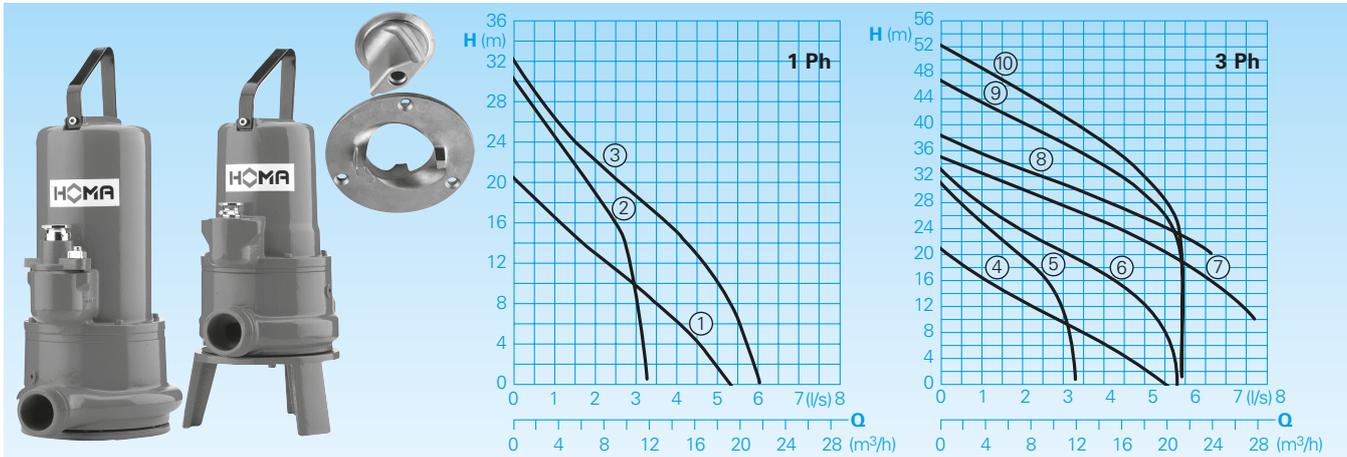


**Submersible pumps with cutter system for pumping domestic and municipal wastewater and sewage.**

## Barracuda GRP16 - 50

### Conveying capacities



### Application

Sewage disposal with small pipe cross-sections, high head at relatively low flow rates, pressure drainage systems in topographically difficult areas. The Barracudas break up solids carried along in fractions of a second, so that plastic pipes with cross sections from 1½" 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.

**DIN EN 12050-1:** Design tested and monitored.

**Installation:** Stationary or mobile. Version with float switch for use as automatic water level controlled drainage pump.

**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 G2.

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

**Motor:** Fully submersible motor, sealed against pressurized water. Single phase or three phase version. Thermal sensor for temperature monitoring in the winding. Insulation class H, Protection rating IP 68.

Type of start: GRP16- 36: direct-start. GRP44- 50: star-delta-start.

Connecting cable:

GRP16W: H07RN8-F 4G1,5

GRP16D: H07RN8-F 6G1,5

GRP20-36: H07RN8-F 6G1,5

GRP16-36EX: H07RN8-F 6G1,5

GRP44-50(EX): H07RN8-F 10G1,5

### Technical data

Curve No.	Pump type	Motor input P <sub>1</sub> (kW)	P <sub>2</sub> (kW)	Operation-/Start-Capacitor* (µF)	Rotational speed (rpm)	Nominal current (A)	Weight (kg)
①	GRP 16 (B) W (A) (Ex)	1,5	1,1	30/60	2900	7,5	27
②	GRP 20 W (A) (Ex)	2,1	1,5	50/100	2900	9,5	33
③	GRP 26 W (A) (Ex)	2,5	1,8	50/100	2900	11,5	33
④	GRP 16 (B) D (A) (Ex)	1,3	0,9		2900	2,5	27
⑤	GRP 20 D (A) (Ex)	2,1	1,6		2900	3,9	33
⑥	GRP 26 D (A) (Ex)	2,5	1,9		2900	4,4	33
⑦	GRP 36 D (A) (Ex)	3,7	3,1		2900	6,4	44
⑧	GRP 36 HD (A) (Ex)	3,7	3,1		2900	6,4	44
⑨	GRP 44 D (Ex)	4,4	3,7		2840	7,5	56
⑩	GRP 50 D (Ex)	5,2	4,4		2840	8,7	56

**Model W:** 230V/1Ph 50Hz

**Model D:** 400V/3Ph 50Hz

\* **Capacitor:** for the operation it is necessary to install a capacitor into the switchgear.

