07/2014

GM 60 Hz Submersible Pumps

35

calpeda®

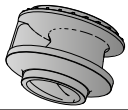
GMV

Submersible pumps with vortex impeller in cast iron EN-GJL-250

GMVS

Submersible pumps with vortex impeller in cast iron with polyurethane coating

GMC



Submersible pumps with single channel impeller in cast iron EN-GJL-250

GMN

Submersible pumps with channels impeller in cast iron EN-GJL-250

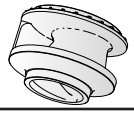
GMG

Submersible pumps with grinder in cast iron EN-GJL-250

I-GMV

Submersible pumps with vortex impeller in stainless steel AISI316

I-GMC



Submersible pumps with single channel impeller in stainless steel AISI316

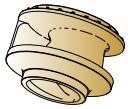
I-GMN

Submersible pumps with channels impeller in stainless steel AISI316

B-GMV

Submersible pumps with vortex impeller in Marine Bronze B10

B-GMC



Submersible pumps with single channel impeller in Marine Bronze B10

B-GMN

Submersible pumps with channels impeller in Marine Bronze B10

GM 60 Hz 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.

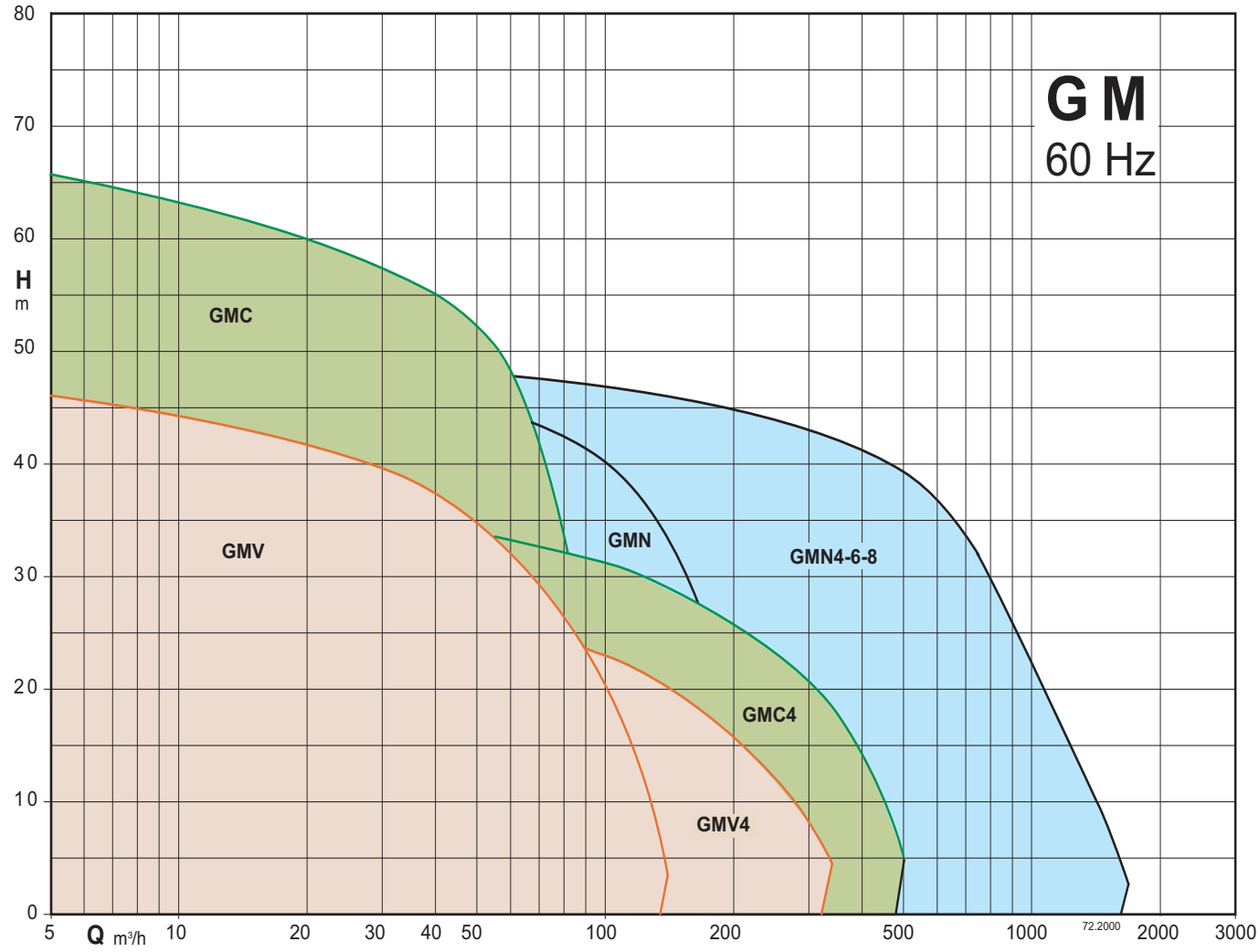
Explosion proof version on request.

Pump designation

B-**GM V** 4 M **50-80 A-60**

- 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
- Frequency 60 Hz

Coverage chart



Tolerances according to UNI EN ISO 9906:2012.

GMV 60 Hz

Submersible pumps
with vortex impeller

calpeda®

Construction

Submersible pumps with vortex impeller.
Twin mechanical seal with oil chamber.
Delivery connection DN 80-100-150.

Applications

Suitable to pump slurry and sewage waters with the presence of solid and filamentous parts in suspension, they are in particular pointed out for emptying sceptic tanks in the domestic, residential and industrial installations.
Solid passage diameter from 50 to 100 mm.

