

Application

The submersible drainage pumps US 73-253 are suitable for dealing with contaminated water and capable of handling solids up to 30 and 40 mm particle size without stones. Fibrous waste water, as found in laundries or automatic launderettes and waste water from domestic dishwashers and washing machines can be handled by this pump range. For hot water in the industrial and commercial market we recommend the US 73 HE/HES and US 103 HE/HES.

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.

For automatic monitoring of the oil chamber a seal leak control can be connected.

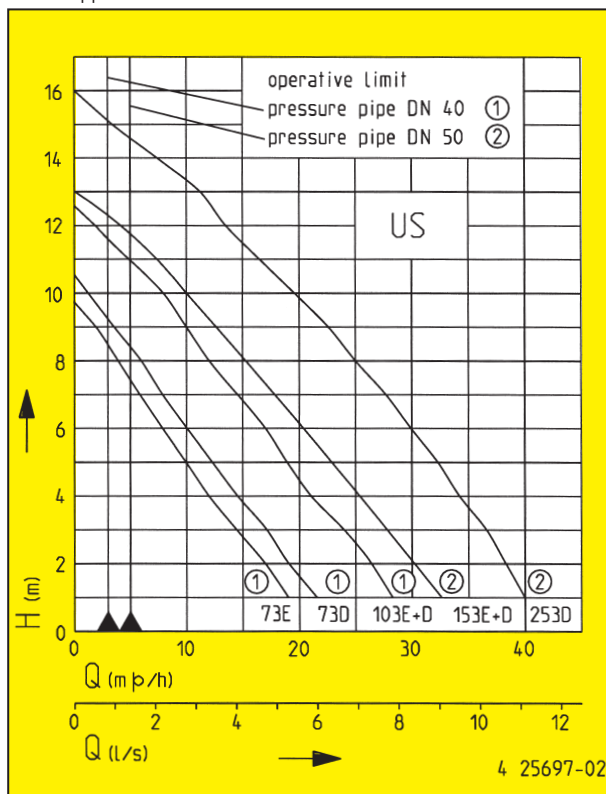
Individually the pumps US 73 and US 103 with built-in level control are available with 3 m and 10 m cable. The 3-phase pumps (US 153 and US 253) have a CEE-plug with phase inverter.

The sewage pumps are tested by the German Institute for Construction Engineering and correspond to the valid construction and test principles.

Pumps must not be used for pumping sewage from domestic toilets and urinals.



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.



- ▶ Safe to run dry
- ▶ Easy to maintain with guide rail system
- ▶ 30 mm free passage (US 73+103)
- ▶ 40 mm free passage (US 153+253)
- ▶ Controllable oil chamber
- ▶ SiC mechanical seal independent of rotation direction
- ▶ Moisture sealed cable inlet



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

Submersible drainage pumps US 73-253

Type	Height x Width	Discharge branch	Free passage	Cable quality HO7RN-F	Cable with plug	Cable with phase inverter	Weight	Code No
Pumps without level control								
US 73 E	380 x 210 mm	1 1/2"	30 mm	3G1,0	10 m		12,5 kg	676
US 73 D	380 x 210 mm	1 1/2"	30 mm	4G1,0	10 m		12,5 kg	677
US 103 E	410 x 210 mm	1 1/2"	30 mm	3G1,0	10 m		14,0 kg	9280
US 103 D	410 x 210 mm	1 1/2"	30 mm	4G1,0	10 m		14,5 kg	9258
Pumps with built-in level control								
US 73 ES	380 x 330 mm	1 1/2"	30 mm	3G1,0	3 m		11,5 kg	9288
US 73 ES	380 x 330 mm	1 1/2"	30 mm	3G1,0	10 m		12,5 kg	678
US 73 DS	380 x 330 mm	1 1/2"	30 mm	4G1,0	3 m		11,5 kg	9289
US 73 DS	380 x 330 mm	1 1/2"	30 mm	4G1,0	10 m		13,0 kg	679
US 103 ES	410 x 330 mm	1 1/2"	30 mm	3G1,0	3 m		13,5 kg	9290
US 103 ES	410 x 330 mm	1 1/2"	30 mm	3G1,0	10 m		14,0 kg	9281
US 103 DS	410 x 330 mm	1 1/2"	30 mm	4G1,0	3 m		13,5 kg	9291
US 103 DS	410 x 330 mm	1 1/2"	30 mm	4G1,0	10 m		15,0 kg	9259
Pumps without level control								
US 153 E	400 x 280 mm	2"	40 mm	4G1,0	10 m		26,0 kg	9246
US 153 E*	400 x 280 mm	2"	40 mm	4G1,0	10 m*		25,5 kg	9311
US 153 D	400 x 280 mm	2"	40 mm	5G1,5		10 m	27,0 kg	9248
US 153 D*	400 x 280 mm	2"	40 mm	6G1,5	10 m*		26,5 kg	9302
US 253 D	400 x 280 mm	2"	40 mm	5G1,5		10 m	27,0 kg	9250
US 253 D*	400 x 280 mm	2"	40 mm	6G1,5	10 m*		26,5 kg	9303
Pumps with built-in level control								
US 153 ES	400 x 280 mm	2"	40 mm	4G1,0	10 m		27,5 kg	9247
US 153 DS	400 x 280 mm	2"	40 mm	5G1,5		10 m	28,0 kg	9249
US 253 DS	400 x 280 mm	2"	40 mm	5G1,5		10 m	28,0 kg	9251

