

# JUNG PUMPEN US 73 HE/103 HE

## HEAVY DUTY SUBMERSIBLE DRAINAGE PUMPS

FOR HOT WATER OPERATION

### APPLICATION

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 and portable 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.

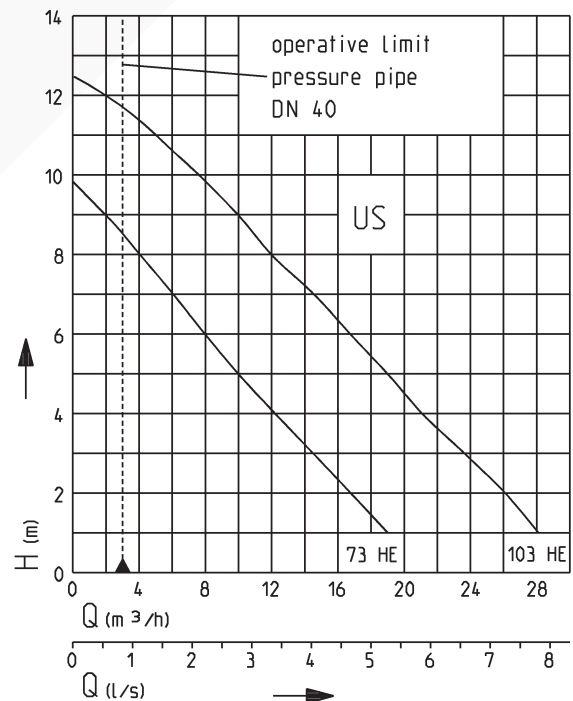
In conjunction with the drain master Hebefix 100 H, it provides a ready to install solution for conveying wastewater up to 176°F (80°C).



US 73 HES

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

### PERFORMANCE



25867-01

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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### SUBMERSIBLE DRAINAGE PUMPS FOR CONVEYING HOT WATER

Type		Max. Height x Width	Discharge branch	Free passage	Cable quality H07RN-F-	Cable length	Weight approx.	Code no.
US 73 HE	(without level control)	380 x 210 mm	1½"	30 mm	3G1.0	10 m	12.4 kg	<b>JP09267</b>
US 73 HES	(with level control)	380 x 330 mm	1½"	30 mm	3G1.0	10 m	12.5 kg	<b>JP09264</b>
US 103 HE	(without level control)	410 x 210 mm	1½"	30 mm	3G1.0	10 m	14.0 kg	<b>JP09307</b>
US 103 HES	(with level control)	410 x 330 mm	1½"	30 mm	3G1.0	10 m	14.1 kg	<b>JP09308</b>

### PERFORMANCE

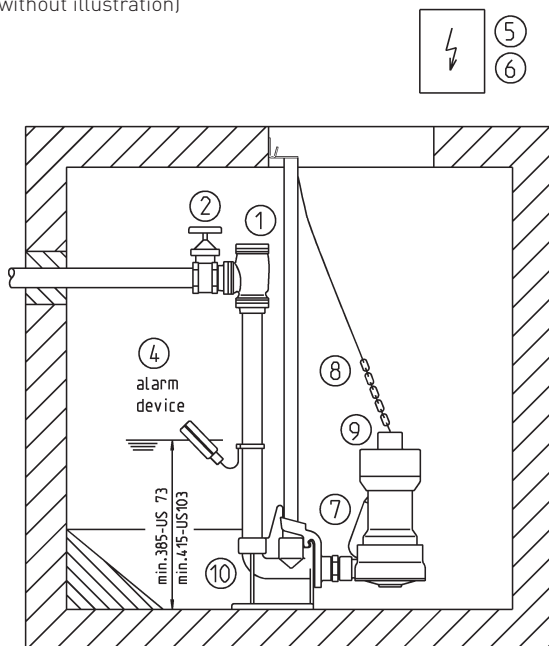
Type	Delivery head H [m]	1	2	3	4	5	6	7	8	9	10	12
US 73 HE and HES	Flow rate Q [m³/h]	19	17	15	12	10	8	6	4	2		
US103 HE and HES		28	26	23	21	19	17	15	12	10	8	2

### ELECTRICAL DATA

Type	Type of current	Voltage Volt	Motor rating kW		RPM min-1	Current Ampere	Motor protection	Plug
			P1	P2				
US 73 HE and HES	1-phase	1/N/PE~230	0.83	0.50	2510	3.9	integrated	Safety-
US103 HE and HES	1-phase	1/N/PE~230	1.37	0.98	2700	6.0	integrated	Safety-

#### Single pump installation with GR

US 73 + 103 sump area with GR 40 min. 40 x 65 cm  
 US 73 + 103 sump area without GR min. 40 x 40 cm  
 (without illustration)



