

ABS Piranha submersible grinder pump 08-125

ABS submersible pumps for problem-free pumping of sewage containing faecal matter in pipe lines from 1¼" (DN 32) in accordance with EN 12050-1.

Applications

Piranha submersible pumps have been designed for effective and economic dewatering using discharge lines of small diameter, in private, municipal and industrial areas.

- Sewage removal from living units and houses in remote settlements where the laying of a conventional sewer would be too expensive, where large ground undulations are present or where it is only possible to lay pipe lines of small diameter.
- Sewage removal from motorway resting sites, communal buildings and for renovation of buildings or areas of a city.
- For use in slaughter houses, food processing plants, paper factories, agriculture and similar areas.
- Piranha 08 and 09 are specially designed for private and domestic applications.
- Maximum allowable temperature of the medium for continuous operation is 40 °C, or if unit is submerged, short term to 60 °C (max. 5 minutes).

Construction

The water pressure-tight, encapsulated fully flood-proof motor and the pump section form a compact, robust, unit construction.

Motor

Three-phase 460 V or single-phase 230 V, 60 Hz, 2-pole (3400 r/min) or 4-pole (1750 r/min). Insulation class F; protection type IP 68. Cooled by amply dimensioned cooling areas. Piranha S10-M125 available in explosive-proof version to EExd IIB T4 and FM standards.

Bearings

The stainless steel motor shaft is supported in lubricated-for-life ball bearings.

Shaft sealing

Between motor and hydraulic section by means of a high quality sealing unit using a silicon carbide mechanical seal, independent of direction of rotation and resistant to temperature shock. Seal at motor side is by oil lubricated lip seal.

Discharge

Piranha 08 and 09: G 1¼" internal thread

Piranha S10 to M50: DN 32 flange (G 1¼" threaded adaptor available as accessory)

Piranha M70 to M125: DN 50 with DIN-flange

Shredding system

Spiral bottom plate and stationary cutter ring combined with a shredding rotor located before the impeller, for optimum blockage-free running.

Temperature monitoring

TCS (Thermo-Control-System) with thermal sensors in the stator to switch off the pump in the case of overheating and switch on automatically after cooling down.

Seal monitoring

DI system consisting of a sensor in the motor and oil chambers which signals an inspection alert if there is leakage at the shaft seals. Not available for Piranha 08 and 09.



Features

- Unique ABS Piranha shredding system capable of shredding items such as cloths and plastic bags.
- For the pumping of wastewater containing sewage, offal, organic and industrial effluent.
- Piranha 08 and 09 fitted with MF modular motor; Piranha S10 - M125 with AS or AFP.
- Small discharge lines from 1¼" (DN 32).
- Installations are possible where large ground undulations are present.
- Standard and Ex-versions available (Piranha S10 - M125)
- Piranha 08 and 09 have capacitor in upper lid and do not require a control box.
- Low installation costs due to small diameter discharge pipework.

Materials

Description	Material
Upper Lid *	Stainless steel 1.4301 (AISI 304)
Motor Housing	Cast iron EN-GJL-250
Rotor Shaft	Stainless steel 1.4021 (AISI 420)
Volute	Cast iron EN-GJL-250
Impeller **	Cast iron EN-GJL-250
Fasteners	Stainless steel 1.4401 (AISI 316)