* Cable **without** plug for duplex pump

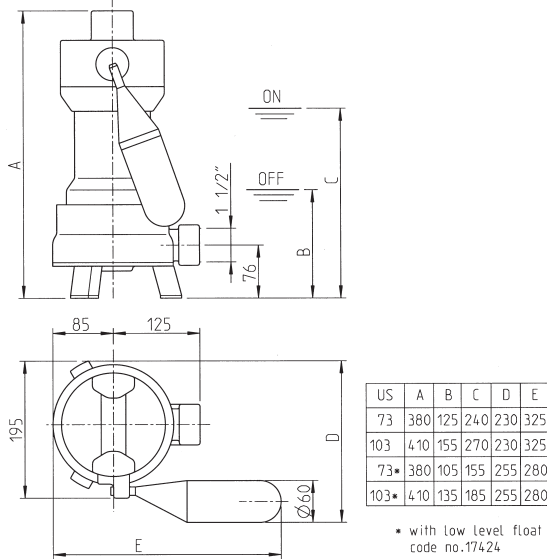
Performance

Type	Delivery head H [m]	1	2	3	4	5	6	7	8	9	10	12	14
US 73 E/ES	Flow rate Q [m ³ /h]	19	17	15	12	10	8	6	4	2			
US 73 D/DS		22	20	17	15	12	10	8	6	4			
US 103 E/ES/D/DS		28	26	23	21	19	17	15	12	10	8	2	
US 153 E/ES/D/DS		33	30	28	25	23	21	18	16	13	10	5	
US 253 D/DS		40	38	36	34	32	30	28	25	23	20	14	7

Electrical data

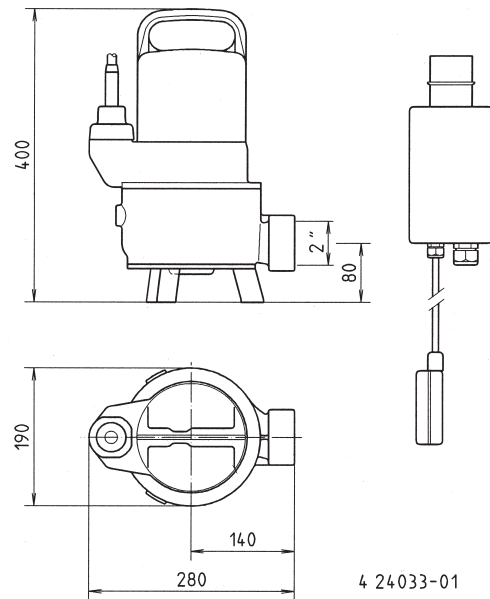
Type	Type of current	Voltage Volt	Motor rating kW		RPM min ⁻¹	F.L.C. Amp.	Motorprotection	Plug
			P ₁	P ₂				
US 73 E/ES	1- phase	1N~230	0,83	0,50	2510	3,9	in motor	Safety-
US 73 D/DS	3- phase	3~400	0,85	0,60	2800	1,4	in motor	CEE-
US 103 E/ES	1- phase	1N~230	1,37	0,98	2700	6,0	in motor	Safety-
US 103 D/DS	3- phase	3~400	1,36	1,06	2740	2,4	in motor	CEE-
US 153 E/ES	1- phase	1N~230	1,68	1,19	2810	7,6	in plug	Safety-
US 153 D/DS	3- phase	3N~400	1,60	1,30	2925	3,0	in plug	CEE-
US 253 D/DS	3- phase	3N~400	2,60	2,10	2860	4,4	in plug	CEE-