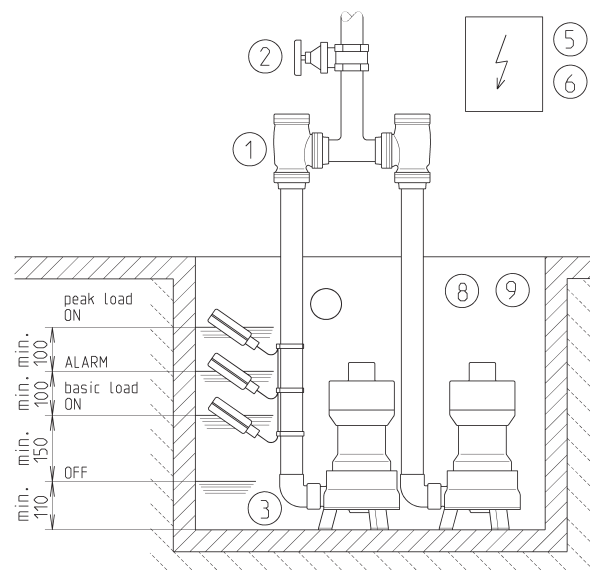
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In case of installation beneath the backpressure level the pressure tube must be taken in a loop over the local backup level acc. to EN 12056. Besides, it must be secured with a EN 12050-4-proofed swing-type check valve. Additionally we recommend an alarm system.

#### Duplex pump installation

US 73 + 103 sump area without GR min. 40 x 80 cm  
 US 73 + 103 sump area with GR 40 min. 65 x 80 cm  
 (without illustration)

Suspend control unit in a dry room.



↑ Notice of min. distance!

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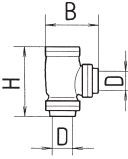
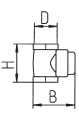
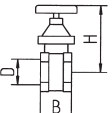


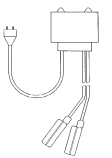
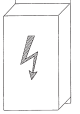





In accordance with DIN EN 12056-4 Abs. 5.1, it has a built-in automatic spare pump or a double attachment included, which ensures that sewage drainage is not interrupted.

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## HEAVY DUTY SUBMERSIBLE DRAINAGE PUMPS

FOR HOT WATER OPERATION

### ACCESSORIES

				Code No.	US 73 HE	US 73 HES	US 103 HE	US 103 HES
	<b>1</b> <b>Elbow ball check valve</b> 1½" (DN 40), PN 6 DIN EN 12050-4	$\frac{H}{170}$ $\frac{W}{125}$ $\frac{D}{1\frac{1}{2}}$		<b>JP44783</b>	•	•	•	•
	 <b>Swing-type check valve</b> for hot water 1½" (DN 40)	$\frac{H}{80}$ $\frac{W}{85}$ $\frac{D}{1\frac{1}{2}}$		<b>JP44784</b>	•	•	•	•
	<b>2</b> <b>Stop valve</b> 1½" (DN 40), PN 16	$\frac{H}{125}$ $\frac{W}{\text{max. } 60}$ $\frac{D}{1\frac{1}{2}}$		<b>JP44786</b>	•	•	•	•
	<b>3</b> <b>Elbow</b> 1½"			<b>JP45953</b>	•	•	•	•
	<b>4</b> <b>Alarm unit AG3</b> with submersible ball contact switch, separate, mains-dependent, with potential-free contact and 3 m cable			<b>JP44981</b>		•		•
	<b>Alarm unit AG10</b> ditto, with 9.5 m cable			<b>JP44892</b>		•		•
	<b>Alarm unit washing machine stop AW3</b> with submersible ball contact switch with 3 m cable, separate, mains-dependent			<b>JP44895</b>	•	•	•	•
  	<b>5</b> <b>Level controls</b> for single units (see NE level controls for description)							
	NE 1A H (W-Current) with sub. ball contact switch 3.0 m u. Alarm			<b>JP24766</b>	•		•	
	NE 2A H (W-Current) with sub. ball contact switch 9.5 m u. Alarm			<b>JP24767</b>	•		•	
	Counterweight (1 piece)			<b>JP17541</b>	•		•	
	<b>Separate level controls</b> for duplex units (see section on Level controls for description)							
	BD 00E Single-phase current			<b>JP45735</b>	•		•	
	Submersible switch pack BH with 3 submersible ball contact switches with 9.5 m cable and fixing device			<b>JP24768</b>	•		•	
	Submersible switch pack BHmG with 3 submersible ball contact switches with 9.5 m cable and counterweight			<b>JP24769</b>	•		•	
	<b>6</b> <b>Rechargeable battery</b> for off the line operation of the alarm system			<b>JP44850</b>	•	•	•	•
	<b>7</b> <b>Special float assembly</b> for low switching points * Switching points:	US 73 ON/OFF without GR 155/105 mm with GR 180/130 mm	US 103 ON/OFF 185/135 mm 210/160 mm	<b>JP44795</b>		•		•
	<b>8</b> <b>Chain</b> certified, stainless steel, 2.5 m, 5 rings, 160 kg, (EN 818 mod.)			<b>JP45901</b>	•	•	•	•
	<b>Chain</b> certified, stainless steel, 5.0 m, 8 rings, 160 kg, (EN 818 mod.)			<b>JP45902</b>	•	•	•	•
	<b>9</b> <b>Webbing with shackle</b> A 0.6			<b>JP45168</b>	•	•	•	•
	<b>10</b> <b>Guide rail system</b> GR 40			<b>JP25592</b>	•	•	•	•

