

hd 680 DE/DE-V/DEI-V | hd 650 D/DE

hako

THE COMPACT GENERATION EASY ROTARY  
SEALERS FOR THE PACKAGING OF SEALABLE  
POUCHES AND REELS



reddot design award  
winner 2010

# GENERATION EASY

hawo

THE HD 680 AND HD 650 DEI-V ROTARY SEALERS SERIES ARE THE HIGH PERFORMANCE DEVICES OF THE HAWO GENERATION EASY PRODUCT LINE. WE'VE DEVELOPED THE EQUIPMENT IN THIS GENERATION OF PRODUCTS FOR THE HIGH DEMANDS ON PROFESSIONALISM, AESTHETIC AND SOLIDITY IN SMALLER HEALTHCARE FACILITIES. THE PURIST AND MEDICAL PRACTICE-SUITED DESIGN, 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 THE MEDICAL PRACTICE. THE SEALING PROCESS OF THE HD 680 DE-V AND HD 680 DEI-V IS VALIDATABLE.



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### hd 680 DE/DE-V/DEI-V

Rotary sealers for the automatic sealing of pouches and reels in medical and dental practices.

- > *Reproducible sealing process*
- > *hd 680 DE-V/DEI-V: validatable process in accordance with ISO 11607-2*
- > *hd 680 DEI-V: interface connection for external process documentation (e.g. ht 180 PT-USB, see figure) and for batch documentation systems*



### hd 650 D/DE

The basic rotary sealers for the automatic sealing of pouches and reels in medical and dental practices.

- > *Reproducible sealing process*
- > *High sealing speed (10 minin)*

### VALIDATION (ONLY HD 680 DE-V AND HD 680 DEI-V)

ISO 11607-2 and the German DIN 58953-7 series of standards explicitly require validated packaging processes. Therefore the hd 680 DE-V/DEI-V rotary sealers fulfill all necessary requirements for process validation in accordance to ISO 11607-2 as well as the therefrom resulting specifications of the World Forum for Hospital Sterile Supply (WFHSS) detailed in the 'Guideline for the Validation of the Sealing Process'. **For more information visit [www.hawo.com/validation](http://www.hawo.com/validation).**

### FUNCTIONALITY

Quickly-graspable functions and thought through solutions make perfect operation possible. Due to the patented **hawoflex** sealing technology of the hd 680 DE-V/DEI-V the devices conform to every material, even HDPE (Tyvek®).<sup>1</sup> In addition, the devices can be fastened to the wall with a special mounting to save place.

### ERGONOMICS

Work processes in the preparation of instruments should be as simple and comfortable as possible. That's why the unit is aligned for the ideal utilization of the work area. The high quality material guarantees high durability and makes cleaning truly simple. Maintenance is reduced to a minimum; worn parts are easily replaceable.

### SERVICES

Regular maintenance can extend the life of your product. That is why we offer maintenance (**ServiSeal**), calibration (**CalISeal**) and validation service in accordance with ISO 11607-2 for sealers with validatable process (**ValISeal**) as well as a seal seam strength test in accordance with EN 868-5:2009 just from one source. **For more information visit [www.hawo.com/en/service](http://www.hawo.com/en/service).**

<sup>1</sup> The temperature setting must be adapted to each material. Tyvek® is a registered trademark of E.I. du Pont de Nemours.

# hd 680 DE/DE-V/DEI-V | hd 650 D/DE

**hawa**

TECHNICAL DATA	hd 680 DE-V hd 680 DEI-V	hd 680 DE	hd 650 D/DE
Control	Microprocessor	Microprocessor	Microprocessor
Sealing process	automatic / reproducible	automatic / reproducible	automatic / reproducible
CE sign, GS sign	x	x	x
Calibration certificate	x		
Conformity ISO 11607-2:2006	x		
Conformity DIN 58953-7:2010	x		
Conformity DGSV guideline	x		
<b>GreenTek</b>	x	x	
Sealing system	<b>hawoflex</b> (ribbed seal optional)	ribbed seal	ribbed seal
Sealing distance from edge 0–35 mm (0–1.4 in) (variable)	x	x	x
Distance to medical product > 30 mm (1.2 in) (DIN 58953-7:2010)	x	x	x
Sealing speed (dwell)	10 m/min (33 ft/min)	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)	max. 220°C (max. 428°F)
Switch-off tolerance (DIN 58953-7:2010)	± 5°C (± 9°F)	± 5°C (± 9°F)	± 5°C (± 9°F)
Process parameters monitored	Sealing temperature Contact pressure Sealing speed (hd 680 DEI-V)	Sealing temperature	Sealing temperature
Machine stop in case the monitored parameters exceed predetermined limits	x	x	x
Seal seam width	12 mm (0.5 in)	12 mm (0.5 in)	12 mm (0.5 in)
Mains connection/frequency	115/230 V, 50/60 Hz	115/230 V, 50/60 Hz	115/230 V, 50/60 Hz
Power <sup>1</sup>	390 W	390 W	390 W
Energy-saving function, stand-by (adjustable)	hd 680 DEI-V (hd 680 DE-V optional)	optional	hd 650 DE (Stand-by)
PC interface connection	hd 680 DEI-V: RS 232 (USB optional)		
Piece counter	hd 680 DEI-V (hd 680 DE-V optional)	optional	
Dimensions w x d x h (incl. infed section)	505 x 255 x 145 mm (19.8 x 10.0 x 5.7 in)	505 x 255 x 145 mm (19.8 x 10.0 x 5.7 in)	560 x 260 x 160 mm (22 x 10.2 x 6.3 in)
Weight	12 kg (26.5 lb)	12 kg (26.5 lb)	14 kg (30.9 lb) / 15 kg (33.1 lb)
Casing cover	Stainless steel AISI 304	Stainless steel AISI 304	powder-coated
Sealable paper pouches (ISO 11607-1/EN 868-4)	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>
Sealable pouches and reels (ISO 11607-1/EN 868-5)	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>

<sup>1</sup> Values can vary during heating-up period. <sup>2</sup> The listed devices are inappropriate for industrial use and polymeric films (PE, PP, PVC).

Subject to technical alterations  
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## Seal Check med | Seal Check HDPE | hawa InkTest



## FOR THE ROUTINE MONITORING OF THE SEALING SEAMS.

hawa offers testing systems for the routine testing of the sealing seams as well as for the monitoring of the quality properties during validation and revalidation.

- > **hawa 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 area of the Seal Check.
- > **hawa 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.

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