

US 73 HE-US 103 HE

SUBMERSIBLE DRAINAGE PUMPS FOR HOT WATER OPERATION

- Safe to run dry
- 30 mm free passage
- Hot water up to 194 °F (90 °C)
- Controllable oil chamber
- SiC mechanical seal independent of sense of rotation
- Replaceable moisture sealed cable inlet



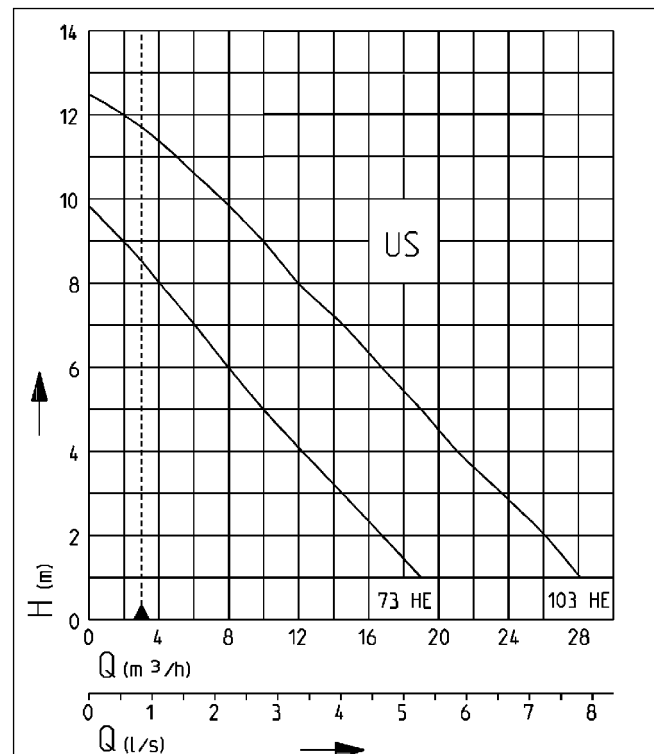
DESCRIPTION

The heavy duty centrifugal submersible drainage pumps US 73 and 103 HE/HES are suitable for dealing with very contaminated water and capable of handling solids up to 30 mm particle size without stones. These pumps can be used wherever wastewater up to 194°F (90°C) is involved, such as in laundries or automatic laundrettes, or in industrial dishwashers and washing machines or for the emergency overflow of heating systems.

This range of pumps is suitable for stationary use. For easy removal of the pumps from deep sumps we recommend the use of our guide rail systems which provide ease of maintenance and inspection. A controllable oil chamber and wear-resistant special mechanical seal ensure a long service life. The integrated winding thermostats protect the motor from overload.

In conjunction with the drain master Hebefix 100 H, it provides a ready to install solution for conveying wastewater up to 176°F (80°C).

PERFORMANCE



Type	Delivery head H [m]	1	2	3	4	5	6	7	8	9	10	12
US 73 HE/HES	Flow rate Q [m³/h]	19	17	15	12	10	8	6	4	2		
US 103 HE/HES		28	26	23	21	19	17	15	12	10	8	2

We reserve the right to change specifications without notice. Pump performance is subject to ISO 9906 tolerances

The minimum flow velocity in the pressure piping must be 0.7 m/s according to EN 12056. This data is represented in the performance curve as a limit of application.



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SCOPE OF SUPPLY

Pump acc. to EN 12050 ready for connection with cable and safety plug

MECHANICAL DATA

Pump	Vertical single-stage	Run dry protection	Yes
Free passage	30 mm	Shaft	Stainless steel
Bearing	Ball bearings, grease-lubricated	Impeller	Vortex impeller, GFK
Seal on motor side	Duplex rotary shaft seals	Motor housing	Stainless steel
Oil chamber	Yes	Pump housing	Grey cast iron
Seal on medium side	SiC mechanical seal	Submersible	Yes
		Pressure outlet	IG 1 1/2"

ELECTRICAL DATA

Voltage	1/N/PE~230 V	Insulation class	F
Power line	10m H07RN-F	Winding thermostat	Yes
Wires	3G1,0	Motor protection	Integrated
Type of enclosure	IP 68	Plug	Safety

