen for 2 seconds

Back tot he mains screen by pressing button ❹ twice

Factory settings :

Adjusted temperature 180°C
 Unit of temperature °C

hd 680	Fault clearance and maintenance	Chapter 4
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4 Fault clearance and maintenance

4.1 Fault clearance checklist

Malfunction	Possible cause	Remedy
Machine does not switch on	Network connection	
	Power cable not plugged in	Check network connection; connect another plug if necessary
	Power cable defective	Replace power cable
	Mains fuse	Replace mains fuse. In the event of fuses blowing repeatedly you must compulsorily have the machine checked!
Machine is not heating	Target temperature too low	Increase target temperature
	Over temperature cut-out has triggered	Press in over temperature cut-out. In the event of repeated triggering you must compulsorily have the machine checked!
	Temperature regulator	Replace temperature regulator
	Heating element	Check heating elements and replace if necessary
	Solid state relay	Replace solid state relay
	Target temperature not reached	
No material transport	Motor defective	Replace motor
	Micro switch defective	Replace micro switch
Non-symmetrical material transport	Toothed damaged	Replace toothed belt
	Tooth belt not transporting	Check toothed belt tension
Loud running noise	Motor defective	Replace motor
Sealing seam does not hold up	Sealing temperature too low	Increase sealing temperature
	Clearance between sealing dies is too large	Set the sealing die to 0.5mm
Sealing seam distorted or melted	Sealing temperature too high	Reduce sealing temperature

hd 680	Fault clearance and maintenance	Chapter 4
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4.2 hawo Customer Service



You can contact your hawo Customer Service Monday to Friday from 7.30 am to 4.30 pm on +49 (0)6261-9770-0 .

4.3 Maintenance plan



As is the case with all technical machines your machine is also subject to technical wear. In order to guarantee that your machine is permanently ready to use it should be serviced by a qualified person at least once per year.

Maintenance cycle	cleaning	Teflon strip Guide die	Teflon strip Sealing die	Pressure roller	Toothed belt	Sealing die interval
At least every 3. Month						
According to load, at least once per year						

Key:



Check



Replace



Adjust

4.4 Spare parts service



Easy spare parts ordering by fax!
All you have to do is to copy the order form.
You will find the form on the next page.

- Enter address, fax number and order number
- Enter serial number
- Enter machine type
- Mark required items
- Enter required quantity
- Sign the order
- Fax the order

→ 444444
→ hd 680 DE

Bitte diese Daten bei Ersatzteilbestellung angeben.
Please state this data when ordering spares.
Veuillez indiquer ces données en cas de commande
des pièces de rechange.

hawo 2 090 004

Gerätebau GmbH
D-74847 Obrigheim
Tel. 06261-62016
Fax. 06261-62015
Made in Germany

To:

hawo GmbH

Fax no. +49 (0)6261 62015

Sender:

Your order no. _____		Date _____	
Machine type _____		Serial number _____	
<input checked="" type="checkbox"/>	Description	Item no.	Pieces
<input type="checkbox"/>	Pressure roller	2.230.026	
<input type="checkbox"/>	Gear motor 230 V	1.212.005	
<input type="checkbox"/>	Heating element 115V 200W	6.536.032	
<input type="checkbox"/>	Fan 230V	6.212.019	
<input type="checkbox"/>	Teflon strip heating die	6.105.125	
<input type="checkbox"/>	Teflon strip guide die	6.105.138	
<input type="checkbox"/>	IEC cable feed with switch	6.562.009	
<input type="checkbox"/>	Fuse element for 6.562.009	6.562.049	
<input type="checkbox"/>	Power cable 230V	6.593.013	
<input type="checkbox"/>	Power cable 115V	6.593.014	
<input type="checkbox"/>	Optical sensor Motor start	1.561.016	
<input type="checkbox"/>	SST relay	6.460.001	
<input type="checkbox"/>	Temperature sensor	6.564.040	
<input type="checkbox"/>	Digital temperature regulator 110 -240V	6.564.050	
<input type="checkbox"/>	Transformer 100V-115V/230V Only for 100V and 115V version	6.531.015	
<input type="checkbox"/>	Over temperature cut out	6.564.018	
<input type="checkbox"/>	Transport toothed belt	6.271.001	
<input type="checkbox"/>	Time relay	1.540.056	

