

50 Hz



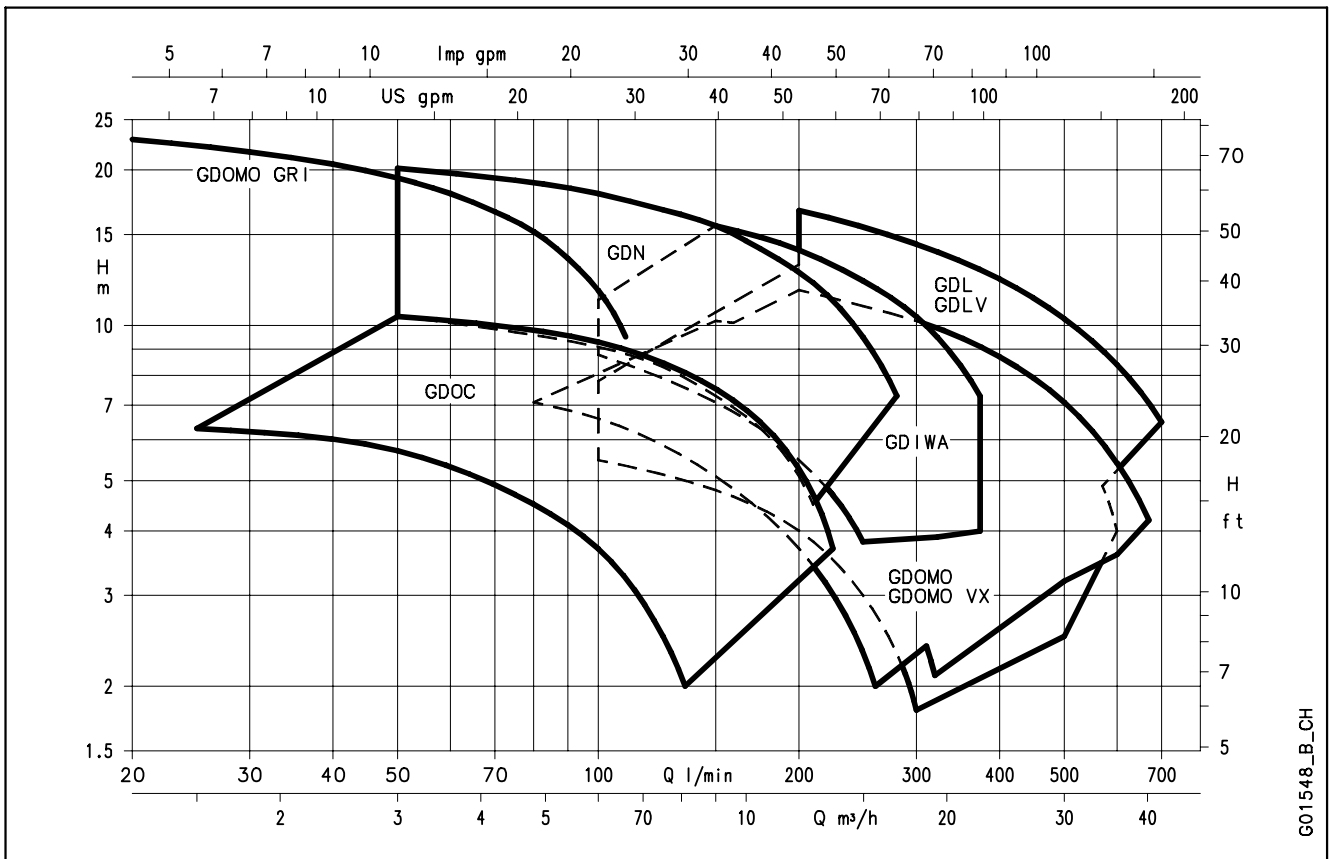
GDOC - GDIWA - GDOMO GDOMO GRI - GDN - GDL Series

DRAINAGE AND SEWAGE
ELECTRIC PUMPS

Cod. G91004441 Rev.B Ed.08/2012

GOULDS
WATER TECHNOLOGY
a xylem brand

GDOC - GDIWA - GDOMO - GDOMO GRI - GDN - GDL SERIES
HYDRAULIC PERFORMANCE RANGE AT 50 Hz



CONTENTS

GDOC Series Specifications	5
GDOC Series List of models and Table of Materials	7
GDOC Series Operating Characteristics	8
GDOC Series Dimensions and Weights	9
GDIWA Series Specifications	11
GDIWA Series List of models and Table of Materials	13
GDIWA Series Mechanical seal	14
GDIWA Series Operating Characteristics	15
GDIWA Series Dimensions and Weights	16
GDOMO Series Specifications	19
GDOMO GRI Series Specifications	20
GDOMO Series List of models and Table of Materials	22
GDOMO GRI Series List of models and Table of Materials	23
GDOMO - GDOMO GRI Series Mechanical seal	24
GDOMO Series Operating Characteristics	25
GDOMO GRI Series Operating Characteristics	27

CONTENTS

GDOMO Series Dimensions and Weights	28
GDOMO GRI Series Dimensions and Weights	31
GDN Series Specifications	33
GDN Series List of models and Table of Materials	35
GDN Series Mechanical seal	36
GDN Series Operating Characteristics	37
GDN Series Dimensions and Weights	38
GDL Series Specifications	39
GDL Series List of models and Table of Materials	41
GDL Series Mechanical seal	43
GDL Series Operating Characteristics	45
GDL Series Dimensions and Weights	47
Technical Appendix	49

Submersible Electric Pumps for drainage of clean and dirty water

GDOC Series



GDOC pumps are versatile, corrosion-resistant and compact. Three basic versions are available with 0,25 to 0,55 kW power. A GDOC 7VX version with Vortex impeller is available.

- The **GDOC7** pump features a flow rate up to **225 l/min**, head up to **11 m**, and passes **suspended solids up to 10 mm** in diameter.
- The **GDOC7VX** pump features a flow rate up to **175 l/min**, head up to **7 m**, and can handle liquids with **suspended solids up to 20 mm** in diameter.

• Versions:

- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles.
380-415V, 50Hz 2 poles.

• The single-phase versions feature:

- **pre-assembled float switch** for automatic pump operation.
- **built-in capacitor**.
- **thermal overload protection** to stop pump supply in case of overheating.
- SG versions (single-phase without float switch), GT versions (single-phase with pre-assembled tube float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.
- A "**shallow-suction device**", that can be mounted on both the GDOC3 and GDOC7 models, is available on request. It ensures the complete drainage of flooded floors (down to 3 mm from floor).

APPLICATIONS

- Emptying of residential sump pits, rainwater tanks or laundry drainage.
- Garden and lawn irrigation, with suction from rainwater tanks.
- Emergency draining of flooded basements and garages.
- Transfer of water from tanks and basins.

SPECIFICATIONS

- **Maximum liquid temperature: 40°C.**
- **Dry motor** cooled by the pumped liquid.
- **Power cord:**
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 130°C (B).**
- **IPX8 protection.**
- **Maximum immersion depth: 5 m.**
- The **GDOC3** pump features a flow rate up to **135 l/min**, head up to **7 m**, and passes **suspended solids up to 10 mm** in diameter. Only available in single-phase version.

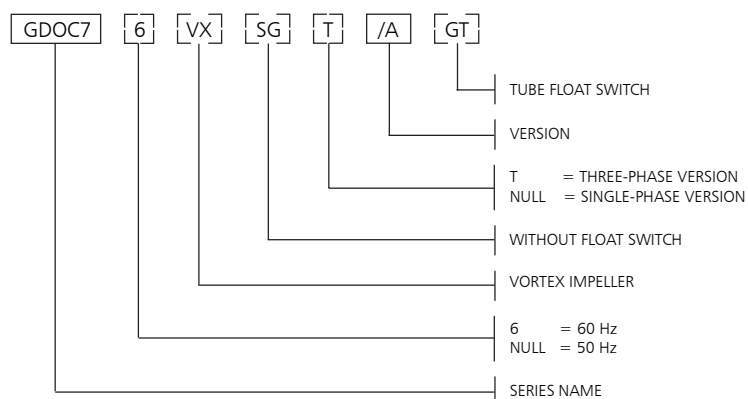
SOS KIT

The **SOS Kit** is available, for quick emergency dewatering of flooded basements, garages and residential buildings.

The kit is composed of:

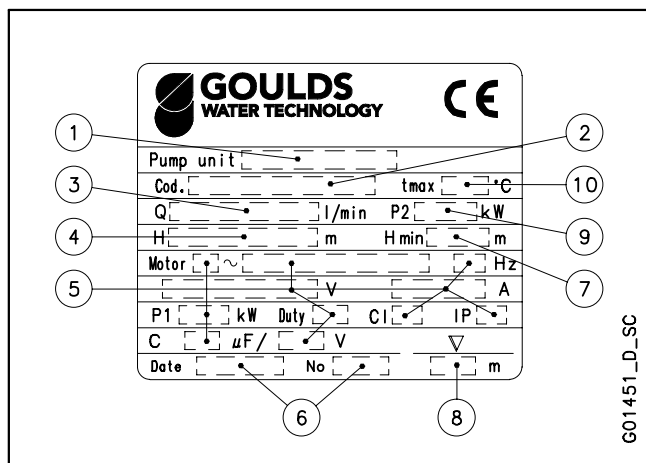
- a single-phase **GDOC3** electric pump, equipped with float switch, 10 meters power cord with plug and a quick coupling already mounted for rapid hose connection.
- 6 meters long **flexible hose**, complete with quick coupling already mounted for rapid pump connection.
- **plastic box** that can be used to store the kit on a shelf when not in use, or as a strainer during operation.

GDOC SERIES IDENTIFICATION CODE



EXAMPLE : GDOC 7VX/A
GDOC 7 Series Electric pump, 50 Hz version,
Vortex impeller, single-phase, /A version.

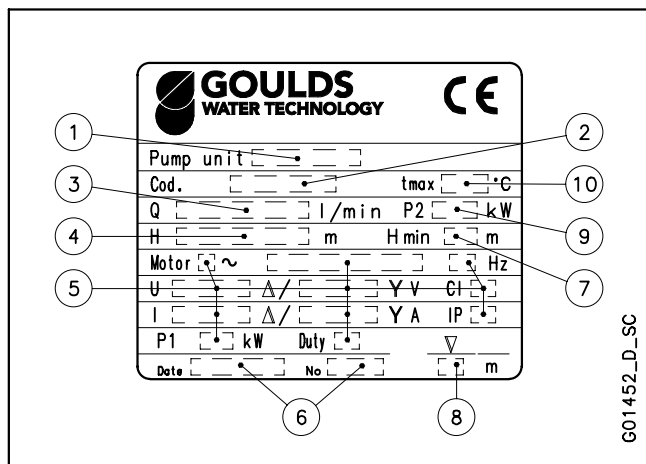
SINGLE-PHASE RATING PLATE



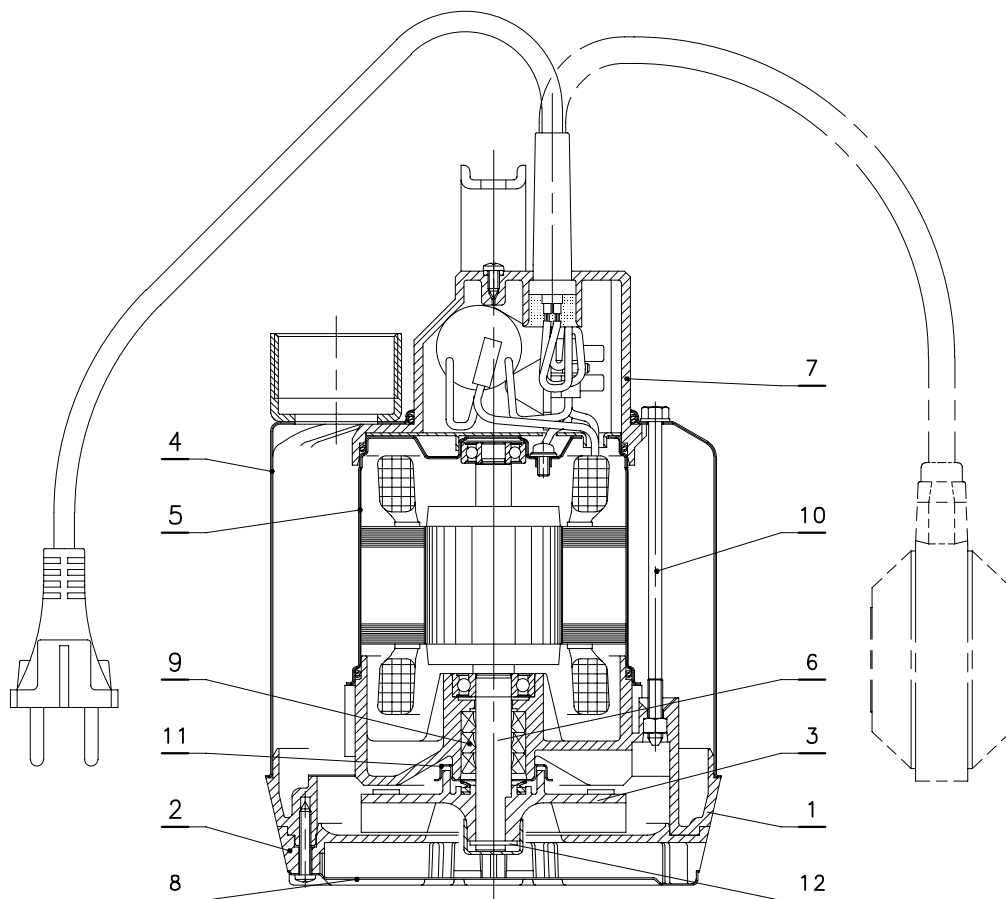
LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE



GDOC SERIES LIST OF MODELS AND TABLE OF MATERIALS

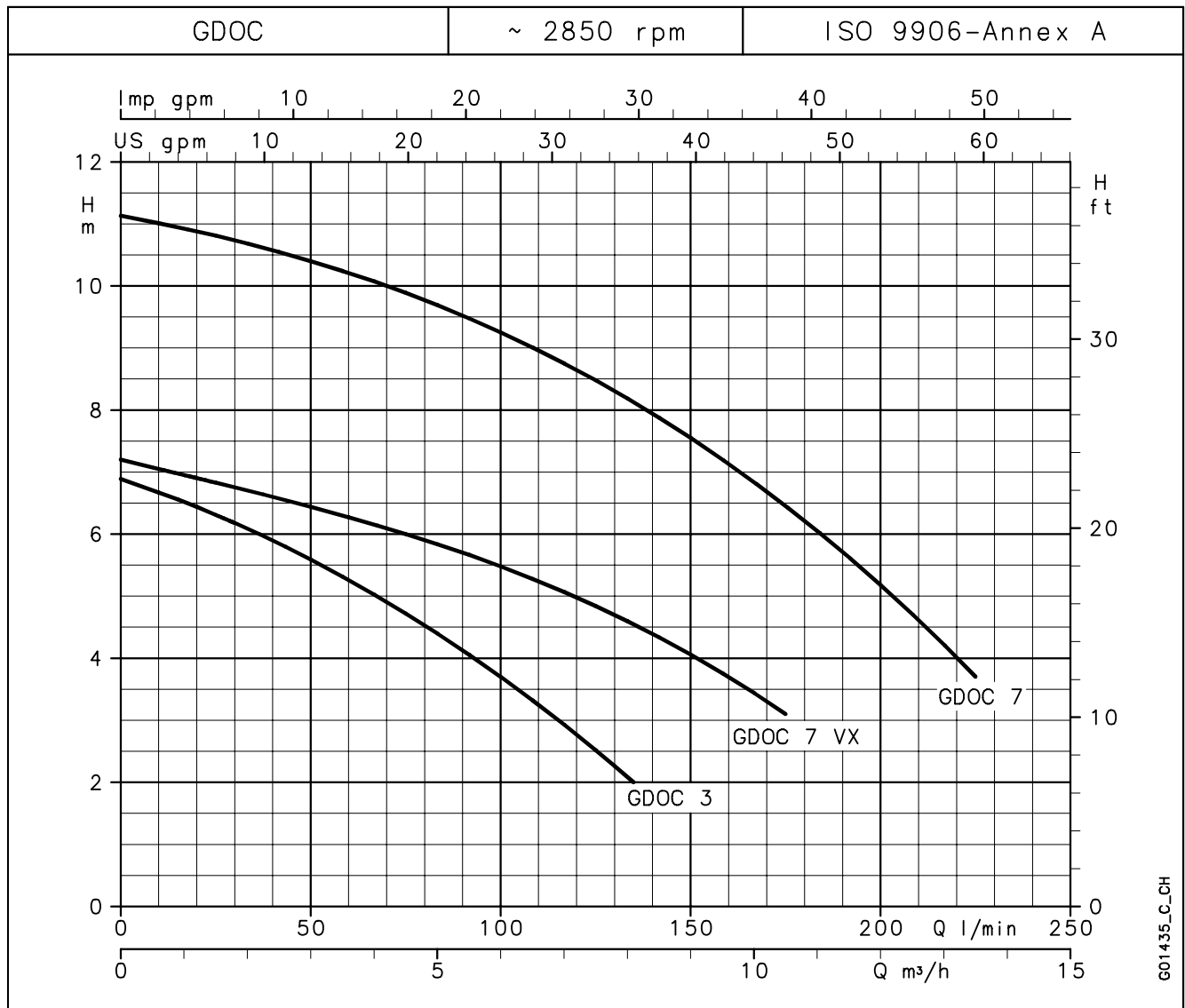


01430_A_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	PPO resin + 20 % GF		
2	Suction strainer	PPO resin + 20 % GF		
3	Impeller GDOC3	PPO resin + 20 % GF		
	Impeller GDOC7 - GDOC7VX	PA 66 + 30 % GF		
4	External case	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Internal motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Shaft	Stainless steel	EN 10088-1-X12CrS13 (1.4005)	AISI 416
7	Head	PPO resin + 20 % GF		
8	Lower cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
9	Elastomers	NBR		
10	Tie-rod and screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Double wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
12	Impeller fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

gdoc-en_b_tm

GDOC SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY									
			l/min	0	25	50	75	100	125	135	175	225
			m³/h	0	1,5	3	4,5	6	7,5	8,1	10,5	13,5
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER									
GDOC3	0,25	0,33	6,9	6,3	5,6	4,7	3,7	2,5	2,0			
GDOC7(T)	0,55	0,75	11,1	10,8	10,4	9,9	9,3	8,5	8,1	6,5	3,7	
GDOC7VX(T)	0,55	0,75	7,2	6,8	6,4	6,0	5,5	4,8	4,5	3,1		

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

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ELECTRICAL DATA TABLE

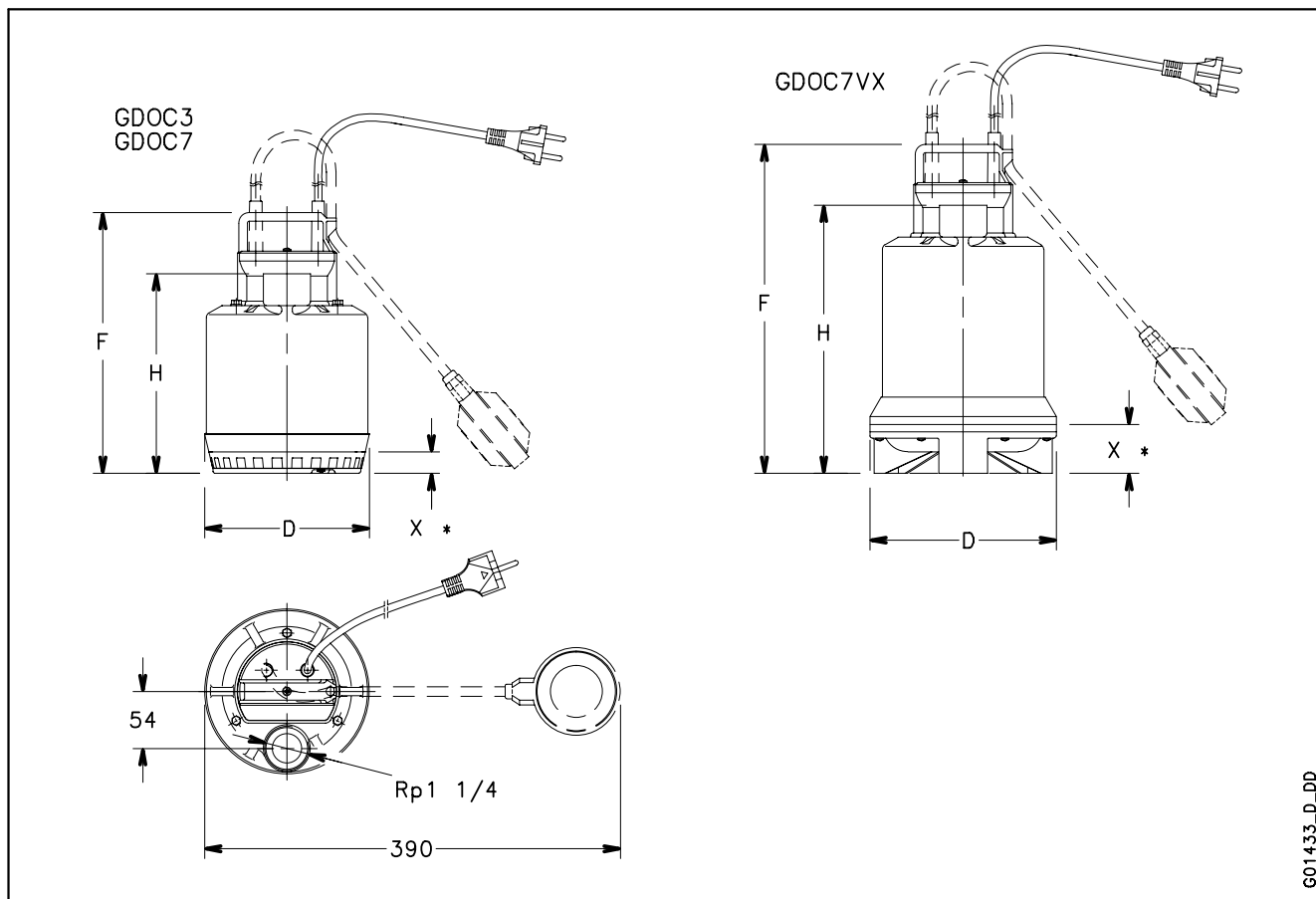
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE		220-240 V	
	kW	A	$\mu\text{F} / 450 \text{ V}$
GDOC 3	0,31	1,43	6,3
GDOC 7	0,78	3,47	16
GDOC 7VX	0,66	2,96	16

