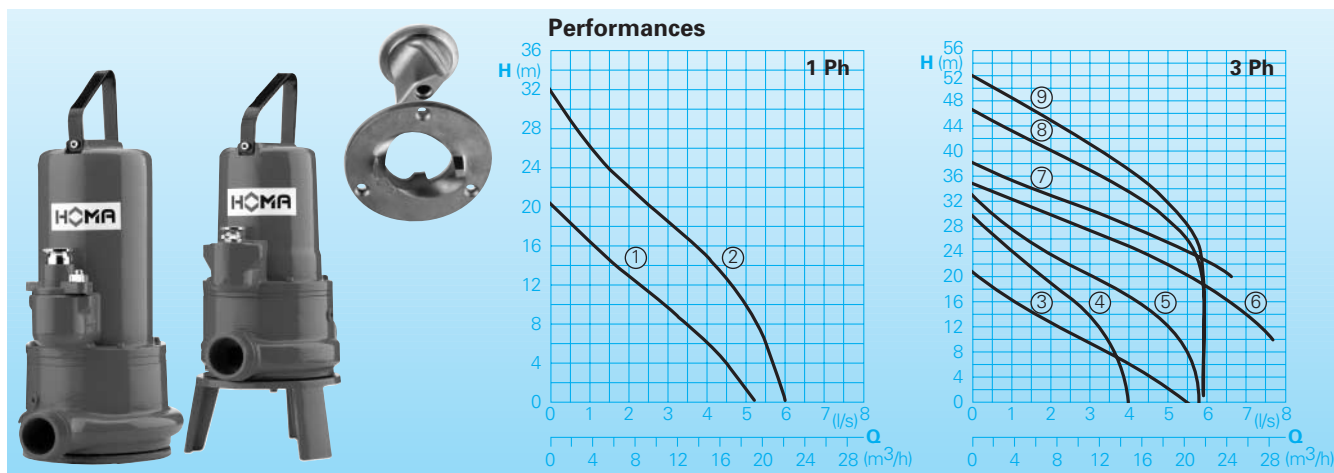


## Electric submersible pumps with cutter system for sewage and effluent.

### Barracuda GRP 16-50



#### Application

The installation of conventional sewer systems in areas of low population like small villages, farms or under difficult topographic conditions is often extremely expensive, mainly because of the high cost for large diameter pipework installation. HOMA provides the perfect, economical alternative with Barracuda grinder pump pressure sewage systems. The Barracuda pumps cut all solids present in the sewage into small particles. This allows the use of pipes from 1 1/2" diameter, which can be easily laid at low cost with a minimum of construction work.

DIN EN 12050-1: Conformity and design approved and controlled by LGA, certificate No. 0220119.

Installation: Transportable or permanent. Models with float switch control for automatic pump operation, depending on medium level in the sump.

Pumped medium: Waste water or sewage containing soft solids. Max. medium temperature: 35°C, short term up to 60°C.

Operation: Intermittent.

#### Design

Fully submersible, compact integrated motor-pump consisting of:

Pump: Single stage centrifugal pump with horizontal discharge BSP 2" M.

Impeller/Cutter: Open multi-channel impeller. Cutter system at pump inlet consisting of stationary cutter ring and blade rotor.

#### Technical Data

Curve No.	Pump type	Motor input P <sub>1</sub> (kW)	Motor output P <sub>2</sub> (kW)	Voltage 50 Hz (V)	Speed (rpm)	Nominal current (A)	Weight (kg)
①	GRP 16 (B) W (A) (Ex)	1,5	1,1	230/1ph	2900	7,5	27
②	GRP 26 W (A) (Ex)	2,5	1,8	230/1ph	2900	11,5	33
③	GRP 16 (B) D (A) (Ex)	1,3	0,9	400/3ph	2900	2,5	27
④	GRP 22 D (A) (Ex)	2,1	1,7	400/3ph	2900	4,2	33
⑤	GRP 26 D (A) (Ex)	2,5	1,9	400/3ph	2900	4,4	33
⑥	GRP 36 D (A) (Ex)	3,7	3,1	400/3ph	2900	6,4	44
⑦	GRP 36 HD (A) (Ex)	3,7	3,1	400 / 3ph	2900	6,4	44
⑧	GRP 44 D (Ex)	4,4	3,7	400 / 3ph	2840	7,5	56
⑨	GRP 50 D (Ex)	5,2	4,4	400 / 3ph	2840	8,7	56

Discharge: BSP 2" M

Model GRP 16 B: With base stand  
Model A: With automatic level control  
Model Ex: explosion proof


Motor: Fully submersible, pressure-tight electric motor, single or three phase. Thermal sensors embedded in stator winding. Insulation class F, degree of protection IP 68.

