1250 DC-V/hm 880 DC-V

ROTARY SEALERS WITH PRINTER (VALIDATABLE PROCESS IN ACCORDANCE WITH ISO 11607-2)



GENERATION PRO

THE HM 850 DC-V AND HM 880 DC-V GENERATION PRO ROTARY SEALING DEVICES WITH INTEGRATED PRINTER ARE THE ANSWER TO PROFESSIONAL REQUIREMENTS IN HOSPITALS AND THE MEDICAL INDUSTRY. THE PROCESS IS VALIDATABLE IN ACCORDANCE WITH ISO 11607-2. ROBUST AND BUILT FOR MAXIMUM COMFORT AS USUAL, THE DESIGN EMPHASIZES THE INTRINSIC VALUES OF THESE DEVICES: MAXIMUM PERFORMANCE AND SPEED, AUTOMATIC MONITORING OF THE CRITICAL PROCESS PARAMETERS SEAMLESS INTEGRATION INTO TRACKING SYSTEMS AND VERY EASY TO USE HANDLING THANKS TO THE SUCCESSFUL havo IntelligentScan TECHNOLOGY (HM 880 DC-V) MAKES THE EQUIPMENT A RELIABLE PARTNER FOR STERILE PACKAGING.



THE PRO CLASS.

The validatable rotary sealers are used for the automatic closing of sealable pouches and reels (Sterile Barrier Systems SBS) in hospitals (CSSD) and the medical industry. Our successful classic model hm 850 DC-V was updated and changed to the current design. The hm 880 DC-V includes all hawo top technologies and sets the benchmark in its class.



INTEGRATED PRINTER WITH FontMatic (hm 880 DC-V).

The hm 850 DC-V and hm 880 DC-V can print all normatively requested information directly onto the packaging during the sealing process (symbols according to EN 980). Thanks to the patented **FontMatic** technology the hm 880 DC-V automatically recognises the width of the sealing material and adjusts the font size to the available space. Printing over the edges is a thing of the past.

- > Identification of manufacturer or personnel number
- > Product information 1
- > Packaging time and date, expiry date
- > Batch data, lot number or serial number
- > Piece counter
- > hm 880 DC-V: Designation "sterile" and sterilization type (e.g. steam, plasma)
- > hm 880 DC-V: Amount
- > Arbitrary texts1

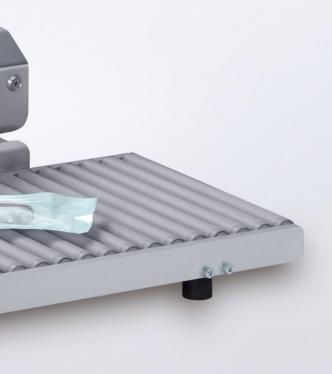
FLEXIBILITY.

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 optimal sealing security and seal seam strength. The hm 850 DC-V and hm 880 DC-V are appropriate for the following packaging materials:²

- > All sealable pouches and reels according ISO 11607-1 (e.g. medical grade paper, Tyvek®, nonwoven, etc.)
- > Gussetted pouches and reels
- > 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.



¹ hm 880 DC-V: Using hawo IntelligentScan this information can be created as a barcode list read directly via scanner. Optional barcode scanner hm 780 BR required.

² Not suitable for thermoplastic films (PE, PP, PVC).

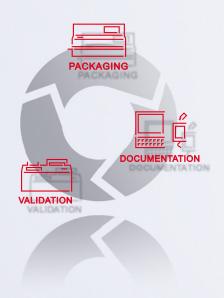
Tyvek® is a registered trademark of E.I. du Pont de Nemours.