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

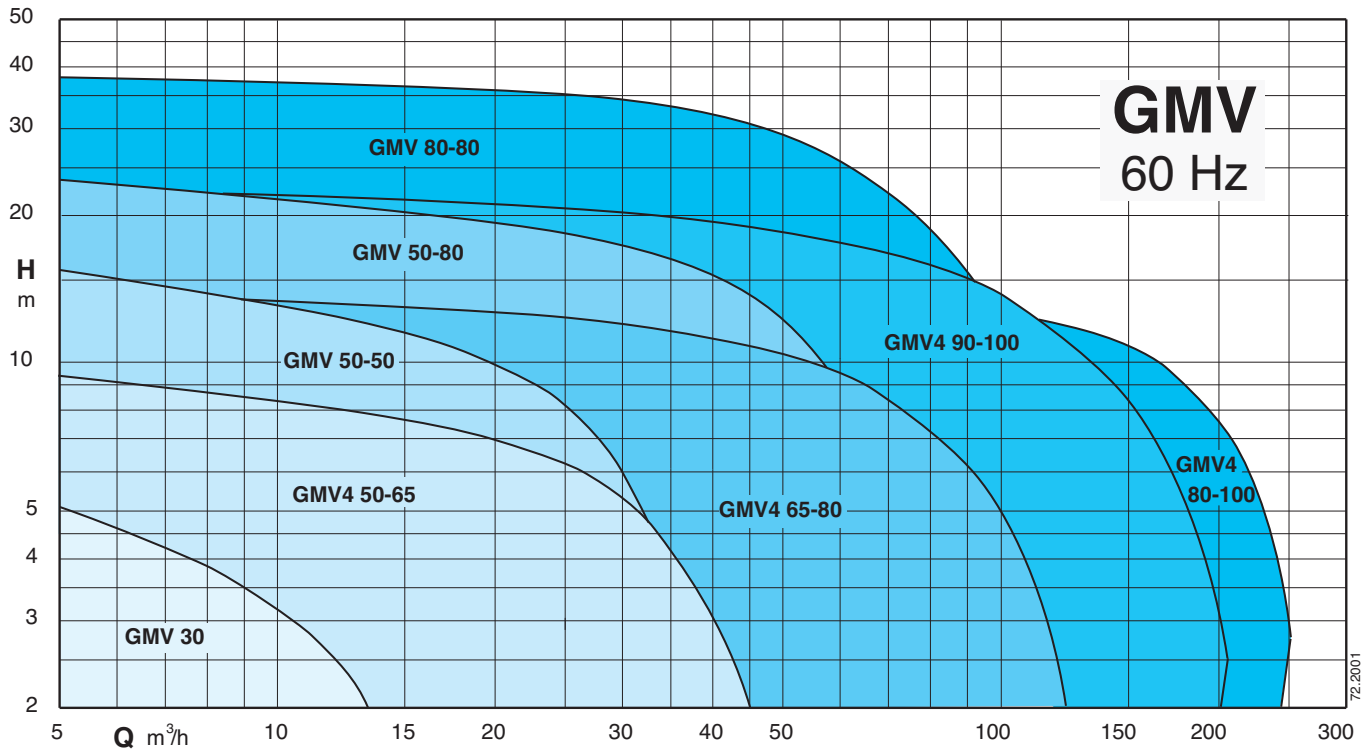
Main materials

Pump casing: cast iron EN-GJL-250
Impeller: cast iron EN-GJL-250+Ni
Motor casing: cast iron EN-GJL-250
Motor cover: cast iron EN-GJL-250
Shaft: stainless steel AISI 420B
Mechanical seal motor side: graphite/ceramic
Mechanical seal pump side: silicon carbite/silicon carbite

Motor

2 or 4 poles induction, 60Hz
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation Class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

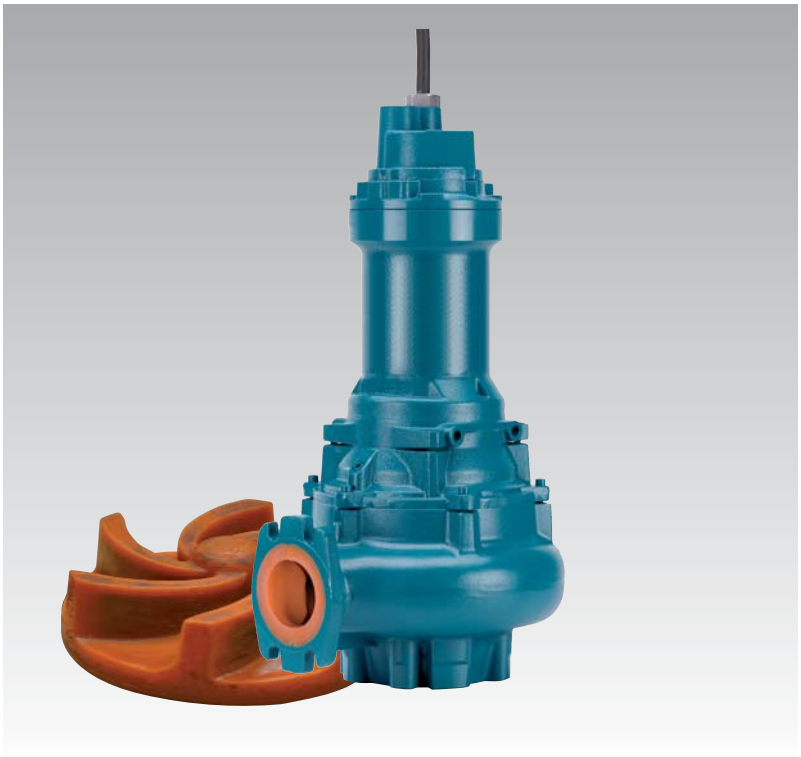
Coverage chart



GMVS 60 Hz

Submersible pumps vortex
with polyurethane coated hydraulic parts

calpeda®



Construction

Submersible pumps with vortex impeller
Impeller in Polyurethane with a stainless steel core - Pump casing in Cast iron EN-GJL-250, with polyurethane coating for parts subject to high wear.
Twin mechanical seal with oil chamber.
Delivery connection DN 80.

Applications

The pumps are designed to suit applications in plants with an high sand presence, in marble work companies, in the ceramic industry, crystals machining or industrial processes handling abrasives liquids.
Solid passage diameter from 35 mm.