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	A	A
-	-	-	-
GDOC 7T	0,79	2,82	1,63
GDOC 7VXT	0,66	2,68	1,55

*Maximum values within operating range

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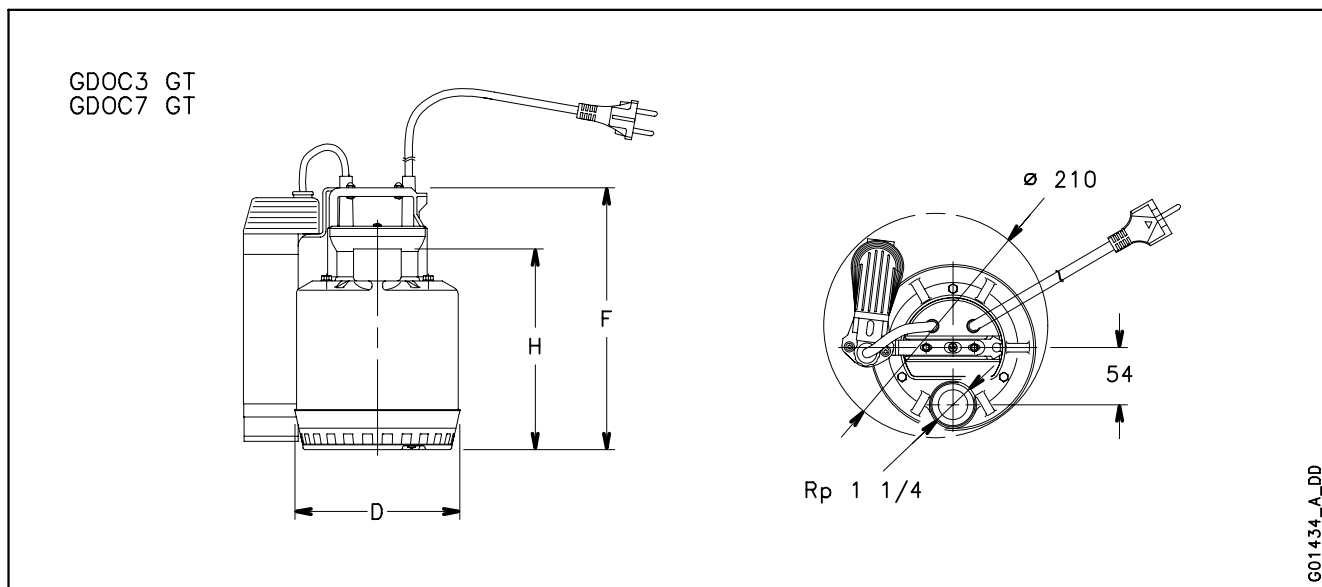
GDOC SERIES DIMENSIONS AND WEIGHTS



PUMP TYPE		DIMENSIONS (mm)				WEIGHT
		F	H	D	X*	kg
GDOC3	GDOC3 GT	245	188	155	20	4
GDOC7(T)	GDOC7(T) GT	285	228	155	20	6
GDOC7VX(T)	-	310	252	175	45	6

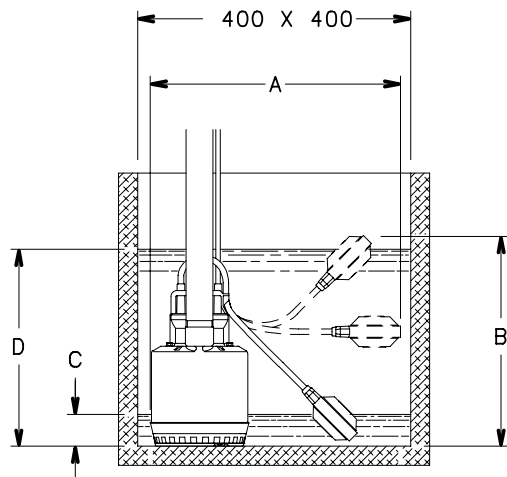
* Minimum liquid level.

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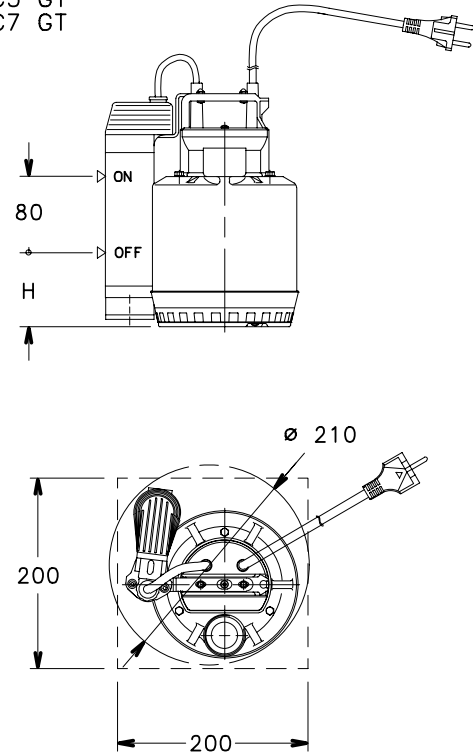
GDOC SERIES INSTALLATION EXAMPLES

GDOC3
GDOC7
GDOC7VX



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GDOC3 GT
GDOC7 GT



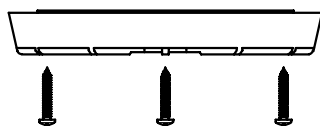
G01445_B_DD

PUMP TYPE		DIMENSIONS (mm)		MINIMUM WATER LEVEL	MAXIMUM WATER LEVEL	MINIMUM WATER LEVEL
		A	B	C*	D*	H
GDOC3	GDOC3 GT	390	330	50	310	90
GDOC7	GDOC7 GT	390	370	90	350	90
GDOC7VX	-	390	395	115	375	-

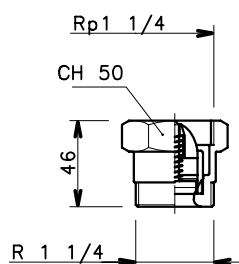
* Indicative values depending on the float switch adjustment.

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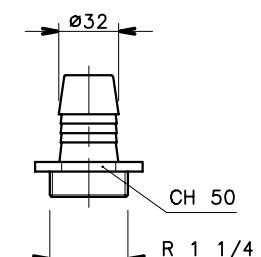
ACCESSORIES



Shallow suction device (3 mm)



VRD check valve



RPG pipe fitting

01448_A_DD

Submersible Electric Pumps for drainage of clean and slightly dirty water

GDIWA Series



Submersible pumps for clean and slightly dirty water manufactured in AISI 304 stainless steel. Head up to 20 metres, delivery up to 420 l/min (25,2 m³/h). Four basic models with 0,55 to 1,5 kW.

DRIVELUB SEAL SYSTEM.

Diffuser plate coated with polyurethane for the maximum resistance to abrasion.

APPLICATIONS

- Draining of cellars, garages, basements.
- Draining of construction sites.
- Emptying of tanks and reservoirs.
- Lawn and garden irrigation.
- Pumping of domestic wastewater washing machines, showers, sinks.
- Emptying of tanks in industrial and ecological applications.

SPECIFICATIONS

- **Maximum liquid temperature: 50°C.**
- **Open impeller.**
- Minimum level of pumped liquid: **25 mm.**
- **Maximum dimensions of suspended solids: 8 mm.**
- **Dry motor** cooled by the pumped liquid.
- **Power cord: H07RN-F, 10 m.**
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 155°C (F).**
- **IPX8 protection.**
- **Maximum immersion depth: 7 m.**

• Versions:

- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.

• Motor power:

- Single-phase: **0,55 to 1,1 kW.**
- Three-phase: **0,55 to 1,5 kW.**

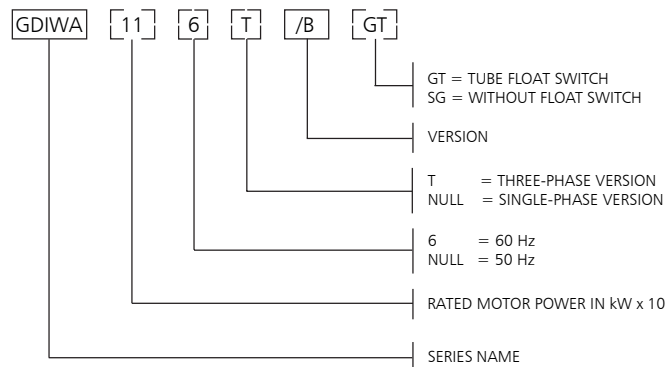
• The single-phase versions feature:

- **pre-assembled float switch** for automatic pump operation.
- **built-in capacitor.**
- **thermal overload protection** to stop pump supply in case of overheating.
- SG versions (single-phase without float switch), GT versions (single-phase with pre-assembled tube float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.

DRIVELUB SEAL SYSTEM

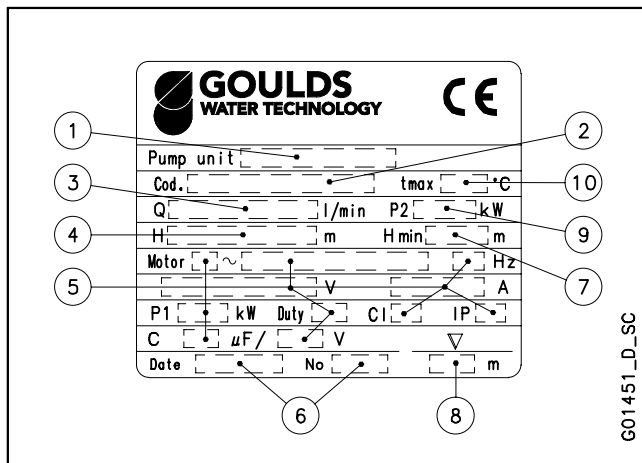
- Watertight electric motor protected by multiple seal system with **oil chamber.**
- A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuously lubricated by the **DRIVELUB system**, provide an extreme barrier against infiltration.

GDIWA SERIES IDENTIFICATION CODE



EXAMPLE : GDIWA 11/B
GDIWA Series Electric pump, rated motor power 1,1 kW,
50 Hz version, single-phase, /B version.

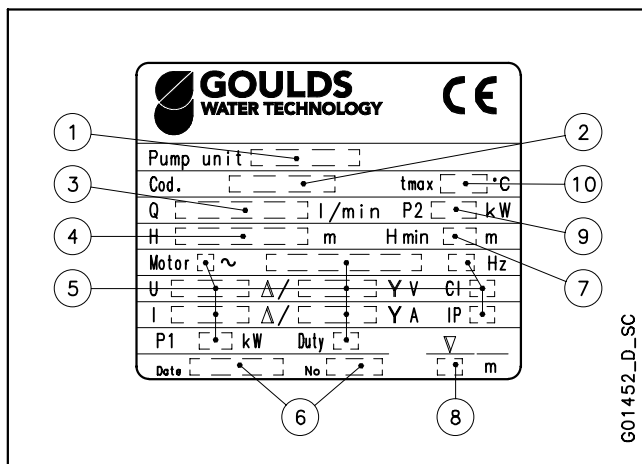
SINGLE-PHASE RATING PLATE



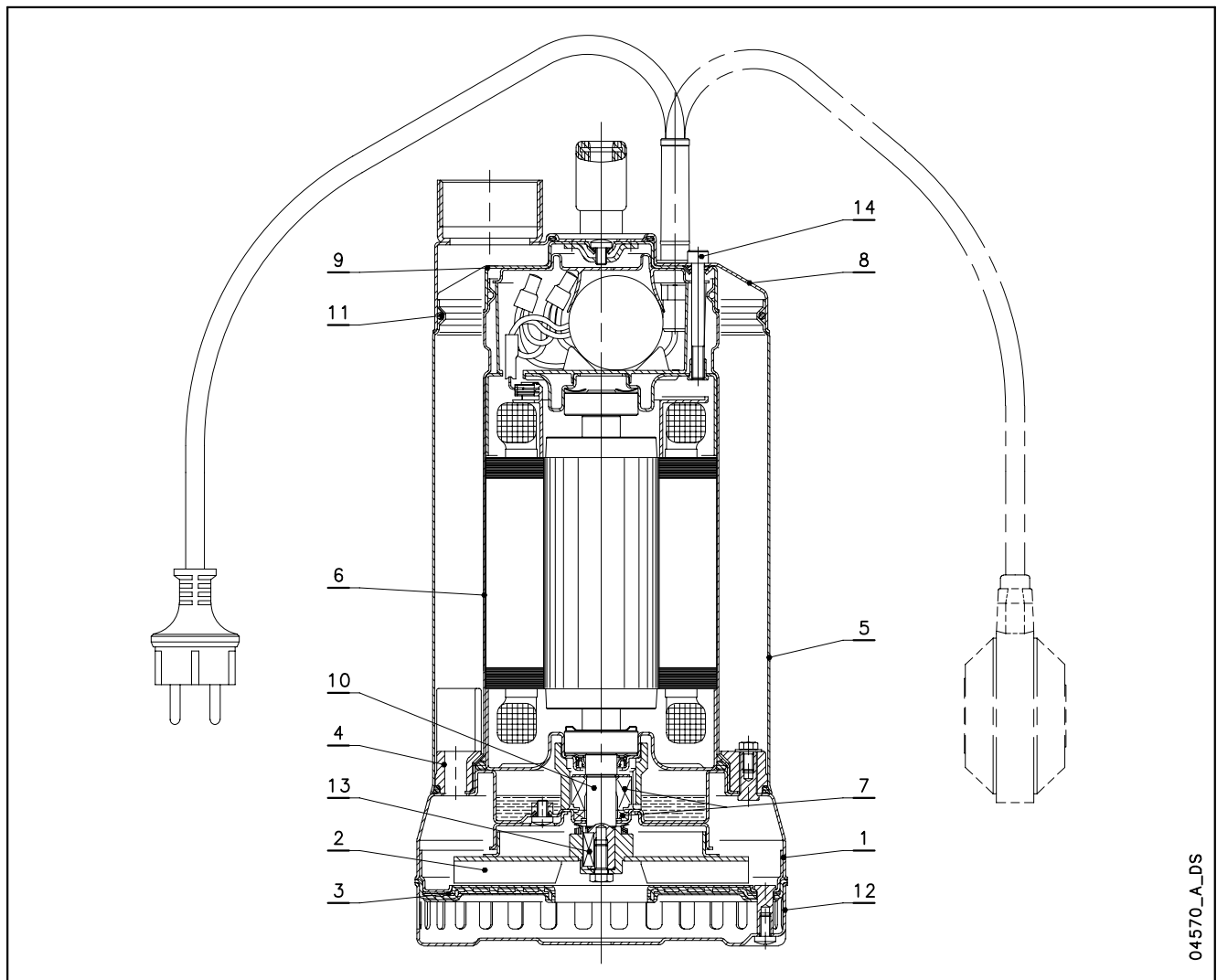
LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE



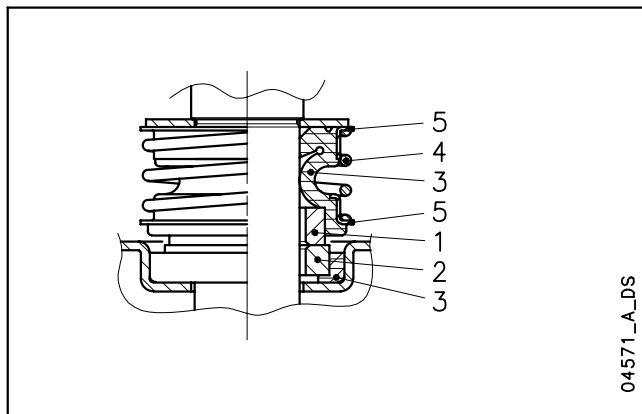
GDIWA SERIES LIST OF MODELS AND TABLE OF MATERIALS



04570_A_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
2	Impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
		Thermoplastic polyurethane TPU		
4	Diffuser	PA 66 + 30 % GF		
5	Sleeve	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	Mechanical seal	Silicon carbide / Silicon carbide / NBR (standard version)		
8	Cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Elastomers	NBR (standard version)		
12	Strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
13	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
14	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

GDIWA SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
Q1 : Silicon carbide	P : NBR	G : AISI 316
	V : FPM	

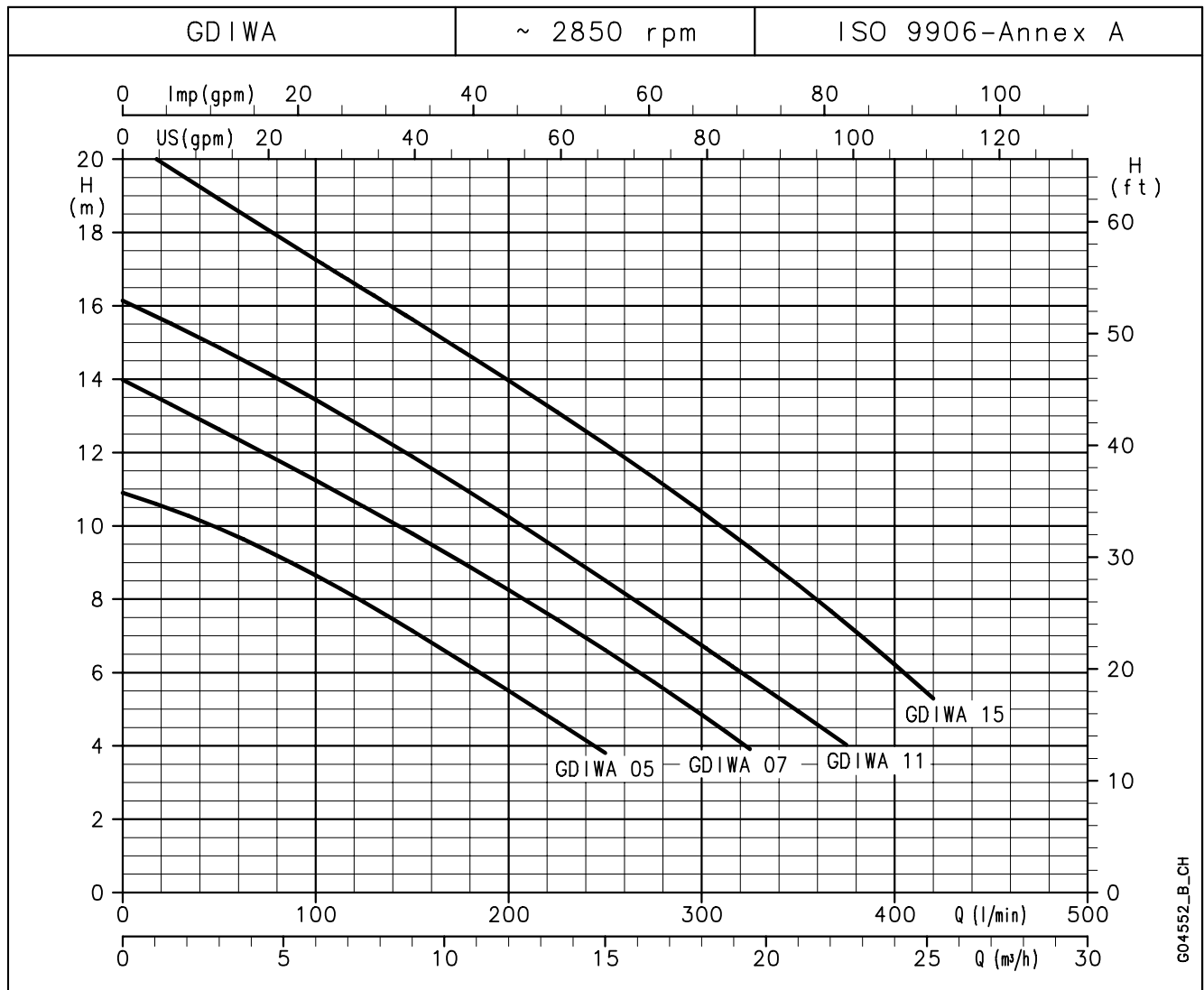
diwa_ten-mec-en_a_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
Q ₁ Q ₁ PGG	Q ₁	Q ₁	P	G	G	0 +50
OTHER MECHANICAL SEAL TYPES						
Q ₁ Q ₁ VGG	Q ₁	Q ₁	V	G	G	0 +50

diwa_tipi-ten-mec-en_b_tc

GDIWA SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY												
			l/min	0	100	125	150	175	200	225	250	300	325	375	420
	m³/h	0	6	7,5	9	10,5	12	13,5	15	18	19,5	22,5	25,2		
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER												
GDIWA 05(T)	0,55	0,75	10,9	8,6	7,9	7,1	6,3	5,5	4,7	3,8					
GDIWA 07(T)	0,75	1	14,0	11,2	10,5	9,8	9,0	8,3	7,4	6,6	4,8	3,9			
GDIWA 11(T)	1,1	1,5	16,1	13,4	12,7	11,9	11,1	10,2	9,4	8,5	6,7	5,8	4,0		
GDIWA 15T	1,5	2	20,6	17,3	16,4	15,6	14,8	14,0	13,1	12,2	10,4	9,4	7,3	5,3	

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdiwa-2p50-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE			
	kW	220-240 V A	$\mu\text{F} / 450 \text{ V}$
GDIWA 05	0,79	3,92	16
GDIWA 07	1,25	6,20	22
GDIWA 11	1,53	6,83	30
-	-	-	-

