

Submersible motor pumps with cutter system for conveying domestic and municipal waste water and feces.

Barracuda GRP56 - 111

Application

Sewage disposal with small pipe cross-sections, high head at relatively low flow rates, pressure drainage systems in topographically difficult areas. Barracudas break up solids carried along in fractions of a second, so that plastic pipes with cross sections from DN50 are already sufficient for the pipelines. In this way, the costs for the use of materials and the laying of wastewater systems can be reduced considerably. With a delivery pressure of up to 7 bar, the GRP56-111 models are the most powerful in the Barracuda range. With them, they considerably expand the range of applications for cutter pumps, even for larger disposal projects.

DIN EN 12050-1: Design tested and monitored.

Installation: Stationary with auto-coupling system or with ring base stand.

Pumped medium: Clean water and waste water with solid and fibrous content and feces.

Max. temperature of pumped medium: 40°C, for brief periods up to 60°C.

Operating mode: Continuous operation (S1).

Design

Fully submersible pump, consisting of:

Pump: Single stage centrifugal pump with horizontal discharge DN 50.

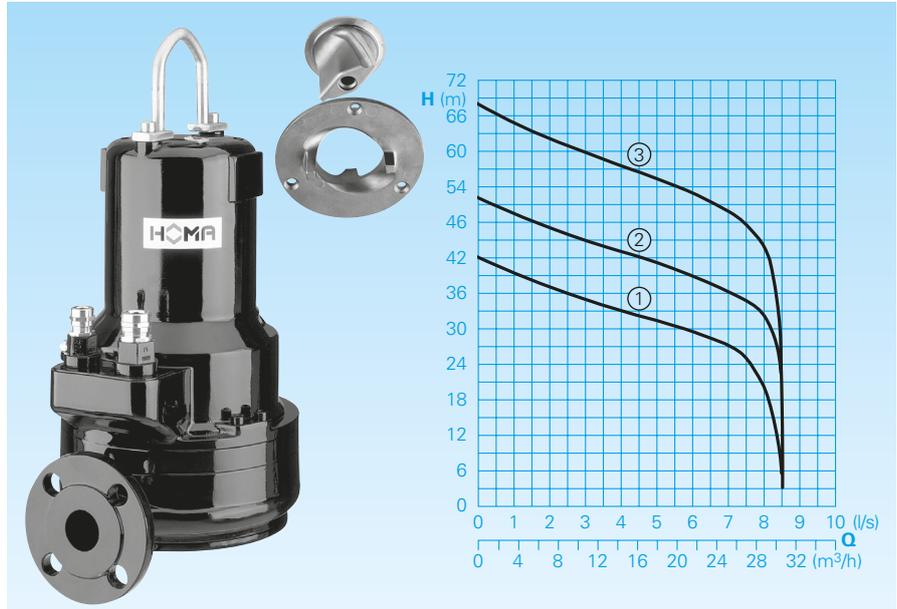
Impeller: Open multi-blade impeller with upstream cutting device for breaking up solids.

Motor: Fully submersible motor, sealed against pressurized water. Thermal sensor for temperature monitoring in the winding. Insulation class H, protection rating IP 68.

Type of start: Star-delta
Connecting cable: H07RN8-F 5G1,5
Ex-Model: H07RN8-F 4G1,5 and H07RN8-F 10G1,5

Shaft/bearing: Shaft from chrome steel, permanently lubricated roller bearings.

Conveying capacities



Technical data

Curve No.	Pump type	Motor input		Voltage 50 Hz (V)	Rotational speed (rpm)	Nominal current (A)	Weight (kg)		Model ET
		P ₁ (kW)	P ₂ (kW)				Wet installation	Dry	
①	GRP 56 (ET)D(Ex)	7,5	6,4	400/3Ph	2900	13,0	104	108	122
②	GRP 76 (ET)D(Ex)	7,5	6,4	400/3Ph	2900	13,0	104	108	122
③	GRP 111 (ET)D(Ex)	11,0	9,5	400/3Ph	2900	18,8	107	111	139

Discharge: DN 50
Cable length: 10 m

Model ET: EffTec-motor with patented PermaCool® system for wet and dry installation.
Model Ex: explosion-proof

Seal: Two independent suspended acting mechanical seals (silicone carbide) in oil barrier chamber.

Standard with electronic seal monitoring to control the oil barrier chamber. Oil control possible from the outside.

Motorjacket: All models available with PermaCool® system for drywell installation or not fully submerged operation.

Explosion protection: All pump types are also available in explosion-proof design according to ATEX Directive 2014/34/EU.