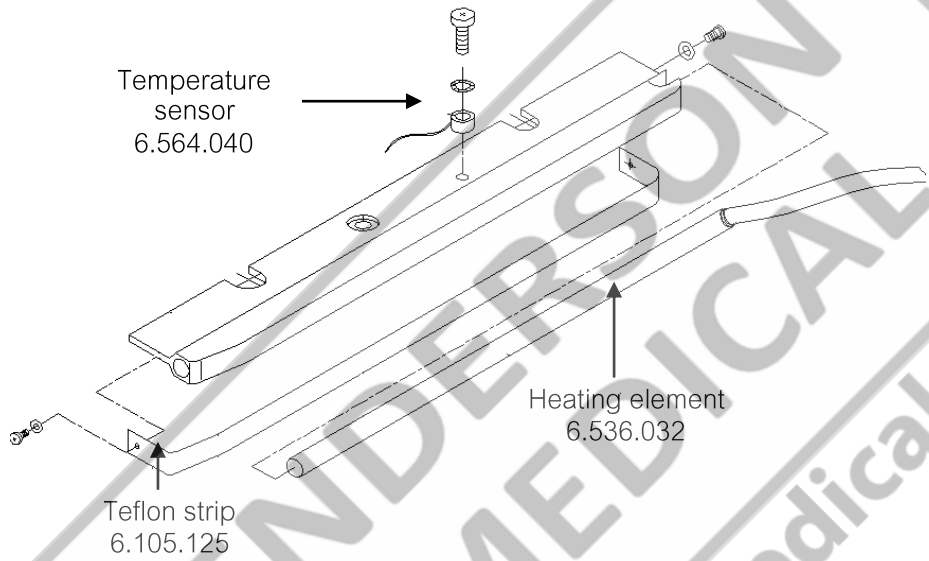
Signature _____

hd 680	Fault clearance and maintenance	Chapter 4
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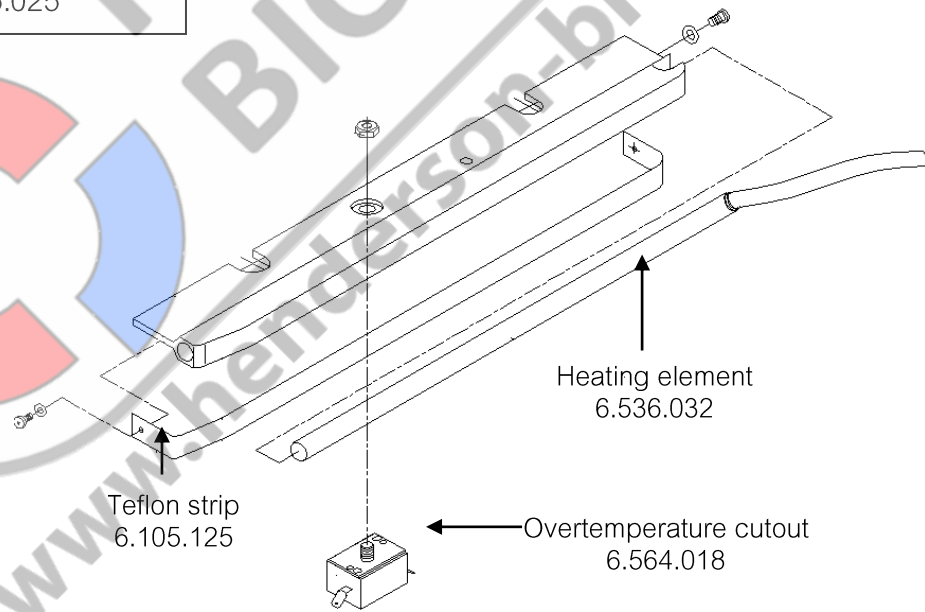
4.5 Spare parts order – product number allocation