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

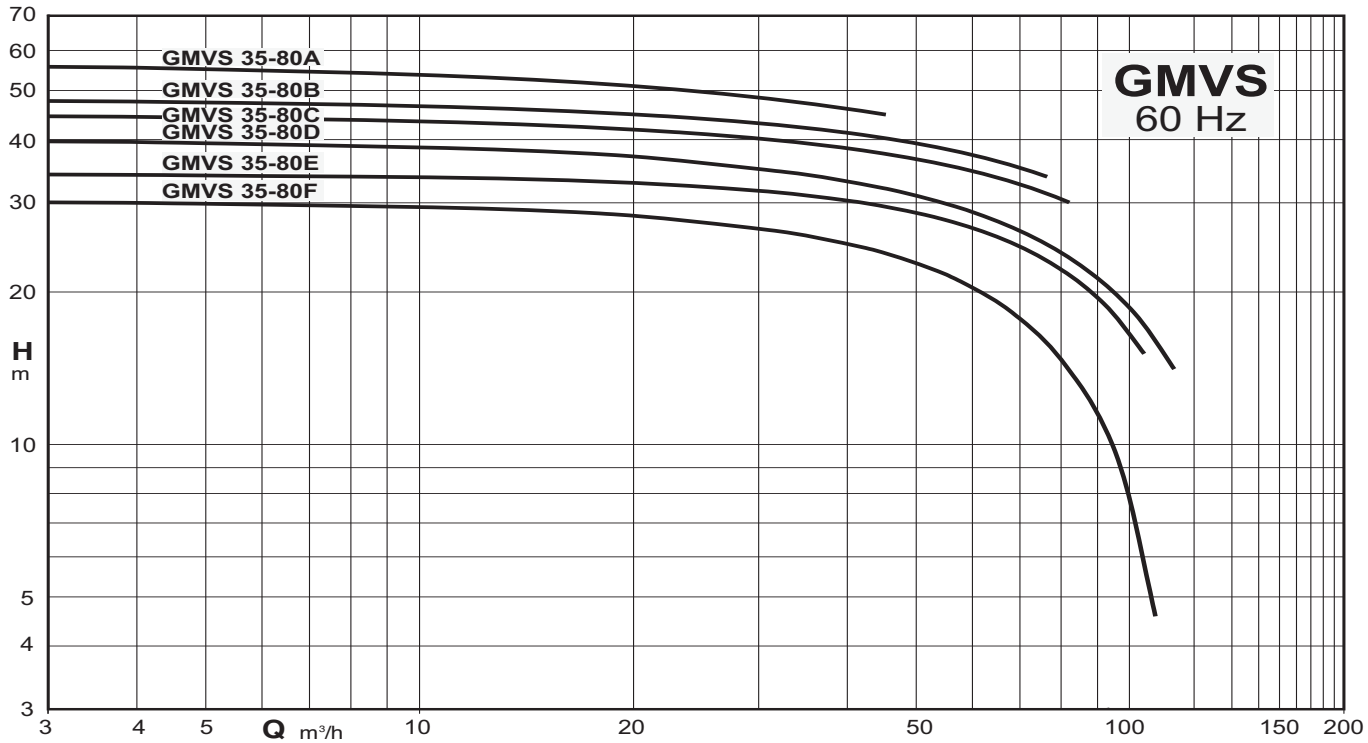
Main materials

Pump casing: cast iron EN-GJL-250 with polyurethane coating
Impeller: Polyurethane with a stainless steel core
Motor casing: cast iron EN-GJL-250
Motor cover: cast iron EN-GJL-250
Shaft: stainless steel AISI 420B
Mechanical seal motor side: graphite/ceramic
Mechanical seal pump side: silicon carbite/silicon carbite

Motor

2 or 4 poles induction, 60Hz
Three-phase version: 380/660V ± 10%.
Insulation Class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

Coverage chart



GMC 60 Hz

Submersible pumps
with single channel impeller

calpeda®

Construction

Submersible pumps with single channel impeller.
Twin mechanical seal with oil chamber (lip-seal motor side up to 1,4 kW).
Delivery connection DN 80-100-150

Applications

Suitable to pump slurry, sewage, waste water (non-corrosive).
In industrial and residential installations and drainag applications
Solid passage from 40 to 100mm

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

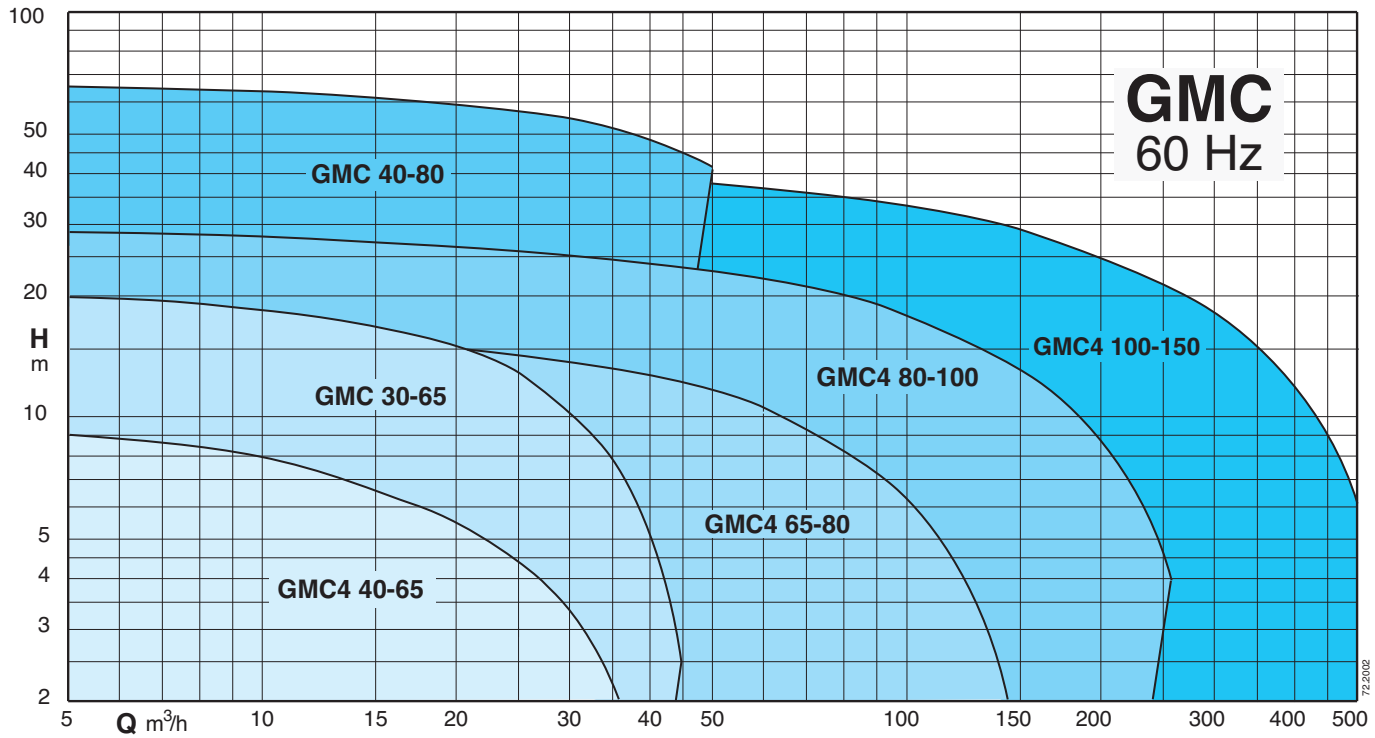
Main materials

Pump casing: cast iron EN-GJL-250 - Impeller: cast iron EN-GJL-250+Ni
Motor casing, Motor cover: cast iron EN-GJL-250
Motor shaft: stainless steel AISI 420B
Lip seal made of nitrile up to 1,4 kW
Mechanical seal motor side: graphite/ceramic over 1,4 kW
Mechanical seal pump side: silicon carbite/silicon carbite

Motor

2 or 4 poles induction, 60Hz
Single-phase version: 220V ± 10%, with float switch and built-in capacitor.
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

Coverage chart



GMN 60 Hz

Submersible pumps
with channels impeller

Construction

Submersible pumps with channels impeller.
Twin mechanical seal with oil chamber.
Delivery connection DN 65-80-100-150-200-250-300.