Dimensions (mm) US 73 and US 103



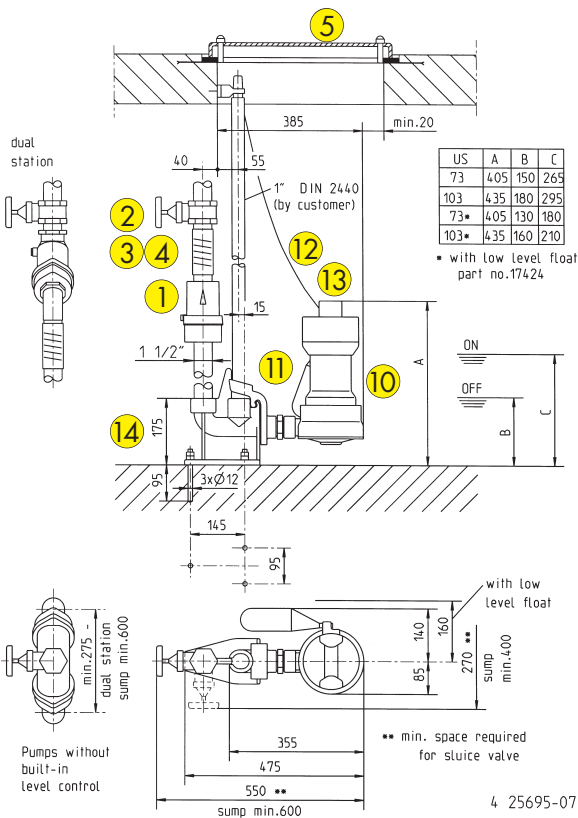
4 25632-03

Dimensions (mm) US 153 and US 253



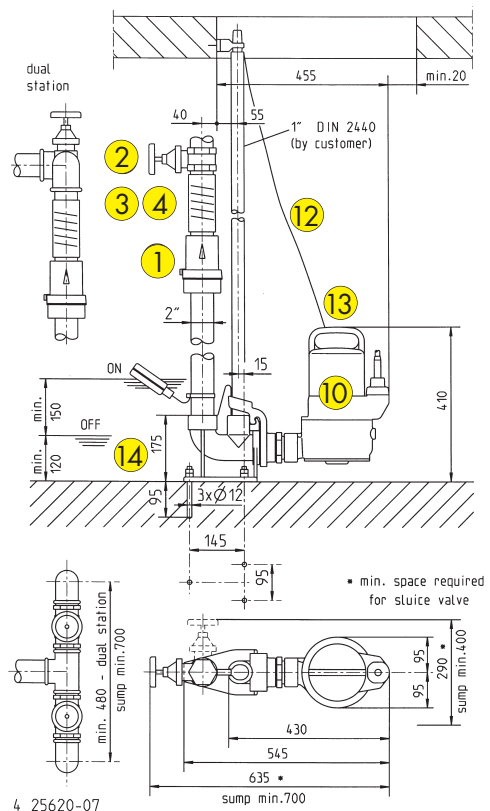
4 24033-01

Dimensions (mm) US 73 and US 103 with GR 40



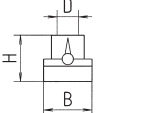
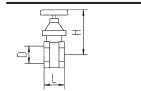
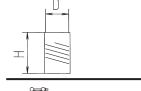

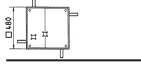

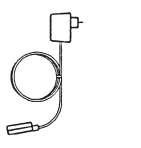
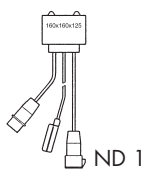
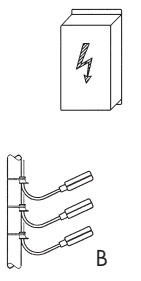


