GQG

Submersible pumps with high power grinder

Construction

Submersible pumps with high power grinder, with horizontal flanged and threaded delivery port (DN 32 PN 6 - G 1 1/2).
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

Suitable for pumping waste water containing long filamentous, paper and textile materials and organics.
They are particularly suitable for use in domestic, residential and industrial installations.
Solid passage Ø 6 mm

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum immersion depth: 300 mm.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQG: three-phase 230 V ± 10%;
three-phase 400 V ± 10%;.
GQGM: single-phase 230 V ± 10%,
with float switch, thermal protection and control box with starting capacitors.
Cable: H07RN8-F, 4G1 mm² (4G1,5 mm² for GMGM 6-25), length 10 m.
Insulation class F.
Protection IP X8 (for continuous immersion)
Triple impregnation humidity-proof dry winding.
Constructed in accordance with: EN 60034-1;
EN 60335-1, EN 60335-2-41.

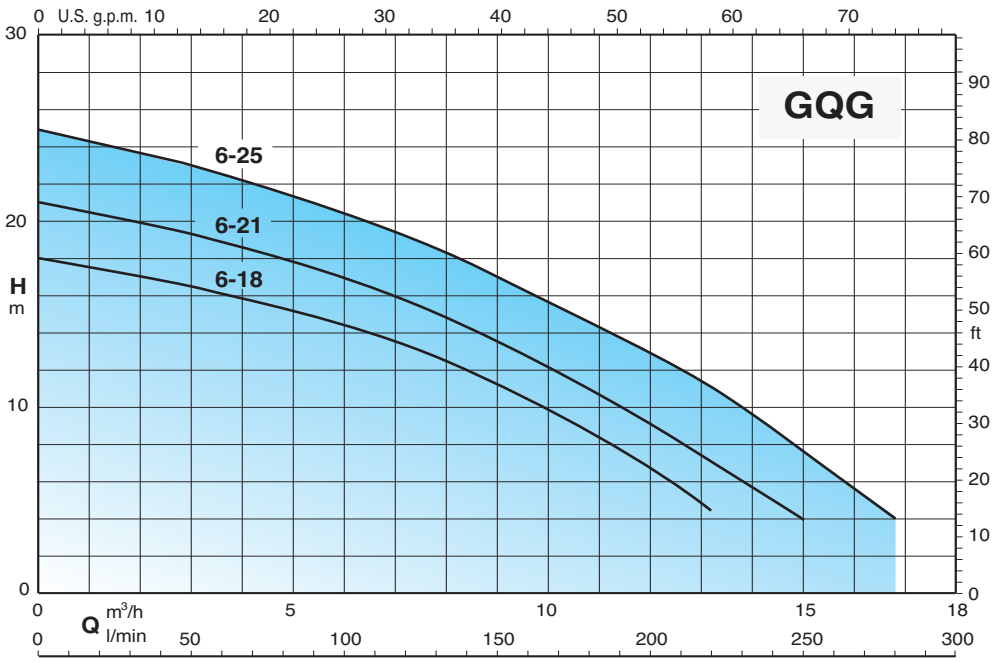
Materials

Component	Material
Pump casing Impeller Casing cover	Cast iron GJL 200 EN 1561
Rotating cutting blade Fixed cutting blade	Nickel-Molybdenum steel 1.4125 EN 10088 (AISI 440C)
Motor jacket Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame in AISI 304)
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Mechanical seal: upper lower	Ceramic alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Other features on request

- Other voltages.
- Frequency 60 Hz.
- Other mechanical seal.
- Cable length 20 m.
- Vertical magnetic float switch.
- Three-phase pumps with incorporated float switch.

Characteristic curves n ≈ 2900 rpm



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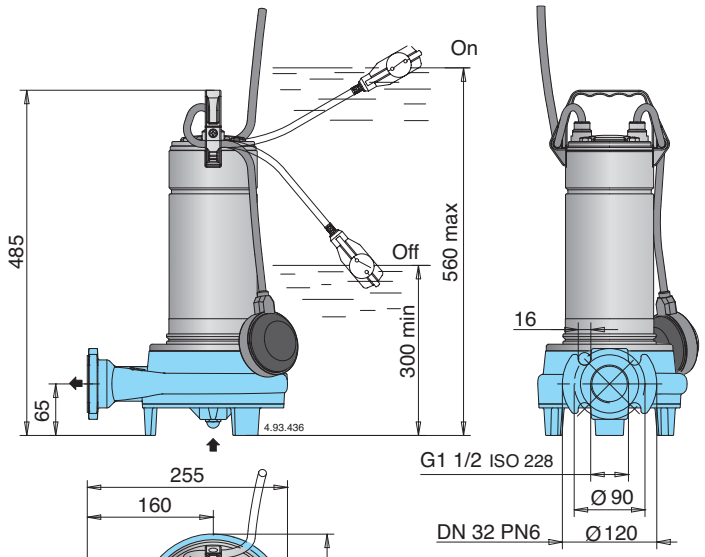
Submersible pumps with high power grinder