Applications

Suitable to pump slurry, sewage and waste water (non-corrosive) with solids in suspension.
For industrial and residential installations and general drainage applications.
They are ideal for applications with smaller solids.
Solid passage from 30 to 140 mm

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

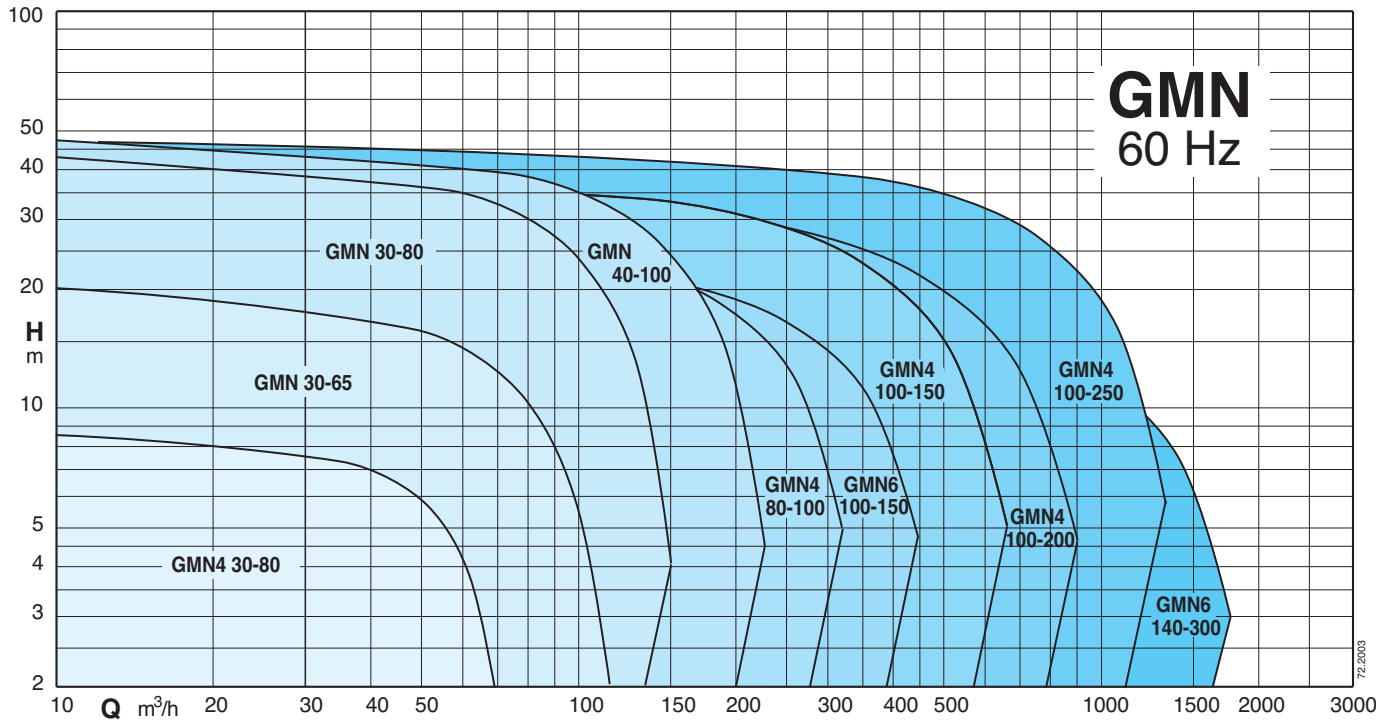
Main materials

Pump casing: cast iron EN-GJL-250
Impeller: cast iron EN-GJL-250+Ni
Motor casing: cast iron EN-GJL-250
Motor cover: cast iron EN-GJL-250
Shaft: stainless steel AISI 420B
Mechanical seal motor side: graphite/ceramic
Mechanical seal pump side: silicon carbide/silicon carbide

Motor

2-4-6 or 8 poles induction, 60Hz
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

Coverage chart



GMG 60 Hz

Submersible pumps
with high power grinder

Construction

Submersible pumps with high power grinder.
Twin mechanical seal with oil chamber (lip-seal motor side up to 1,6 kW).
Delivery connection DN 40.