4.6 Sealing die

Upper sealing die
1.616.024

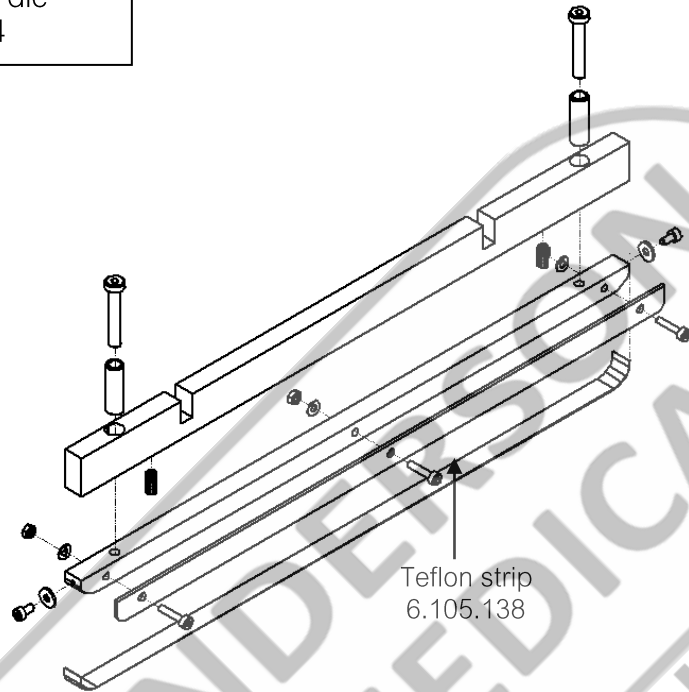


Lower sealing die
1.616.025

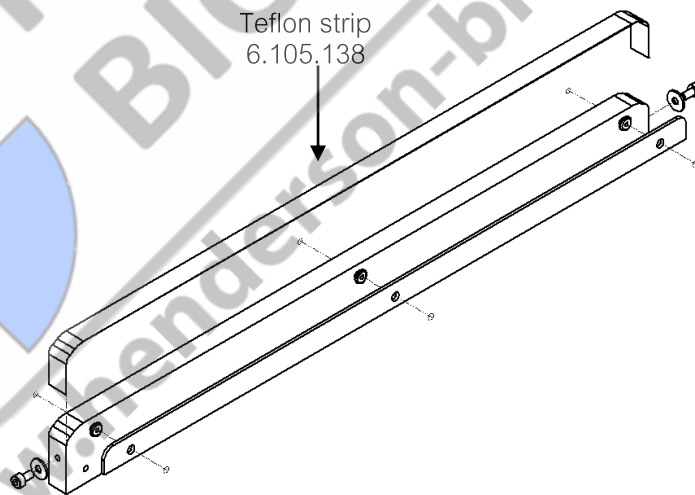