Materials

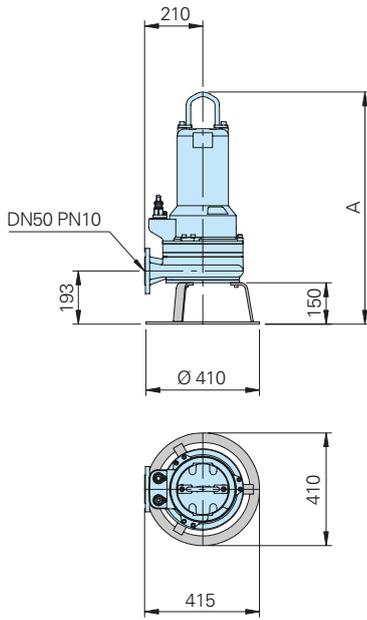
Pump housing, motor housing, impeller	Cast iron EN-GJL-250
Cutter system	Stainless steel 1.4122 50-55 HRC
Mechanical seal	Silicon carbide/Silicon carbide/
Motor shaft, screws	Stainless steel
Elastomers	NBR

Scope of supply

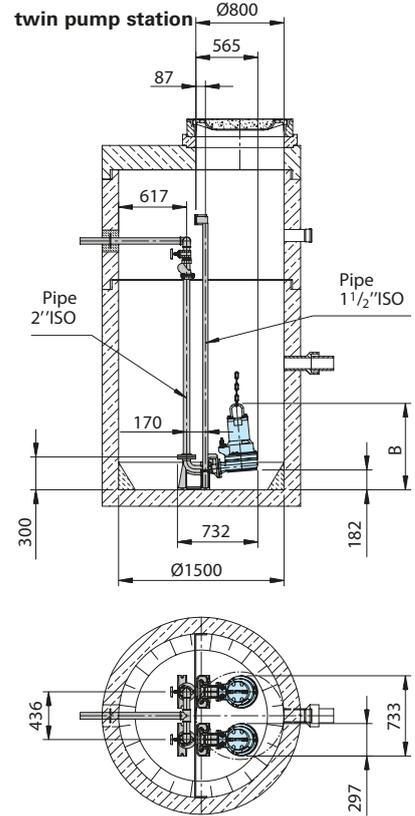
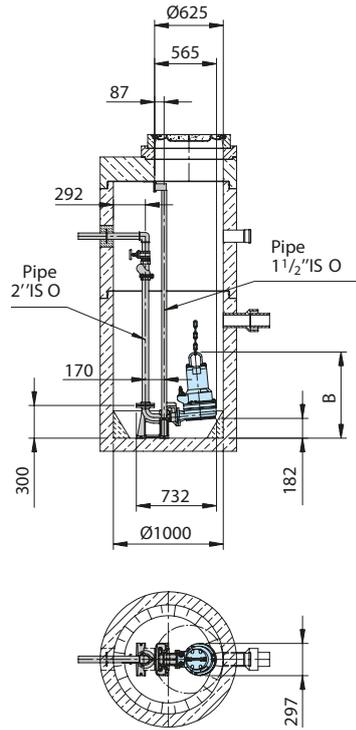
With 10 m of connecting cable and loose cable end.

Dimensions and installation example (all dimensions in mm)

Transportable model
GRP56 – GRP111 (U) D (Ex)



Stationary model
single pump station

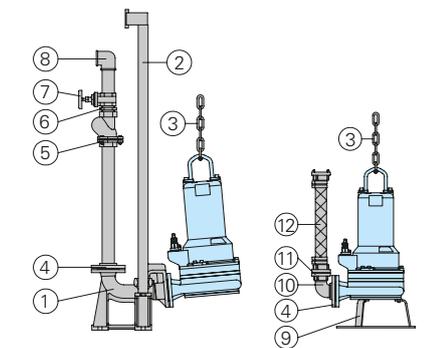


Type	A	B
GRP56 (ET)D(Ex)	771 (795)	790 (815)
GRP76 (ET)D(Ex)	771 (795)	790 (815)
GRP111 (ET)D(Ex)	844 (865)	862 (885)

Shaft installation with auto-couling system

Permanent installation utilising a submerged auto-coupling guide rail system for automatic connection and disconnection of the pump from the pipework from outside the sump. Applicable for single and multi pump stations. Advantages: Little space requirement, easy pump service and maintenance.

Accessories



Description	Size	Part no.
① Automatic coupling system GG with mating flange with double socket, base elbow with flange and slide rail bracket KK50/50	DN50	8604012
○ Coupling system completely or partly in stainless steel	all	on request

Description	Size	Part no.	Description	Size	Part no.
○ Screw-Kits for fastening coupling systems		on request	Ⓢ 90° connection bend, galvanized	BSP 2" F	2113606
○ Intermediate bracket for slide rail bracket extension	Ø 1½" for KK50	7322901	T-piece for merging the pressure pipe in double pump stations	BSP 2" F	2114306
② Guide rails for coupling kits (steel galvanized and stainless steel A2/A4)		on request	Ⓣ Ring base stand		7321465
③ Pump chain sets, tested. With shackle, single or dual row, different lengths and load bearing capacities		on request	Ⓤ 90° Connection bend, galvanized	BSP 2" F/M	2111506
④ Threaded flange	DN 50/ BSP 2" F	2215050	Ⓡ STORZ-fixed coupling	C-G 2" F	2010204
⑤ Non-return ball valve GG	BSP 2" F	2212903	Ⓢ Plastic spiral hose, per m	Ø 50 mm	2632050
⑥ Double nipple, galvanized	BSP 2" M	2009018	STORZ-hose coupling with long nozzle	C-52 mm Ø	2013003
⑦ Shut-off gate valve Brass	BSP 2" F	2216020	Hose clamp	2"	2306009
			Synthetic pressure hose, rubberized	10 m	2611310
				15 m	2611315
				20 m	2611320
				30 m	2611330
			○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,	see HOMA accessories	



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