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 from 6 and 7 mm

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

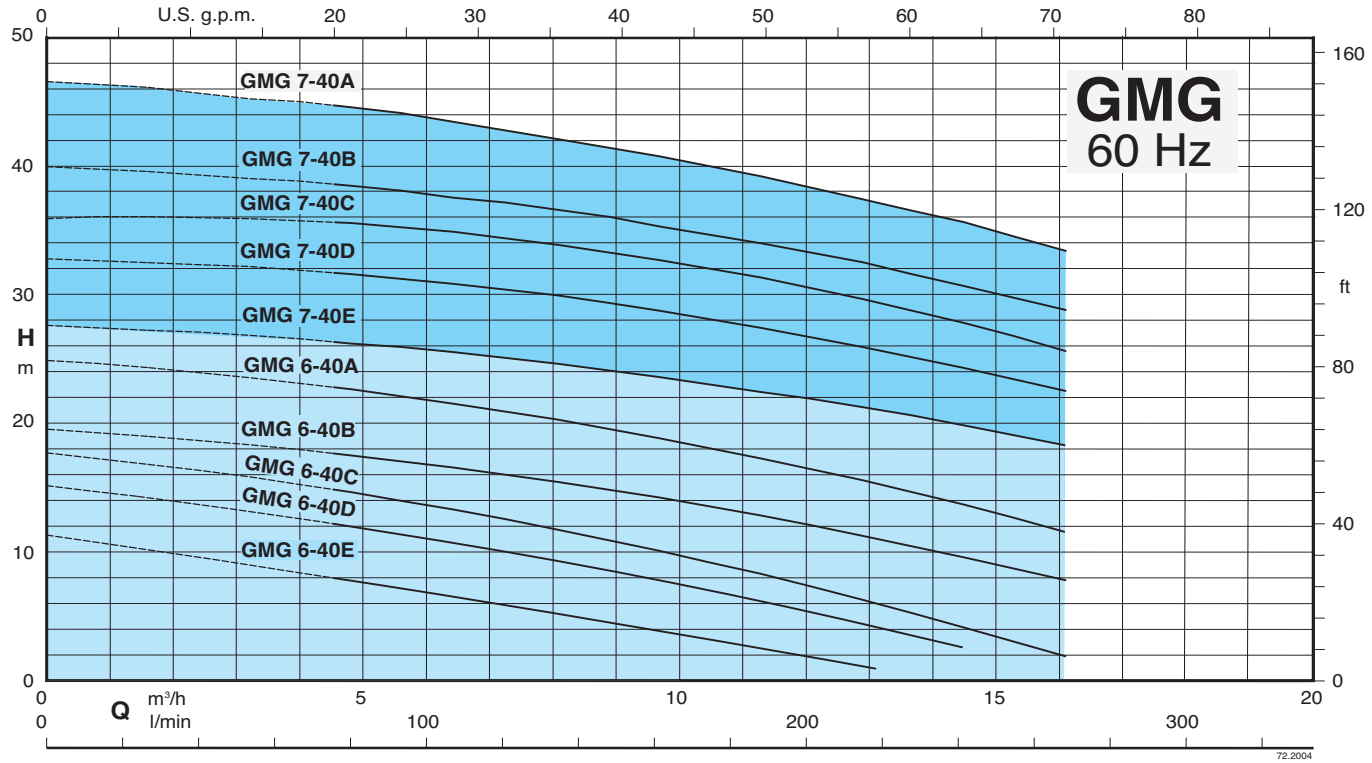
Main materials

Pump casing: cast iron EN-GJL-250
Motor casing: cast iron EN-GJL-250
Motor cover: cast iron EN-GJL-250
Impeller: cast iron GS 400
Shaft : stainless steel AISI 420B
Lip seal made of nitrile up to 1,6 kW
Mechanical seal motor side: graphite/ceramic to 1,6 kW
Mechanical seal pump side: silicon carbide/silicon carbide

Motor

2 poles induction, 60Hz
Single-phase version: 220V ± 10%, with float switch and control box with thermal protection and starting capacitors.
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

Coverage chart



I-GM 60 Hz Submersible pumps AISI 316

Construction

Submersible pumps in **AISI 316** stainless steel.
I-GMV with free-flow (vortex) impeller
I-GMC with single-channel impeller
I-GMN with channels impeller
Twin mechanical seal with oil chamber (lip-seal motor side up to 2,4 kW 2 poles).
Delivery connection DN 50-65-80-100-150

Applications

Suitable to pump aggressive and corrosive liquids, particularly to drain waste water in industrial and chemical process plants.
Solid passage from 30 to 100 mm

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

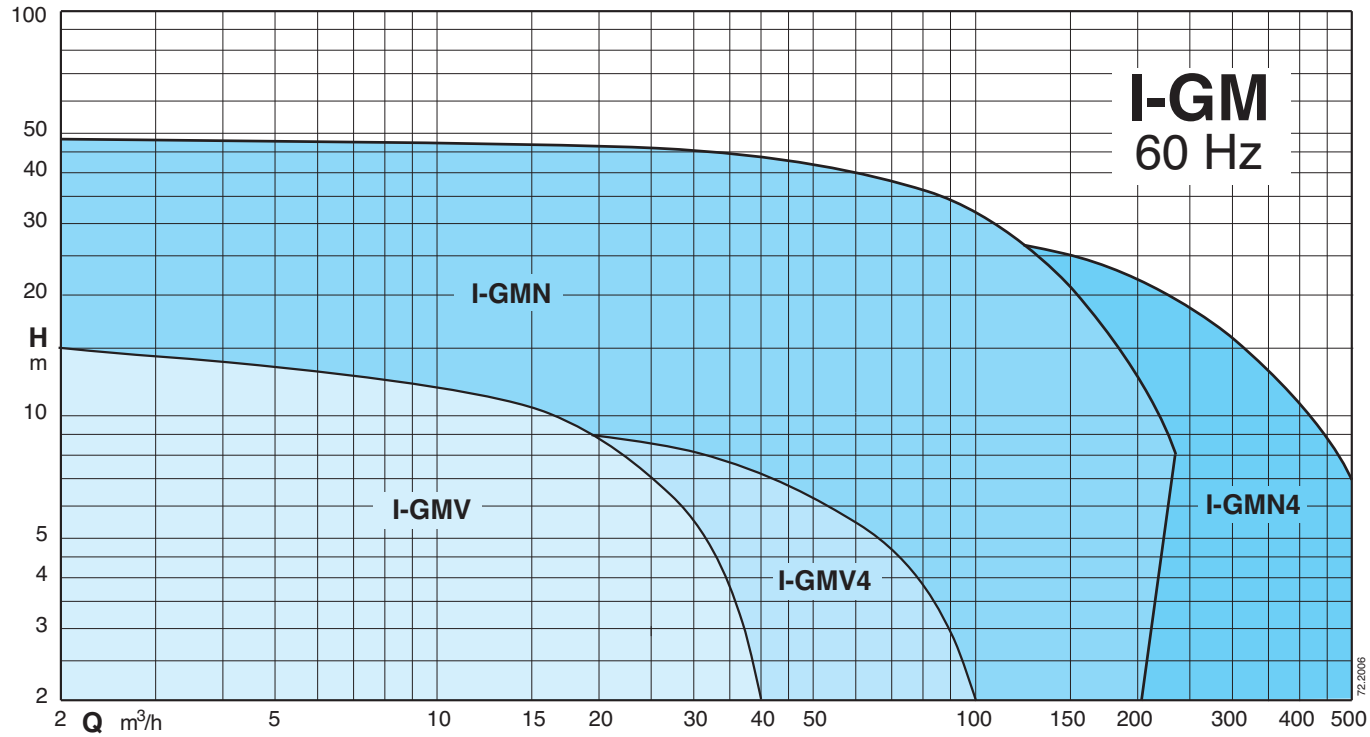
Main materials

Pump casing: stainless steel AISI 316
Motor casing: stainless steel AISI 316
Motor cover: stainless steel AISI 316
Impeller: stainless steel AISI 316
Shaft: stainless steel AISI 316L
Screws: stainless steel AISI 316
Mechanical seal motor side: graphite/ceramic/FPM (lip-seal made of nitrile up to 2,4 kW 2 poles).
Mechanical seal pump side: silicon carbide/silicon carbide/FPM

Motor

2 or 4 poles induction, 60Hz
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

Coverage chart



B-GM 60 Hz Submersible pumps B 10

Construction

Submersible pumps, **B 10 bronze marine** version.
B-GMV with free-flow (vortex) impeller
B-GMC with single-channel impeller
B-GMN with channels impeller
Twin mechanical seal with oil chamber (lip-seal motor side up to 2,4 kW 2 poles).
Delivery connection DN 50-65-80

Applications

Suitable to pump industrial waste water in chemical, and process industries, agricultural and marine areas.
Solid passage from 30 to 50 mm

Operating conditions

Liquid temperature up to 40 °C.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty (with pump immerged at minimum level).