hm 850 DC-V/hm 880 DC-V

RANCE OF SEARCH FICKATONS FORMING SURJEIN FORM 19			
Exercision separation of the controlled of t		hm 880 DC-V	hm 850 DC-V
OF signal x x Channing (DM S1855 7-2010) x x Channing (DM S1857 7-2010) x x Channing (SM S1857 7-2010) x x Scaling (SM S1857 7-2010) </td <td>RANGE OF USE AND CERTIFICATIONS</td> <td></td> <td></td>	RANGE OF USE AND CERTIFICATIONS		
CS-control X X Conforming ISBOTS 16779 X X Control X X Casal Control X X Casal Control X X Sealing spalars X X Seal Seal Seal Seal Seal Seal Seal Seal	Especially suitable for use in	hospital and medical industry	hospital and medical industry
Contenting INSI ASSIST-732179 x x Contenting INSI DITISTE79 x x CONTENT STEPS TURS TO THE TURS	CE sign	х	х
Cincinarialy BIOUTIST 187776 x x Choisers SUPPLY AND MECHANCAL CATA x x Name connection frama frequency 100-200 V 5980 Hz 001152300 V 5080 Hz 001152300 V 5080 Hz Flower* 400 W 400 W 400 W 001152300 V 5080 Hz 001152300 V 5080 V 5080 Hz 001152300 V 5080	GS-certified State of the state	х	х
Conformity Sol T18017-2 X	Conformity DIN 58953-7:2010	х	Х
Power	Conformity ISO/DTS 16775 ⁵	X	х
Mans promotion / mains frequency 000,400 / 5000 Hz 001/16/200 / 5000 Hz Power* 400 W 400 W 400 W 200 W	Conformity ISO 11607-2	Х	Х
Power of Power of Interface or Int	POWER SUPPLY AND MECHANICAL DATA		
Disensions with 4 fried, Infect section) F11 N 200 x 240 mm F10 x 200			
Wight 2 light			
Casing gover Starling steam Navoffex Navoffex Saaling spistem 0 35 mm 0 35 mm Seal san width 12 mm 12 mm Designed printed on ring degle 30 mm 20 mm Designed for incital product (DN 59953-7) 4 20 mm 20 mm Designed for incital product (DN 59953-7) 4 20 mm 20 mm Rovers lood 8 20 mm 20 mm STAL NOS MATERIAS 8 20 mm 20 mm All sealable gusseled pouches and reals according ISO 11007-1 (e.g. medical grading paper, Fyrekish, nonwore, etc.) 4 2 mm All services from FEATURES AND COMMUNICATION 8 2 mm 2 mm Central Control Microprocessor Microprocessor Control 4 mm 2 mm Automate stated not made and after a gover failure (Autosafe) 4 mm 2 mm Automate stated not mot by photocesis 8 222 Elementar USS 8 222 Elementar USS Polimatic face for process and batch documentation system 8 222 Elementar USS 8 mm Polimatic face for process and parting from the public documentation system 1 mm 1 mm Research			
Seeling system Monitor working Saaling slatence free dege 0-35 mm 0-36 mm Distance of medical product DIN 1898-79 2 mm 2 mm Distance or medical product DIN 1898-79 3 mm 3 mm Decemperation (noting upund) 2 mm 3 mm SEALTHOUTH (IN 1898-1907) 3 mm 3 mm Hall solability appeat ("youth," norwork, net.") 3 mm 4 mm Regentating drade papear ("youth," norwork, net.") 4 mm 4 mm Hall solability appear ("youth," norwork, net.") 8 mm 4 mm Hall solability appear ("youth," norwork, net.") 8 mm 4 mm Hall solability appear ("youth," norwork, net.") 8 mm 4 mm Hall solability appear ("youth," norwork, norwork, net.") 8 mm 4 mm Parameter settings romain oven after a power failure (Autosate) 8 mile proposes 8 mm Parameter settings romain oven after a power failure (Autosate) 9 mm 9 mm Parameter settings romain oven after a power failure (Autosate) 9 mm 9 mm Policy proposes and batch documentation systems 1 mm 1 mm 1 mm <td>Weight</td> <td></td> <td></td>	Weight		
Seal sam width 12 mm	Casing cover		
