

# ABS PIRANHA SUBMERSIBLE GRINDER PUMP 08 TO 110

**ABS submersible pumps for problem-free pumping of sewage containing faecal matter in pipe lines from 1¼" (DN 32)**

## Applications

The PIRANHA submersible pumps have been designed for effective and economical dewatering tasks using discharge lines of small diameter in private, municipal and industrial areas.

- For sewage removal from living units and houses in scattered settlements where the laying of a conventional sewer would be too expensive, or where large ground undulations are present or where it is only possible to lay pipe lines of small diameter.
- For sewage removal from motorway resting sites, communal buildings and for renovation of buildings or parts 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.

## Medium Pumped

Faecal matter and heavily polluted sewage, max. medium temperature: continuous operation = 40° C or if unit is submerged, short term to 60° C (max. 5 min).

## Construction

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

## Motor

Three phase 400 V 3 or single phase 220-240 V, 50 Hz, 2-pole (2900 min<sup>-1</sup>) or 4-pole (1450 min<sup>-1</sup>), insulation class F, protection type IP 68, cooled by amply dimensioned cooling areas. Other voltages and units suitable for 60 Hz operation are also available. Motor in explosive proof version type EEXd IIB T4 and FM/CSA.

## Bearings

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

## Shaft sealing

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

## Discharge

PIRANHA 08 and 09 = G 1¼" internal thread  
PIRANHA S10 to S26 and M30 = G 1¼" with oval flange  
PIRANHA M55 to M110 = DN 50 with DIN-flange

**Shredding System** consisting of spiral bottom plate with stationary cutter ring with cutting edges and a shredding rotor located before the impeller for optimum blockage-free running.

## TCS-Thermo-Control-System

By means of thermal sensors in the stator to give a warning and to switch off the motor in the event of excessive temperatures occurring (PIRANHA 30 to 110 and 12 Ex to 110 Ex).

## DI-System

For seal monitoring consisting of an electrode in the motor and oil chamber (motor housing only - Ex) and an optical and/or acoustical inspection indication should leakage at the shaft sealing occur (optional).

## Materials

Motor housing \_\_\_\_\_ Cast Iron GG-25  
Rotor shaft \_\_\_\_\_ Stainless Steel 1.4021 (AISI 420)  
Volute, impeller\* \_\_\_\_\_ Cast Iron GG-25  
Fasteners \_\_\_\_\_ Stainless Steel 1.4401 (AISI 316)

\*Polyamide for PIRANHA 08



- Unique ABS PIRANHA shredding system capable of shredding cloths and plastic bags
- For the pumping of wastewater containing sewage, offal, organic and industrial effluent
- PIRANHA 10/4 to 110/2 fitted with modular AS and AFP motors
- Low installation costs
- Advantage of small discharge lines from 1¼" (DN 32)
- Installations are possible where large ground undulations are present
- PIRANHA 08 and 09 use modular MF motor
- Standard and Ex-versions available (PIRANHA 10 to 110)
- PIRANHA 08 and 09 do not need a control box as capacitor or relay in upper lid

# ABS PIRANHA SUBMERSIBLE GRINDER PUMP 08 to 110

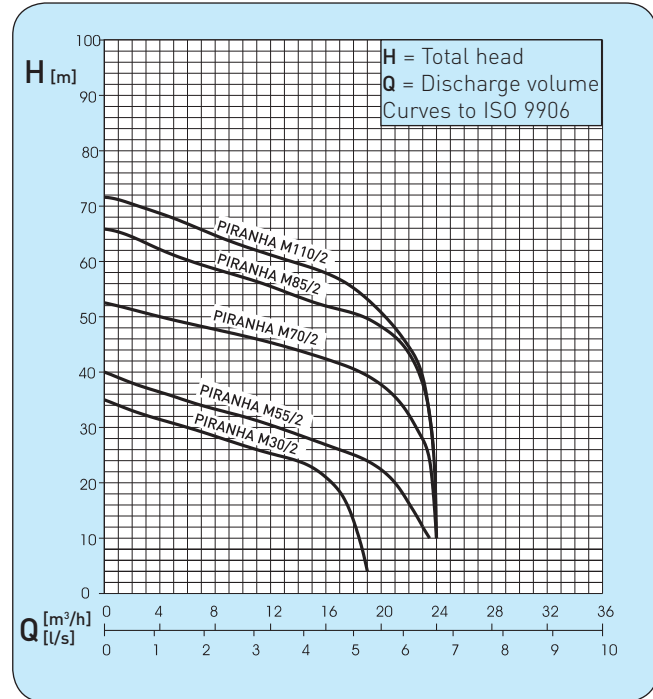
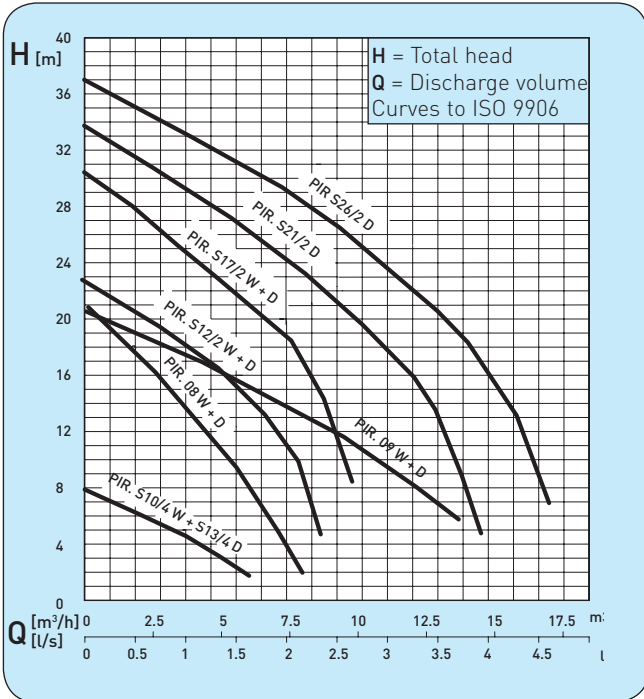
## Technical Data