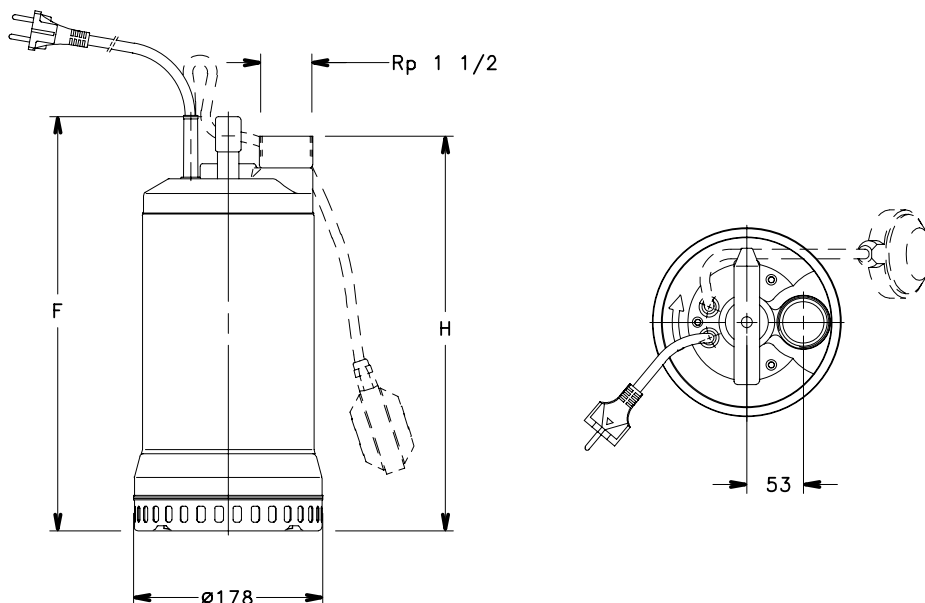
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE			
	kW	220-240 V A	380-415 V A
GDIWA 05T	0,72	2,56	1,48
GDIWA 07T	1,2	4,26	2,46
GDIWA 11T	1,44	4,64	2,68
GDIWA 15T	2,05	6,74	3,89

*Maximum values within operating range

gdiwa-2p50-en_a_te

GDIWA SERIES DIMENSIONS AND WEIGHTS

GDIWA



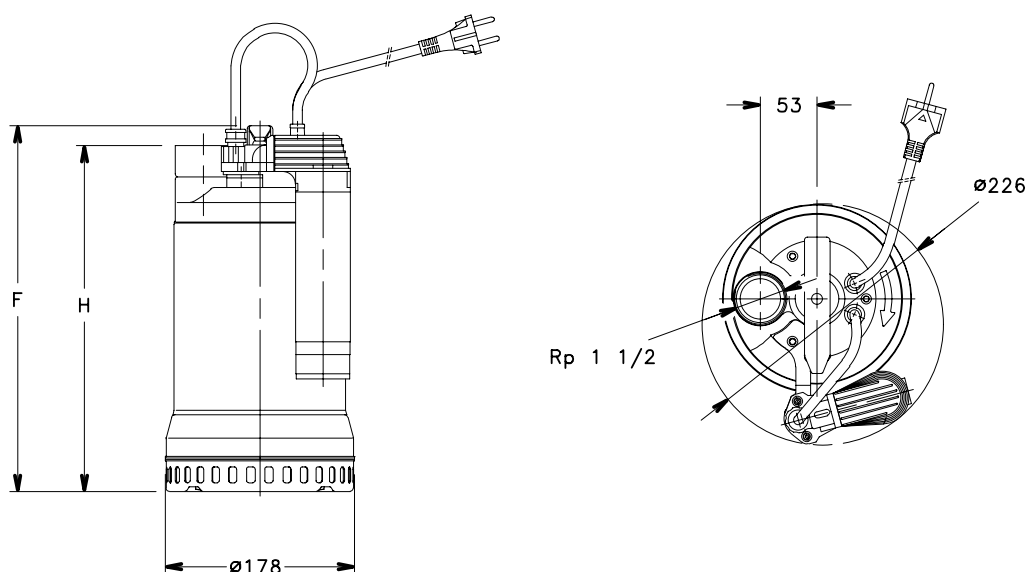
G04551_D_DD

PUMP TYPE SINGLE-PHASE		DIMENSIONS (mm)		WEIGHT
		F	H	kg
GDIWA05	GDIWA05 GT	348	330	12
GDIWA07	GDIWA07 GT	393	375	14,3
GDIWA11	GDIWA11 GT	393	375	17
-	-	-	-	-

PUMP TYPE THREE-PHASE		DIMENSIONS (mm)		WEIGHT
		F	H	kg
GDIWA05T		348	330	11
GDIWA07T		363	345	13
GDIWA11T		393	375	15
GDIWA15T		393	375	16,5

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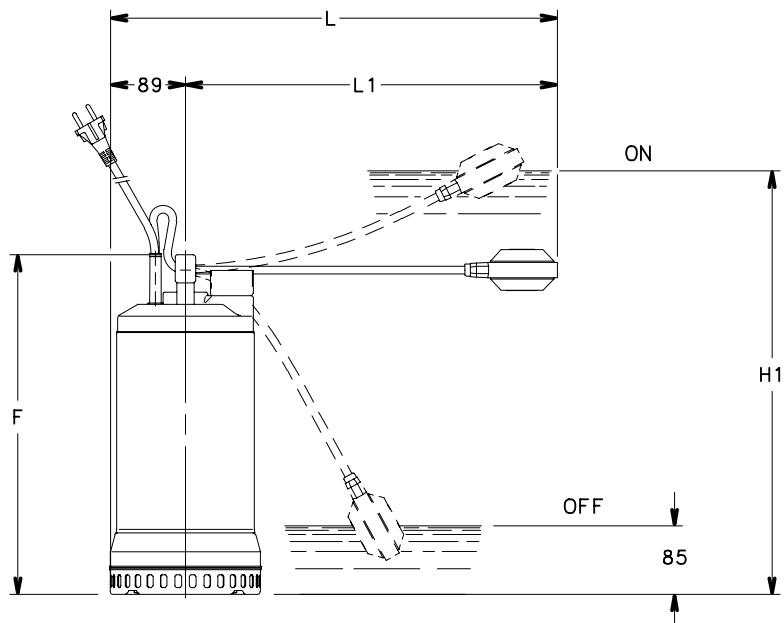
GDIWA GT



G04559_A_DD

GDIWA SERIES INSTALLATION EXAMPLES

GDIWA

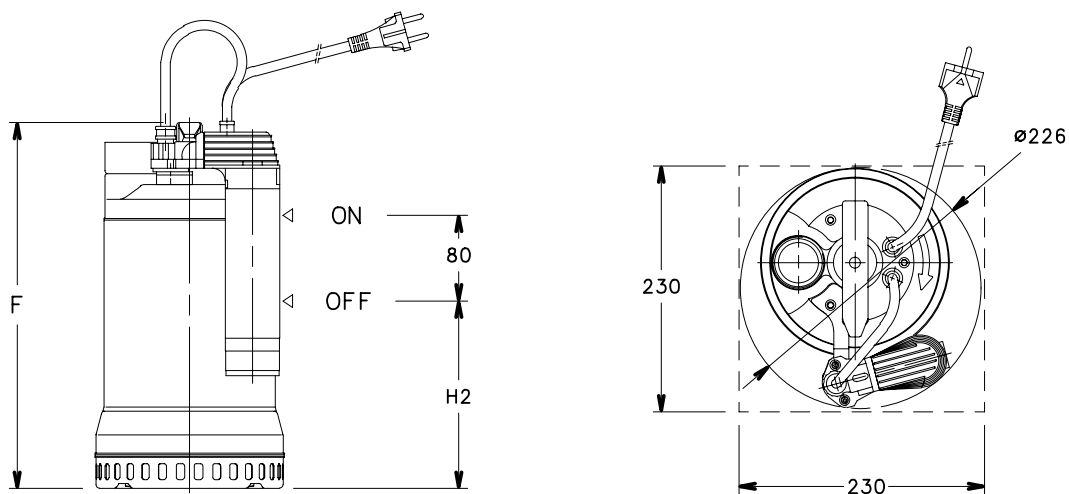


G04553_E_DD

PUMP TYPE		DIMENSIONS (mm)				
		F	L	L1	H1	H2
GDIWA05	GDIWA05 GT	348	459	370	430	180
GDIWA07	GDIWA07 GT	393	504	415	490	180
GDIWA11	GDIWA11 GT	393	524	435	490	180

gdiwaliv-2p50-en_d_td

GDIWA GT



G04563_B_DD

Submersible Electric Pumps for drainage of dirty water

The GDOMO series electric pumps are available with **twin-channel** or **vortex** impeller (GDOMO VX). Designed to handle liquids with suspended solids up to 50 mm in diameter (35 mm for GDOMO 7 and GDOMO 7VX). Four basic models with 0,55 to 1,5 kW.

DRIVELUB SEAL SYSTEM.

GDOMO Series



APPLICATIONS

- Pumping of effluent (VX model handles also suspended filaments).
- Emptying of septic tanks and residential sumps.
- Draining of flooded basements and garages.

SPECIFICATIONS

- **Maximum liquid temperature:** 35°C with fully submerged pump.
- **Dry motor.**
- **Power cord: H07RN-F**
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 155°C (F).**
- **IPX8 protection.**
- **Maximum immersion depth: 5 m.**
- **Versions:**
 - Single-phase: 220-240V, 50Hz 2 poles.
 - Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- **Motor power:**
 - single-phase: **0,55 to 1,1 kW.**
 - three-phase: **0,55 to 1,5 kW.**

- **The single-phase versions** feature:
 - **pre-assembled float switch** for automatic pump operation.
 - **built-in capacitor.**
 - **thermal overload protection** to stop pump supply in case of overheating.
- The **GDOMO 7** and **GDOMO 7VX** models feature:
 - **Rp 1 1/2" threaded delivery port** (female gas).
 - handling of liquids with suspended **solids up to 35 mm** in diameter.
 - **fiberglass-reinforced technopolymer impeller** (GDOMO S7 and GDOMO S7VX models with stainless steel impeller are also available).
- The **GDOMO 10-15-20** and **GDOMO 10-15-20 VX** models feature:
 - **Rp 2" threaded delivery port** female gas (can be turned into a flanged version if an optional accessory is installed).
 - handling of liquids with suspended **solids up to 50 mm** in diameter.
 - **stainless steel twin-channel or vortex impeller.**

DRIVELUB SEAL SYSTEM

- Watertight electric motor protected by multiple seal system with **oil chamber**. A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuously lubricated by the **DRIVELUB system**, provide an extreme barrier against infiltration.

Submersible Electric Pumps for drainage of dirty water equipped with grinder system

GDOMO GRI Series



The GDOMO GRI series electric pumps are equipped with an extremely efficient and highly reliable grinder system. The grinder is able to macerate all the solids present in the sewage and to pass it through small discharge pipes (25 mm diameter).

GDOMO GRI is available in the 1,1 kW power.

DRIVELUB SEAL SYSTEM.

APPLICATIONS

- Pumping of sewage with suspended solids.
- Emptying of septic tanks and residential sumps.
- Draining of flooded areas.
- Pumping water from a pressurized sewer network.

SPECIFICATIONS

- **Maximum liquid temperature:** 35°C with fully submerged pump.
- **Dry motor.**
- **Power cord: H07RN-F**
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 155°C (F).**
- **IPX8 protection.**
- **Maximum immersion depth: 5 m.**

• Versions:

- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles.
380-415V, 50Hz 2 poles.

• Motor power:

- **1,1 kW** single-phase and three-phase.

• The single-phase versions feature:

- **pre-assembled float switch** for automatic pump operation.
- **built-in capacitor.**
- **thermal overload protection** to stop pump supply in case of overheating.

• GDOMO GRI pumps feature:

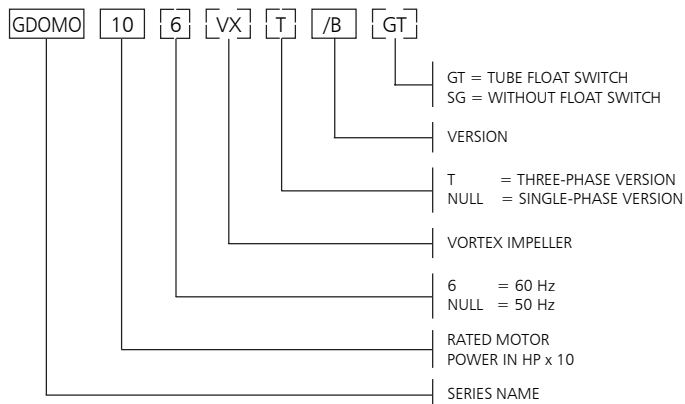
- **Rp 1" threaded delivery port** (female gas).
- technopolymer PBT **Impeller.**
- high resistance stainless steel **grinder.**

DRIVELUB SEAL SYSTEM

- Watertight electric motor protected by multiple seal system with **oil chamber.**

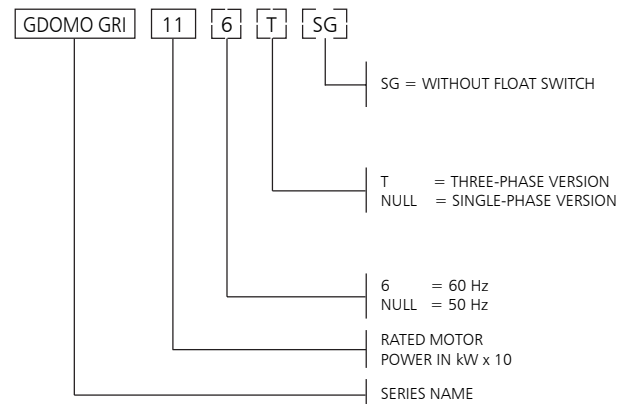
A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuously lubricated by the **DRIVELUB system**, provide an extreme barrier against infiltration.

GDOMO SERIES IDENTIFICATION CODE



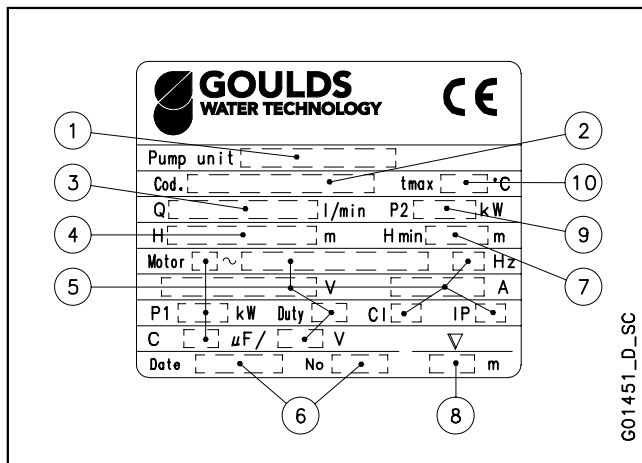
EXAMPLE : GDOMO 10/B
GDOMO Series Electric pump, rated motor power 1 HP,
50 Hz version, single-phase, /B version.

GDOMO GRI SERIES IDENTIFICATION CODE



EXAMPLE : GDOMO GRI 11
GDOMO GRI (grinder) Series Electric pump,
rated motor power 1,1 kW, 50 Hz version, single-phase.

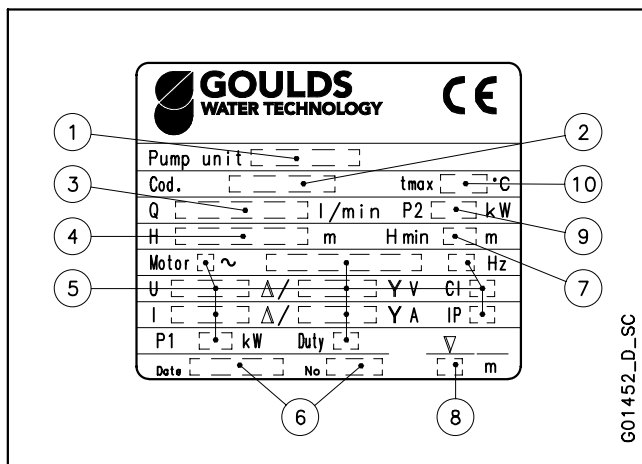
SINGLE-PHASE RATING PLATE



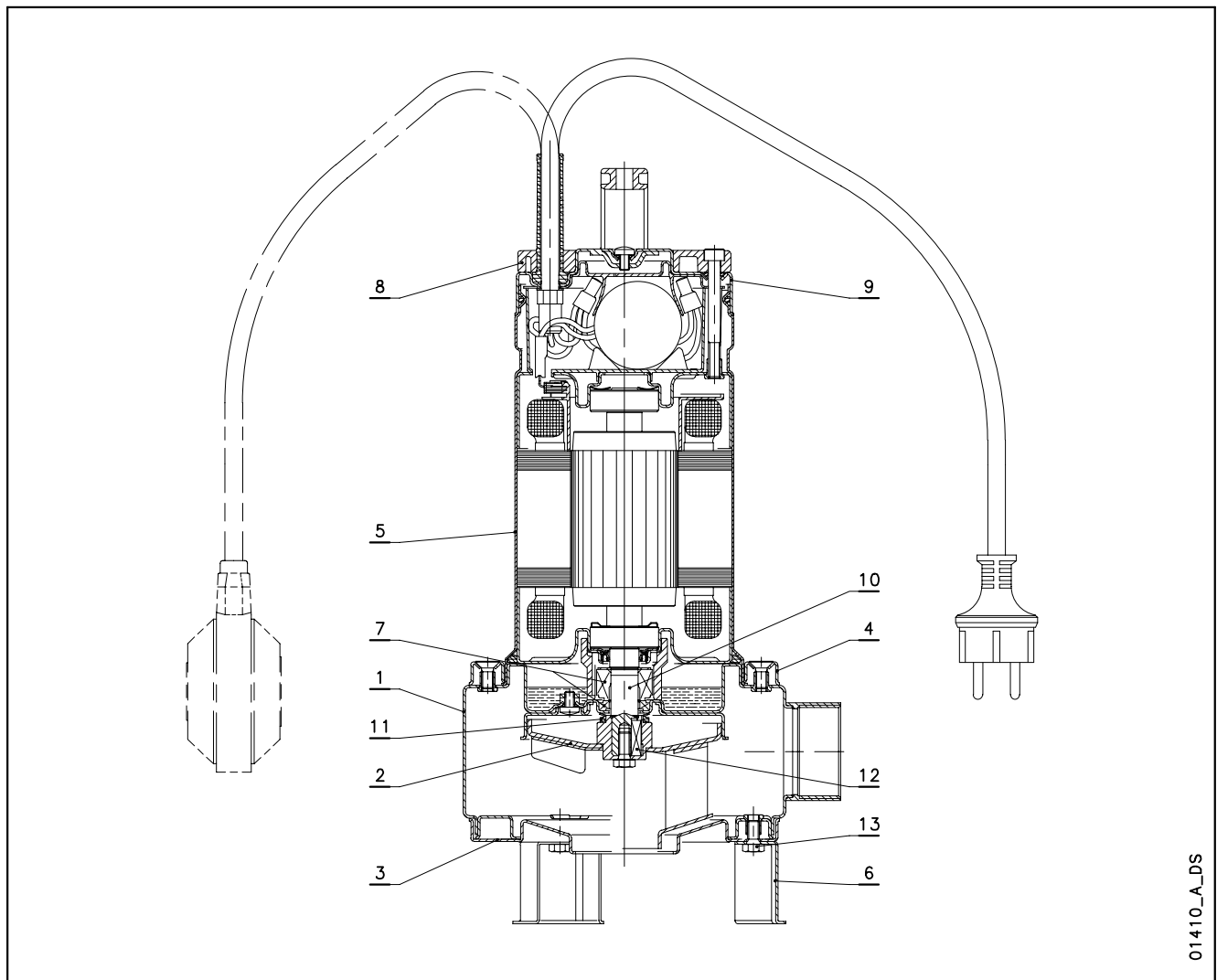
LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE