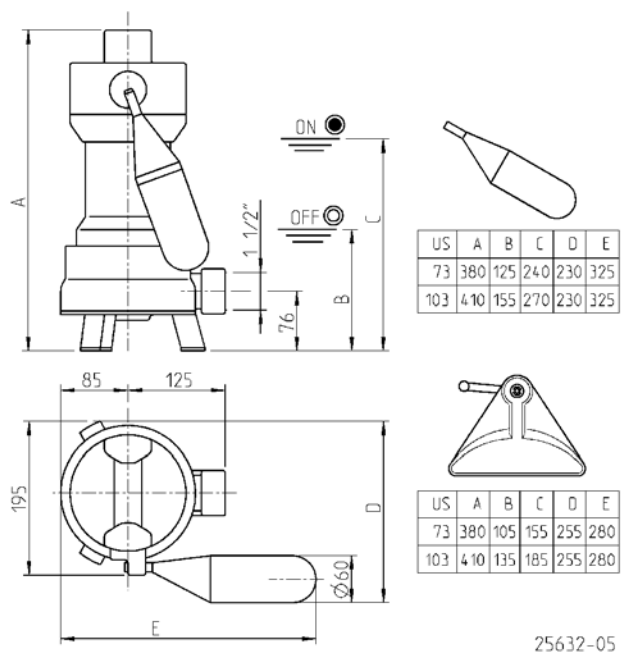
US 73 HE-US 103 HE

Type	Code No.	Motor rating		Current	Weight
		P1	P2		
Without level control					
US 73 HE	JP09267	0.83 kW	0.50 kW	3.9 A	12.4 kg
US 103 HE	JP09307	1.37 kW	0.98 kW	6.0 A	14.0 kg
With built-in level control					
US 73 HES	JP09264	0.83 kW	0.50 kW	3.9 A	12.5 kg
US 103 HES	JP09308	1.37 kW	0.98 kW	6.0 A	14.1 kg

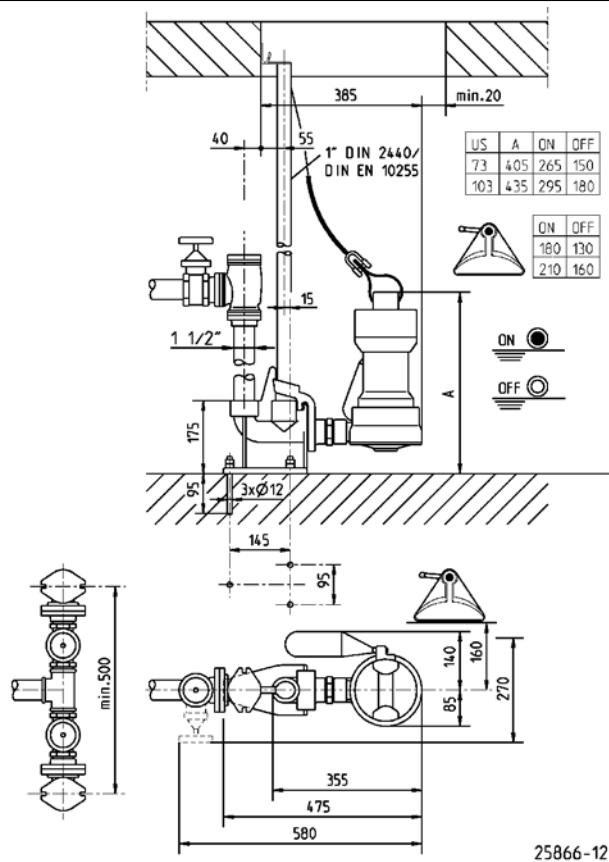
US 73 HE-US 103 HE

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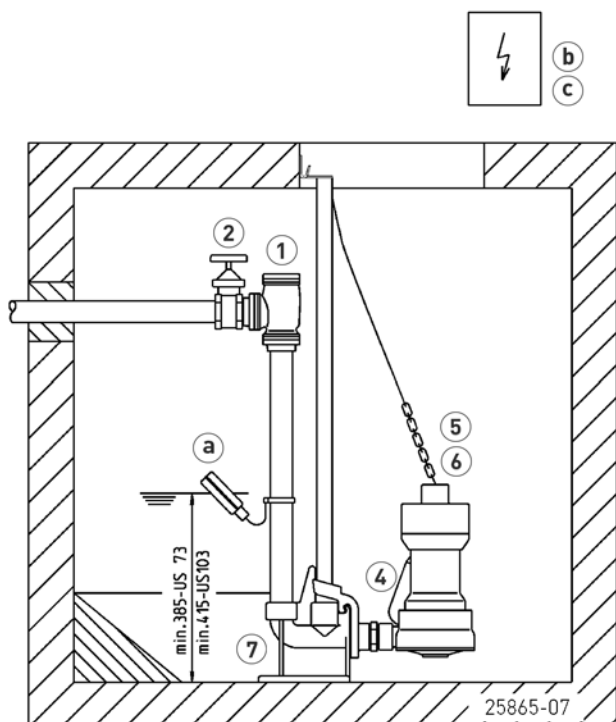
Dimensions/switching points US 73 + 103 HES (mm)