\* only for single units

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## HEAVY DUTY SUBMERSIBLE DRAINAGE PUMPS

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### TECHNICAL DATA

#### Pump

Vertical, single-stage, submersible, with free inlet, volute casing with 1½" (female) discharge branch, open centrifugal impeller, passage 30 mm.

#### Bearings

Common shaft for pump and motor mounted in ball bearings and permanently grease lubricated.

#### Seal

Silicon carbide mechanical seal, oil chamber and duplex rotary seal towards the motor section, safe to run dry

#### Motor

Submersible, without oil, motor type of enclosure IP 68, insulation class F, winding thermostat protects the motor from overload, starting via plug, automatically via mounted circuit or submersible ball contact switches.

#### Materials

Volute casing made of GG grey cast iron, power supply through rubber insulated flexible cable for hot water operation, terminal board lid, impeller, wear plate and strainer base made of glass-fiber reinforced plastic, motor casing and shaft made of stainless steel

#### Installation

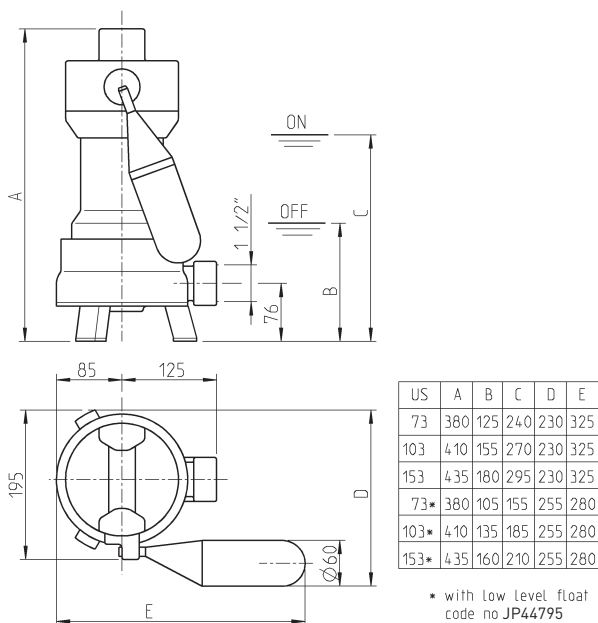
Install pump vertically, if installed permanently, provide detachable connection or install with guide rail system GR 40

#### Scope of supply

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

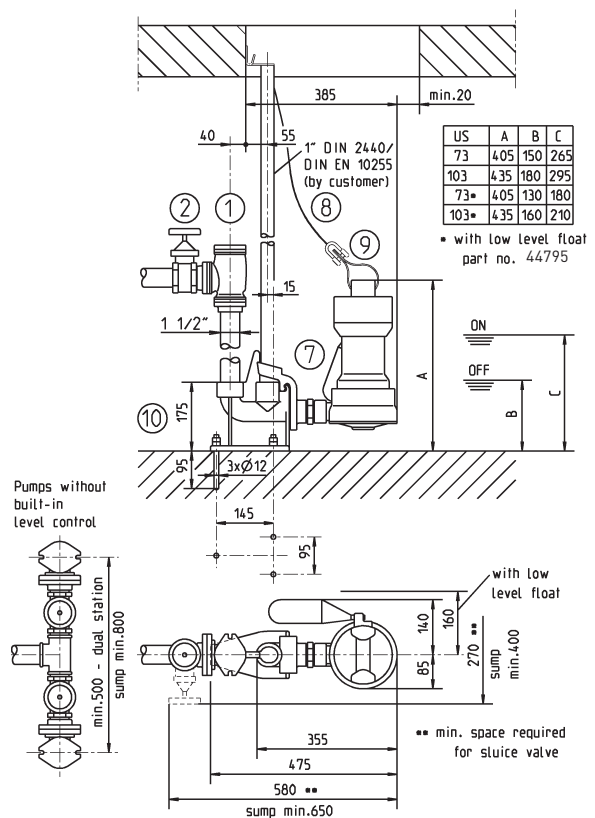


Dimensions US 73 + 103 HES (mm)



25632-04

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



25866-10