GDOMO SERIES LIST OF MODELS AND TABLE OF MATERIALS

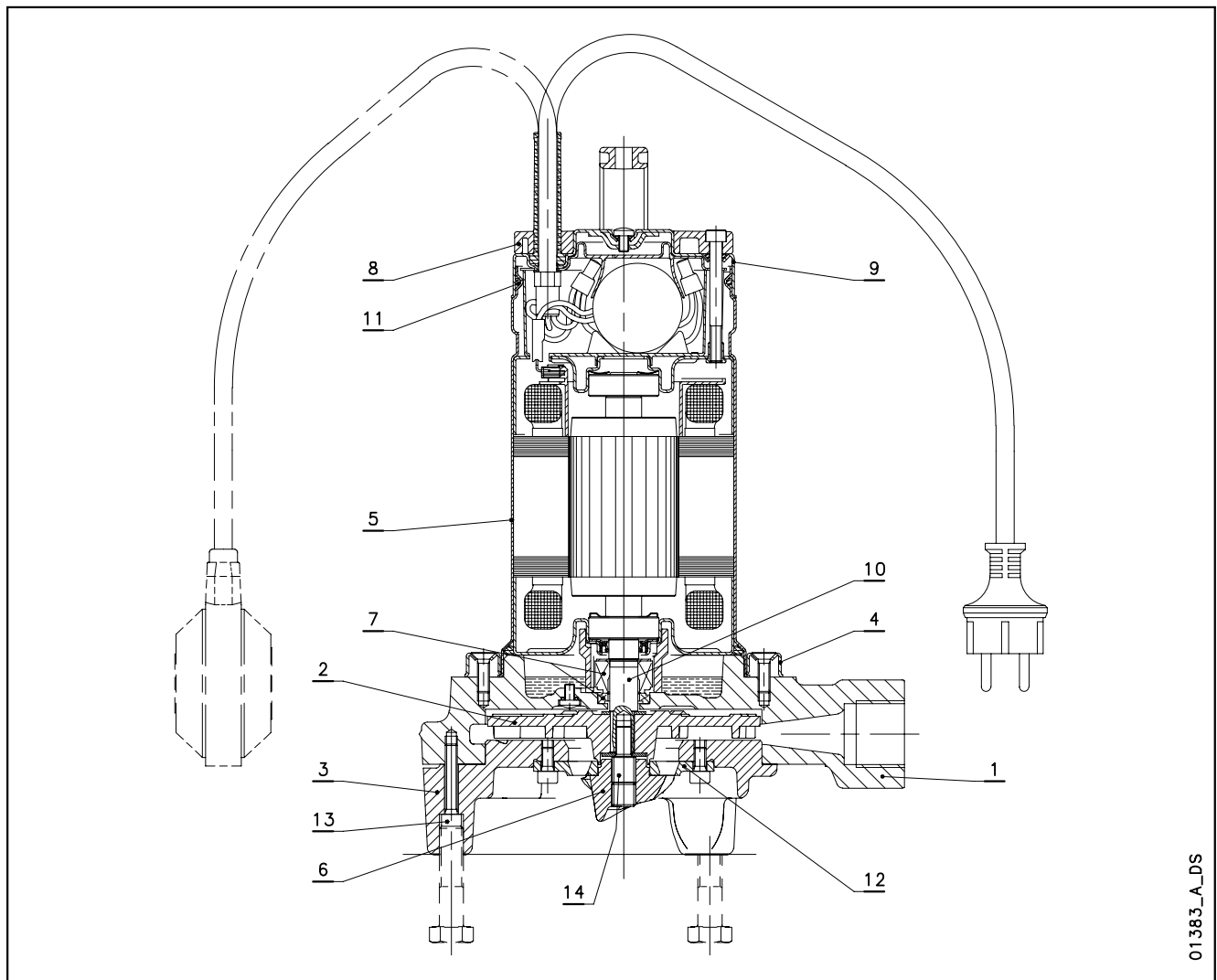


01410_A_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
2	Impeller	PA 66 + 30 % GF		
		Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Support foot	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	Mechanical seal	Silicon carbide / Silicon carbide / NBR (standard version)		
8	Handle	PA 66 + 30 % GF		
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Elastomers	NBR (standard version)		
12	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

domo-en_b_tm

GDOMO GRI SERIES LIST OF MODELS AND TABLE OF MATERIALS

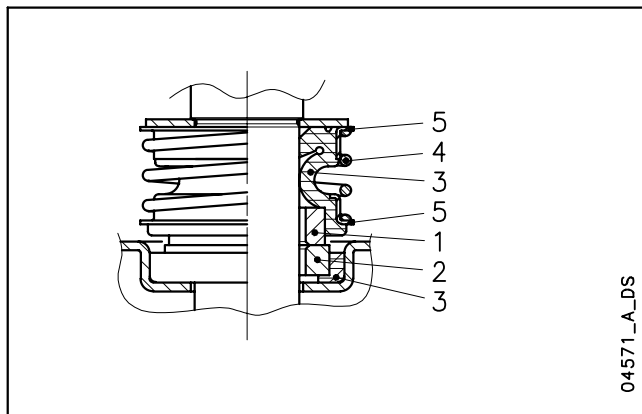


01383_A_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM Class 35
2	Impeller	PBT		
3	Suction cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM Class 35
4	Fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Cutter wheel	Stainless steel	X95CrMoV17 (DIN 1.4535)	-
7	Mechanical seal	Silicon carbide / Silicon carbide / NBR (standard version)		
8	Handle	PA 66 + 30 % GF		
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Elastomers	NBR (standard version)		
12	Cutter ring	Stainless steel	X95CrMoV17 (DIN 1.4535)	-
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
14	Impeller fixing screw + wheel	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431

domo-gri-en_c_tm

GDOMO - GDOMO GRI SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
Q1 : Silicon carbide	P : NBR	G : AISI 316
	V : FPM	

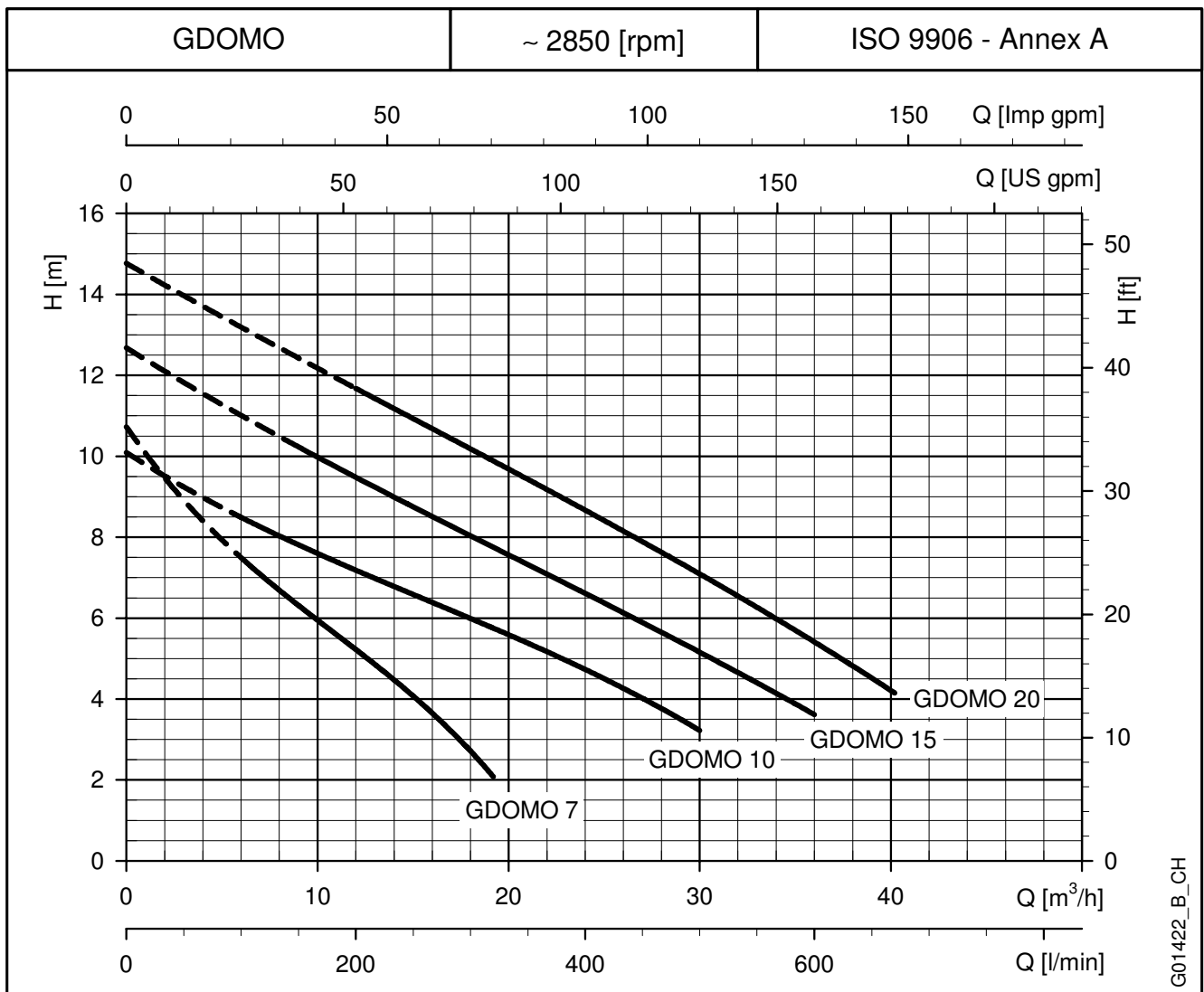
diwa_ten-mec-en_a_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
Q ₁ Q ₁ PGG	Q ₁	Q ₁	P	G	G	0 +35
OTHER MECHANICAL SEAL TYPES						
Q ₁ Q ₁ VGG	Q ₁	Q ₁	V	G	G	0 +35

domo_tipi-ten-mec-en_b_tc

GDOMO SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	100	150	200	250	300	320	400	500	600	670
	kW	HP	m³/h	0	6	9	12	15	18	19,2	24	30	36	40,2
H = TOTAL HEAD METRES COLUMN OF WATER														
GDOMO 7(T) - S7(T)	0,55	0,75	10,7	7,5	6,3	5,2	4,1	2,7	2,1					
GDOMO 10(T)	0,75	1	10,1	8,5	7,8	7,2	6,6	6,0	5,8	4,7	3,2			
GDOMO 15(T)	1,1	1,5	12,7	11,0	10,2	9,5	8,8	8,0	7,8	6,6	5,2	3,6		
GDOMO 20T	1,5	2	14,8	13,2	12,4	11,7	10,9	10,2	9,9	8,7	7,1	5,4	4,2	

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdomo-2p50-en_b_th

ELECTRICAL DATA TABLE

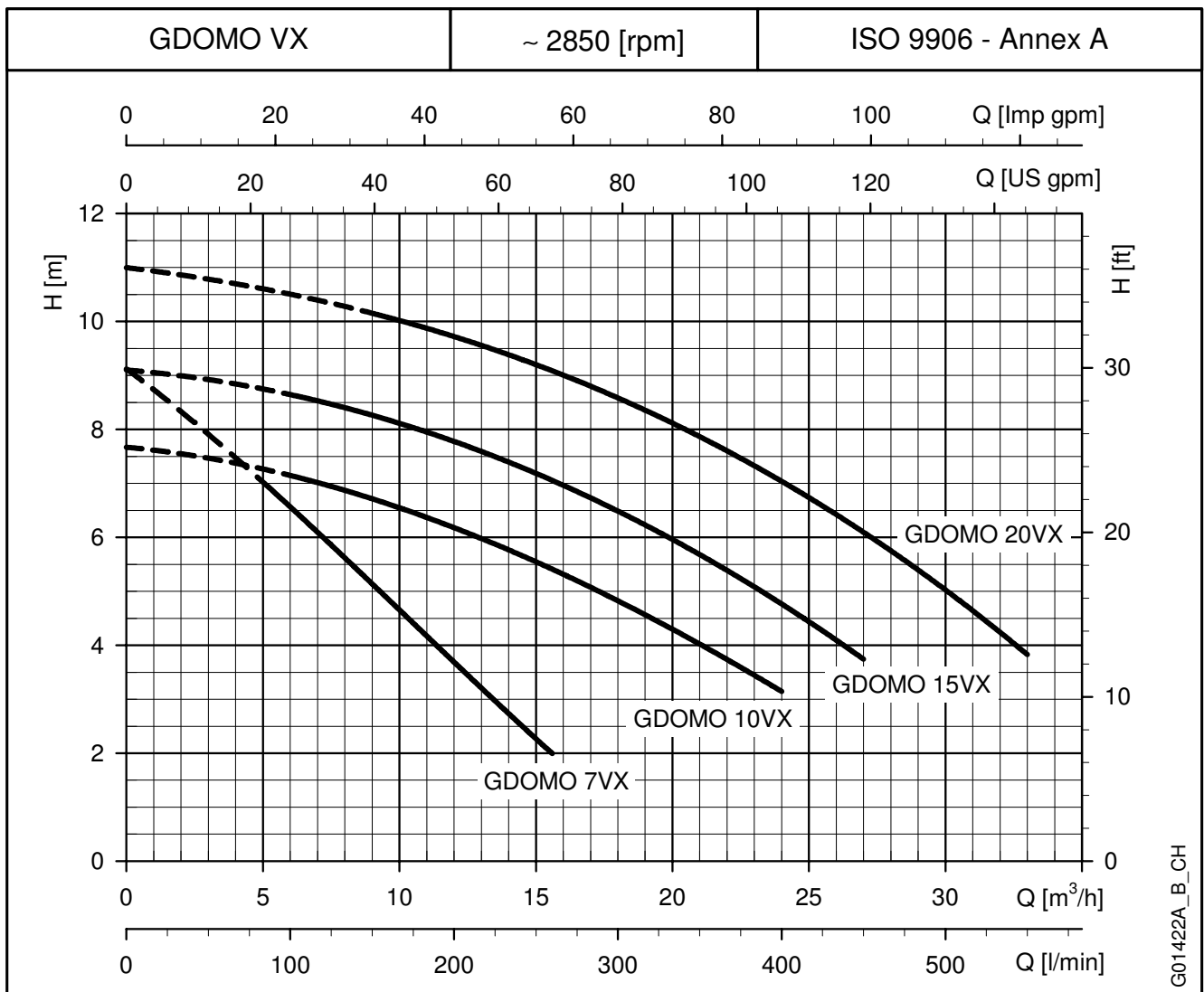
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE		220-240 V	
	kW	A	$\mu\text{F} / 450 \text{ V}$
GDOMO 7 - (S7)	0,8 (0,76)	3,94 (3,83)	16
GDOMO 10	1,14	5,84	22
GDOMO 15	1,58	7,02	30
-	-	-	-

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	A	A
GDOMO 7T - (S7T)	0,73 (0,68)	2,58	1,49
GDOMO 10T	1,09	4,09	2,36
GDOMO 15T	1,49	4,73	2,73
GDOMO 20T	1,96	6,6	3,81

*Maximum values within operating range

gdomo-2p50-en_b_te

GDOMO VX SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	80	100	150	175	200	225	260	300	400	450	550
			m³/h	4,8	6	9	10,5	12	13,5	15,6	18	24	27	33
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER											
GDOMO 7VX(T) - S7VX(T)	0,55	0,75	9,1	7,1	6,6	5,1	4,4	3,7	3,0	2,0				
GDOMO 10VX(T)	0,75	1	7,7	7,3	7,1	6,7	6,5	6,2	5,9	5,4	4,8	3,1		
GDOMO 15VX(T)	1,1	1,5	9,1	8,8	8,6	8,3	8,0	7,8	7,5	7,1	6,5	4,8	3,7	
GDOMO 20VXT	1,5	2	11,0	10,6	10,5	10,2	9,9	9,7	9,5	9,1	8,6	7,0	6,1	3,8

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdomovx-2p50-en_b_th

ELECTRICAL DATA TABLE

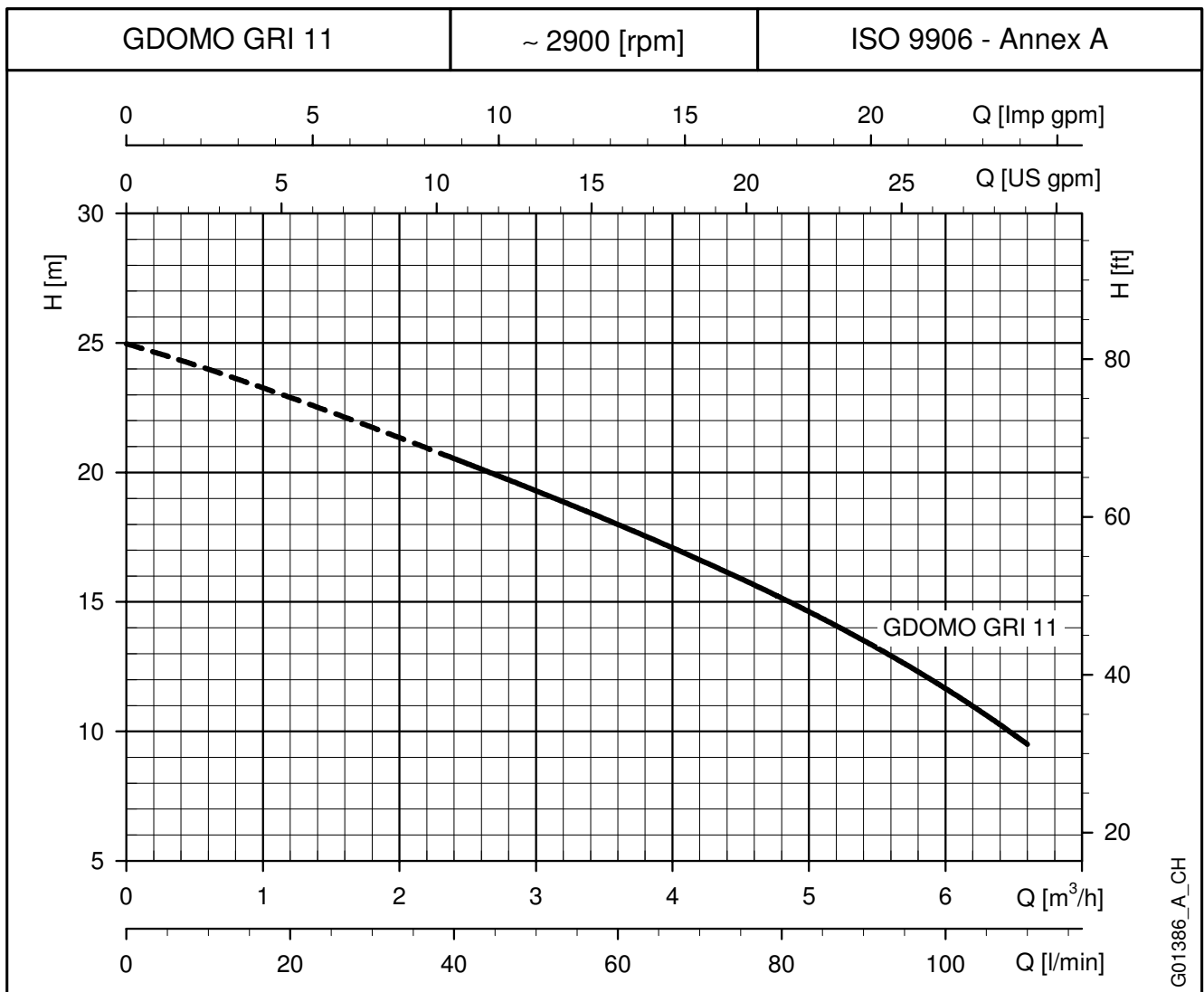
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE		220-240 V	
	kW	A	$\mu\text{F} / 450 \text{ V}$
GDOMO 7VX - (S7VX)	0,79 (0,83)	3,91 (4,03)	16
GDOMO 10VX	1,15	5,88	22
GDOMO 15VX	1,36	6,11	30
-	-	-	-

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	A	A
GDOMO 7VXT - (S7VXT)	0,71 (0,76)	2,56 (2,63)	1,48 (1,52)
GDOMO 10VXT	1,10	4,09	2,36
GDOMO 15VXT	1,26	4,31	2,49
GDOMO 20VXT	1,74	6,22	3,59

*Maximum values within operating range

gdomovx-2p50-en_b_te

GDOMO GRI SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY										
			l/min	0	15	30	40	50	60	70	80	90	100
	m³/h	0	0,9	1,8	2,4	3	3,6	4,2	4,8	5,4	6	6,6	
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER										
GDOMO GRI 11 (SG)	1,1	1,5	25,0	23,5	21,7	20,5	19,3	18,0	16,6	15,2	13,5	11,7	9,5
GDOMO GRI 11 T													

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdomo-gri-2p50-en_a_th

ELECTRICAL DATA TABLE

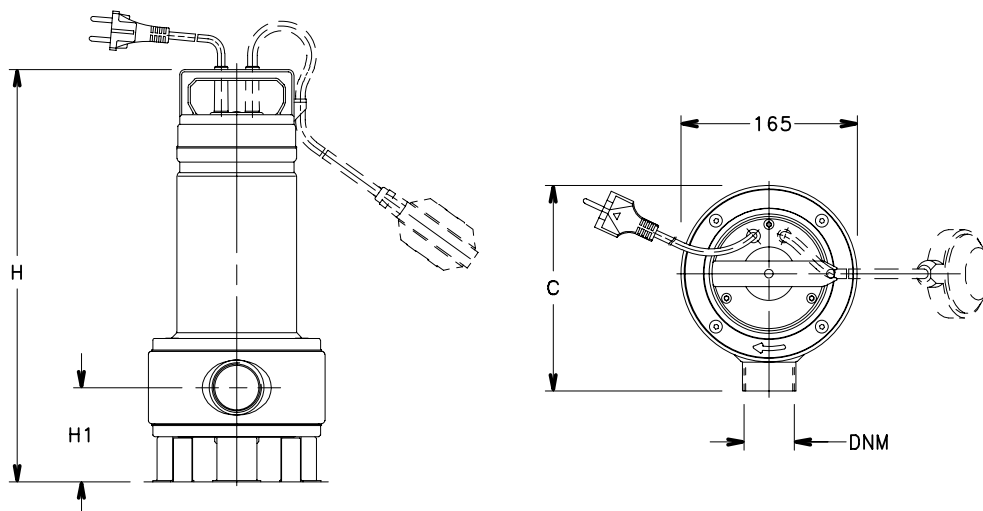
PUMP TYPE	RATED POWER*	ABSORBED CURRENT*	CAPACITOR	PUMP TYPE	RATED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
SINGLE-PHASE		220-240 V		THREE-PHASE		220-240 V	380-415 V
	kW	A	$\mu\text{F} / 450 \text{ V}$		kW	A	A
GDOMO GRI 11 (SG)	1,50	6,84	30	GDOMO GRI 11 T	1,39	4,55	2,63

* Maximum value in specified range

gdomo-gri-2p50-en_b_te

GDOMO SERIES DIMENSIONS AND WEIGHTS

GDOMO



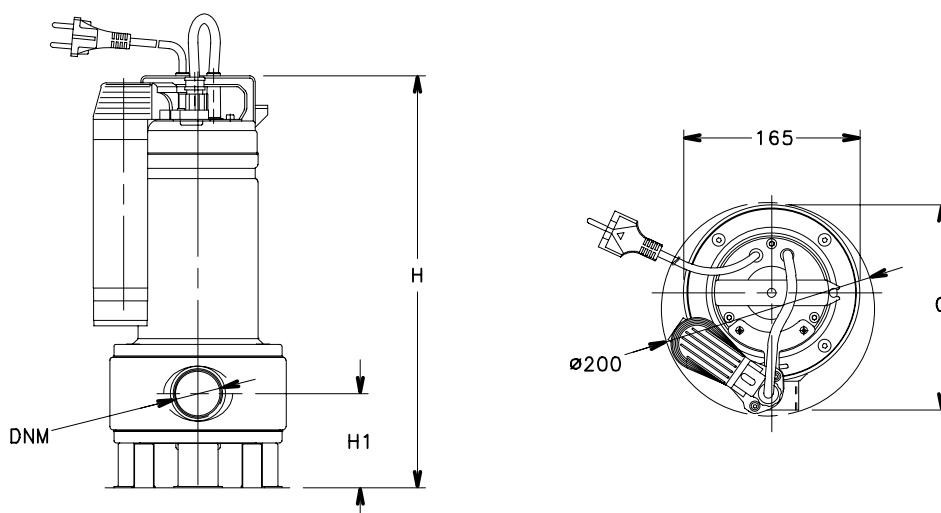
G01421_D_DD

PUMP TYPE SINGLE-PHASE		DIMENSIONS (mm)			DNM	WEIGHT
		H	H1	C		kg
GDOMO 7	GDOMO 7 GT	391	88	193	Rp1½	10,2
GDOMO 7VX	GDOMO 7VX GT					
GDOMO10	GDOMO10 GT	468	111,5	198	Rp2	13,6
GDOMO10VX	GDOMO10VX GT					
GDOMO15	GDOMO15 GT	468	111,5	198	Rp2	15,3
GDOMO15VX	GDOMO15VX GT					
-	-	-	-	-	-	-