Seal saam width 12 mm 12 mm 12 mm Distance to medical product (DN 5985-7) > 30 mm > 30 mm Divelor protection (neard guard) x x Riverse feed x x SEALING MATERIALS X x La sealabile guested of pouches and reels according (SO 11607) at 1, 20 mm x x All sealabile guested of pouches and reels according (SO 11607) at 1, 20 mm x x All sealabile guested of pouches and reels according (SO 11607) at 1, 20 mm x x ELECTRONIC FEATURES AND COMMUNICATION x x x Contral Microprocessor Microprocessor x Automatic start of motor by protocell x x Automatic start of motor by protocell x x Contral (Processor and batch documentation system) 85 82 g.2 bemera and USB RS 232 Ploineface for process and batch documentation systems x x Ploineface for process and batch documentation systems x x x Ploce counter and operating time x x x Plo			
Distance to medical product (DIN \$8953-7) > 30 mm > 30 mm Device protection (resert juurr) x x Reverse feed x x SEALING X SEALING MATERIALS X All sealabile gussetted pouches and reals according ISO 11607-1 (e.g. medicial groade paper, Tysekie, nonwoven, atc.) x All minimal-mainstal film X ELECTRONIC FEATURES AND COMMUNICATION X Control Microprocessor Microprocessor Control X X Automate start of mofor by photocel X X Automate obtain of mother by photocel X X Automate obtain of moder by photocel X X Foliantiface (for process and batch documentation systems) R522, Ehernet and USB R523 Forenate Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Foreign process automatic producible X X Control X X X Control X X X Proces parameter monitored			
Device protection (insert guard) x x Roverse feed x x SEX.LING MATERIALS x All sealable guassitited prouches and relate according ISO 11807-11 (e.g. medical grade paper, Tyvek®, norwowen, etc.) x All sealable guassitited prouches and relate according ISO 11807-11 (e.g. medical grade paper, Tyvek®, norwowen, etc.) x All minur-lammate film x x ELECTRONIC FEATURES AND COMMUNICATION Microprocessor Microprocessor Control Microprocessor Microprocessor Parameter settings remain even after a power failure (Aubsafe) x x Automatic plates of date and time even x x x Valuncation (or process and batch documentation systems) 2 S232. Ethernat and USB x Rose 232 Research Medical Colf Membrane leapand A Insect LOD / Membrane leapand A Insec			
Reverse feed X X SEALING MATERIALS X VIA Isolabible jusseleted pouches and reels according ISO 11607-18 (e.g. medical grade paper, Tywelski, nonwoven, etc.) X All solabible jusseleted pouches and reels according ISO 11607-18 (e.g. medical grade paper, Tywelski, nonwoven, etc.) X Aluminium-laminate film X X ELECTRONIC FEATURES AND COMMUNICATION Microprocessor Microprocessor Parameter sellings remain even after a power failure (Autosafe) X X Automatic start of motor by photocoli X X Automatic update of date and time even without off off to switched off X X Understood (for process and batch documentation systems) 4 2 inset LCD / Membrane keypad 2 inset LCD / Membrane keypad Pick per Long (for process and batch documentation systems) 4 2 inset LCD / Membrane keypad 2 inset LCD / Membrane keypad Pick per Long (for process and batch documentation systems) 4 2 inset LCD / Membrane keypad 2 inset LCD / Membrane keypad Pick per Long (for process and batch documentation systems) 4 2 inset LCD / Membrane keypad 2 inset LCD / Membrane keypad Pick per Long (for process and batch documentation systems) 4 council process and systems (and proces	Distance to medical product (DIN 58953-7)	> 30 mm	> 30 mm
SELING MATERIALS All sealable guested pouchs and reals according ISO 11607 (eg. medical grapher, tyveke, nonwoven, etc.) Auminum-aminate film ELECTRONE FEATURES AND COMMUNICATION Control Parameter settings remain even after a power failure (Aubsafe) Automate start of motor by photocel Automate updated of data and time even when device is switched off Polinafface (for process and batch documentation systems) A S222, Ethernet and USB About 1867 Polinafface (for process and batch documentation systems) A S232, Ethernet and USB A S232 Ethernet and USB A S242 Ethernet and USB A S		X	х