4.7 Guide die

Upper guide die
1.619.014

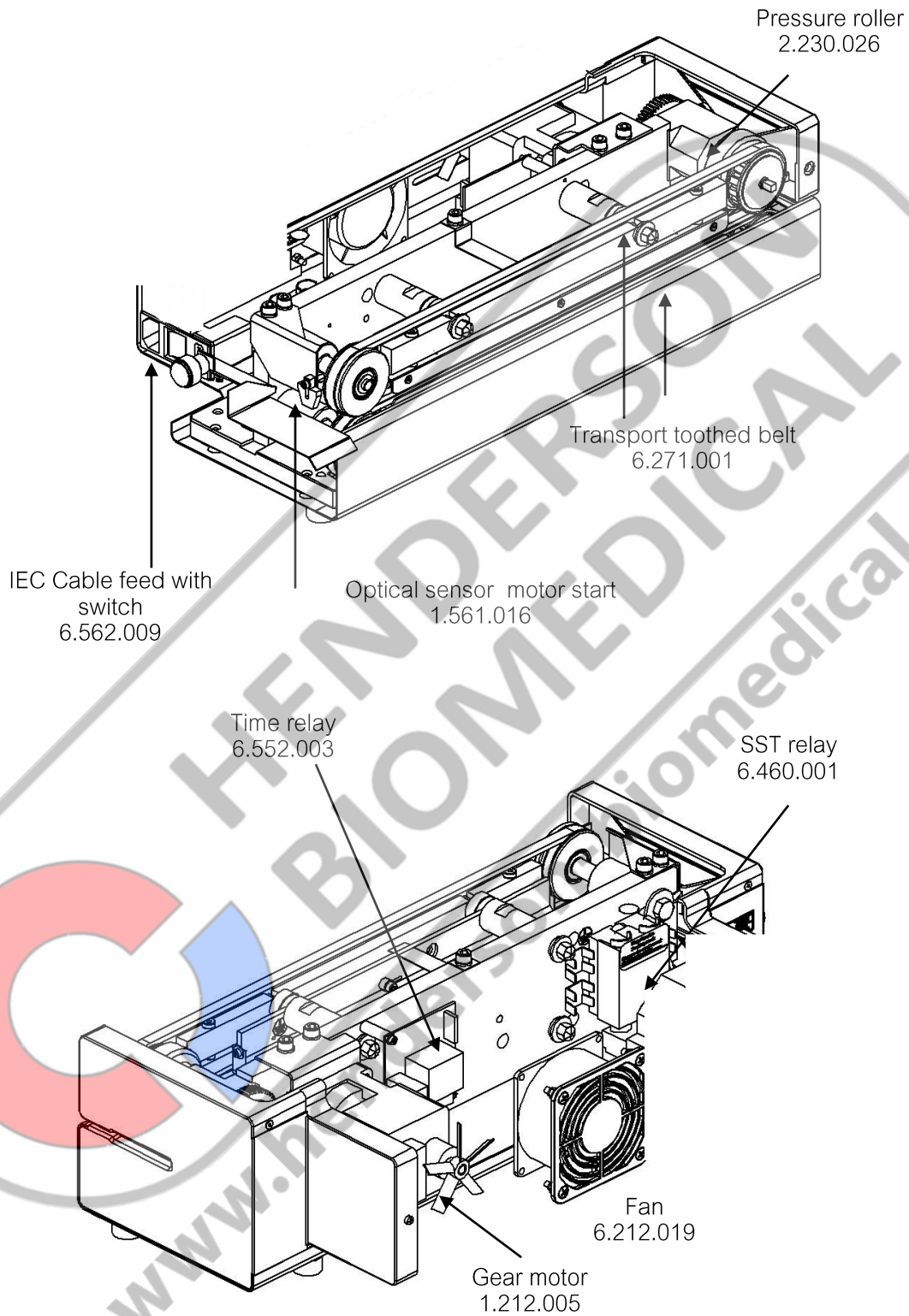


Lower guide die
1.619.015



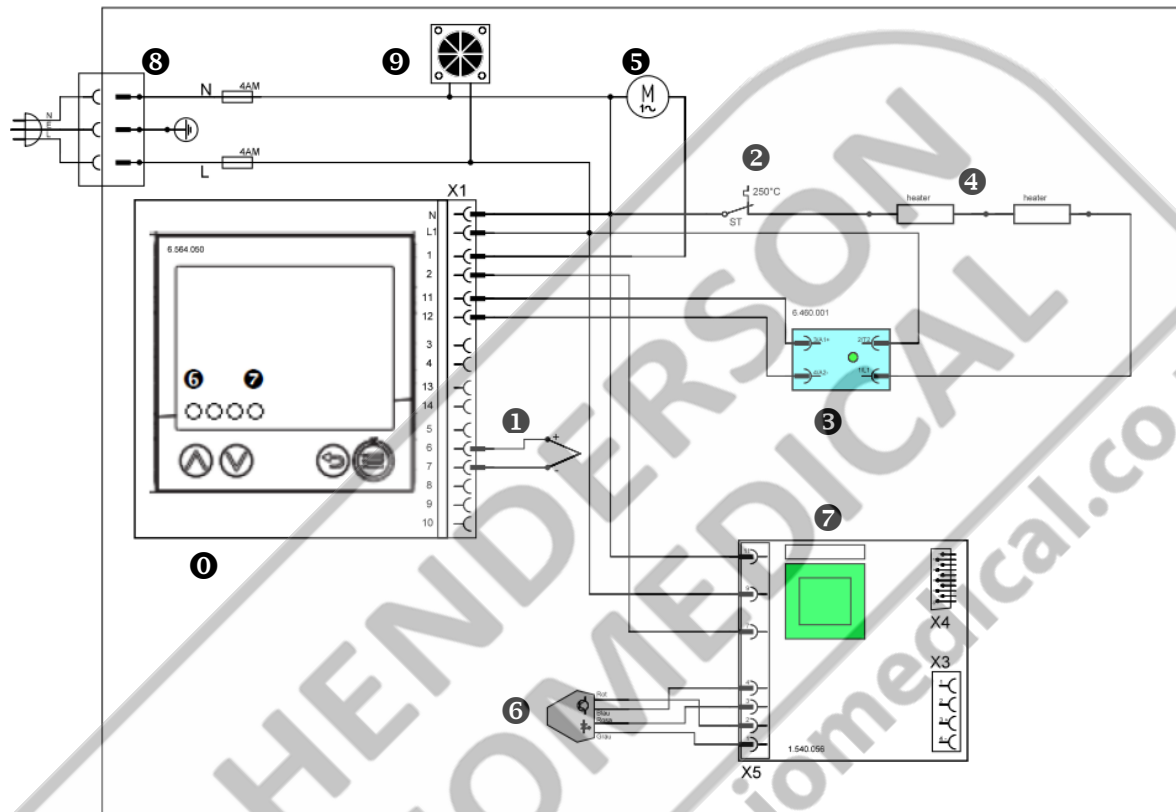
hd 680	Fault clearance and maintenance	Chapter 4
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4.8 Spare parts order – Overview