PUMP TYPE THREE-PHASE		DIMENSIONS (mm)			DNM	WEIGHT
		H	H1	C		kg
GDOMO 7T	GDOMO 7VXT	391	88	193	Rp1½	8,9
GDOMO10T	GDOMO10VXT	438	111,5	198	Rp2	11,6
GDOMO15T	GDOMO15VXT	468	111,5	198	Rp2	13,6
GDOMO20T	GDOMO20VXT	468	111,5	198	Rp2	14,6

gdomo-2p50-en_c_td

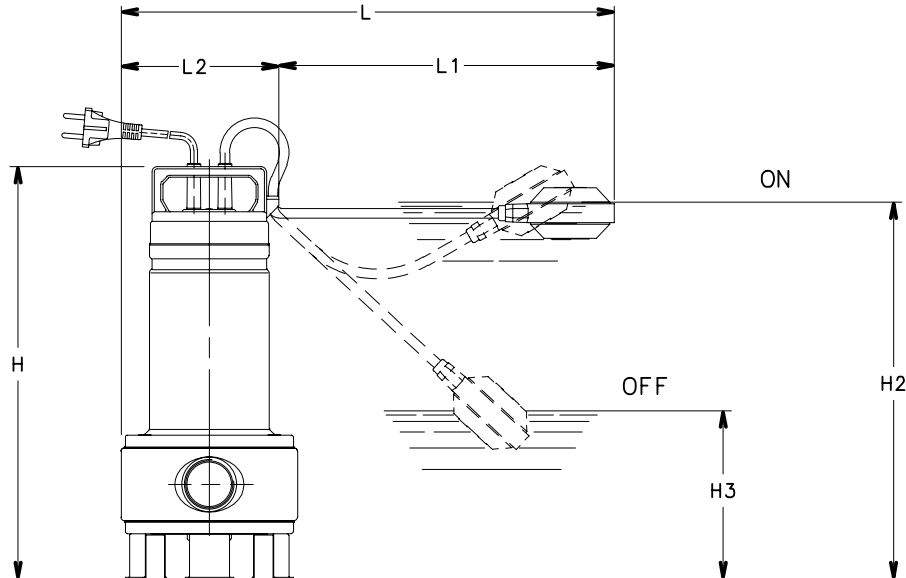
GDOMO GT



G01418_A_DD

GDOMO - GDOMO GRI SERIES INSTALLATION EXAMPLES

GDOMO
GDOMO GR I

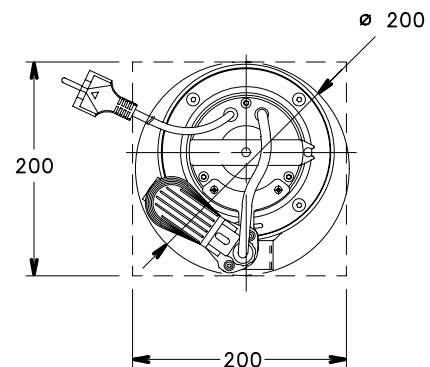
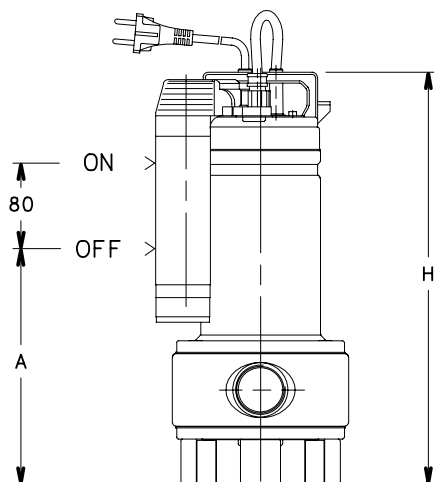


G01424_F_DD

PUMP TYPE		DIMENSIONS (mm)						
		H	H2	H3	L	L1	L2	A
GDOMO 7 - GDOMO 7 GT	GDOMO 7VX - GDOMO 7VX GT	391	375	155	420	275	145	225
GDOMO10 - GDOMO10 GT	GDOMO10VX - GDOMO10VX GT	468	420	155	495	350	145	255
GDOMO15 - GDOMO15 GT	GDOMO15VX - GDOMO15VX GT	468	420	155	495	350	145	255
GDOMO GRI 11	-	446	400	135	508	350	158	-

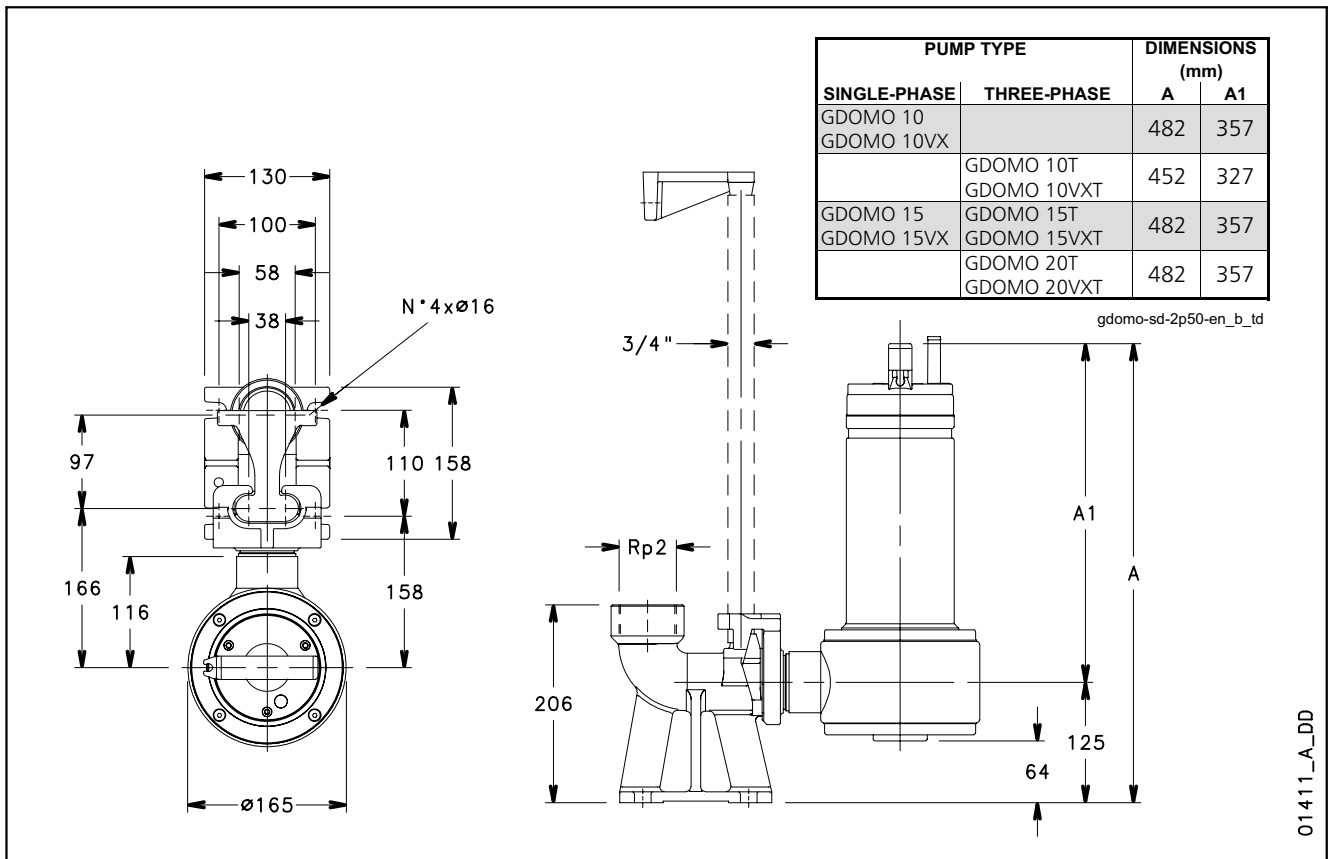
gdomoliv-2p50-en_d_td

GDOMO GT

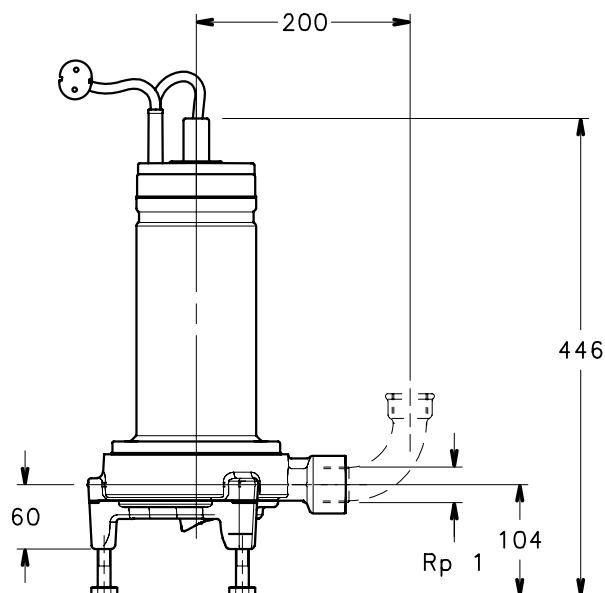


G01419_A_DD

GDOMO SERIES INSTALLATION WITH SD LOWERING DEVICE

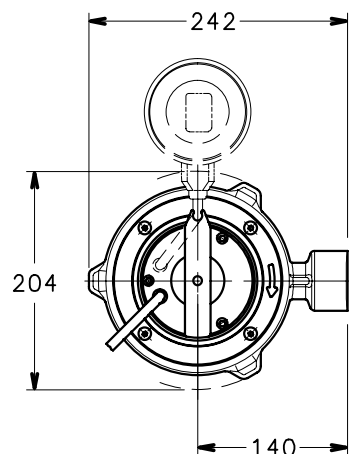


GDOMO GRI SERIES DIMENSIONS AND WEIGHTS



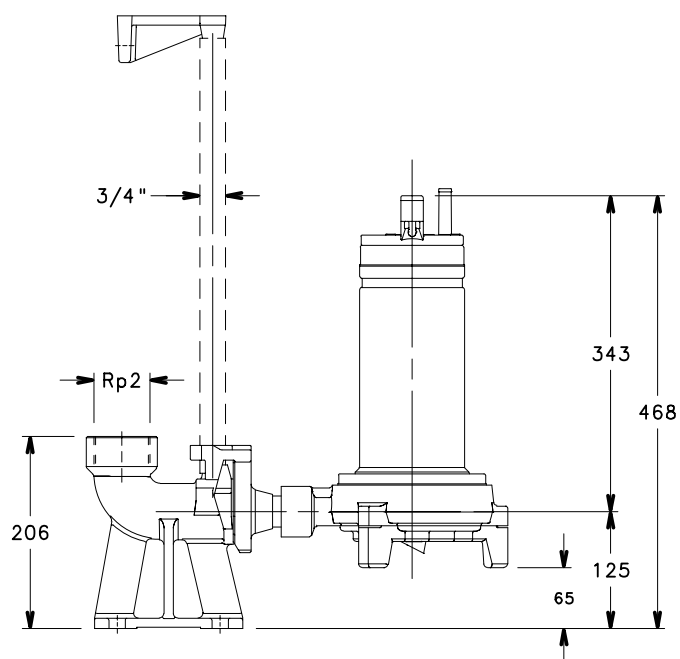
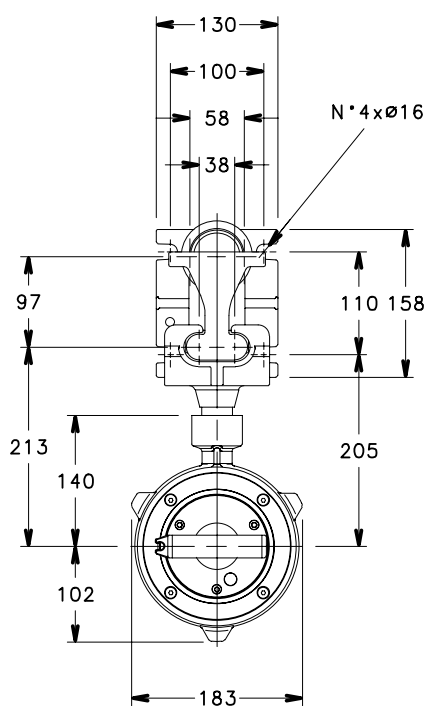
PUMP TYPE	WEIGHT kg
GDOMO GRI 11 (SG)	19 (18,8)
GDOMO GRI 11 T	18,3

gdomo-gri-en_a_td



01380_A_DD

INSTALLATION WITH SD LOWERING DEVICE



01381_B_DD

Submersible Electric Pumps for drainage of clean and slightly dirty water

Drainage pumps with up to 22 metres head and up to 280 l/min (16,8 m³/h) delivery. This range consists of three pumps with up to 0,75 kW rated power.

GDN Series



APPLICATIONS

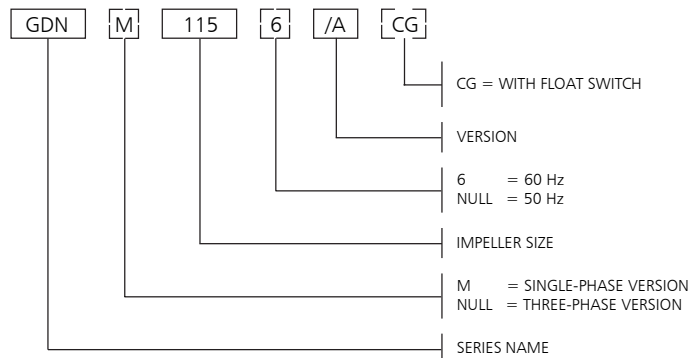
- Draining of flooded excavations and marshy ground.
- Irrigation from rainwater reservoirs, ditches, ponds and watercourses.

SPECIFICATIONS

- **Maximum liquid temperature:**
 - **50°C** with fully submerged pump.
 - **25°C** with partially submerged pump.
- Open **impeller** with **abrasion-resistant** rubber coating.
- **Mechanical seal** protected by **sand labyrinth**.

- Maximum dimension of **suspended solids: 5 mm**.
- **Motor** in a dielectric non-toxic **oil bath**, which ensures the lubrication of the ball bearings and a more efficient cooling.
- **Power cord: H07RN-F**.
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 155°C (F)**.
- **IPX8 protection**.
- **Maximum immersion depth: 5 m**.
- **Versions:**
 - Single-phase: 220-240V, 50Hz 2 poles.
 - Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- **The single-phase versions** feature:
 - **capacitor** housed in a box on the power cord + 1,5 m. power cord with plug.
 - **thermal overload protection** to stop pump supply in case of overheating.
- CG versions (single-phase with pre-assembled float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.

GDN SERIES IDENTIFICATION CODE



EXAMPLE : GDNM 115/A
GDN Series Electric pump, impeller size 115,
50 Hz version, single-phase, /A version.

SINGLE-PHASE RATING PLATE

GO1451_D_SC

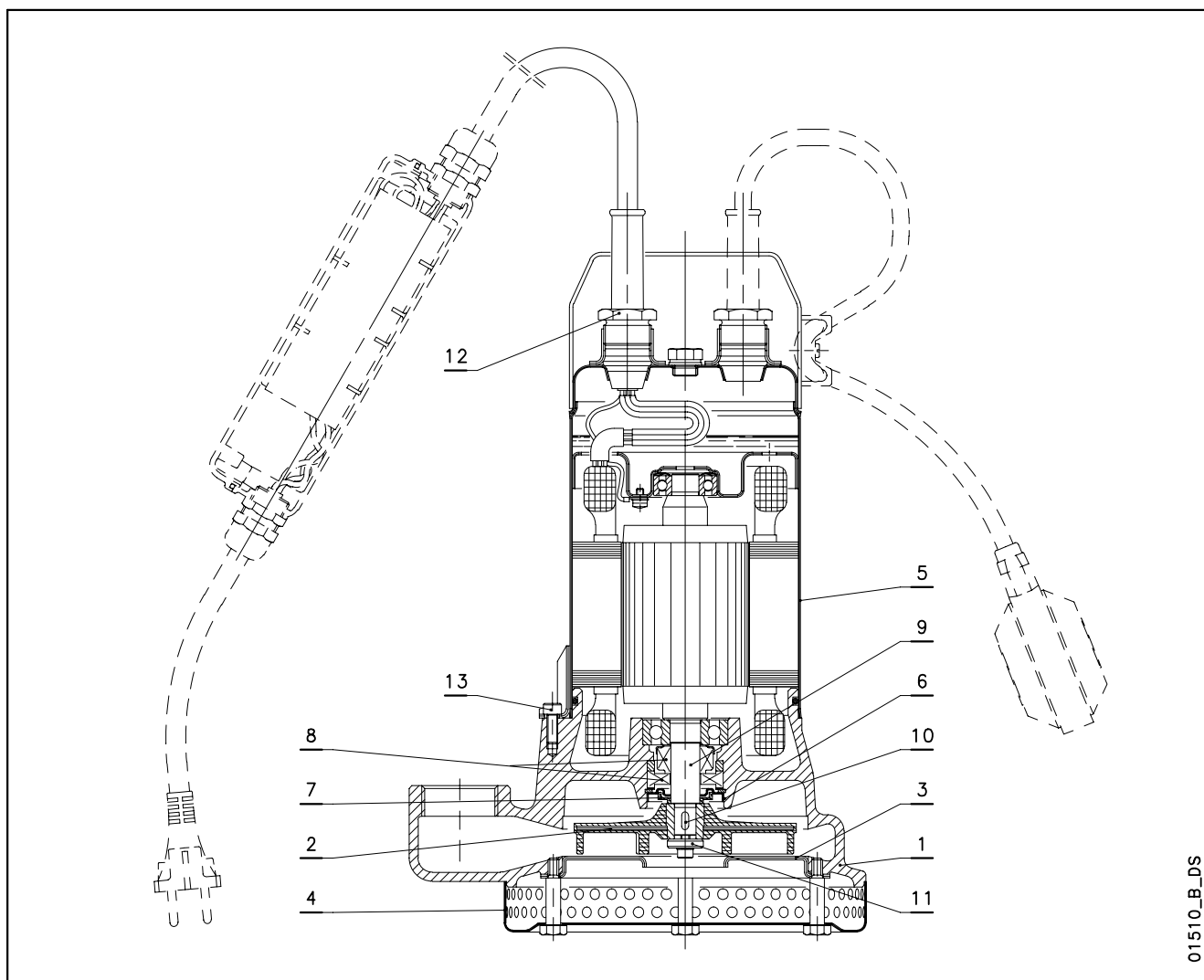
LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE

GO1452_D_SC

GDN SERIES LIST OF MODELS AND TABLE OF MATERIALS

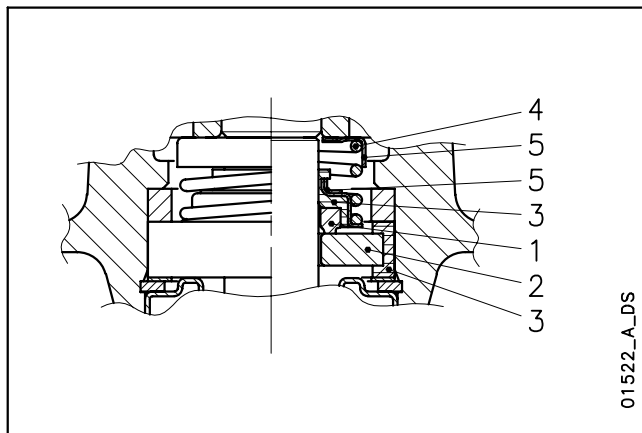


01510_B_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Impeller	Steel + Nitrile Rubber XNBR		
3	Wearing flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Suction strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Labyrinth cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	Labyrinth insert	NBR (standard version)		
8	Mechanical seal	Carbon / Ceramic Alumina / NBR (standard version)		
9	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
11	Washer	Stainless steel		AISI 303
12	Cable gland	Brass		
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

dn-en_b_tm

GDN SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	F : AISI 304
V : Ceramic Alumina		