Type Std. and Ex Version	Discharge		Motor power*		Speed at 50 Hz min <sup>-1</sup>	Rated voltage V	Rated current A	Cable type**		Weight*** kg	
	KS	Internal thread DN	P <sub>1</sub> kW	P <sub>2</sub> kW				std	ex		
PIRANHA 08 W (no ex version)	■	G 1¼"	32	1.4	1.0	2900	220-240~ single phase	6.4	(4)	-	18
PIRANHA 08 D (no ex version)	■	G 1¼"	32	1.34	1.0	2900	400 three phase	2.7	(5)	-	18
PIRANHA 09 W (no ex version)	■	G 1¼"	32	2.6	1.8	2900	220-240~ single phase	11.6	(4)	-	23
PIRANHA 09 D (no ex version)	■	G 1¼"	32	2.6	2.0	2900	400 three phase	4.6	(5)	-	23
PIRANHA S10/4 W****	■	G 1¼"	32	1.7	1.0	1450	220-240~ single phase	7.5	(1)	(2)	32
PIRANHA S12/2 W****	■	G 1¼"	32	1.8	1.2	2900	220-240~ single phase	8.2	(1)	(2)	32
PIRANHA S12/2 D	■	G 1¼"	32	1.7	1.2	2900	400 three phase	3.3	(1)	(2)	32
PIRANHA S13/4 D	■	G 1¼"	32	1.9	1.3	1450	400 three phase	3.6	(1)	(2)	32
PIRANHA S17/2 W****	■	G 1¼"	32	2.4	1.7	2900	220-240~ single phase	10.6	(1)	(2)	32
PIRANHA S17/2 D	■	G 1¼"	32	2.3	1.7	2900	400 three phase	4.0	(1)	(2)	32
PIRANHA S21/2 D	■	G 1¼"	32	2.8	2.1	2900	400 three phase	4.6	(1)	(2)	37
PIRANHA S26/2 D	■	G 1¼"	32	3.4	2.6	2900	400 three phase	5.6	(1)	(2)	40
PIRANHA M30/2 D	■	G 1¼"	32	3.7	3.0	2900	400 three phase	6.2	(2)	(2)	53
PIRANHA M55/2 D			50 DIN-Flange	6.5	5.5	2900	400 three phase	10.4	(3)	(3)	76
PIRANHA M70/2 D			50 DIN-Flange	8.3	7.0	2900	400 three phase	13.6	(3)	(3)	77
PIRANHA M85/2 D			50 DIN-Flange	10.1	8.5	2900	400 three phase	17.2	(3)	(3)	78
PIRANHA M110/2 D			50 DIN-Flange	13.3	11.0	2900	400 three phase	21.1	(3)	(3)	80

\*P<sub>1</sub> = Power taken from the mains; P<sub>2</sub> = Power at the motor shaft  
 \*\* Special rubber compound cable with free cable ends:  
 (1) 4G1.5; (2) 7G1.5; (3) 10G1.5; (4) 3G1.0; (5) 4G1.0

\*\*\* Weight with 10 m of cable  
 \*\*\*\* Start & run capacitor required in addition unless purchased with control panel