* Piranha 08 and 09

** Polyamide for Piranha 08

Technical Data

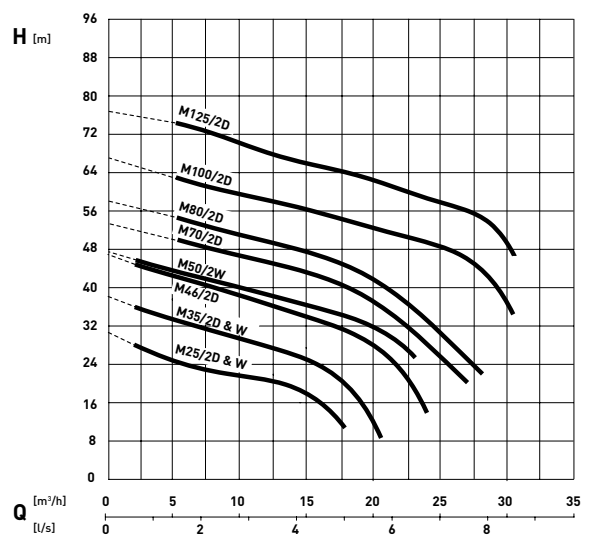
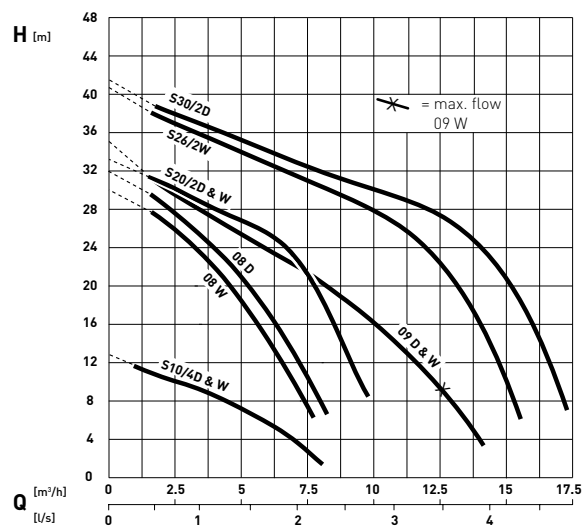
Piranha	Discharge		Motor power **		Rated current (A)	Rated voltage (V)	Speed (r/min)	Cable size ***	Weight **** (kg)
	Flange DN	Internal thread *	P ₁	P ₂					
08/2W	-	G 1¼"	2.15	1.50	9.39	230 1~	3400	SJTOW-A 16/3	18
08/2D	-	G 1¼"	1.85	1.50	2.87	460 3~	3400	STOW-A 16/4	18
09/2W	-	G 1¼"	2.83	2.25	13.50	230 1~	3400	SJTOW-A 16/3	23
09/2D	-	G 1¼"	2.53	2.00	3.98	460 3~	3400	STOW-A 16/4	23
S10/4W ⁽¹⁾	32	G 1¼"	1.48	1.00	6.50	230 1~	1750	SOW-A 14/7	32
S10/4D	32	G 1¼"	1.33	1.00	2.60	460 3~	1750	SOW-A 14/7	32
S20/2W ⁽¹⁾	32	G 1¼"	2.45	1.80	11.50	230 1~	3400	SOW-A 14/7	32
S20/2D	32	G 1¼"	2.42	1.80	3.61	460 3~	3400	SOW-A 14/7	32
S26/2W ⁽¹⁾	32	G 1¼"	3.13	2.60	13.70	230 1~	3400	SOW-A 14/7	40
S30/2D	32	G 1¼"	3.87	3.00	5.50	460 3~	3400	SOW-A 14/7	53
M25/2W	32	G 1¼"	3.74	2.50	16.60	230 1~	3400	7G2.5	40
M25/2D	32	G 1¼"	3.04	2.50	4.66	460 3~	3400	7G1.5	40
M35/2W	32	G 1¼"	5.19	3.50	24.00	230 1~	3400	7G2.5	53
M35/2D	32	G 1¼"	4.26	3.50	6.08	460 3~	3400	7G1.5	53
M46/2D	32	G 1¼"	5.60	4.60	7.69	460 3~	3400	7G1.5	53
M50/2W	32	G 1¼"	6.68	5.00	29.30	230 1~	3400	7G2.5	40
M70/2D	50 DIN	-	8.16	7.00	11.60	460 3~	3400	7G2.5	76
M80/2D	50 DIN	-	9.39	8.00	13.10	460 3~	3400	7G2.5	77
M100/2D	50 DIN	-	11.80	10.00	17.00	460 3~	3400	10G2.5	78
M125/2D	50 DIN	-	14.50	12.50	21.30	460 3~	3400	10G2.5	80

* Piranha S10-M50 with threaded flange adaptor as accessory ** P₁ = Power at mains; P₂ = Power at motor shaft