5 Technical data

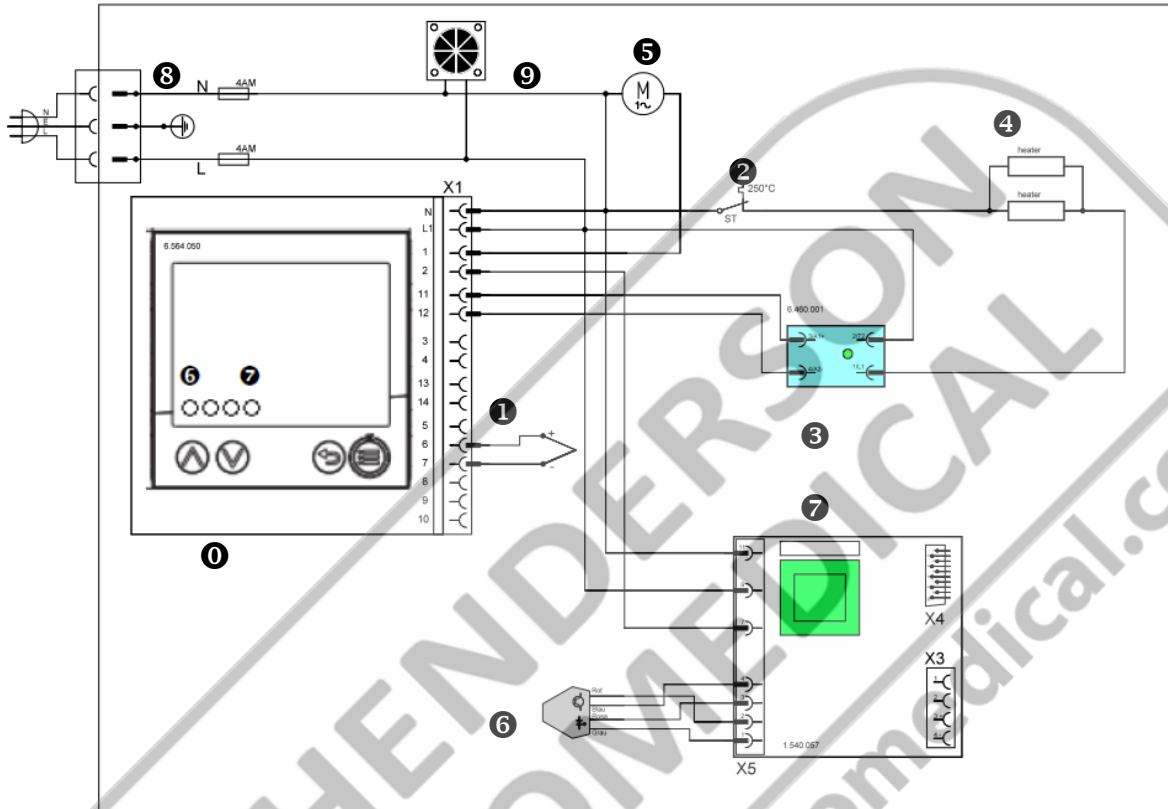
5.1 Circuit and wiring diagram 230V



0	Temperature controller	6.564.050
1	Thermo couple	6.564.040
2	Over temperature cut out	6.564.018
3	SST Relay	6.460.001
4	heating cartridge 115V/200W	6.536.024
5	Gear motor 230V	1.212.014
6	Optical sensor	1.561.016
7	Timer	230V~ 1.540.056 115V~ 1.540.057 100V~ 1.540.058
8	IEC cable feed with switch	6.562.009
9	Fan	230V~ 6.212.019

hd 680	Technical data	Chapter 5
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5.2 Circuit and wiring diagram 100 / 115V





0	Temperature controller	6.564.050
1	Thermo couple	6.564.040
2	Over temperature cut out	6.564.018
3	SST Relay	6.460.001
4	heating cartridge 115V/200W	6.536.024
5	Gear motor 230V	1.212.014
6	Optical sensor	1.561.016
7	Timer	230V~ 1.540.056 115V 1.540.057 100V 1.540.058
8	IEC cable feed with switch	6.562.009
9	Fan	115V~ 6.212.021

hd 680	Technical data	Chapter 5
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5.3 Specifications

Power connection	[V]	100 / 115 / 230 50/60Hz
Mains fuse 100-115V/230 V	[A]	6.3 / 4 AT
Power consumption max.	[VA]	500
Ambient temperature	[°C]	5-25
Temperature control		electronic
Dimensions:		
Length	[mm]	505
Width		250
Height		145
Weight approximately	[kg]	11,7
Cycle speed	[m / min]	10
Sealing temperature max.	[°C]	220
Temperature tolerance	[%]	± 2
Sealing seam width	[mm]	12
Sealing edge	[mm]	0-35 infinitely variable
Sealing seam length	[mm]	unlimited