All sealable gusselted pouches and reels according ISO 11607-1 (e.g. medical grade paper, Tyvels0, nonvower, etc.) * According to the paper, Tyvels0, nonvower, etc.) * According to the paper, Tyvels0, nonvower, etc.) * * According to the paper, Tyvels0, nonvower, etc.) *<	Reverse feed	x	х
(e.g. medical grade paper, Tywek®, nonwown, etc.) X Aluminum-laminate film x X ELECTRONIC FEATURES AND COMMUNICATION Wiscoprocessor Microprocessor Parameter settings remain even after a power faiture (Autosafe) X X Automatic supdate of date and time even where device is switched off X X Using Jayan Andrews Z Lineal LCD / Membrane keypad 2-lineal LCD / Membrane keypad Display and keypad Z 2-lineal LCD / Membrane keypad 2-lineal LCD / Membrane keypad PC Instrace (for process and batch documentation systems) RS 22, Ehrenet and USB RS 23 PC metaffex Moor stop after 30 sec / Stand-by after 10-120 min Moor stop after 30 sec / Stand-by after 10-120 min Process Associated process (ISO 11607-2) X X Process Process A silvanification by a silvanificati			
ELECTRONIC FEATURES AND COMMUNICATION Microprocessor Microprocessor Control Microprocessor Microprocessor Parameter settings remain even after a power failure (Autosate) x x Automatic start of motor by photocell x x Automatic update of date and time even when device is switched off x x When device is switched off x R5232 Display and keypad 2 lined LCD / Membrane keypad Altomatic by Alton (LDM / Membrane keypad) PC Interface (for process and batch documentation systems) R5232 Ethernet and USB R5232 Area Take Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 30 sec / S		Х	Х
Control Microprocessor Microprocessor Parameter settings remain even after a power failure (Autosafe) x Automatic start of motor by photocoll x Automatic update of date and time even when device is switched off x Display and keypad 2-lined LCD / Membrane keypad 2-lined LCD / Membrane keypad PC interface (for process and batch documentation systems) RS 232, Ethernet and USB RS 232 Theoretic (for process and batch documentation systems) x X Processor Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Pices counter and operating time x x Processor x x VINTACL FUNCTIONS IN ACCORDANCE WITH ISO 11607-2 x x Salidatable process (ISO 11607-2) x x x Process parameter monitored x x x Saling speed (dwell) x (100 N) x (100 N) x Switch-off tolerance adjustable x (100 m/min) x (100 N) x Switch-off tolerance adjustable x 2-5°C x 2-5°C x	Aluminium-laminate film	х	Х
Parameter settings remain even after a power failure (Autosale) x	ELECTRONIC FEATURES AND COMMUNICATION		
Automatic start of motor by photocell x Automatic update of date and time even when device is witched off x When device is witched off 2.lined LCD / Membrane keypad 2.lined LCD / Membrane keypad Display and keypad 2.lined LCD / Membrane keypad 2.lined LCD / Membrane keypad PC increace (for process and batch documentation systems) RS 232, Ethernet and USB x22 Asson IntelligentScan Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Prece counter and operating time x x CONTEXT USCANDANCE WITH ISO 11607-2 x Validable process (ISO 11607-2) automatic/reproducible automatic/reproducible Validable process (ISO 11607-2) x x Sealing penerature x x Contact pressure x x Ontact pressure x x Switch-off tolerance adjustable x x Auter and motor stop in case the monitored parameters x x Printed LOP printer data with running function in display x x Printed FUNCTIONS WITH INTEGRATED PRINTER	Control	Microprocessor	Microprocessor