## Performance Curves 50 Hz

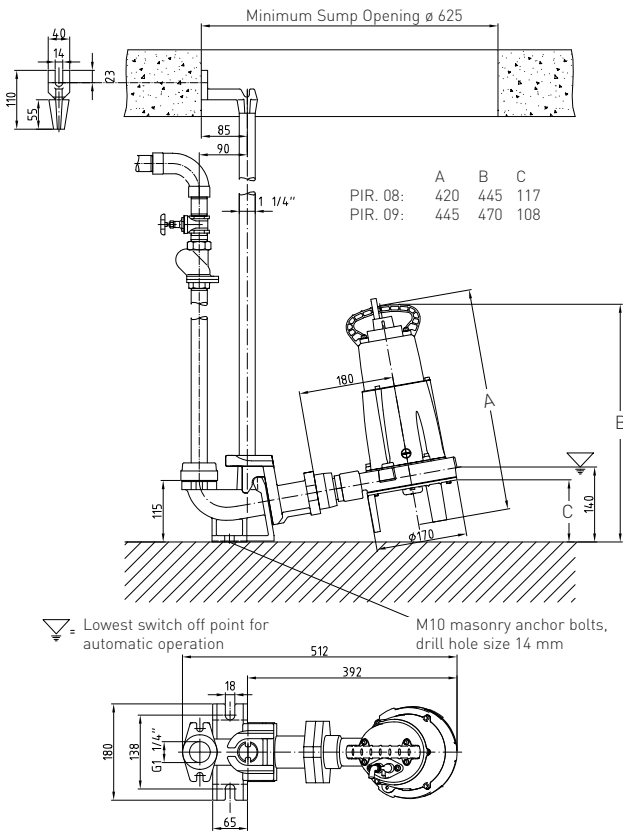


Performance curves for 60 Hz are available on request.

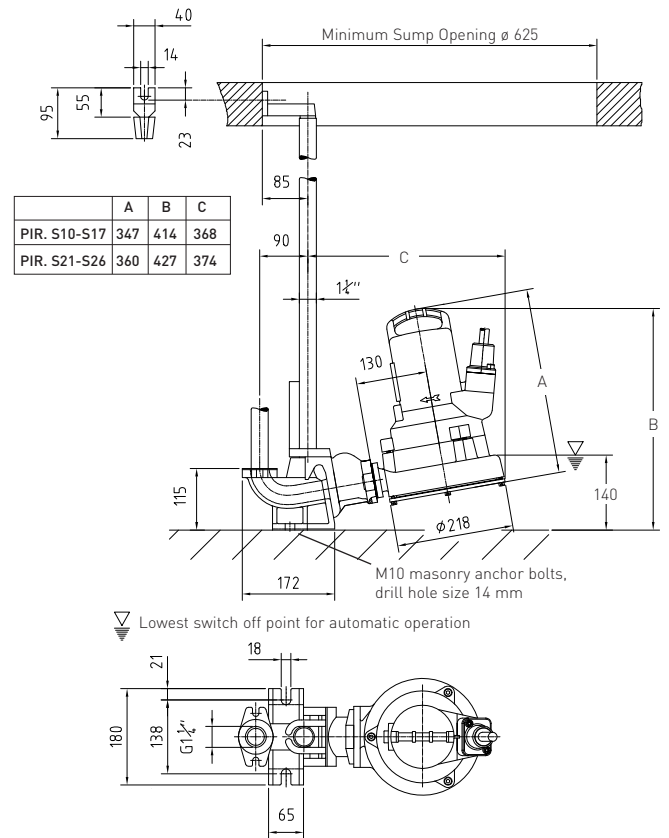
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## Dimensions and Installation Examples (with pedestal)