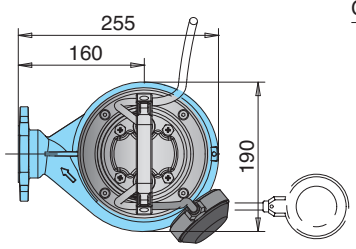
Performance n ≈ 2900 rpm

3~	230V	400V	1~	230V	Capacitor		P_1	P_2		Q m^3/h	0	3	6	9	12	13,2	15	16,8
	A	A		A	µf	Vc	kW	kW	HP	l/min	0	50	100	150	200	220	250	280
GQG 6-18	4	2,3	**GQGM 6-18**	7	30+80	450	1,3	0,9	1,2		18	16,5	14,5	11,2	6,5	4,5		
GQG 6-21	4,8	2,8	**GQGM 6-21**	7,5	30+80	450	1,5	1,1	1,5	**H** m	21	19,2	17	13,5	9	7	4	
GQG 6-25	6,6	3,8	**GQGM 6-25**	9,5	30+80	450	2	1,5	2		25	23	20,5	17	13	11	7,8	4

P_1 Max. power input. P_2 Rated motor power output. Density ρ = 1000 kg/m³. Kinematic viscosity ν = max 20 mm²/sec.

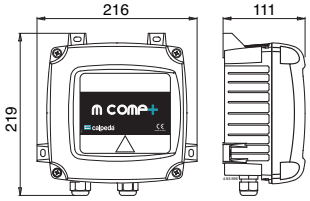
Dimensions and weights



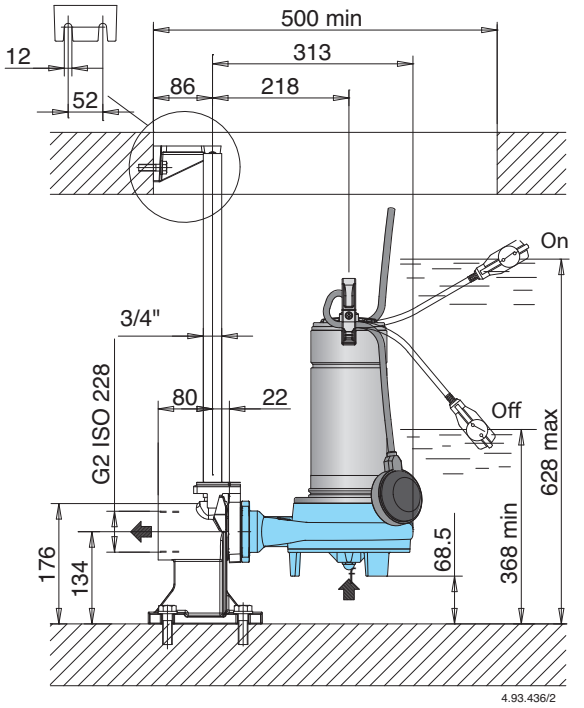


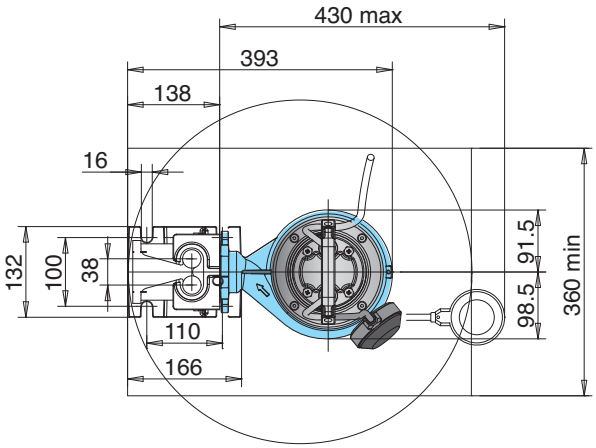
TYPE	kg	
	GQG	GQGM
GQG(M) **6-18**	18,5	19,5
GQG(M) **6-21**	18,7	19,7
GQG(M) **6-25**	19	20