Automatic update of date and time even when device is switched off of the provice is switched off of the provice is switched off of the provided off off off off off off off off off of	Parameter settings remain even after a power failure (Autosafe)	X	х
when device is switched off Lineal LCD / Membrane keypad 2-lined LCD / Membrane keypad PC (interface (for process and batch documentation systems) RS 232, Ethernet and USB RS 232 havo IntelligentScan x² GrenTek Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Picec counter and operating time X Work Total CENTER (STOP (S	Automatic start of motor by photocell	X	x
PC interface (for process and batch documentation systems) RS 232, Ethernet and USB RS 232 AnothelligentScan x* Green Tok Motor stop after 30 sec / Stand-by after 10-120 min Motor 30 sec / Stand-by after 10-120 min Motor 30 sec / Stand-by after 10-120 min	·	Х	X
how IntelligentScan * GreenTek Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Piced counter and operating time x CONTROL FUNCTIONS IN ACCORDANCE WITH ISO 11607-2 Sealing process atomatic reproducible automatic reproducible Validatable process (ISO 11607-2) x x x Process parameter monitored: x x x x Sealing stemperature x (100 N) x (100 N) x (100 N) x <t< td=""><td>Display and keypad</td><td>2-lined LCD / Membrane keypad</td><td>2-lined LCD / Membrane keypad</td></t<>	Display and keypad	2-lined LCD / Membrane keypad	2-lined LCD / Membrane keypad
GreenTeK Motor stop after 30 sec / Stand-by after 10-120 min Motor stop after 30 sec / Stand-by after 10-120 min Pice counter and operating time x x CONTROL FUNCTIONS IN ACCORDANCE WITH ISO 11607-2 ustomatic/reproducible automatic/reproducible Sealing process (ISO 11607-2) automatic/reproducible x Process parameter monitored: ** ** Sealing temperature x (max. 220 °C) x (max. 220 °C) Contact pressure x (100 N) x (100 N) Switch-off tolerance ± 5°C (DIN 58953-7;2010) x (100 m/min) -(10 m/min, not monitored) Switch-off tolerance adjustable ± 2-5 °C -(20 m/min) Alert and motor stop in case the monitored parameters exceed predetermined limits x x Printout of process parameters (Seal Check-function) x x Printout x x x FontMatic (automatic adjustment of font size to film width)	PC interface (for process and batch documentation systems)	RS 232, Ethernet and USB	RS 232
Piece counter and operating time x x some substitution of the process of the process (ISO 11607-2) x x x x x x x x x x x x x x x x x x x	hawo IntelligentScan	X ⁷	
Sealing process (SIO 11607-2) xu toward in Accordance With Ison 1607-2) xu (max. 220 °C) xu (max. 220	GreenTek	Motor stop after 30 sec / Stand-by after 10-120 min	Motor stop after 30 sec / Stand-by after 10-120 min
Sealing process automatic/reproducible automatic/reproducible Validatable process (ISO 11607-2) x x Process parameter monitored: x x x Sealing temperature x (max. 220 °C) x (max. 220 °C) Contact pressure x (100 N) x (100 N) Sealing speed (dwell) x (10 m/min) -(10 m/min, not monitored) Switch-off tolerance ± 5°C (DIN 58953-7:2010) x x Switch-off tolerance adjustable ± 2-5 °C 2-5 °C Alert and motor stop in case the monitored parameters exceed predetermined limits x x Printout of process parameters (Seal Check-function) x x PRINTER FUNCTIONS WITH INTEGRATED PRINTER x x Printout single line single line FontMatic (automatic adjustment of font size to film width) x x FontMatic (automatic adjustment of font size to film width) x x Mobile process documentation haw ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) x ht Seal Check med und ht Seal Check HDPE indicator strips x x	Piece counter and operating time	X	x