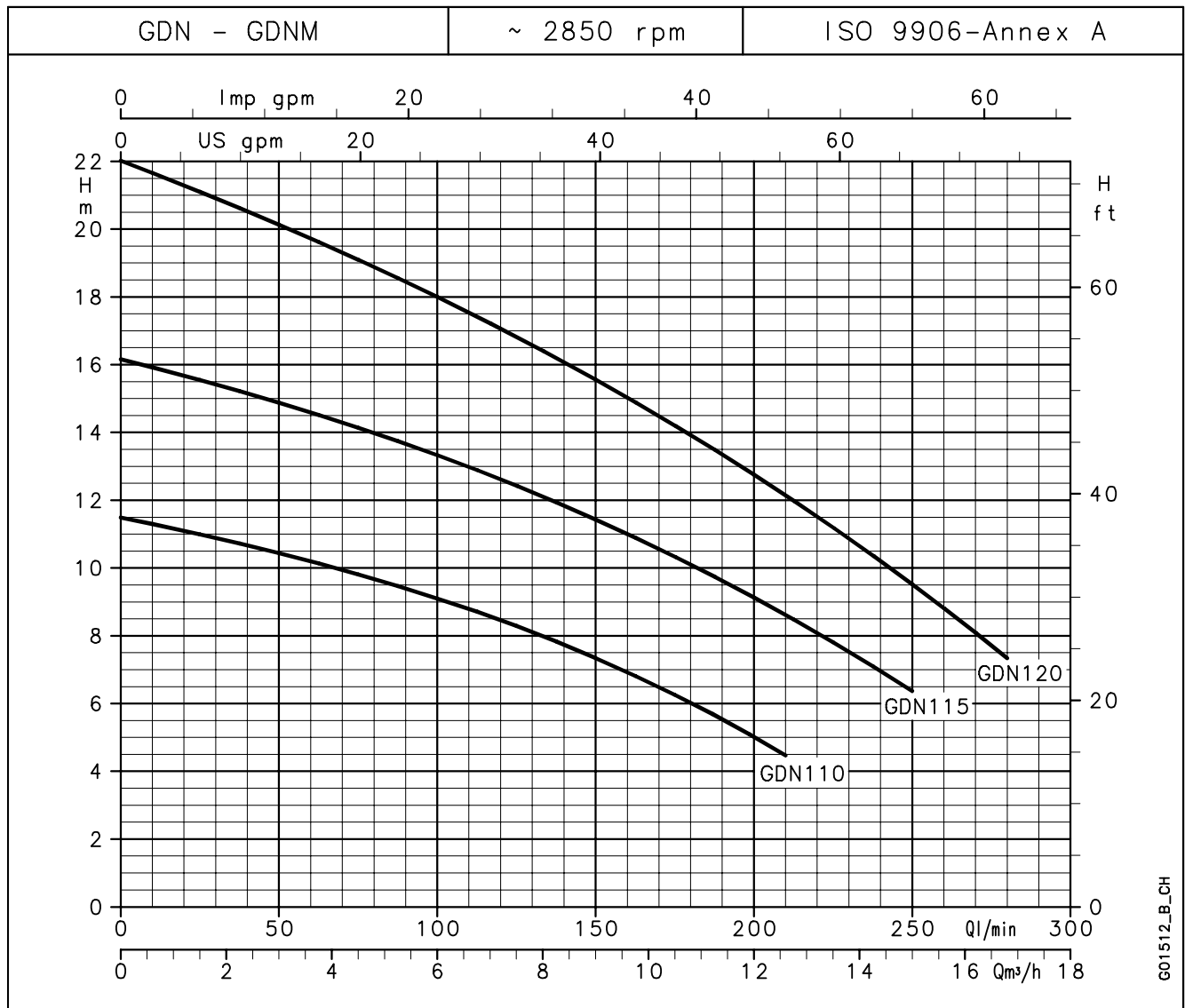
dn-dl-dlv_ten-mec-en_c_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
BVPFF	B	V	P	F	F	0 + 50

dn-dl-dlv_tipi-ten-mec-en_b_tc

GDN SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	25	50	75	100	125	150	175	210	225	250
	m³/h	0	1,5	3	4,5	6	7,5	9	10,5	12,6	13,5	15	16,8	
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER											
GDN(M) 110	0,6	0,8	11,5	11,0	10,4	9,8	9,1	8,3	7,3	6,3	4,5			
GDN(M) 115	0,6	0,8	16,2	15,6	14,9	14,1	13,3	12,4	11,4	10,3	8,6	7,8	6,4	
GDN(M) 120	0,75	1	22,0	21,1	20,1	19,1	18,0	16,8	15,6	14,2	12,1	11,2	9,5	7,3

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdn-2p50-en_a_th

ELECTRICAL DATA TABLE

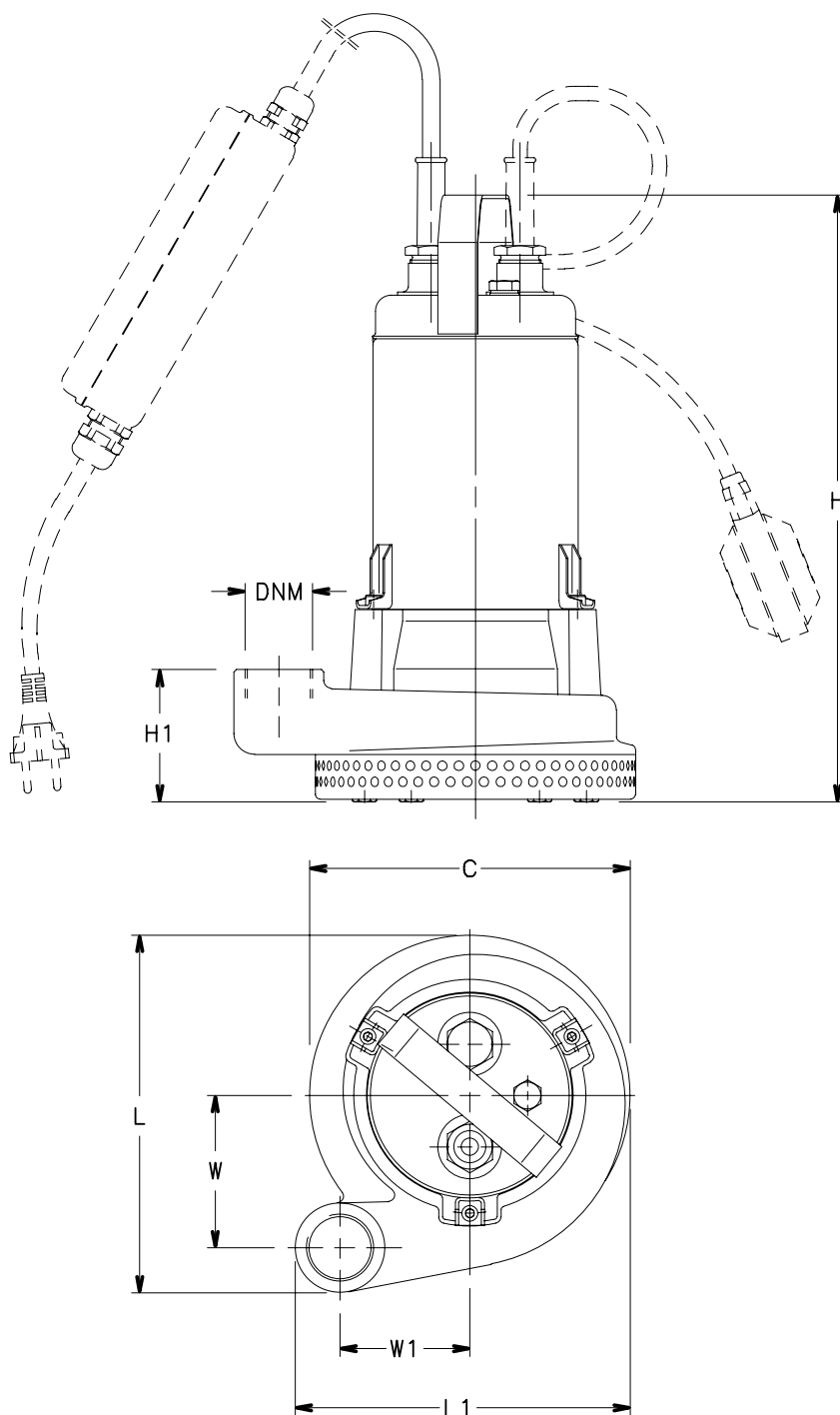
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE	kW	220-240 V A	$\mu\text{F} / 450 \text{ V}$
GDNM 110	0,68	3,56	25
GDNM 115	0,90	4,28	25
GDNM 120	1,03	4,77	25

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE	kW	220-240 V A	380-415 V A
GDN 110	0,66	3,46	2,00
GDN 115	0,93	3,81	2,20
GDN 120	1,09	4,05	2,34

*Maximum values within operating range.

gdn-2p50-en_b_te

GDN SERIES DIMENSIONS AND WEIGHTS



01511_E_DD

PUMP TYPE	DIMENSIONS (mm)							DNM	WEIGHT kg
	C	H	H1	L	L1	W	W1		
GDNM110-GDN110	Ø 200	380	81	223	209	95	81	Rp 1 1/4	18,5
GDNM115-GDN115	Ø 200	380	81	223	209	95	81	Rp 1 1/4	18,5
GDNM120-GDN120	Ø 200	380	81	223	209	95	81	Rp 1 1/4	19,5

gdn-2p50-en_b_td

Submersible Electric Pumps for pumping sewage

The GDL series electric pumps come with single-channel or Vortex impeller (GDLV), and are designed to handle solids-laden wastewater, with up to 22 m head and 42 m³/h delivery. 0,6 kW to 1,5 kW rated power. Solids handled up to 50 mm in diameter.

GDL Series



APPLICATIONS

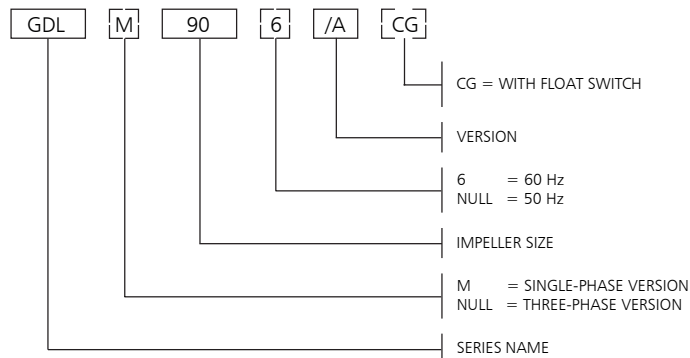
- Pumping of sewage with suspended solids and filaments.
- Emptying of sumps, septic tanks and wastewater discharge tanks.
- Draining of flooded excavations and marshy ground.

SPECIFICATIONS

- **Maximum liquid temperature:**
 - **50°C** with fully submerged pump.
 - **25°C** with partially submerged pump.
- **Mechanical seal** protected by **sand labyrinth**.
- Maximum dimension of **suspended solids:**
 - **45 mm** for **GDL80, GDL90, GDL105, GMINIVORTEX, GVORTEX**.
 - **50 mm** for **GDL109, GDL125, GDLV100, GDLV115**.
- **Motor** in a dielectric non-toxic **oil bath**, which ensures the lubrication of the ball bearings and a more efficient cooling.

- **Power cord: H07RN-F.**
 - single-phase: with plug.
 - three-phase: without plug.
- **Insulation class 155°C (F).**
- **IPX8 protection.**
- **Maximum immersion depth: 5 m.**
- **Versions:**
 - Single-phase: 220-240V, 50Hz 2 poles.
 - Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- **The single-phase versions** feature:
 - **capacitor** housed in a box on the power cord + 1,5 m. power cord with plug.
 - **thermal overload protection** to stop pump supply in case of overheating.
- CG versions (single-phase with pre-assembled float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.

GDL - GDLV SERIES IDENTIFICATION CODE



EXAMPLE : GDLM 90/A
GDL Series electric pump, impeller size 90,
50 Hz version, single-phase, /A version.

SINGLE-PHASE RATING PLATE

The single-phase rating plate includes the following fields:

- 1: Pump unit
- 2: Cod.
- 3: Q (l/min)
- 4: H (m)
- 5: Motor
- 6: Date
- 7: Hz
- 8: m
- 9: P2 (kW)
- 10: tmax (°C)

Other fields include: H min (m), H max (m), P1 (kW), Duty, Cl, IP, V, A, uF, No, and m.

GO1451_D_SC

LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE

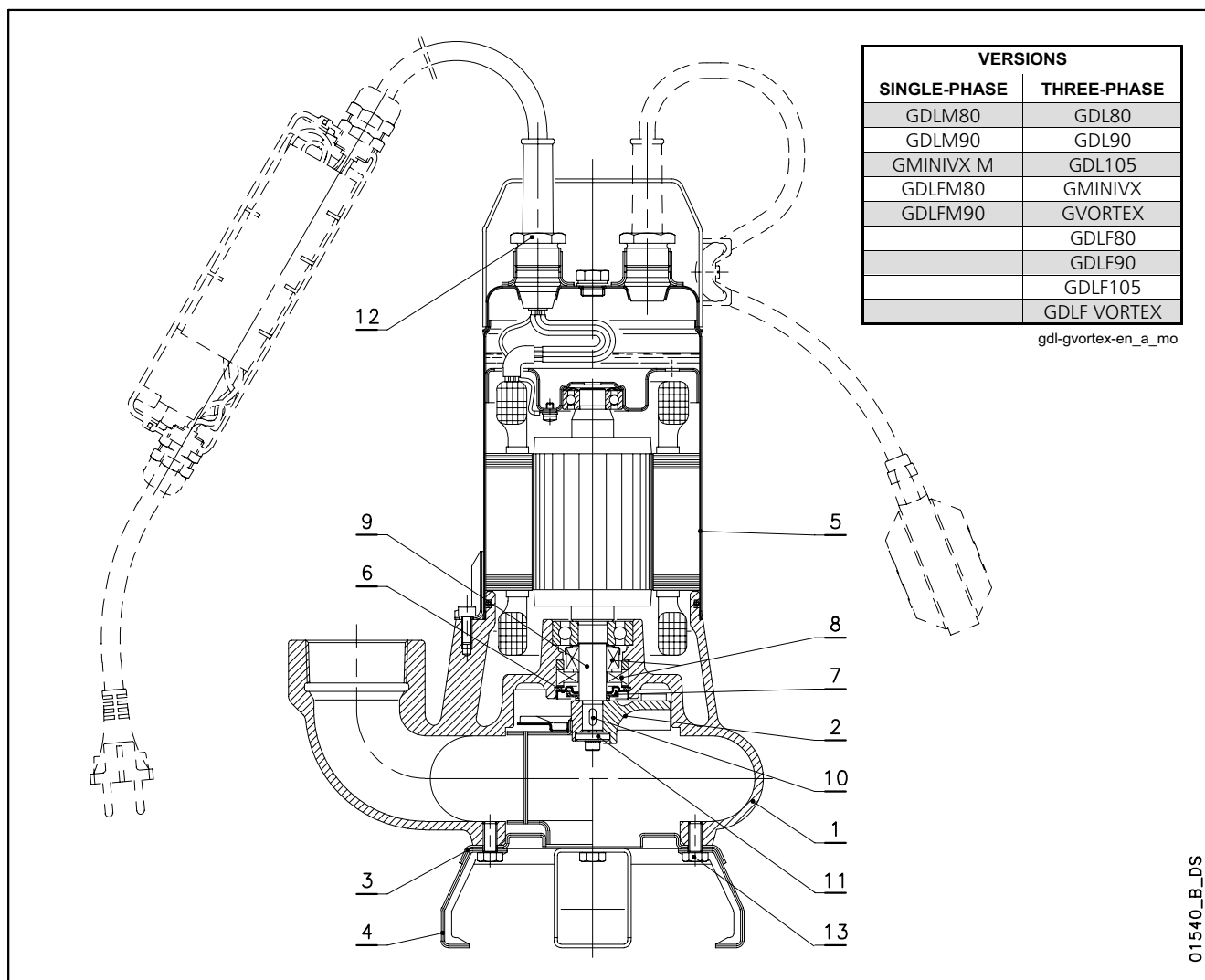
The three-phase rating plate includes the following fields:

- 1: Pump unit
- 2: Cod.
- 3: Q (l/min)
- 4: H (m)
- 5: Motor
- 6: Date
- 7: Hz
- 8: m
- 9: P2 (kW)
- 10: tmax (°C)

Other fields include: H min (m), H max (m), P1 (kW), Duty, Cl, IP, V, A, uF, No, and m.

GO1452_D_SC

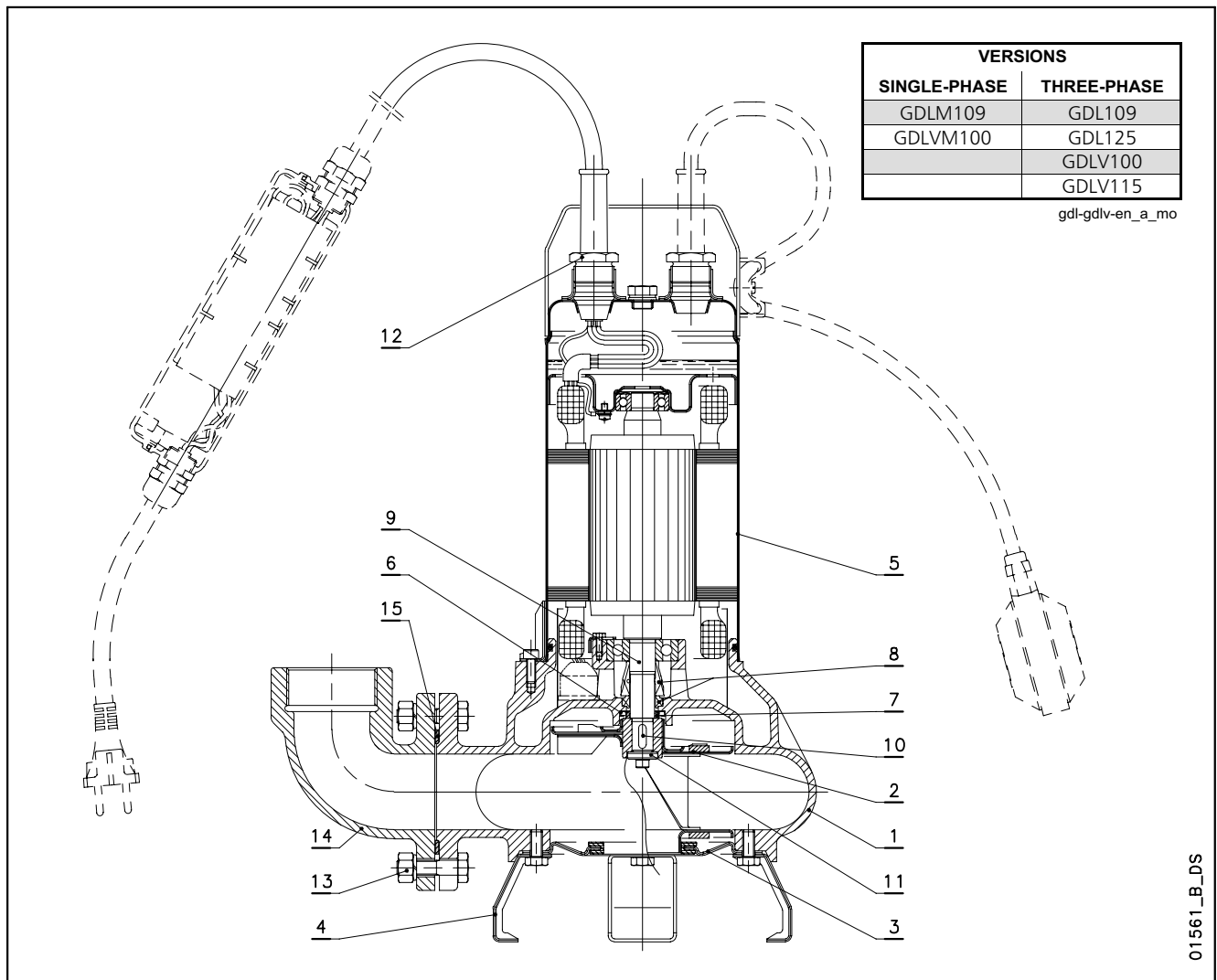
GDL-VORTEX SERIES LIST OF MODELS AND TABLE OF MATERIALS



REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Vortex impeller	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
	Single-channel impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Support foot	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Labyrinth cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	Labyrinth insert	NBR (standard version)		
8	Mechanical seal	Carbon / Ceramic Alumina / NBR (standard version)		
9	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
11	Washer	Stainless steel		AISI 303
12	Cable gland	Brass		
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

dl-vortex-en_b_tm

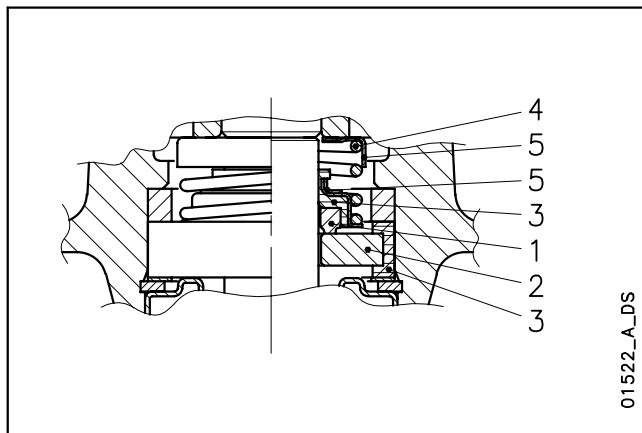
GDL-GDLV SERIES LIST OF MODELS AND TABLE OF MATERIALS



REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Vortex impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Single-channel impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Support foot	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	V-RING Cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	V16A Seal ring	NBR (standard version)		
8	Mechanical seal	Carbon / Ceramic Alumina / NBR (standard version)		
9	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
11	Washer	Stainless steel		AISI 303
12	Cable gland	Brass		
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
14	Delivery connection	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
15	Delivery connction gasket	Nitrile rubber		

dl-dlv-en_b_tm

GDL80 - GDL90 - GDL105 - GMINIVORTEX - GVORTEX SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	F : AISI 304
V : Ceramic Alumina		

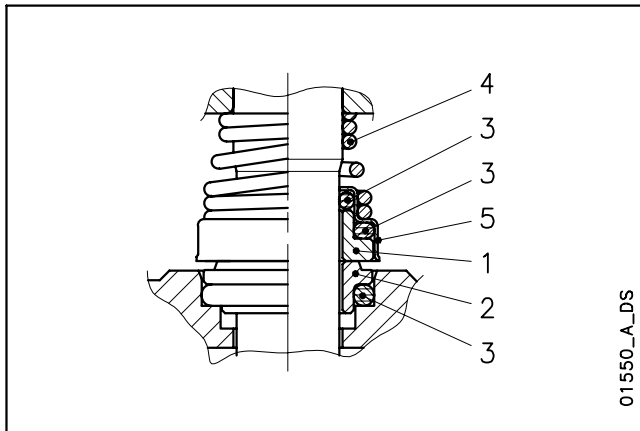
dn-dl-dlv_ten-mec-en_c_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
BVPFF	B	V	P	F	F	0 +50

dn-dl-dlv_tipi-ten-mec-en_b_tc

GDL109 - GDL125 - GDLV100 - GDLV115 SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	G : AISI 316
U₃ : Tungsten Carbide	V : FPM	F : AISI 304
V : Ceramic Alumina		