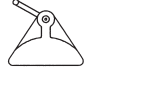


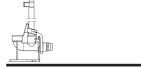
4 25695-07

Dimensions (mm) US 153 and 253 with GR 50



4 25620-07

Accessories

		Code No.	73 E	73 ES	73 D	73 DS			
Pump without plug (for connection with duplex control unit)									
	1 Swing-type check valve 1 1/2" (DN 40), PN 4 EN 12050-4	H	B	D	317	•	•	•	•
	Ball check valve 2" (DN 50), PN 4	150	120	1 1/2"	326	•	•	•	•
	Elbow ball check valve 2" (DN 50), PN 6	185	155	2"	9857	•	•	•	•
	Elbow ball check valve 1 1/2" (DN 40), PN 6, EN 12050-4				22442	•	•	•	•
	Duplex swing-type check valve 1 1/2" (DN 40), PN 4 for double pump station EN 12050-4	200	280	1 1/2"	9155	•	•	•	•
	2 Stop valve 1 1/2" (DN 40), PN 16	H	L	D	11837	•	•	•	•
	2" (DN 50), PN 16	125 max.60	1 1/2"	11838	•	•	•	•	
	3 Elastic connection 1 1/2" (DN 40), PN 4	H	D	20368	•	•	•	•	
	2" (DN 50), PN 4	120	50	17194	•	•	•	•	
	4 Hose band clamp 1 1/2"			3571	•	•	•	•	
	2"			3572	•	•	•	•	
	5 Cover plate* c/w frame, seal and pipe conduct LW 420			1256	•	•	•	•	
	Blind plate* c/w frame and seal LW 420			322	•	•	•	•	
	6 Elbow 90° 1 1/2"			17894	•	•	•	•	
	Elbow 90° 2"			14230	•	•	•	•	
	7 Alarm system with submersible ball contact switch with 3 m cable, separate, mainsdependent, with potential free contact			16723	•	•	•	•	
	Alarm system ditto. with 9,5 m cable			24434	•	•	•	•	
	Alarm system for washing-machines AW 3 with submersible ball contact switch with 3 m cable, separate, mainsdependent			25090	•	•	•	•	
	Alarm system for washing-machines AW 10 ditto, with 9,5 m cable			25091	•	•	•	•	
	8 Separate level controls for single unit								
	NE 1 (1-phase) with sub. ball contact switch 3,0 m			16710	•				
	NE 2 (1-phase) with sub. ball contact switch 9,5 m			16711	•				
	ND 1 (3-phase) with sub. ball contact switch 3,0 m			16712		•			
	ND 3 (3-phase) with sub. ball contact switch 9,5 m			16713		•			
	NE 1A (1-phase) with sub. ball contact switch 3,0 m and alarm system			16714	•				
	NE 2A (1-phase) with sub. ball contact switch 9,5 m and alarm system			16715	•				
	ND 1A (3-phase) with sub. ball contact switch 3,0 m and alarm system			16716		•			
	ND 3A (3-phase) with sub. ball contact switch 9,5 m and alarm system			16717		•			
	Counterweight (1 piece)			17541	•	•			
	Duplex control unit								
	BD 00 E (1-phase)			482	•				
	BD 00 EC (1-phase)			25709					
	BD 00 (3-phase)			299		•			
	BD 25 (3-phase)			302					
	BD 46 (3-phase)			14358					
	Subm. switch pack B with 3 subm. ball contact switches with 9,5 m cable and fixing devices			16725	•	•			
Subm. switch pack BmG with 3 subm. ball contact switches with 9,5 m cable and counterweight			16726	•	•				
	9 Rechargeable battery for off the line operation of the alarm system			7562	•	•	•	•	
	10 Seal leak control DKG			252	•	•	•	•	
	11 Special float for low switching points			17424		•		•	
	Switching points US 73 ON/OFF		US 103 ON/OFF						
	without GR 155/105 mm		185/135 mm						
with GR 180/130 mm		210/160 mm							
	12 Chain with 2 rings DIN 766, 2,5 m, 320 kg			19189	•	•	•	•	
	Chain stainless steel with 5 rings, 1 shackle NG 10, DIN 766, 2,5 m, 200 kg			23986	•	•	•	•	
	13 Shackle A 0,6			13402	•	•	•	•	
	14 Guide rail system GR 40			25592	•	•	•	•	
	Guide rail system GR 50			25593	•	•	•	•	

*only for single units

Technical data

Pump

Vertical, single stage, submersible, open centrifugal impeller, volute casing with free inlet.

US 73 and US 103: free passage 30 mm, horizontal discharge branch with 1½" female thread.

US 153 and US 253: free passage 40 mm, horizontal discharge branch with 2" female thread.

Bearings

Common shaft for pump and motor, with ball bearings, deep groove ball bearing with grease chamber (US 153 and 253 with angular ball bearings).

Seal

Silicon carbide mechanical seal, oil chamber and duplex rotary seal towards the motor section, safe to run dry, a seal leak control can be connected.

Motor

Submersible, motor type of enclosure IP 68, insulation class B or F (US 153 and US 253), winding thermostat protects the motor from overload, starting via plug, automatically via mounted circuit or submersible ball contact switches.

Material

Volute casing made of GG grey cast iron, power supply through rubber insulated flexible cable.

US 73 and 103: terminal board lid, vortex impeller, wear plate and foot strainer made of GRP, motor casing and shaft in stainless steel.

US 153 and 253: motor casing, volute casing and cable inlet made of GG grey cast iron, foot strainer and vortex impeller made of GRP, shaft from C 45 steel encapsulated.

Installation

Pump can be installed free standing or in connection with guide rail system GR 40 or GR 50.

Supply

Pump acc. to EN 12050 ready for connection with cable and safety-plug (1-phase) or CEE-plug with phase inverter (3-phase)
(phase inverter only for US 153 D/DS and US 253 D/DS).