Validatable process (ISO 11607-2) x x Process parameter monitored: x (max. 220 °C) x (max. 220 °C) Contact pressure x (100 N) x (100 N) Sealing speed (dwell) x (10 m/min) - (10 m/min, not monitored) Switch-off tolerance ± 5°C (DIN 58953-7:2010) x 2 - 2 °C Switch-off tolerance adjustable ½ - 2 °C ± 2.5 °C Alert and motor stop in case the monitored parameters exceed predetermined limits x x Printout of process parameters (Seal Check-function) x x PRINTER FUNCTIONS WITH INTEGRATED PRINTER x x Printout single line single line FontMatic (automatic adjustment of font size to film width) x x ACCESSORIES X x Mobile process documentation have ht 180 PT-USB x x Awo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) x x ht Seal Check med und ht Seal Check HDPE indicator strips x x x	CONTROL FUNCTIONS IN ACCORDANCE WITH ISO 11607-2		
Process parameter monitored: Sealing temperature	Sealing process	automatic/reproducible	automatic/reproducible
Sealing temperature x (max. 220 °C) x (max. 220 °C) Contact pressure x (100 N) x (100 N) Sealing speed (dwell) x (10 m/min) - (10 m/min, not monitored) Switch-off tolerance ± 5°C (DIN 58953-7:2010) x x Switch-off tolerance adjustable ± 2-5 °C ± 2-5 °C Alert and motor stop in case the monitored parameters exceed predetermined limits x x Printout of process parameters (Seal Check-function) x x PRINTER FUNCTIONS WITH INTEGRATED PRINTER x x Display of printer data with running function in display x x FontMatic (automatic adjustment of font size to film width) x x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) x x ht Seal Check med und ht Seal Check HDPE indicator strips x x x	Validatable process (ISO 11607-2)	X	Х
Contact pressurex (100 N)x (100 N)Sealing speed (dwell)x (10 m/min)- (10 m/min, not monitored)Switch-off tolerance ± 5°C (DIN 58953-7:2010)xxSwitch-off tolerance adjustable± 2.5 °C± 2.5 °CAlert and motor stop in case the monitored parameters exceed predetermined limitsxxPrintout of process parameters (Seal Check-function)xxPRINTER FUNCTIONS WITH INTEGRATED PRINTERDisplay of printer data with running function in displayxxPrintoutsingle linesingle lineFontMatic (automatic adjustment of font size to film width)xxACCESSORIESXxMobile process documentation hawo ht 180 PT-USBxxhawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists)xxht Seal Check med und ht Seal Check HDPE indicator stripsxx	Process parameter monitored:		
Sealing speed (dwell) x (10 m/min) - (10 m/min, not monitored) Switch-off tolerance ± 5°C (DIN 58953-7:2010) x x Switch-off tolerance adjustable ± 2-5 °C ± 2-5 °C Alert and motor stop in case the monitored parameters exceed predetermined limits x x Printout of process parameters (Seal Check-function) x x PRINTER FUNCTIONS WITH INTEGRATED PRINTER x x Display of printer data with running function in display x x Printout single line single line FONTMatic (automatic adjustment of font size to film width) x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) x x ht Seal Check med und ht Seal Check HDPE indicator strips x x	Sealing temperature	x (max. 220 °C)	x (max. 220 °C)
Switch-off tolerance ± 5°C (DIN 58953-7:2010)xxSwitch-off tolerance adjustable± 2-5 °C± 2-5 °CAlert and motor stop in case the monitored parameters exceed predetermined limitsxxPrintout of process parameters (Seal Check-function)xxPRINTER FUNCTIONS WITH INTEGRATED PRINTERxxDisplay of printer data with running function in displayxxPrintoutsingle linesingle lineFontMatic (automatic adjustment of font size to film width)xACCESSORIESXMobile process documentation hawo ht 180 PT-USBxxhawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists)xht Seal Check med und ht Seal Check HDPE indicator stripsxx	Contact pressure	x (100 N)	x (100 N)