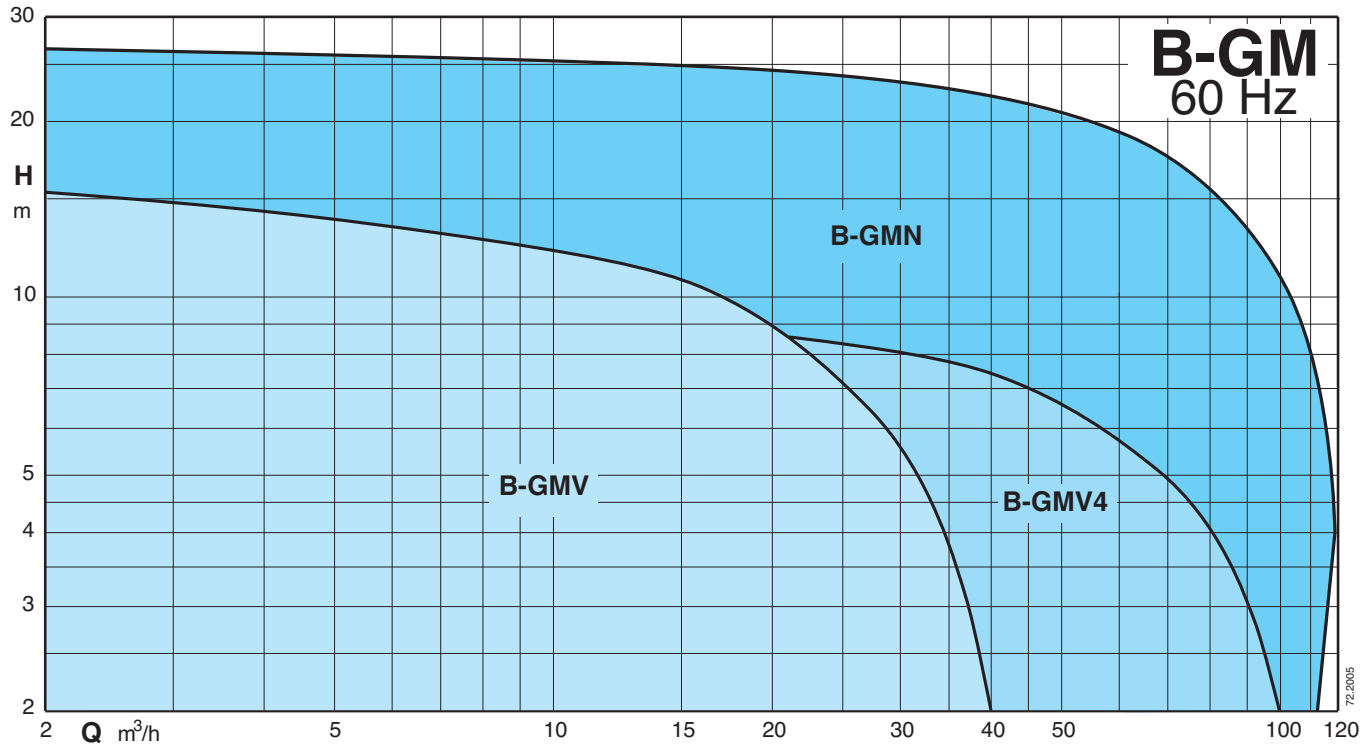
Main materials

Pump casing, Motor casing, Motor cover: B 10 bronze marine
Impeller: stainless steel AISI 316
Motor shaft: stainless steel AISI 316L
Screws: stainless steel AISI 316
Mechanical seal motor side: graphite/ceramic/FPM (lip-seal made of nitrile up to 2,4 kW 2 poles).
Mechanical seal pump side: silicon carbide/silicon carbide/FPM

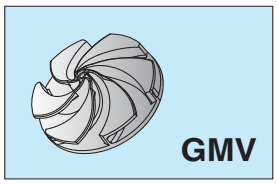
Motor

2 or 4 poles induction, 60Hz
Three-phase version: 380V ± 10%, up to 3,2 kW
380/660V ± 10%, over 3,2 kW
Insulation class: H
Protection degree: IP 68
N° of starting x hour: max 15 with regular intervals
Cable: H07RN-F, length 10 m
Other models: contact our sale office

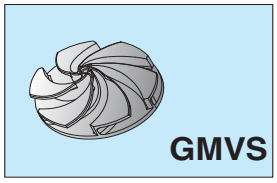
Coverage chart



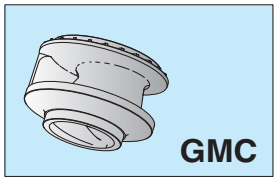
THE IMPELLERS



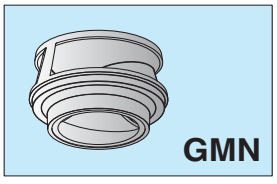
Vortex impeller suitable for pumping liquids containing large solids and/or fibrous materials.
Applications: urban sewerage systems, animal breeding plants.



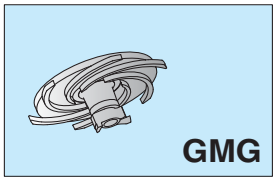
Sand Vortex Water Impeller in Polyurethane with a stainless steel core.
Applications: in plants with an high sand presence, in marble work companies, in the ceramic industry, crystals machining or industrial processes where there's presence of abrasives liquids.



Single channel impeller, for liquids containing fibrous materials and/or suspended solids.
Applications: purification plants, tanneries, animal breeding plants.

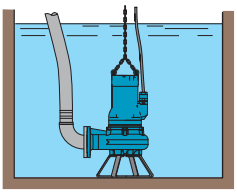


Closed multi-channel impeller, for clean liquids or light solids without filamentous materials.
Applications: large drainage systems, purification plants.

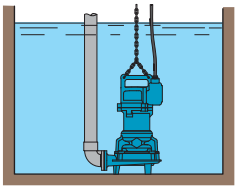


Multi-blade suction impeller with grinder constructed in stainless steel AISI 440, particularly suitable as a grinder for paper or textile materials.
Applications: clearance of waste waters originating from service stations, residential communities, camping sites, etc..