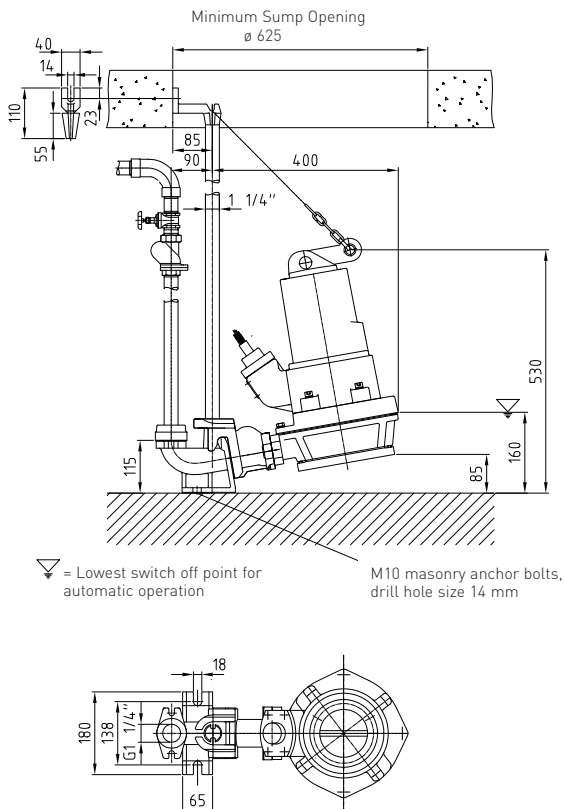
### PIRANHA 08 and 09



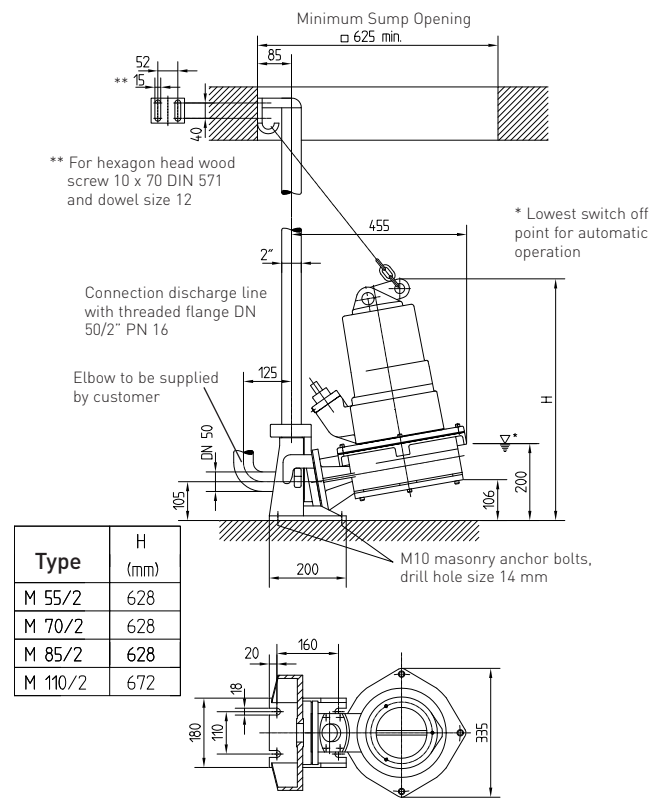
### PIRANHA S10 to S26



### PIRANHA M30



### PIRANHA M55 to M110



Dimensions in mm

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## Accessories

### Fixed Installation with Pedestal

Description (Material)	Size	Part No.
<b>PIRANHA 08 and 09</b>		
○ Pedestal (GG-25) G 1¼" supplied complete with fixing bolts	G 1¼"	62325007
○ Adapter		13770011
<b>PIRANHA S10 to S26 and M30</b>		
○ Pedestal (GG-20) G 1¼", supplied complete with fixing bolts	G 1¼"	62320536
○ Guide tube (steel, galv.) also for PIRANHA® 08 and 09	1¼"	1 m 31380007
		2 m 31380008
		3 m 31380009
		4 m 31380010
		5 m 31380011
<b>PIRANHA M55 to M110</b>		
○ Pedestal (GG-25) G 2", supplied complete with fixing bolts	DN 50 (2")	62320660
○ Guide tube (steel, galv.)	2"	1 m 31380001
		2 m 31380002
		3 m 31380003
		4 m 31380004
		5 m 31380005
		6 m 31380006
○ Chain kit (steel, galv.) including shackle	3 m	61265065
	4 m	61265093
	6 m	61265069
	7 m	61265096
○ Ball type non-return valve (GG-20) with 2 x internal thread	G 1¼"	61400525
	G 1½"	61400526
	G 2"	61400527
○ Shut off valve (brass) with internal thread	G 1¼"	14040005
	G 1½"	14040006
	G 2"	14040007

### Transportable Applications and Connection to Tank

Description (Material)	Size	Part No.
<b>PIRANHA S10 to S26 and M30</b>		
○ Threaded flange (GG-20), oval	G 1¼"	61180512
○ Ground support ring (St 37) PIRANHA 12/26 supplied complete with fixing bolts		61900013
○ Fixed coupling (brass) GEKA with external thread	G 1¼"	15020003
○ Hose coupling with nozzle, outer dia. = 34 mm	G 1¼"	15020018
○ Ball-type non-return valve (GG-20) with 2 x internal thread	G 1¼"	61400525
	G 1½"	61400526
	G 2"	61400527
<b>Horizontal Tank Connection (PIRANHA S10 to S26)</b>		
○ Pump with built-on flange on the suction side DN 150/PN 16 to DIN 2633		Request when ordering
○ Head support (GG-20) PIRANHA S12/S26 with vibration damping PIRANHA M30-M110		61820078 61820041