Motor start: GRP 16-36 direct start  
GRP 44-50 star delta start

Cable:  
GRP 16 - 36 (EX) H07RN-F(PLUS)7G1,5  
GRP 44 - 50 (EX) H07RN-F(PLUS)10G1,5

Shaft/Bearing: Large diameter stainless steel rotor shaft, heavy duty pre-lubricated bearings.

Seals: GRP 16 with combination of mechanical seal (silicon-carbide/silicon-carbide) and lip seal in oil chamber. Models from GRP 22 with two mechanical seals (silicon-carbide/silicon-carbide) in oil chamber, oil inspection from outside. Seal condition monitoring probe on request.

Explosion protection: All Models available with explosion proof motors according to  II 2G EEx d [ib] II BT4.

#### Materials:

Motor housing, pump housing, impeller	Cast iron GG25
Cutter system	Stainless steel 1.4122
Rotor shaft, screws	Stainless steel
Mechanical seal	Silicon-carbide
O-rings	NBR

#### Equipment supplied

Model W: (230-240 V / 1 Ph): 10 m of cable. Attention: The pump requires a capacitor for operation, which is integrated in the control box (see accessories).

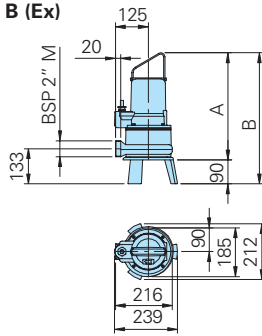
Model D: (400-415 V/3 Ph): 10 m of cable.

Model A: With additional automatic level control, with AS float switch, control box with overload protection, manual-auto-switch, and 10 m of cable. Model W with integrated capacitor. Model Ex with intrinsically safe relay.

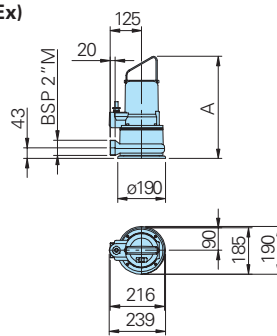
Model GRP 16 B: With mounted base stand.

## Installations and dimensions

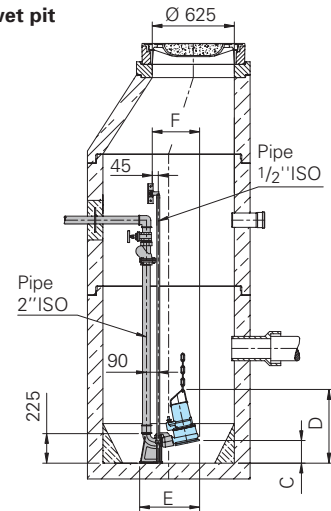
### Free standing pump with ringbase stand GRP 16 B (Ex)



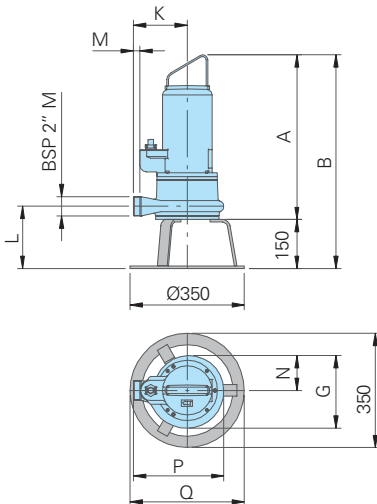
### GRP 16 (Ex)



### Permanent wet pit installation

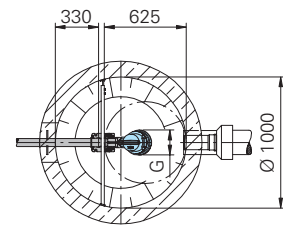
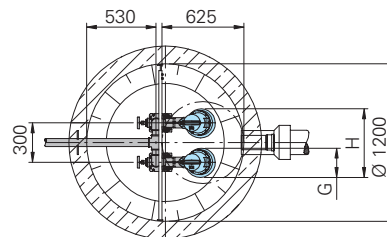