**Shaft/bearing:** Shaft made of chrome-steel, permanently lubricated roller bearings.

**Seal:** GRP16 with combination of mechanical seal (silicon carbide) and radial seal in oil barrier chamber, from GRP20 with 2 mechanical seals (silicon carbide) in oil barrier chamber. Oil control possible from the outside. On request available with electronic seal monitoring to control the oil barrier chamber.

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

### Materials

Motor housing, pump housing, impeller	Cast iron EN-GJL250
Motor shaft, screws	Stainless steel
Cutter system	Stainless steel 1.4122 50-55 HRC
Mechanical seal	Silicon carbide
Elastomers	NBR

**Model GRP 16 B:** with support feet

**Model A:** with automatic HOMA-Nivomatik float switch

**Model Ex:** explosion-proof

### Scope of supply

**Model W (230V/1Ph):**

With 10 m of connecting cable and loose cable end. Switchgear W19 (GRP16W); WT19 (GRP20-26W) available as accessories

**Model D (400V/3 Ph):**

With 10 m of connecting cable and loose cable end. Switchgear DT32 available as accessories

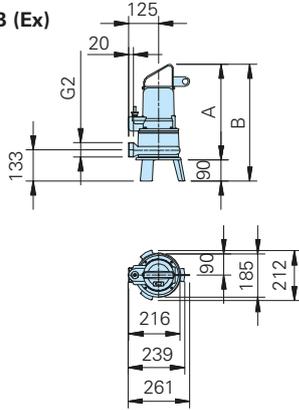
**Model A:** Additionally with automatic float switch HOMA-Nivomatik, with AS-float, with 10 m of connecting cable, switchgear WA10/19; DA10/32; DA10/12 with motor protection, HAND-O-AUTO-switch.

1 Ph-Model with built-in capacitor and plug. 3 Ph-Model with CEE-reversing plug. Ex-Model with relais for intrinsically safe control circuit.

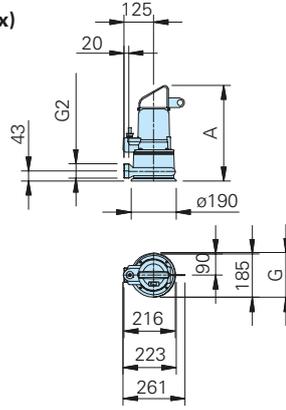
**Modell GRP16 B:** With integrated support feet for floor installation.