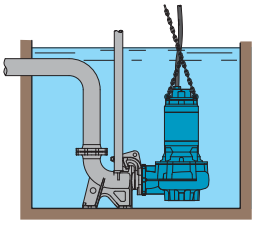
THE STANDARD INSTALLATIONS



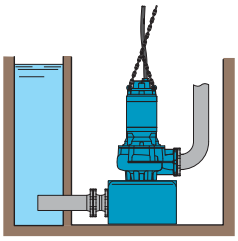
A Mobile and emergency installation with x-foot support



B Free installation and threated elbow

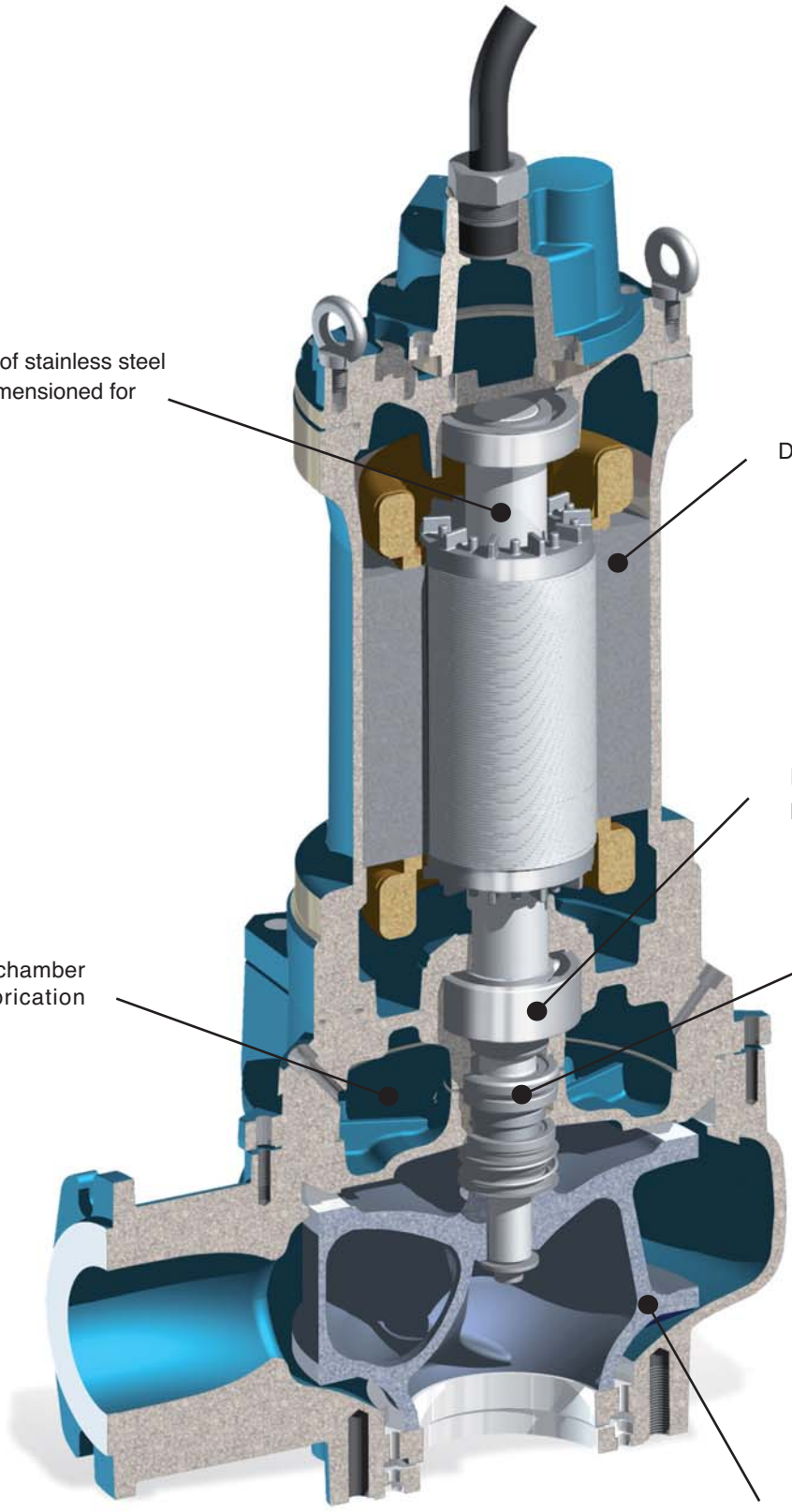


C Fixed installation with automatic coupling feet and guide rails.



D Dry pit installation, with x-foot rest and suction bend.
Pump equipped with cooling jacket.

Features



Motor shaft made of stainless steel AISI 420B over dimensioned for heavy duty

Dry motor for increased safety

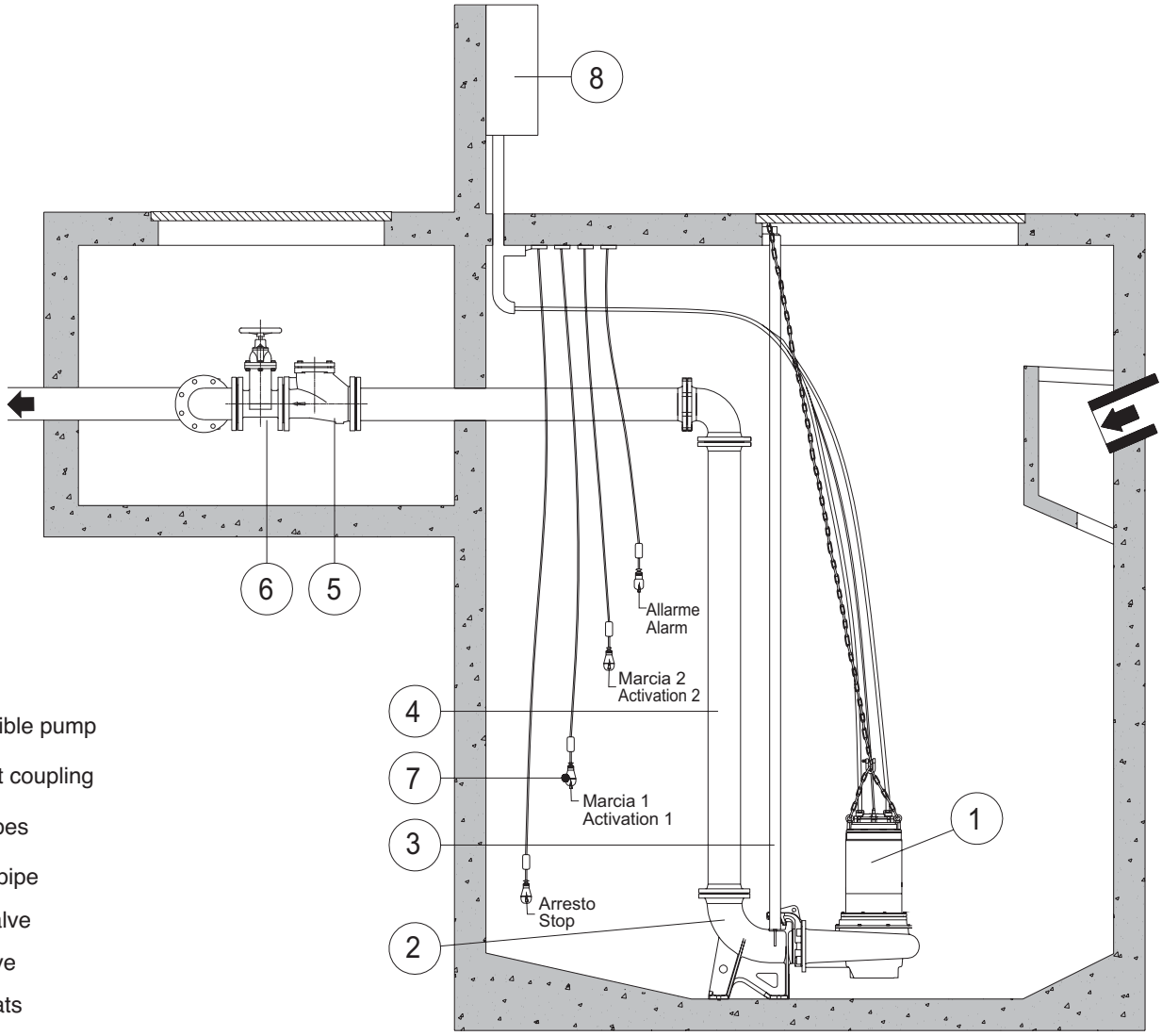
Bearings over dimensioned for heavy duty