6 Declaration of conformity

 74847 Obrigheim / Germany	Konformitätserklärung – Declaration of Conformity Déclaration "CE" de Conformité Declaración de conformidad de la C.E. Dichiarazione di conformità - Declaração de conformidade	9.693.009C																				
Gültig ab: 01.02.2015 Valid from:		Seite 1/1 Version 3.02																				
<p>Hiermit erklären wir, dass die Folienschweissmaschinen: Herewith we declare that the Foil sealing unit: Par la présente, nous déclarons que la gamme de Soudeuse de films plastique: Por la presente certificamos que las máquinas embolsadoras modelos: Dichiariamo con la presente che le macchine per saldatura di fogli: Por este meio se declara que as máquinas de selagem de folhas de plástico:</p> <p style="text-align: center;">hd 680 DE, hd 680 DE-V, hd 680 DEI-V</p> <p>folgenden einschlägigen Bestimmungen und harmonisierten Normen entsprechen: complies with the requirements of the following regulations and harmonised standards: corresponde aux dispositions suivantes et standards harmonisés: objeto de esta Declaración cumple con las siguientes disposiciones: Sono conformi alle seguenti disposizioni in materia nonché alle seguenti norme armonizzate: correspondem às seguintes determinações e normas harmonizadas:</p> <table border="0" data-bbox="288 976 1299 1518"> <tr> <td>EG - Maschinenrichtlinie Machinery directive Directive "CE" rel. aux machines Directiva de Maquinaria de la CE Direttiva CE sulle macchine nella versione Directiva da UE relativa a maquinaria</td> <td>2006/42/EG</td> <td></td> <td></td> </tr> <tr> <td>EMV-Richtlinie Directive CEM Direttiva CEM</td> <td>EMC-directive Directiva de CEM Directiva CEM</td> <td>2014/30/EU</td> <td></td> </tr> <tr> <td>WEEE-Richtlinie Directive WEEE Direttiva WEEE</td> <td>WEEE-directive Directiva de WEEE Directiva WEEE</td> <td>2012/19/EU</td> <td></td> </tr> <tr> <td>RoHS-Richtlinie Directive RoHS Direttiva RoHS</td> <td>RoHS-directive Directiva de RoHS Directiva RoHS</td> <td>2011/65/EG</td> <td></td> </tr> <tr> <td>Harmonisierte Normen Standard harmonisé Norme armonizzate</td> <td>Harmonized standards Las normas armonizadas Normas harmonizadas</td> <td>EN ISO 12100/2010_11 EN ISO 13857/2008_06</td> <td>EN 60204-1/2007_06 EN 61000-6-1/2007_10 EN 61000-6-3/2011_09</td> </tr> </table> <p>Verantwortliche Person für die Technischen Unterlagen siehe unten Responsible person for technical documentation see below La personne responsable pour la documentation technique est mentionnée au-dessous</p> <p style="text-align: center;">  _____ Torsten Ehrhardt Prokurist / authorized officer </p> <p>hawo GmbH, Obere Au 2, D-74847 Obrigheim, Germany</p>			EG - Maschinenrichtlinie Machinery directive Directive "CE" rel. aux machines Directiva de Maquinaria de la CE Direttiva CE sulle macchine nella versione Directiva da UE relativa a maquinaria	2006/42/EG			EMV-Richtlinie Directive CEM Direttiva CEM	EMC-directive Directiva de CEM Directiva CEM	2014/30/EU		WEEE-Richtlinie Directive WEEE Direttiva WEEE	WEEE-directive Directiva de WEEE Directiva WEEE	2012/19/EU		RoHS-Richtlinie Directive RoHS Direttiva RoHS	RoHS-directive Directiva de RoHS Directiva RoHS	2011/65/EG		Harmonisierte Normen Standard harmonisé Norme armonizzate	Harmonized standards Las normas armonizadas Normas harmonizadas	EN ISO 12100/2010_11 EN ISO 13857/2008_06	EN 60204-1/2007_06 EN 61000-6-1/2007_10 EN 61000-6-3/2011_09
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hawo GmbH Obere Au 2-4 74847 Obrigheim / Germany	T + 49 (0) 6261 / 9770-0 F + 49 (0) 6261 / 62015 info@hawo.com www.hawo.com	Amtsgericht Mannheim: HRB 441011 Geschäftsführer: Hans Wolf und Christian Wolf Firmensitz: Obrigheim	This document and the contents hereof are considered proprietary and confidential information of hawo and disclosure to unauthorized individuals or dissemination, publication, or copying is prohibited without prior written consent by hawo GmbH, 74847 Obrigheim, Germany.																			



LABORATORY EQUIPMENT MAINTENANCE, REPAIR, CALIBRATION AND SALES

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Henderson Biomedical

Unit 3, Swan Close
Croydon CR0 2DZ
United Kingdom

Tel: 020 8663 4610

For sales enquiries: sales@henderson-biomedical.co.uk
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