**Dimensions and installation example** (all dimensions in mm)

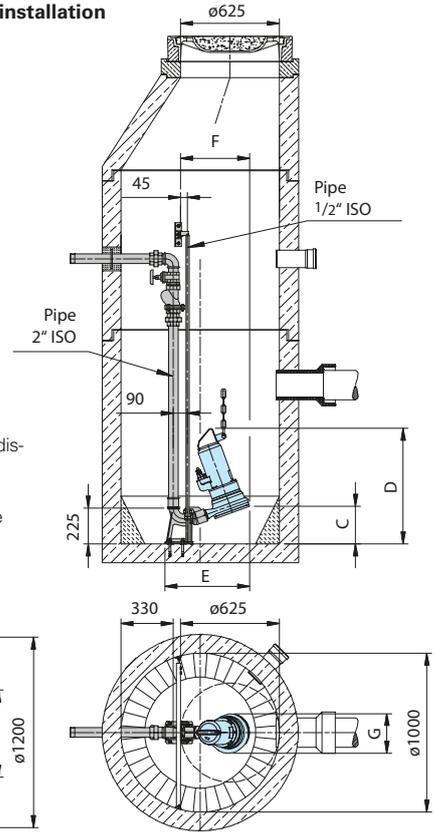
**GRP16 B (Ex)**



**GRP16 (Ex)**



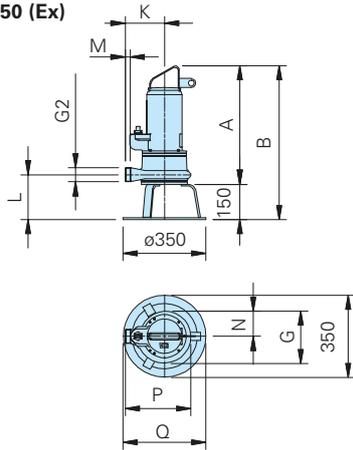
**Permanent installation**



**Shaft installation with automatic coupling system**

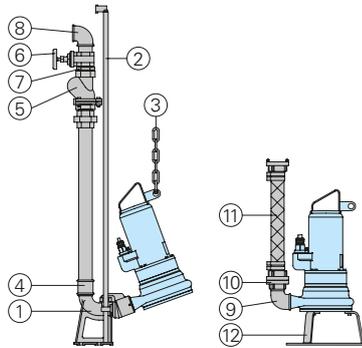
Permanent installation utilising a submerged auto-coupling guide rail system for automatic connection and disconnection of the pump from the pipework from outside the sump. Applicable for single and multi pump stations. Advantages: Little space requirement, easy pump service and maintenance.

**GRP20-50 (Ex)**



Pump type	A	B	C	D	E	F	G	H	K	L	M	N	P	Q
GRP16 (B)(Ex)	406	496	212	578	461	364	190	490						
GRP20 (Ex), 26 (Ex)	468	618	228	651	501	403	223	523	165	191	20	107	277	350
GRP36 (HD) (Ex)	505	655	228	686	501	403	223	523	165	191	20	107	277	350
GRP44 (Ex), 50 (Ex)	545	695	238	728	533	436	250	550	180	193	25	119	304	355

**Accessories**



Description	Size	Part no.
① Automatic coupling system with mating flange, base elbow - for slide rail bracket BSP1/2", GG KKR50S/BSP2" BSP2"/BSP2" 8604008 - for slide rail bracket BSP1/2", Stainless steel KKR50S/BSP2" BSP2"/BSP2" 8604009.01 - for slide rail bracket BSP1", Stainless steel KKR50S-1/BSP2" BSP2"/BSP2" 8604018		
○ Coupling system completely or partly in stainless steel	all	on request
○ Screw-Kits for fastening coupling systems		on request

Description	Size	Part no.	Description	Size	Part no.
○ Intermediate bracket for slide rail bracket extension	Ø 1/2" for KKR50S and KKR50S-1	7320271 7323714	⑨ 90° bend, galvanized	BSP 2" F x BSP 1 1/2" F	2112605 2111506
② Guide rails for coupling kits (steel galvanized and stainless steel A2/A4)		on request	⑩ STORZ-fixed coupling	C-G 1 1/2" M C-G 2" F	2010003 2010204
③ Pump chain sets, tested. With shackle, single or dual row, different lengths and load bearing capacities		on request	⑪ Plastic spiral hose, per m	1 1/2" Ø 38 mm Ø 50 mm	2632042 2632050
④ Double socket, galvanized	BSP 2" F BSP 2" F x BSP 1 1/2" F	2109102 2109210	STORZ-hose-coupling	C-38 mm Ø C-52 mm Ø	2013002 2013003
⑤ Non-return ball valve, GG	BSP 1 1/2" F BSP 2" F	2212902 2212903	STA-threaded hose fitting, brass	BSP 1 1/2" M	2001513
⑥ Shut-off gate valve, Brass	BSP 1 1/2" F BSP 2" F	2216015 2216020	Hose clamp	1 1/2" 2"	2304854 2306009
⑦ Double nipple, galvanized	BSP 1 1/2" M BSP 2" M	2009020 2009018	Synthetic-pressure-hose with couplings	10 m 15 m 20 m C-52 mm Ø	2611310 2611315 2611320 2611330
⑧ 90° bend, galvanized	BSP 1 1/2" F BSP 2" F	2113605 2113606	⑫ Ring base stand for GRP 20, GRP 26 and GRP 36 and GRP 44, GRP 50		7321445 7324535
T-piece for merging the pressure pipe in double pump stations	BSP 1 1/2" F BSP 2" F	2114302 2114306	○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,	see HOMA accessories	



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