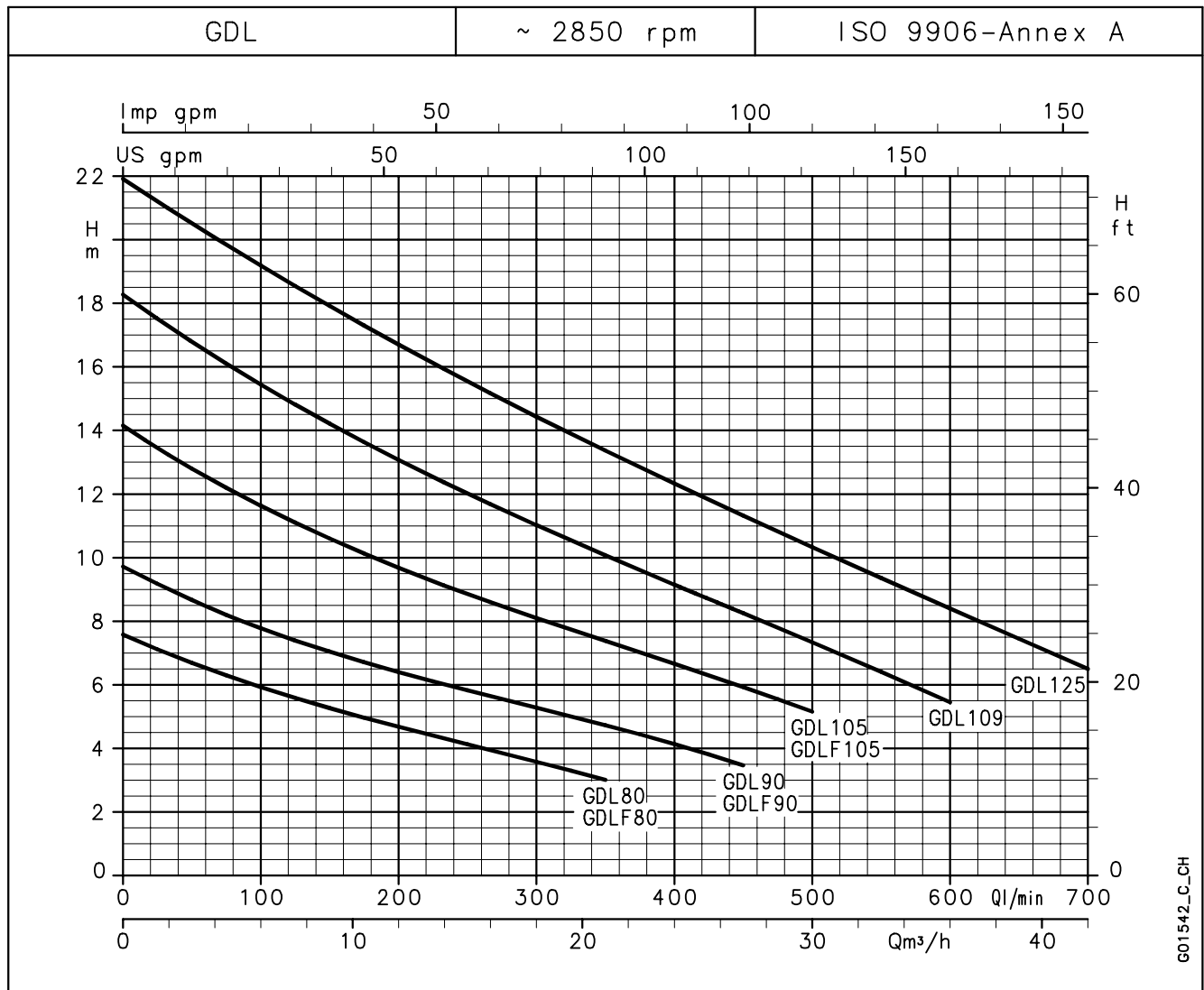
dl-dlv_ten-mec-en_a_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
VBPGF	V	B	P	G	F	0 +50
OTHER MECHANICAL SEAL TYPES						
U ₃ U ₃ VFF	U ₃	U ₃	V	F	F	0 +50

dl-dlv_tipi-ten-mec-en_b_tc

GDL SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY												
			l/min	0	100	150	200	250	300	350	400	450	500	600	700
	kW	HP	m³/h	0	6	9	12	15	18	21	24	27	30	36	42
H = TOTAL HEAD METRES COLUMN OF WATER															
GDL(M) 80-GDLF(M) 80	0,6	0,8	7,6	5,9	5,3	4,7	4,1	3,6	3,0						
GDL(M) 90-GDLF(M) 90	0,6	0,8	9,7	7,8	7,0	6,4	5,8	5,3	4,7	4,1	3,5				
GDL 105 - GDLF105	1,1	1,5	14,1	11,6	10,6	9,7	8,9	8,1	7,4	6,7	5,9	5,2			
GDL(M) 109	1,1	1,5	18,3	15,4	14,2	13,1	12,0	11,0	10,1	9,2	8,2	7,3	5,4		
GDL 125	1,5	2	21,9	19,2	17,9	16,7	15,5	14,4	13,4	12,3	11,3	10,3	8,4	6,5	

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdl-2p50-en_b_th

ELECTRICAL DATA TABLE

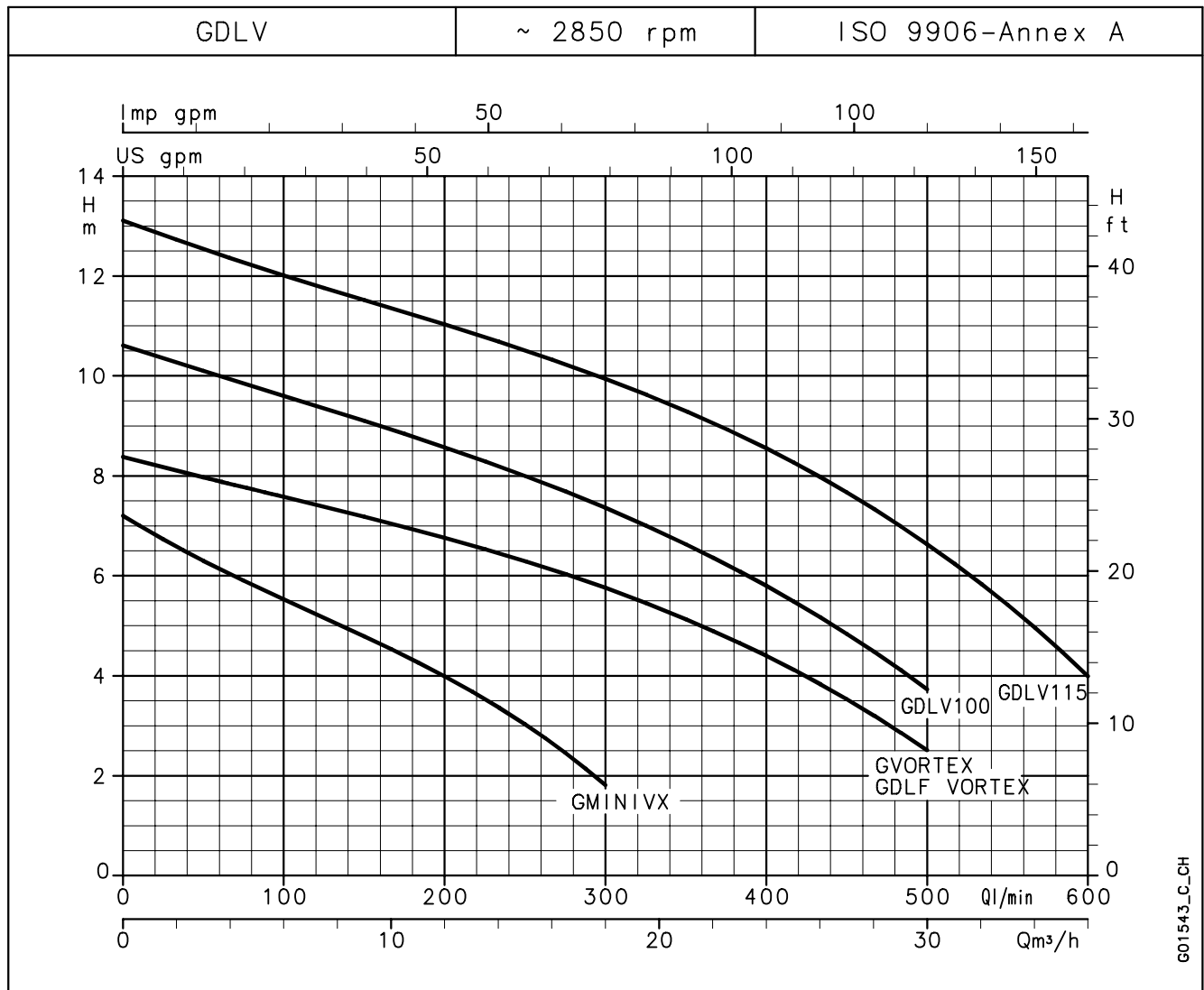
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE			
	kW	220-240 V A	$\mu\text{F} / 450 \text{ V}$
GDLM80-GDLFM80	0,79	3,91	25
GDLM90-GDLFM90	0,89	4,27	25
-	-	-	-
GDLM109	1,55	6,87	35
-	-	-	-

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE			
	kW	220-240 V A	380-415 V A
GDL80-GDLF80	0,8	-	2,09
GDL90-GDLF90	0,92	3,81	2,2
GDL105-GDLF105	1,43	4,66	2,69
GDL109	1,54	5,44	3,14
GDL125	2,14	6,58	3,8

*Maximum values within operating range.

gdl-2p50-en_b_te

GDLV SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY												
			l/min	0	50	100	150	200	250	300	350	400	450	500	600
	m³/h	0	3	6	9	12	15	18	21	24	27	30	36		
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER												
GMINIVX(M)	0,6	0,8	7,2	6,3	5,5	4,8	4,0	3,0	1,8						
GVORTEX-GDLF VORTEX	1,1	1,5	8,4	8,0	7,6	7,2	6,8	6,3	5,8	5,1	4,4	3,5	2,5		
GDLV(M) 100	1,1	1,5	10,6	10,1	9,6	9,1	8,6	8,0	7,4	6,6	5,8	4,8	3,7		
GDLV 115	1,5	2	13,1	12,5	12,0	11,5	11,0	10,5	9,9	9,3	8,5	7,7	6,6	4,0	

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

gdlv-2p50-en_b_th

ELECTRICAL DATA TABLE

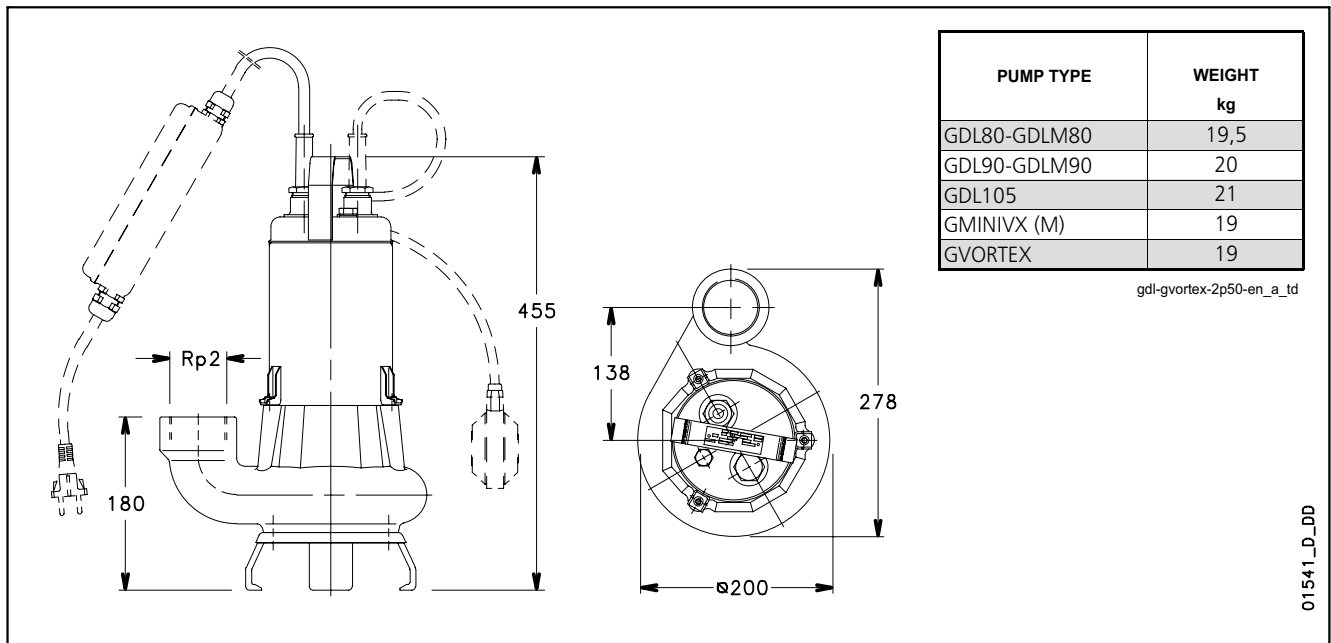
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE		220-240 V	
	kW	A	$\mu\text{F} / 450 \text{ V}$
GMINIVX M	1,05	4,82	25
-	-	-	-
GDLVM100	1,64	7,30	35
-	-	-	-

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	A	A
GMINIVX	1,10	-	2,36
GVORTEX-GDLF VORTEX	1,66	5,11	2,95
GDLV 100	1,65	5,63	3,25
GDLV 115	2,25	6,81	3,93

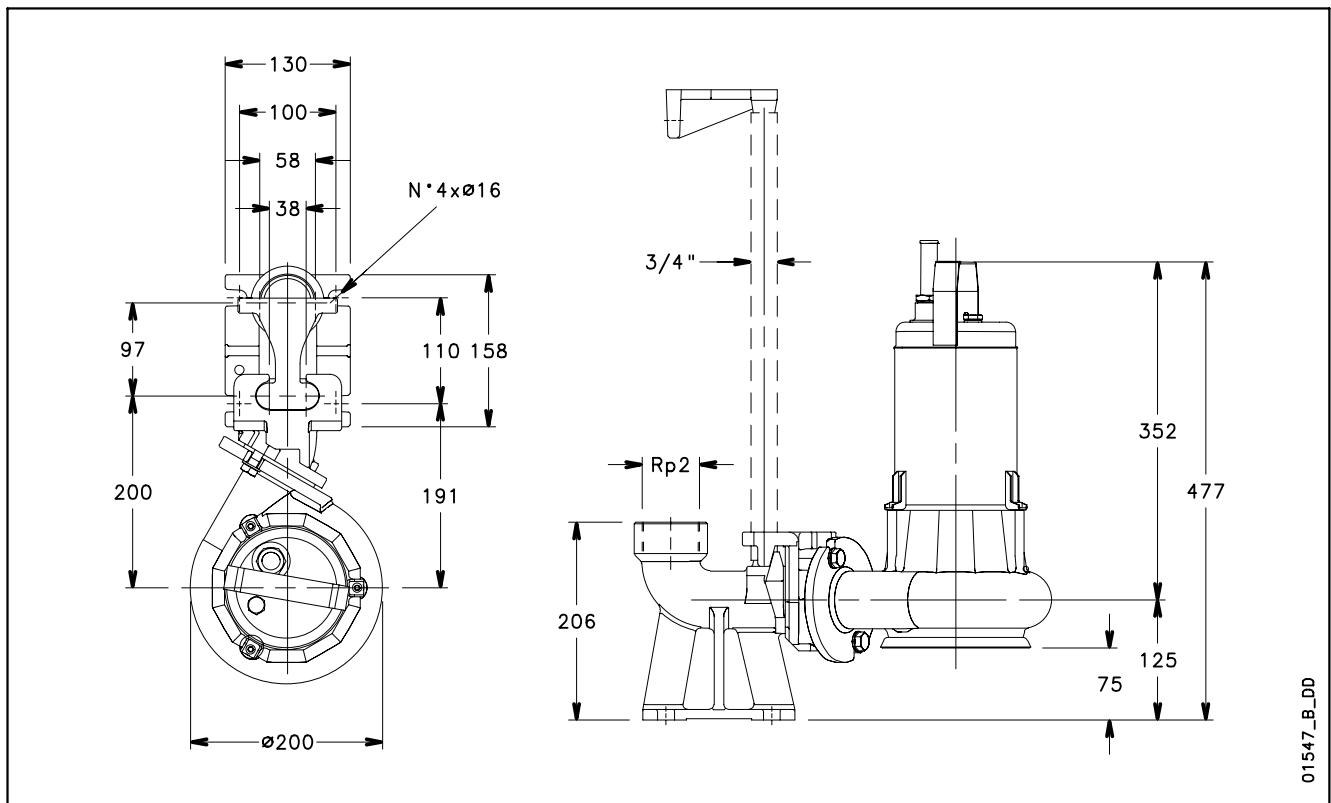
*Maximum values within operating range.

gdlv-2p50-en_b_te

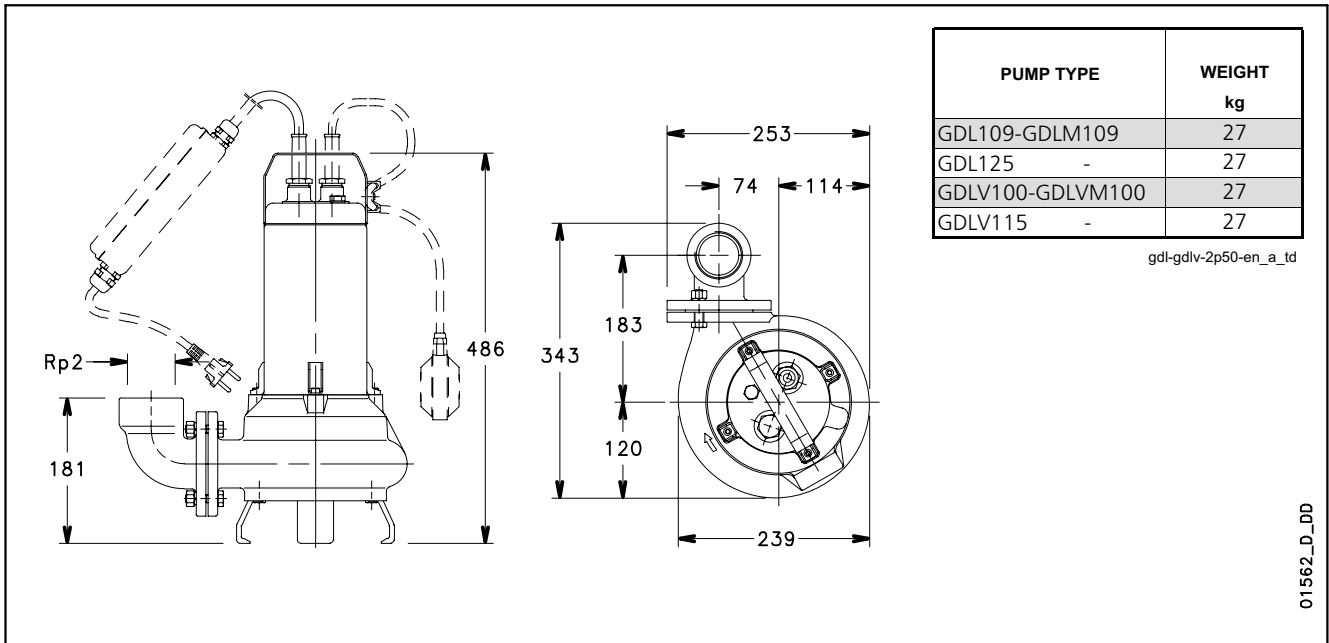
GDL - GVORTEX SERIES DIMENSIONS AND WEIGHTS



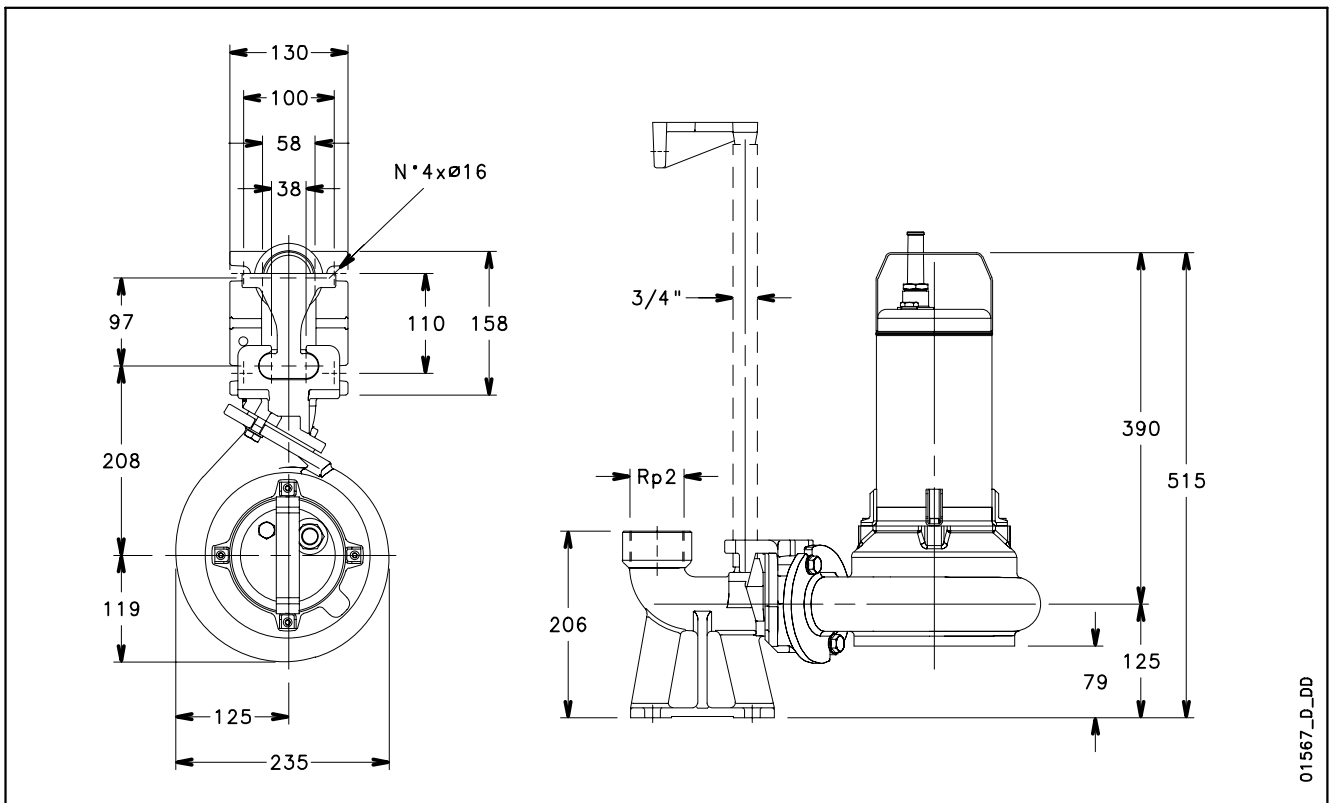
GDLF SERIES INSTALLATION WITH SD LOWERING DEVICE



GDL - GDLV SERIES DIMENSIONS AND WEIGHTS



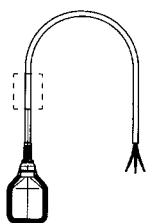
GDL-GDLV SERIES INSTALLATION WITH SD LOWERING DEVICE



TECHNICAL APPENDIX

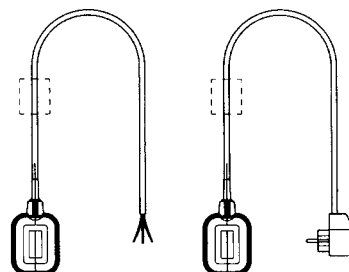
LEVEL REGULATORS

SMALL MODEL
(floating)



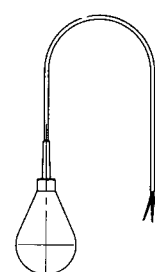
For single function (draining).
Cable lengths 1.5, 5, 10 m.
Counterweight available on request for versions with 5 and 10 m cable.