Intermediate oil chamber for a correct lubrication and cooling.

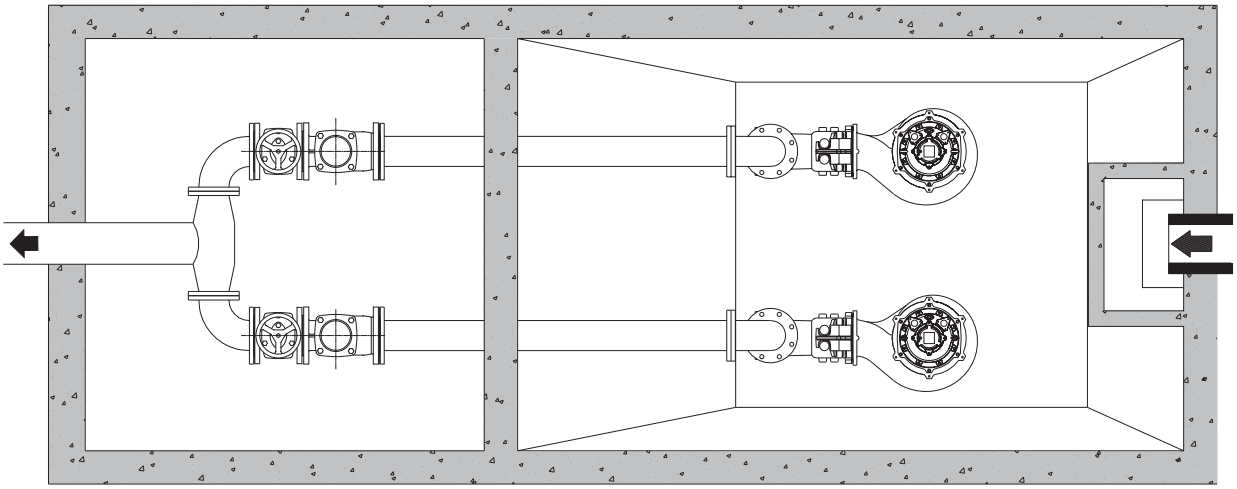
Twin mechanical seal

Impellers and volutes are developed to optimize the hydraulic efficiency and provide a clear exit for filamentous and solid materials.

Installation with duck foot coupling



1 Submersible pump
2 Duck foot coupling
3 Guide pipes
4 Delivery pipe
5 Check valve
6 Gate valve
7 Level floats
8 Control box



Accessories

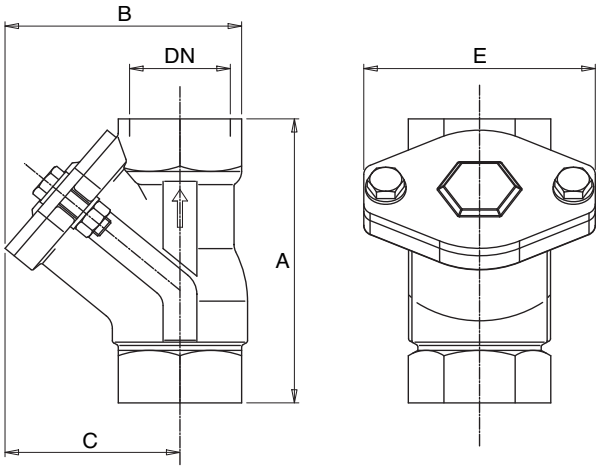
Non-return ball valves

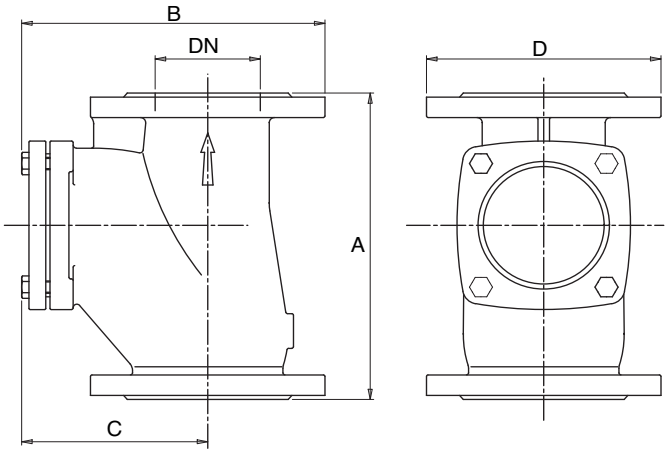
Construction
Non-return self-cleaning ball valves, suitable for dirty and viscous liquids, sewage water.

Operating conditions
Working temperature from -10°C up to +80°C
Rated pressure: 10 bar
Vertical or horizontal installation

Materials
Valve body: Cast iron EN-GJL-250
Cover: Cast iron EN-GJL-250
Ball: Resin for threaded VNRP
Resin + nitril for VNRP DN 50-100
Cast iron + nitril for VNRP DN 125-250
Screws: SS AISI 304
Joint: nitril

Dimensions





TYPE	DN mm	mm				Weight kg
		A	B	C	E	
VNRP 1 1/4	1“ 1/4	132	111	83	108	1,9
VNRP 1 1/2	1“ 1/2	145	122	90	120	2,4
VNRP 2	2”	173	145	110	135	3,6
VNRP 2 1/2	2“ 1/2	200	175	130	155	6,5

TYPE	DN mm	mm				Weight kg
		A	B	C	D	
VNRP 50	50	182	192	120	165	9,5
VNRP 65	65	204	215	124	185	14
VNRP 80	80	260	250	150	200	19,5
VNRP 100	100	300	290	180	220	23,5
VNRP 125	125	350	340	215	250	36
VNRP 150	150	400	388	245	285	38,5
VNRP 200	200	500	480	310	340	69