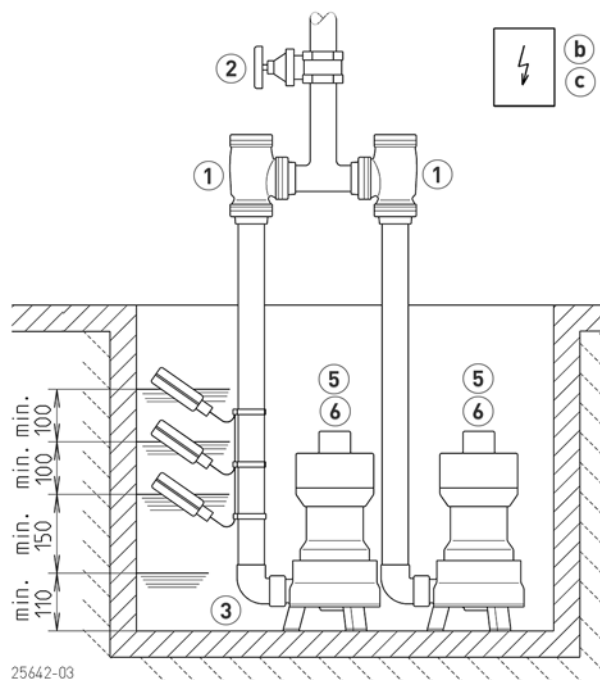
Dimensions/switching points US 73+103 HES with GR 40 (mm)



Example of single pump installation with GR



Example of duplex pump installation



US 73 HE-US 103 HE

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Single unit US-H with GR 40: sump area min. 40x65 cm
Single unit US-H without GR: sump area min. 40x40 cm

Duplex unit US-H with GR 40: sump area min. 65x80 cm
Duplex unit US-H without GR: sump area min. 40x80 cm



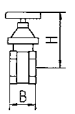


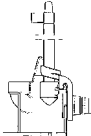
In case of installation beneath the backpressure level the pressure tube must be taken in a

loop over the local backup level acc. to EN 12056. Besides, it must be secured with an EN 12050-4-proofed swing-type check valve. Additionally we recommend an alarm system.



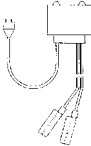

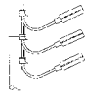
In accordance with EN 12056-4 section 5.1, it has a built-in automatic spare pump or a double attachment included, which ensures that sewage drainage is not interrupted.

Suspend control unit in a dry room

MECHANICAL ACCESSORY

				Code No.
	1 Swing-type check valve			
	for hot water	1½" (DN 40)	80x85 (HxB)	JP44784
	Ball-type check valve			
	KE40 EN 12050-4	1½" (DN 40), PN 6	170x125 (HxB)	JP47974
	2 Stop valve	brass, 1½" (DN 40), PN 16	125x60 (HxB)	JP44786
	3 Elbow	1½"		JP45953
	4 Special float	for lower switching points		JP44795
	5 Chain	certified, 2.5 m, 320 kg, 5 rings (EN 818 mod.)		JP45901
		certified, 5.0 m, 320 kg, 8 rings (EN 818 mod.)		JP45902
	6 Webbing	with shackle		JP45168
	7 Guide rail system	GR 40		JP25592
	Guide rail 1"	1500 mm		JP48937
	Guide rail 1"	2000 mm		JP48938
	Guide rail 1"	2500 mm		JP48939
	Guide rail 1"	3000 mm		JP48940



ELECTRICAL ACCESSORY

			Code No.
	a Alarm unit		
	PTS.SA1	Level alarm system with battery backup 320x240x150mm (WxDxH)	PTS.SA1
	PTS.HLA	High Level alarm unit. 182x180x111mm (HxWxD)	PTS.HLA
	Power Isolation Alarm	Isolate appliance - in event of alarm no more water will be fed into the alarm system	P734
	b Control for single units		
	Control unit 1A H	230 V, subm. ball contact switch 3.0 m, alarm	JP24766
	Control unit NE 2A H	230 V, subm. ball contact switch 9.5 m, alarm	JP24767
	Control for duplex units		
	Control unit BD 00 E	230 V, for pumps U3-U6, US 62-105, UV 300, 08/2 ME	JP45735
	Control unit HIGHLOGO 2-00 E	230 V	JP47996
	Level control		
	Submersible switch pack BH	Submersible ball contact switch 9.5 m and fixing device	JP24768
	Submersible switch pack BHmG	Submersible ball contact switch 9.5 m with counterweight	JP24769
	Weight	to stabilize the subm. ball contact switch	JP44803

US 73 HE-US 103 HE

SUBMERSIBLE DRAINAGE PUMPS FOR HOT WATER OPERATION

ELECTRICAL ACCESSORY

			Code No.
	c Rechargeable battery	for mains independent alarm	JP44850
	d Smart Home	FTJP radio transmitter	JP47209

US 73 HE-US 103 HE

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