Switch-off tolerance adjustable \$2.5 °C \$2.5 °	Sealing speed (dwell)	x (10 m/min)	- (10 m/min, not monitored)
Alert and motor stop in case the monitored parameters exceed predetermined limits X X X X Printout of process parameters (Seal Check-function) PRINTER FUNCTIONS WITH INTEGRATED PRINTER Display of printer data with running function in display X Printout Single line FontMatic (automatic adjustment of font size to film width) X ACCESSORIES Mobile process documentation hawo ht 180 PT-USB Awo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) Nt Seal Check med und ht Seal Check HDPE indicator strips X X ACCESSORIES X X X X X X X X X X X X X	Switch-off tolerance ± 5°C (DIN 58953-7:2010)	X	х
exceed predetermined limits Printout of process parameters (Seal Check-function) PRINTER FUNCTIONS WITH INTEGRATED PRINTER Display of printer data with running function in display Printout Single line FontMatic (automatic adjustment of font size to film width) ACCESSORIES Mobile process documentation hawo ht 180 PT-USB Mow IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) Nt Seal Check med und ht Seal Check HDPE indicator strips X X X X X X X X X X X X X	Switch-off tolerance adjustable	± 2-5 °C	± 2-5 °C
PRINTER FUNCTIONS WITH INTEGRATED PRINTER Display of printer data with running function in display x x x single line Printout single line single line FontMatic (automatic adjustment of font size to film width) x x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) ht Seal Check med und ht Seal Check HDPE indicator strips x x x		х	х
Display of printer data with running function in display x single line single line FontMatic (automatic adjustment of font size to film width) x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) ht Seal Check med und ht Seal Check HDPE indicator strips x x x	Printout of process parameters (Seal Check-function)	x	х
Printout single line single line single line FontMatic (automatic adjustment of font size to film width) x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) ht Seal Check med und ht Seal Check HDPE indicator strips x single line single line x x x	PRINTER FUNCTIONS WITH INTEGRATED PRINTER		
FontMatic (automatic adjustment of font size to film width) x ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR (with hs 780 BR software for generating bar code lists) ht Seal Check med und ht Seal Check HDPE indicator strips x x	Display of printer data with running function in display	x	x
ACCESSORIES Mobile process documentation hawo ht 180 PT-USB x x hawo IntelligentScan barcode scanner hm 780 BR x (with hs 780 BR software for generating bar code lists) ht Seal Check med und ht Seal Check HDPE indicator strips x x	Printout	single line	single line
Mobile process documentation hawo ht 180 PT-USB x x x hawo IntelligentScan barcode scanner hm 780 BR x (with hs 780 BR software for generating bar code lists) x x x x x	FontMatic (automatic adjustment of font size to film width)	x	
Mobile process documentation hawo ht 180 PT-USB x x x hawo IntelligentScan barcode scanner hm 780 BR x (with hs 780 BR software for generating bar code lists) x x x x x	ACCESSORIES		
hawo IntelligentScan barcode scanner hm 780 BR x (with hs 780 BR software for generating bar code lists) x ht Seal Check med und ht Seal Check HDPE indicator strips x x		x	x
ht Seal Check med und ht Seal Check HDPE indicator strips x x	hawo IntelligentScan barcode scanner hm 780 BR	х	
		×	x
	Seal Check reference card	×	x

