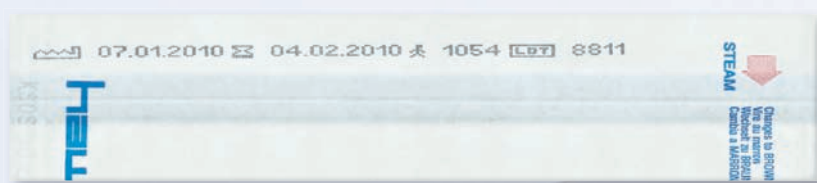# hm 780 DC/DC-V

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THE INTELLIGENT GENERATION EASY ROTARY SEALERS WITH INTEGRATED PRINTER

GENERATION EASY

hawomed

THE HM 780 DC AND HM 780 DC-V (V = VALIDATABLE) ROTARY SEALERS WITH INTEGRATED PRINTER ARE THE ANSWER TO THE NEW REQUIREMENTS IN HOSPITALS AND PRACTICES. THEY OFFER FULL FUNCTIONALITY WITH REGARD TO SEALING SPEED, DOCUMENTATION OF RELEVANT DATA AND INTEGRATION INTO AN EXISTING INFRASTRUCTURE IN THE SMALLEST SPACE. THE HIGH QUALITY AND ROBUST MATERIALS AND OBSERVANCE OF THE HIGHEST SAFETY GUIDELINES MAKE THE GENERATION EASY EQUIPMENT THE PERFECT COMPANION FOR DAILY HYGIENE IN HEALTH CARE FACILITIES. THE NEW HM 780 DC-V IS FULLY VALIDATABLE.

hm 780 DC / hm 780 DC-V

The hm 780 DC and hm 780 DC-V (V = validatable) rotary sealers accomplish the sealing of sealable pouches and reels (Sterile Barrier Systems SBS) in healthcare facilities. Due to a rotary speed of 10 m/min they are ideal for a high turnover of instruments.

SAFETY

The reproducibility of packaging processes is crucial to ensure that sterile barrier system integrity is attained and will remain so until opened by the users of sterile medical devices. The process parameters temperature as well as contact pressure and sealing speed (only hm 780 DC-V) are controlled, monitored and can be directly documented on the packaging (Seal Check Mode).[1] The sealing process of the hm 780 DC-V is validatable and fulfils all necessary requirements for process validation according to EN ISO 11607-2:2006 as well as the therefrom resulting specifications of the German Society for Sterile Supply (DGSV) detailed in the 'Guideline for the Validation of the Sealing Process'.[2] Furthermore, the hm 780 DC-V can be connected to batch documentation systems via an interface.

NEW: IntelligentScan

Never before has the operation of a sealing device been so simple! From now on, the hm 780 DC and hm 780 DC-V can also be completely operated with a barcode scanner.[3] Basic settings like sealing temperature, font size, etc. can be easily programmed via the scanner. Important data such as personnel number and product designation can be read directly by the scanner. The device automatically recognizes incoming information and assigns it to the corresponding print function. In addition, print strings can be set and imported via barcode. The barcode lists can be easily and individually created with the accompanying software.

INTEGRATED PRINTER

Any normatively required information can be printed directly on the packaging during the sealing process (pictograms as per EN 980):

> *Identification of manufacturer or personel number*
> *Product information[4]*
> *Packaging time and date, expiry date*
> *Batch data, lot number or serial number*
> *Piece counter*
> *Designation "sterile" and Sterilization type (e.g. steam, plasma)*
> *Amount*
> *Arbitrary texts[4]*

FontMatic™

The unique FontMatic™ technology in the hm 780 DC-V device – developed and patented by hawo – automatically adjusts the printout to the film width. Thus, printing past the edge of the film is now history. A maximum of flexibility in the choice of films is guaranteed.

[1] Contact pressure and sealing speed are controlled and monitored only in the hm 780 DC-V version.

[2] According to the standard, validation must be carried out by the user in the installation location. The guideline of the German Society for Sterile Supply (DGSV) for the Validation of the Sealing Process in accordance with EN ISO 11607-2:2006 offers practical assistance (www.dgsv-ev.de | Download: www.hawo.com).

[3] Optional scanner needed.

[4] Using IntelligentScan, barcode lists can be generated and directly imported.

FUNCTIONALITY

The hm 780 DC and hm 780 DC-V sealing devices possess the newly developed hawo htr 780 Process Controller. All functions and settings are provided for the user in this central operating unit. Operation is even easier with the accompanying hs 780 PC software. It allows simple programming of the device via PC. The optional hs 780 PC-PT extension module additionally allows continuous documentation of the critical process parameters on the PC.

FLEXIBILITY

The hawoflex™ sealing system accommodates every material – even gusseted pouches and reels. Therefore a flawless, full-area sealing seam can also be achieved with materials of varying thickness. The unique design of the hawoflex™ sealing seam guarantees an optimum sealing security and seal seam strength. The hm 780 DC / DC-V is appropriate for the following packaging materials:[1]

> *Sealable pouches and reels according to EN 868-4:2009, EN 868-5:2009 and EN ISO 11607-1:2009*
> *HDPE (Tyvek®)*
> *Aluminum-laminate film*

ERGONOMICS AND MAINTENANCE

Work processes in the preparation of instruments should be as simple and comfortable as possible. That is why the unit is designed for the ideal utilization of the work area. Maintenance is reduced to a minimum; worn parts are easily replaceable. The ink ribbon change is simply carried out from the front of the device.

ECOLOGY

During development, value was placed on a minimum use of material, reduced abrasion and low energy use. Due to a novel sealing system in the hm 780 DC and hm 780 DC-V, only 390 VA is needed, which is considerably less power than before. In addition, a stand-by function exists, which turns the motor off when not in use.