GQGM
Control with box starting capacitors



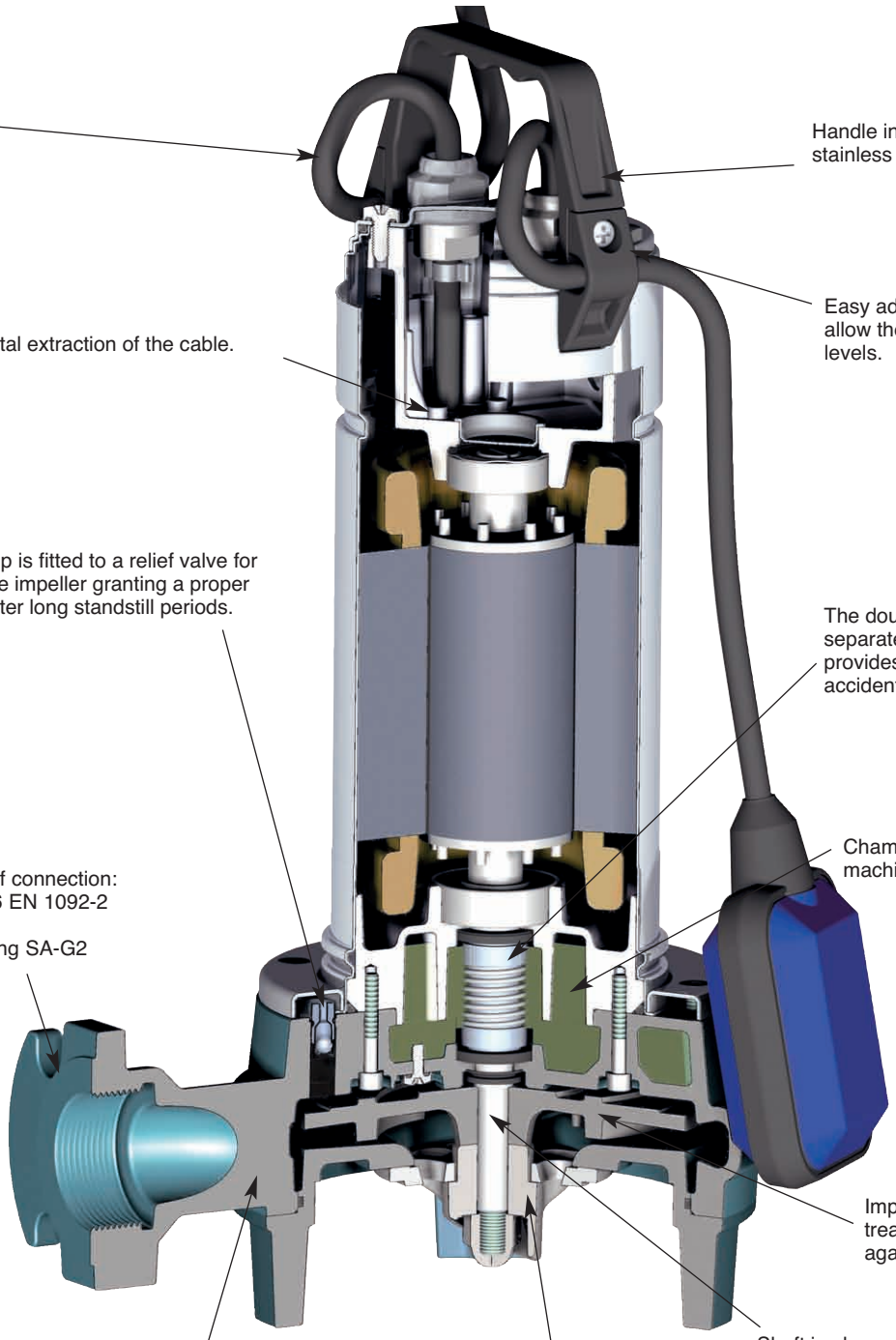
Installation example





Features

PATENTED



Cable length 10 m.

Handle in polypropylene, with frame in stainless steel.

Easy adjustment of the float switch: to allow the adjustement of start/stop pump levels.

Ring against accidental extraction of the cable.

Relief valve: the pump is fitted to a relief valve for air release around the impeller granting a proper pump priming also after long standstill periods.

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry.

Chamber with food/pharmaceutical machinery oil.

Maximum flexibility of connection:
- Flange DN 32 PN 6 EN 1092-2
- G 1 1/2 ISO 228
- for duck foot coupling SA-G2

Impeller with epoxy cataphoresis treatment for a greater protection against the rust.

Shaft in chrome-nickel stainless steel.

Pump casing and casing cover with epoxy cataphoresis treatment joined to the external paint for a greater protection against the rust.

Cutting system made of HRC 60 hardness AISI 440C stainless steel.