⁵ ISO Technical Specification: Packaging for terminally sterilized medical devices – Guidance on the application of ISO 11607-1 and ISO 11607-2.

⁶ Values can vary during heating-up period. | ⁷ Optional scanner needed.



SAFE PACKAGING.

The correct reprocessing process of medical devices consists of the steps of washing & disinfection, packaging and sterilisation. The instruments can only be called sterilised when they are packaged before the sterilisation. The single-use (!) packaging, made from laminated poly film and a porous material (Tyvek® or medical grade paper) is permeable for the sterilisation medium (e. g. steam, plasma, Formaldehyde FO or Ethylenoxide ETO), but not for bacteria or microorganisms. Only by following this reprocessing sequence (see illustration left) and by using professional heat sealers to seal the instruments as well as professional packaging material can the sterility up to the point of use as well as the aseptic presentation of the instrument be guaranteed. Medical devices delivered in a sterile state should be packed to ensure that they remain sterile until the point of use. The validation of packaging processes is crucial to ensure that sterile barrier system integrity is attained and will remain so until opened by the users. The international packaging standard ISO 11607-2 as well as the Technical Specification draft ISO/DTS 167751 explains how packaging processes should be validated. The international packaging validation guideline¹ gives guidance how to validate the packaging processes.^{2/3}

Sealing devices must meet the following validation requirements to fulfil the requirements of ISO 11607-2:

- > Monitoring the critical process parameters and
- > Warn the user in case of deviation from preset values.

The sealing devices hm 850 DC-V and hm 880 DC-V meet these requirements. During the sealing process, the critical parameters sealing temperature and contact pressure are continously monitored (hm 880 DC-V: also sealing speed). If one of the parameters deviates from preset values, the devices warn the user acoustically and stop the sealing process. Both sealers possess a PC interface (RS232) for process and batch documentation (hm 880 DC-V: also Ethernet and USB). The sealing devices guarantee efficient and reproducible packing, especially for large volumes of instruments.



EASY-OPERATION SEALING EQUIPMENT: hawo IntelligentScan.

The hm 850 DC-V and hm 880 DC-V sealers have the new, clearly laid out keyboard display. Through this central control unit, all instrument functions and settings are clearly laid out for the user. The hm 880 DC-V can also be easily operated and configurated via an optional hm 780 BR barcode scanner and the accompanying hs 780 BR PC software. Using the PC software, all device configurations, printer data and entire printer configurations for individual packaging materials can be entered centrally and output as a barcode list on a standard printer in just one operation. The scanner reads the bar code lists with the relevant packaging information and automatically assigns them to the appropriate device function.

- ¹ Packaging for terminally sterilized medical devices Guidance on the application of ISO 11607-1 and ISO 11607-2 (under development)
- ²Also applies to sealable pouches and reels, wrapping sheets and containers.
- ³ Available free of charge in German, English and French at www.hawo.com



hawotest ht 180 PT-USB



PROCESS DOCUMENTATION.

Following the requirements set out in 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.

Seal Check med | Seal Check HDPE | hawo InkTest



FOR ROUTINE MONITORING OF THE SEALING SEAMS.

hawo offers two testing systems for the routine testing of the sealing seam as well as to carry out an Operational Qualification (OQ) and Performance Qualification (PQ) during the validation process. hawo sealing devices with hawo IntelligentScan automatically activate the test-mode by scanning the onprinted barcodes.

- > hawo Seal Check: The Seal Check med (paper/film pouches and reels) and Seal Check HDPE (Tyvek®/film pouches and reels) make deviations visible on the indicator field of the Seal Check.
- > hawo InkTest: The standardized dye penetration test for testing the seal integrity in accordance with ISO 11607-1, Annex B (ASTM F1929), is distinguished by its simple handling and provides objective results. For this purpose a special test ink is given with a pipette into the pouch or reel. Defects (e.g. channels) become immediately visible.



SERVICE.

It is our claim that our sealing devices always meet your requirements. Thanks to our world wide service partners, we offer you a wide range of services. The following fall under the process validation:

- > Issuing of calibration certificates for the parameters relevant to the
- > Tensile seal strength tests in accordance with EN 868-5:2009/ASTM F88 as part of the routine tests in the Performance Qualification (PQ)
- > Validation consultation
- > **Service-Hotline**: Please contact our Service-Team. Call +49 6261 9770-31.













hawo GmbH Obere Au 2-4 74847 Obrigheim/Germany T +49 (0) 6261 / 9770-0 F +49 (0) 6261 / 9770-69 info@hawo.com www.hawo.com