*** Ex cable variations: M70 & 80/2 = 10G2.5 **** Weight with 10 m cable

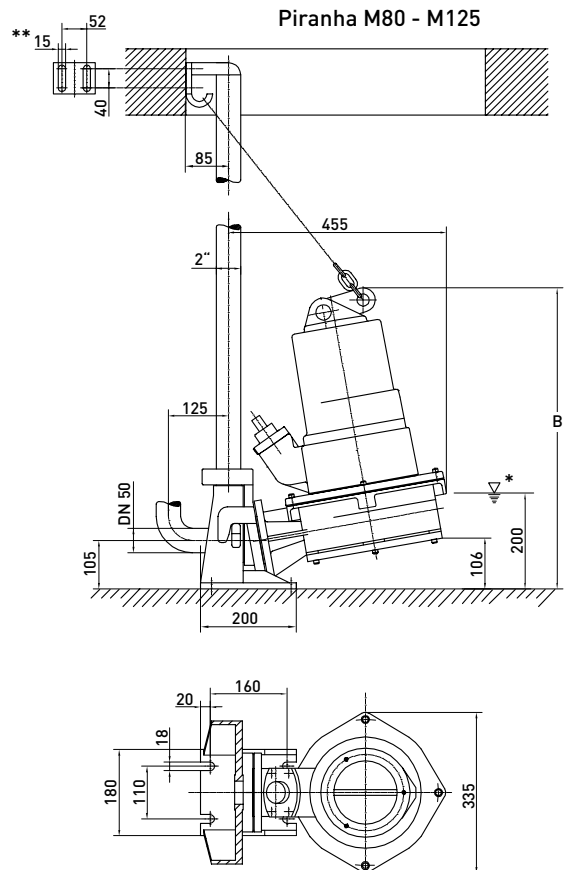
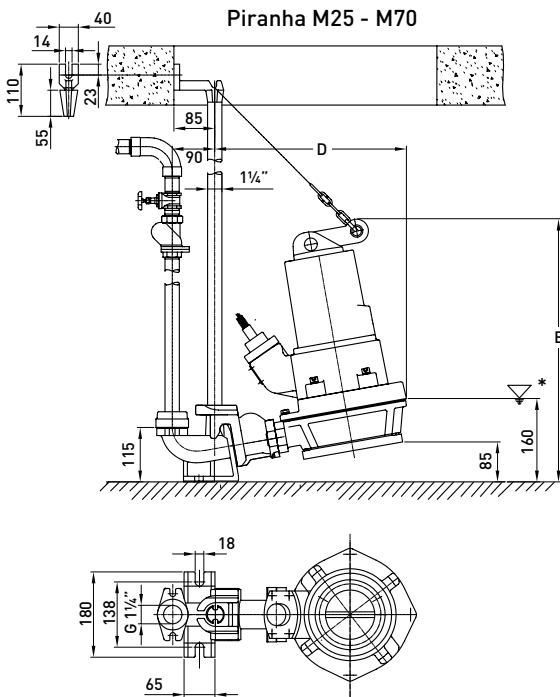
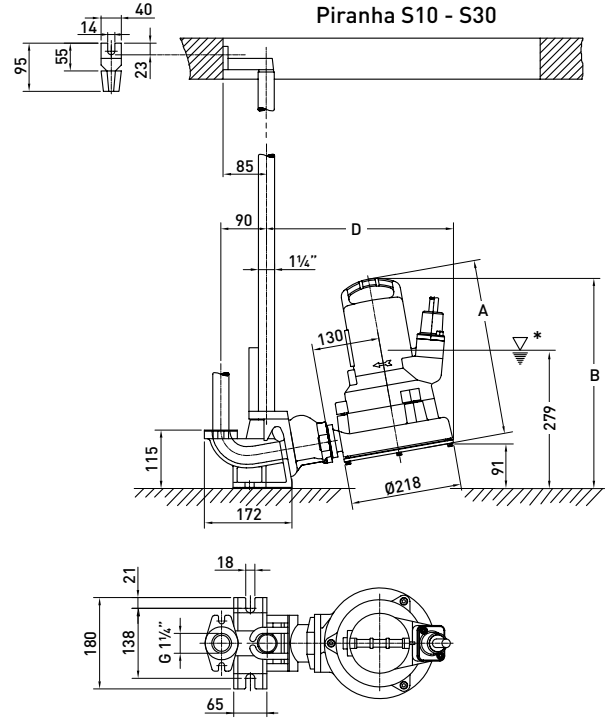
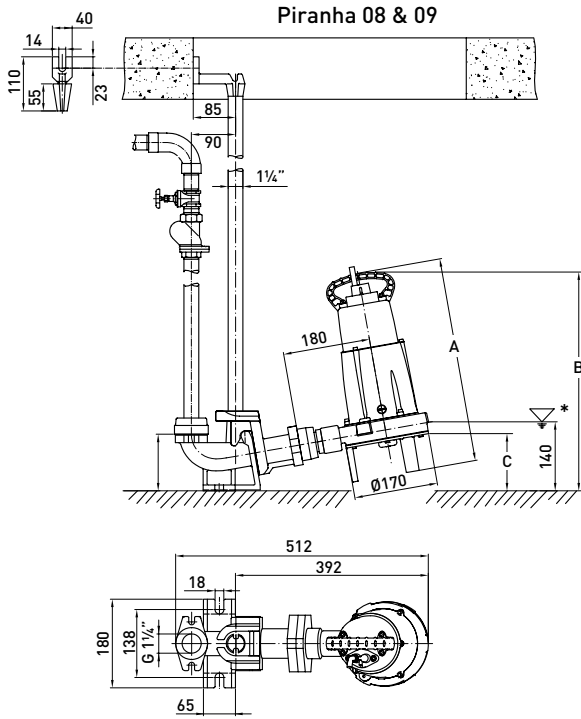
⁽¹⁾ Start and Run capacitor to the following specification required for use without control panel.
 Start: 161-193µF for S10/4W & S20/2W, 200µF for S26/2W
 Run: 30µF for S10/4W, 20µF for S20/2W, 50µF for S26/2W
 The recommended start time for the motors is two seconds.