GM

Submersible Pumps

A new series of submersible pumps with high efficiency hydraulics designed to move slurry, sewage and industrial process fluids.
The range covers a wide field of use with head up to 75 m And flows up to 2300 m³/h, with a maximum solid passage up to 140 mm keeping the risk of blockage to a minimum.
Dimensionally designed for heavy demand, even on critical applications.

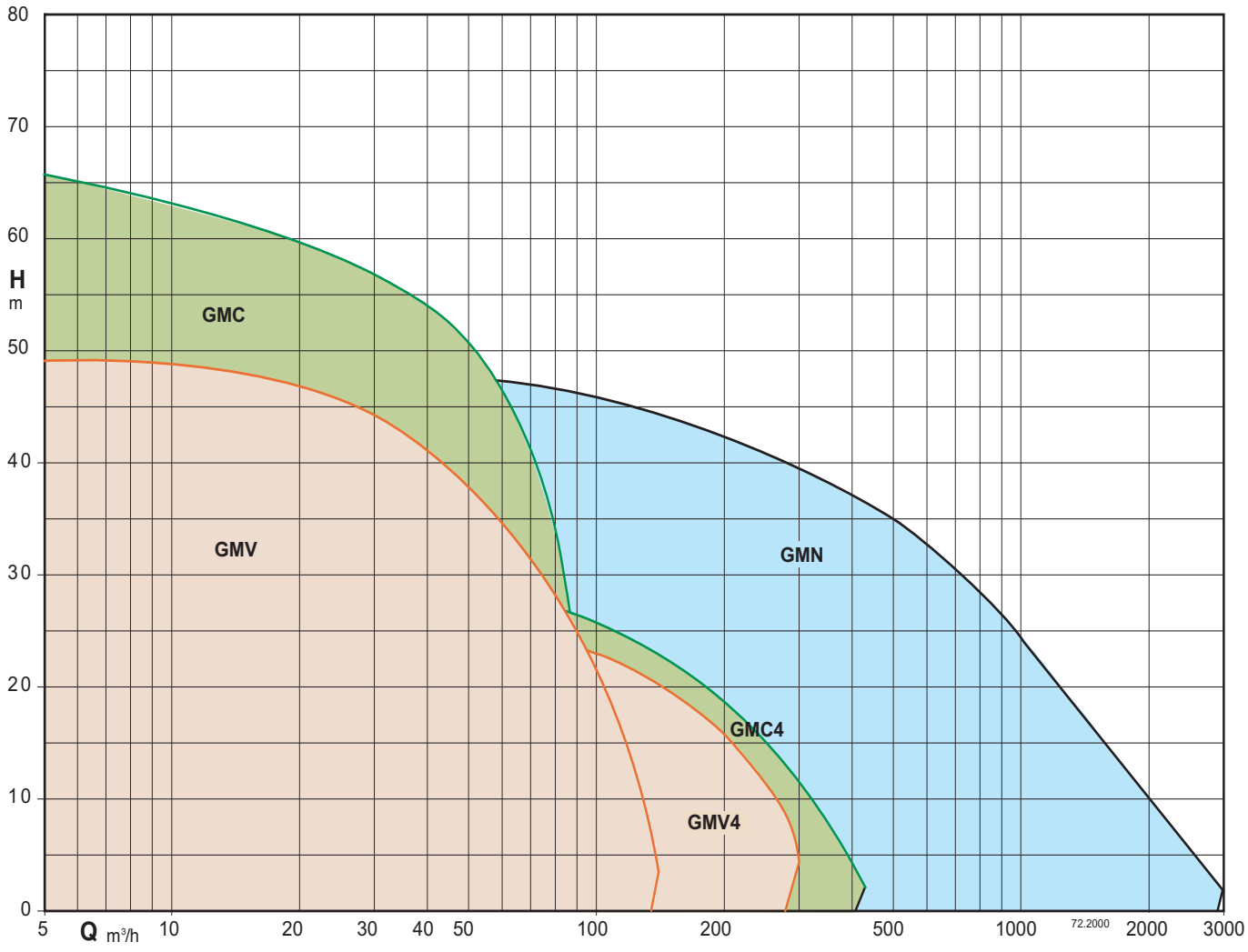
Explosion proof version on request.

Pump designation

B-**GM** **V** 4 M **50-80** **A**

- Version B = bronze, I = stainless steel, (no indication: cast iron version)
- Series
- Impeller type V = Vortex, C = Singlechannel, N = Channels, G = Grinder
- 4-6-8 poles motor (no indication: 2 poles)
- Singlephase M (no indication: threephase)
- Free passage
- Discharge diameter in mm
- Pump size

Coverage chart



Tolerances according to UNI EN ISO 9906:2012