### GRP 22-50 (Ex)



### Wet well installation with auto-coupling system.

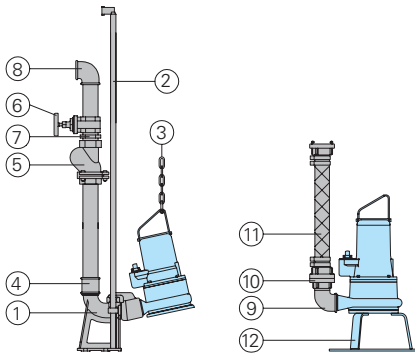
Permanent installation utilising a submerged auto-coupling guide rail system for automatic connection and disconnection of the pump from the pipework from outside the sump. Applicable for single and multi pump stations. Advantages: Little space requirement, easy pump service and maintenance.



Dim. for Pump type	A	B	C	D	E	F	G	H	K	L	M	N	P	Q
GRP 16 (B)(Ex)	406	496	172	560	457	360	190	490						
GRP 22 (Ex), 26 (Ex)	468	618	183	630	504	407	223	523	165	191	20	107	277	350
GRP 36 (HD) (Ex)	505	655	183	672	504	407	223	523	165	191	20	107	277	350
GRP 44 (Ex), 50 (Ex)	545	695	187	706	527	429	250	550	180	193	25	119	304	355

all dimensions in mm

## Accessories



Part Description	Dimension	Part No.
① Cast iron auto-coupling system with auto-coupling with flange, flanged pump coupling and upper slide rail bracket BSP 1/2" Type KK50S/R 2"	DN50/BSP 2" F	8604008
② Guide rails, pair, per m		
Galvanized steel	BSP 1/2"	2190085
Stainless steel	BSP 1/2"	2190250

Part Description	Dimension	Part No.	Part Description	Dimension	Part No.
③ Lifting chain			⑩ Reinforced hose, per m (inner dia.)	38 mm dia.	2632038
Galvanized steel	5 mm dia.	2800350		50 mm dia.	2632050
Stainless steel	5 mm dia.	2800353	STORZ-hose coupling with spigot	C-38 dia.	2013002
Shackle			C-52 dia.		2013003
Galvanized steel for chain 5 mm dia.		2801450	Brass STA-hose coupling	BSP 1 1/2" M	2001513
Stainless steel for chain 5 mm dia.		2801390	Hose band	1 1/2"	2304854
④ Galvanized socket	BSP 2" F	2109102		2"	2306009
	BSP 2" F x BSP 1 1/2" F	2109210	Synthetic pressure hose with rubber lining and couplings, C-52 mm dia.	length 10 m	2611310
⑤ Cast iron swing check valve	BSP 1 1/2" F	2212902		length 15 m	2611315
	BSP 2" F	2212903		length 20 m	2611320
⑥ Bronze gate valve	BSP 1 1/2" F	2216015		length 30 m	2611330
	BSP 2" F	2216020	⑪ Ring base stand for GRP 22, GRP 26 and GRP 36		7321445
⑦ Galvanized double nipple	BSP 1 1/2" M	2009020		GRP 44,	
	BSP 2" M	2009018		GRP 50	7324535
⑧ 90° galvanized elbow	BSP 1 1/2" F	2113605	○ Control box for pumps without level control, with overload protection, on-off switch		
	BSP 2" F	2213606	- for 1Ph-pumps (incl. capacitor)		
T-piece for twin pump arrangement	BSP 1 1/2" F	2114302	GRP 16 W		1920210
	BSP 2" F	2114306	GRP 26 W		1912231
⑨ 90° galvanized elbow	BSP 1 1/2" F/M	2111505	- for 3Ph-pumps	Nominal current	
	BSP 2" F	2112605	GRP 16 - 36:	2,5 - 4,0 A	1926220
	x BSP 1 1/2" F	2112605		4,1 - 6,0 A	1926225
	BSP 2" F/M	2111506		6,1 - 8,0 A	1926230
⑩ STORZ-fixed coupling	C-BSP 1 1/2" M	2010003	GRP 44 - 50:		on request
	C-BSP 2" F	2010204	○ Control panel for single or twin pump stations for automatic operation		on request

**HOMA**  
P U M P T E C H N O L O G Y

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