Performance Curves



H = Total Head; Q = Discharge Volume. Curves to ISO 9906 N.B. please use the ABSEL program to validate pump selection.

Dimensions (mm)



Piranha	A	B	C	D
08	420	445	117	-
09	445	470	108	-
S10 & S20	347	414	-	368
S26 & S30	360	427	-	374
M25 - M46	-	556	-	400
M50 & M70	-	614	-	420
M80 & M100	-	628	-	-
M125	-	672	-	-

Piranha 08 - M125: Minimum sump opening $\varnothing 625$ mm
 Pedestal base secured using M10 masonry anchor bolts, drill hole size 14 mm
 * Lowest switch-off point for automatic operation

Piranha M80 - M125: Discharge line connection with threaded flange DN 50/2" PN16
 Discharge elbow supplied by customer
 ** Hexagon head wood screw 10 x 70 DIN 571 and dowel size 12

Accessories

	Description	Size	Part no.	Piranha	
Fixed installation with pedestal	Pedestal (EN-GJL-250) 90° cast bend	G 1¼"	62325007	08 & 09	
		G 1½"	62320674	S10-S30,	
		G 1¾"	62320676	M25-M50	
		90° cast bend with built-in non-return valve	G 1¼"	62320536	S10-S30
			G 1½"	62320538	M25-M50
		without bend	DN 50/G2"	62320660	M70-M125
		Threaded Adaptor hexagon double nipple	G 1¼"	13770011	08 & 09
		Guide Rail (galvanized steel)	1¼" x 1 m	31380007	08-M125
	1¼" x 2 m		31380008		
	1¼" x 3 m		31380009		
	1¼" x 4 m		31380010		
	1¼" x 5 m		31380011		
		Chain Kit (galvanized steel) including shackle	3 m	61265065	08-M125
4 m	61265093				
6 m	61265069				
7 m	61265096				
	Chain Kit (stainless steel) including shackle	3 m	61265081	08-M125	
4 m		61265099			
6 m		61265085			
7 m		61265102			
Transportable applications	Threaded Flange Kit (EN-GJL-250) including discharge piece, gasket and bolts	G 1¼"	61180512	S10-M50	
	Ground Support Stand (St. 37) with fixing bolts		61900013 61900007	S10-S30 M25-M125	
	Fixed Coupling (brass) GEKA with external thread	G 1¼"	15020003	S10-M50	
	Hose Coupling with nozzle, outer dia. 34 mm	G 1¼"	15020018	S10-M50	
Horizontal (tank connection)	Pump with built-in flange on suction side	DN 150/PN 16 to DIN 2633	On request	S10-M125	
	Head Support (EN-GJL-250) with vibration damping		62665103 41425005	S10-S30 M25-125	
General	Non-return Valve (EN-GJL-250) ball valve with internal thread	G1¼"	61400525	08-M125	
		G1½"	61400526		
		G2"	61400527		
	Shut-off Valve (brass) with internal thread	G1¼"	14040005	08-M125	
		G1½"	14040006		
G2"		14040007			