DESIGN

The restrained and clear impression, the sophisticated combination of the plastic and stainless steel materials, as well as the high tech electronics lend the devices a comfortable haptic and aesthetic look. The base model of the GENERATION EASY rotary sealers was singled out with the "Good Design Award" from the Chicago Athenaeum – Museum of Architecture and Design and nominated for the "German Design Award".

[1] Inappropriate for thermoplastic films (PE, PP, PVC).
Tyvek® is a registred trademark of E.I. du Pont de Nemours.

hm 780 DC / DC-V

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TECHNICAL DATA	hm 780 DC	hm 780 DC-V
Control	Microprocessor	Microprocessor
Sealing process	automatic / reproducible	automatic / reproducible
CE sign, GS sign	x	x
Calibration certificate[1]		x
Conformity EN ISO 11607-2:2006		x
Conformity DIN 58953-7	x	x
Conformity DGSV-Guideline[2]		x
hawo GreenTek™	x	x
IntelligentScan[3]	x	x
Sealing system	hawoflex™ / ripped seal (optional)	hawoflex™ / ripped seal (optional)
Sealing distance from edge 0 - 35 mm (0 - 1.4 in.) (variable)	x	x
Distance to medical product > 30 mm (1.2 in.) (DIN 58953-7)	x	x
Sealing speed (dwell)	10 m/min (33 ft./min)	10 m/min (33 ft./min)
Sealing temperature	max. 220°C (max. 428°F)	max. 220°C (max. 428°F)
Switch-off tolerance (DIN 58953-7)	± 5°C (± 9°F)	± 5°C (± 9°F)
Process parameters monitored	Sealing temperature	Sealing temperature Sealing speed Contact pressure
Machine stop in case the monitored parameters exceed predetermined limits	x	x
Seal seam width	12 mm (0.5 in.)/15 mm (0.6 in.) optional	12 mm (0.5 in.)/15 mm (0.6 in.) optional
Seal seam length	unlimited	unlimited
Seal Check function (Printout of process parameters directly on the packaging)	x	x
FontMatic™		x
Mains connection	230 V, 50 / 60 Hz	230 V, 50 / 60 Hz 115 V, 50 / 60 Hz, 100 V, 50 / 60 Hz
Power[4]	390 VA	390 VA
Energy-saving function, stand-by (adjustable)	1 - 60 min	1 - 60 min
Automatic start of motor and print-out by photocell	x	x
Sealing materials according to EN 868-4, EN 868-5, gusseted pouches, aluminium-laminate film, HDPE (Tyvek®)	x	x
Computer interface	1 x RS 232	2 x RS 232 (USB optional)
hawo hs 780 PC programming software[5]	x	x
Piece counter ascending/descending (with alarm)	x	x
Dimensions w x d x h (incl. infeed section)	555 x 250 x 145 mm (22 x 9.8 x 5.7 in.)	555 x 250 x 145 mm (22 x 9.8 x 5.7 in.)
Weight	14 kg (30.9 lb.)	14 kg (30.9 lb.)
Casing cover	Stainless steel AISI 304	Stainless steel AISI 304

ACCESSORIES		
Seal Check med	x	x
Storage tray	x	x
Roll conveyor	x	x
Documentation system ht 180 PT-USB[5]		x
hawo process documentation software hs 780 PC-PT		x
IntelligentScan barcode scanner with software for generating barcode lists	x	x
hawomedpack see-through packaging reels (L x W: 200 m x 50, 75, 100, 150, 200, 420 mm)	x	x

[1] We recommend an annual re-calibration.
[2] Guideline of the German Society for Sterile Supply for the Validation of the Sealing Process in accordance with EN ISO 11607-2:2006.

[3] Optional scanner needed.
[4] Values can vary during heating-up period.
[5] Digital signature license must be renewed after 2 years.

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hawotest ht 180 PT-USB

PROCESS DOCUMENTATION.
Following on from the requirements set out in EN ISO 11607-2, the routine monitoring and documentation of the process parameters can be carried out with the help of a USB stick and the hawo ht 180 PT-USB storage unit. The process protocols can then be called up, digitally signed and archived on a PC.

> *Compatible with the hm 780 DC-V rotary sealer*

hawotest Seal Check med − The original

FOR THE ROUTINE MONITORING OF THE SEALING SEAMS.
(NEW: INTELLIGENTSCAN-COMPATIBLE)
The hawotest Seal Check med makes it easy to check the seal seam quality properties and carry out the Operational Qualification (OQ) in accordance with EN ISO 11607-2 and DIN 58953-7. Should process parameters deviate, flaws in the seal seam become visible thanks to the Seal Check med. The new Seal Check indicator strips are compatible with the IntelligenScan-technology. Reading in the imprinted barcode via scanner activates automaticly the Seal Check mode of the sealing device. It's that easy!

> *Compatible with all hawo rotary sealers[1]*

hawo Workstations

WELL-ORGANISED.
hawo offers the efficient and easy to handle hm 750 WST and hm 2010 / hm 2015 / hm 2020 WST Workstations, which satisfy the requirements of the working place and packing station for the preparation of medical instruments.

SERVICE
Thanks to our worldwide service partners, we offer you a wide range of services. The following fall under the process validation:

> *The issuing of calibration certificates*
> *Tensile seal strength tests in accordance with EN 868-5:2009/ASTM F88 as part of the routine tests in the Performance Qualification (PQ) as well as professional validation consultation.*

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[1] IntelligentScan-function only supported by devices with this feature (eg. hm 780 DC/DC-V)