KEY MODEL
(floating)



For dual function (draining/filling).
Cable lengths: 1.5, 5, 10, 20 m.
Counterweight available on request for versions with 5 and 10 m cable.
Version with plug and socket for single-phase pumps up to 1 kW.

RDN-10 MODEL
(tilting)



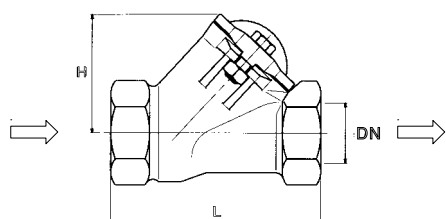
For solids-laden water.
Cable lengths:
10, 13, 15, 20, 30, 50 m.

BALL CHECK VALVES FOR WASTEWATER

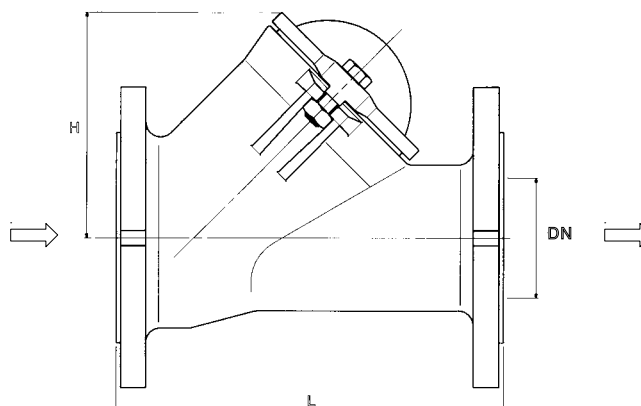
No-clog, maximum reliability, low flow resistance.
Maximum operating pressure: 10 bar.
Maximum temperature: 85°C.
Horizontal and vertical operating position.

MODEL	DIMENSIONS (mm)			WEIGHT kg
	Ø BALL	L	H	
Rp 1 1/4	48	140	80	2
Rp 1 1/2	50	140	80	4
Rp 2	60	200	98	5,5
DN 65	95	230	148	12
DN 80	95	260	148	13
DN 100	120	300	182	18
DN 150	175	400	251	37,5
DN 200	240	500	333	70
DN 250	300	600	406	128

Valv-palla-en_a_td

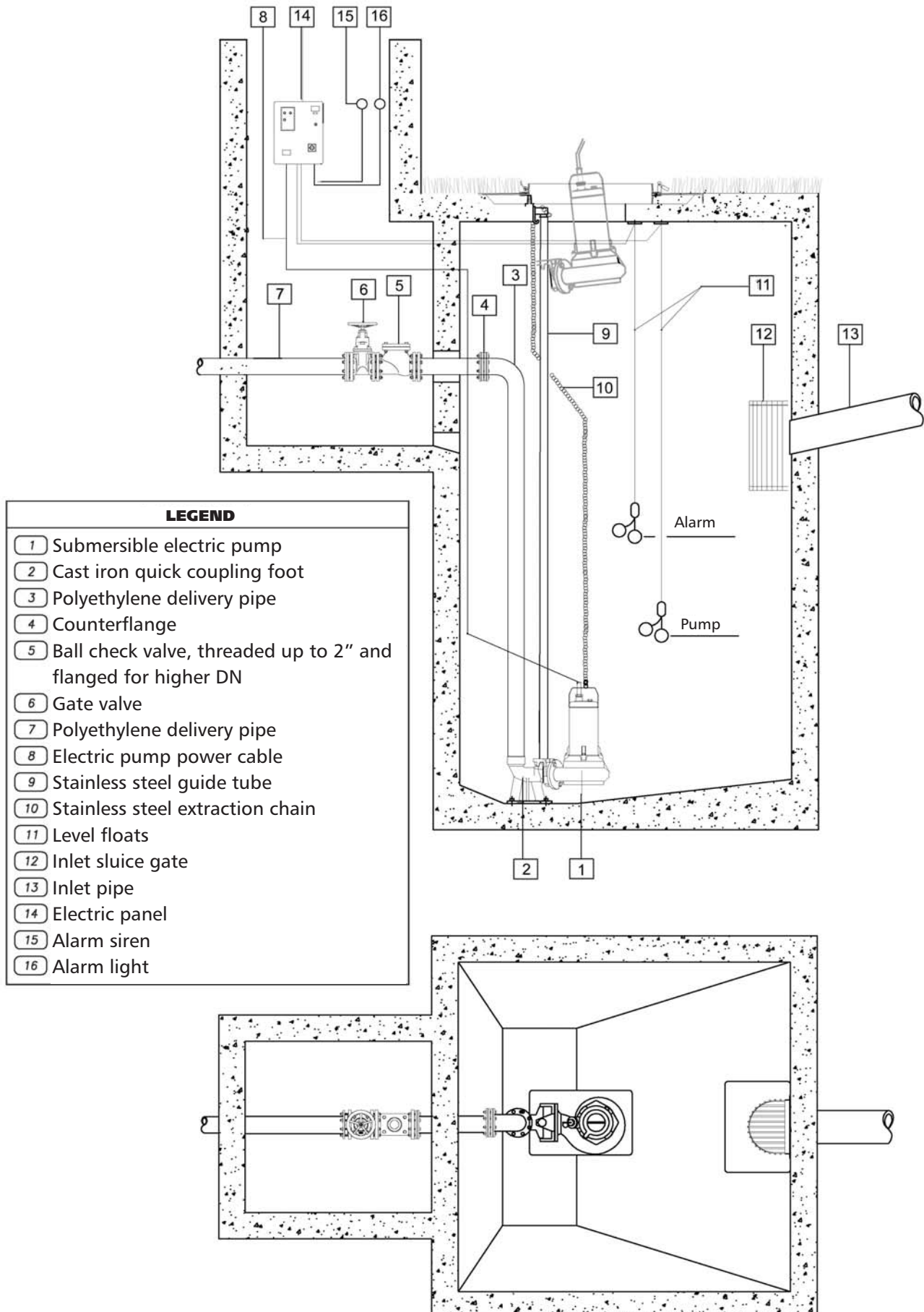


Rp 1 1/4 - 1 1/2 - 2 MODEL

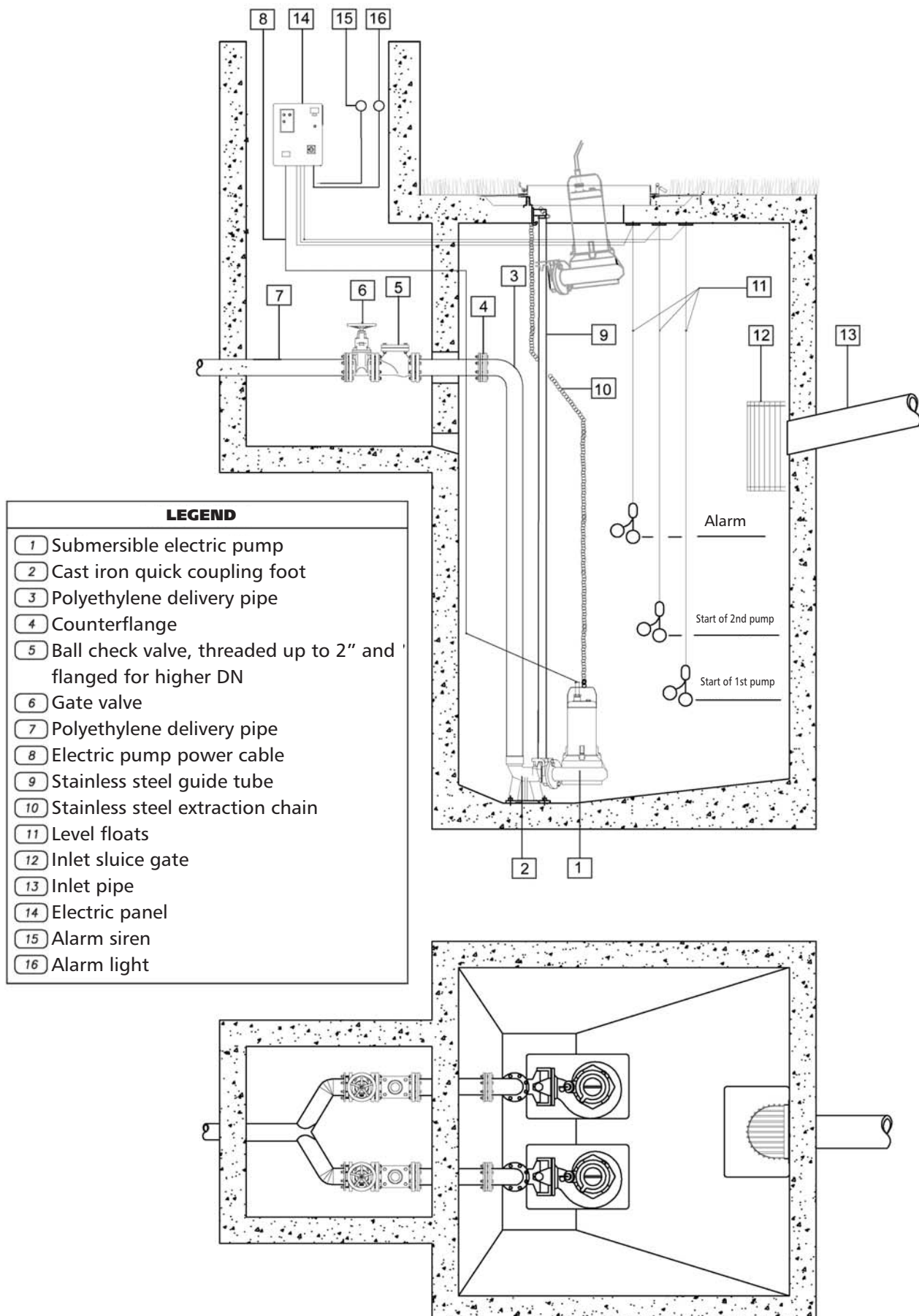


65 - 80 - 100 - 150 - 200 - 250 MODEL

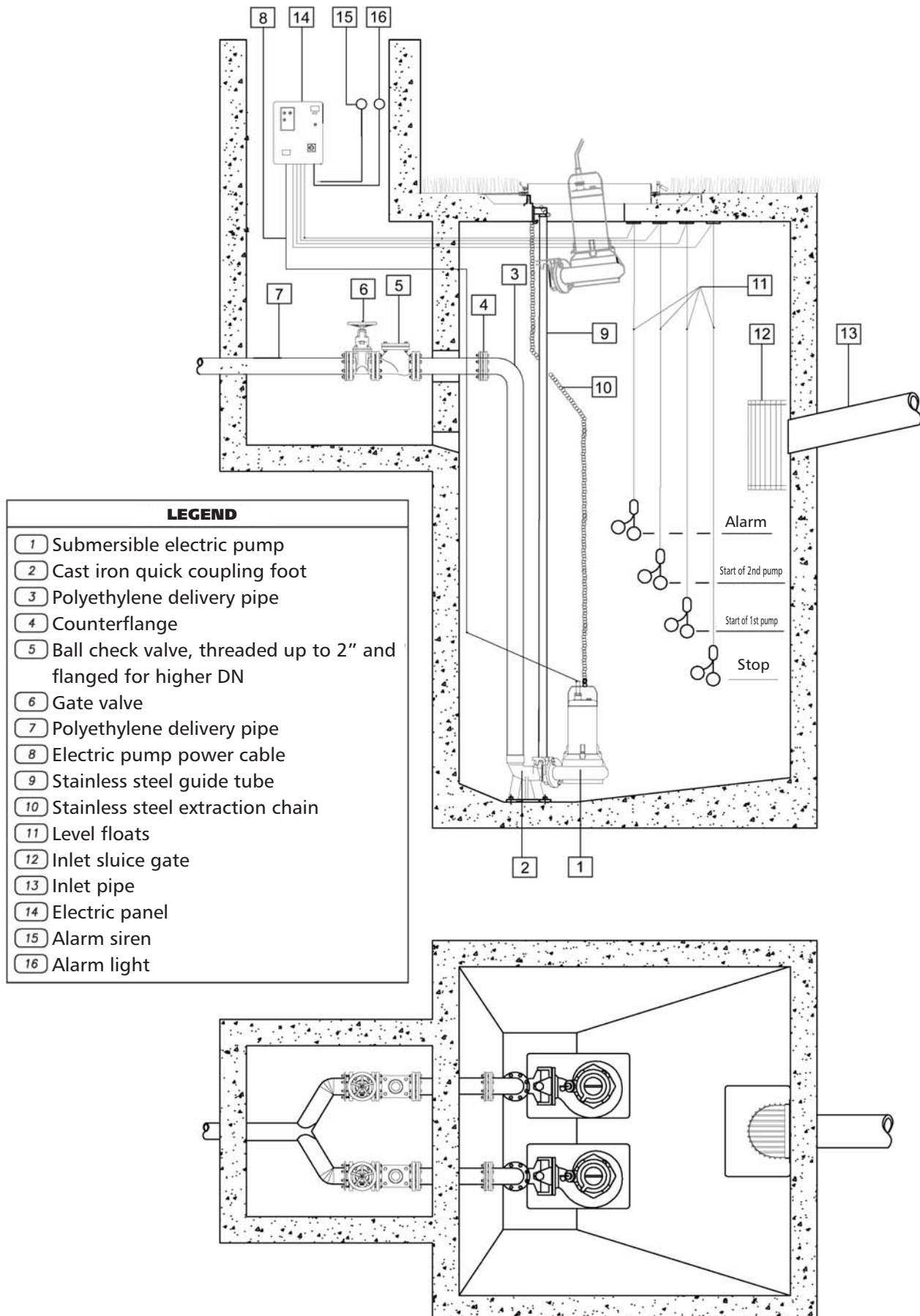
EXAMPLE OF INSTALLATION OF SINGLE-PUMP SYSTEM



EXAMPLE OF INSTALLATION OF TWO-PUMPS SYSTEM WITH THREE LEVEL REGULATORS



EXAMPLE OF INSTALLATION OF TWO-PUMPS SYSTEM WITH FOUR LEVEL REGULATORS



FLOW RESISTANCE

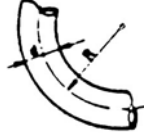
TABLE OF FLOW RESISTANCE IN 100 m OF A NEW AND STRAIGHT CAST IRON PIPELINE

FLOW RATE		NOMINAL DIAMETER IN mm AND INCHES																	
m³/h	l/min.		15 ½"	20 ¾"	25 1"	32 1 ¼"	40 1 ½"	50 2"	65 2 ½"	80 3"	100 4"	125 5"	150 6"	175 7"	200 8"	250 10"	300 12"	350 14"	400 16"
0,6	10	V hr	0,94 11,8	0,53 2,82	0,34 1	0,21 0,25													
0,9	15	V hr	1,42 25,1	0,8 6,04	0,51 2,16	0,31 0,55													
1,2	20	V hr	1,89 43,1	1,06 10,4	0,68 3,72	0,41 0,95	0,27 0,31												
1,5	25	V hr	2,36 64,5	1,33 15,8	0,85 5,68	0,52 1,47	0,33 0,47												
1,8	30	V hr	2,83 92	1,59 22,3	1,02 8	0,62 2,09	0,4 0,66												
2,1	35	V hr	3,3 123	1,86 29,8	1,19 10,8	0,73 2,81	0,46 0,89	0,3											
2,4	40	V hr	3,77 164	2,12 38,2	1,36 13,8	0,83 2,65	0,53 1,15	0,34 0,4											
3	50	V hr	4,72 246	2,65 58,2	1,7 21,5	1,04 5,6	0,66 1,75	0,42 0,61											
3,6	60	V hr		3,18 82	2,04 30	1,24 8	0,8 2,48	0,51 0,86											
4,2	70	V hr			3,72 110	2,38 40	1,45 10,8	0,93 3,33	0,59 1,14										
4,8	80	V hr			4,25 141	2,72 51,5	1,66 13,9	1,06 4,3	0,68 1,46										
5,4	90	V hr				3,06 64	1,87 17,5	1,19 5,4	0,76 1,82	0,45 0,46									
6	100	V hr					3,4 79	2,07 21,4	1,33 6,6	0,85 2,22	0,5 0,56								
7,5	125	V hr				4,25 120	2,59 33	1,66 10	1,06 3,4	0,63 0,86									
9	150	V hr					3,11 47	1,99 14,2	1,27 4,74	0,75 1,21	0,5 0,43								
10,5	175	V hr					3,63 63	2,32 19	1,49 6,3	0,88 1,63	0,58 0,57								
12	200	V hr					4,15 82	2,65 24,5	1,7 8,1	1,01 2,1	0,66 0,74								
15	250	V hr					5,18 126	3,32 37,5	2,12 12,3	1,26 3,2	0,83 1,12	0,53 0,36							
18	300	V hr						3,98 53	2,55 17,3	1,51 4,5	1 1,58	0,64 0,51							
24	400	V hr					5,31 92	3,4 29,5	2,01 7,8	1,33 2,7	0,85 0,89								
30	500	V hr						6,63 140	4,25 44,8	2,51 12	1,66 4,13	1,06 1,36	0,68 0,48						
36	600	V hr							5,1 63	3,02 16,9	1,99 5,8	1,27 1,93	0,82 0,68						
42	700	V hr							5,94 84	3,52 22,6	2,32 7,8	1,49 2,6	0,95 0,9						
48	800	V hr						6,79 108	4,02 29	2,65 10	1,70 3,35	1,09 1,16	0,75 0,43						
54	900	V hr						7,64 134	4,52 36	2,99 12,5	1,91 4,2	1,22 1,45	0,85 0,54						
60	1000	V hr						5,03 44,5	3,32 15,2	2,12 5,14	1,36 1,76	0,94 0,66							
75	1250	V hr						6,28 68	4,15 23	2,65 7,9	1,70 2,68	1,18 1	0,87 0,48						
90	1500	V hr						7,54 96	4,98 32,6	3,18 11,2	2,04 3,77	1,42 1,42	1,04 0,68						
105	1750	V hr						8,79 129	5,81 43,5	3,72 15	2,38 5,04	1,65 1,9	1,21 0,91	0,93 0,45					
120	2000	V hr							6,63 56	4,25 19,4	2,72 6,5	1,89 2,43	1,39 1,18	1,06 0,58	0,68 0,16				
150	2500	V hr							8,29 85	5,31 30	3,40 9,8	2,36 3,75	1,73 1,79	1,33 0,89	0,85 0,25				
180	3000	V hr							9,95 120	6,37 42	4,08 13,8	2,83 5,3	2,08 2,53	1,59 1,25	1,02 0,35	0,71 0,15			
300	5000	V hr								10,62 124,9	6,79 41,3	4,72 16,74	3,47 7,81	2,65 4,03	1,70 1,34	1,18 0,54	0,87 0,25	0,66 0,13	
600	10000	V hr									13,59 161	9,44 65	6,93 30,2	5,31 15,6	3,4 5,16	2,36 2,09	1,73 0,97	1,33 0,5	1,33 0,5
1200	20000	V hr													6,79 20,1	4,72 8,13	3,47 3,8	2,65 1,95	2,65 1,95
1800	30000	V hr														7,7 18,07	5,2 8,39	4,0 4,32	4,0 4,32
3000	50000	V hr														11,8 49,5	8,67 23	6,63 11,8	6,63 11,8
4500	75000	V hr															17,7 110,5	13 51,3	9,9 26,4
6000	100000	V hr																17,33 90,6	13,27 46,6

THE FLOW RESISTANCE MUST BE MULTIPLIED BY:

- 0.8 for stainless steel pipes
- 1.25 for slightly rusted steel pipes
- 1.7 for pipes with deposits that reduce the flow section
- 0.7 for aluminium pipes
- 1.3 for fibre-cement pipes

FLOW RESISTANCE IN BENDS, VALVES AND GATES IN cm OF COLUMN OF WATER

WATER SPEED m/ ec	SHARP BENDS 					SMOOTH BENDS 					STANDARD GATE VALVES	FOOT VALVES	CHECK VALVES
	a = 30°	a = 40°	a = 60°	a = 80°	a = 90°	$\frac{d}{R} = 0,4$	$\frac{d}{R} = 0,6$	$\frac{d}{R} = 0,8$	$\frac{d}{R} = 1$	$\frac{d}{R} = 1,5$			
0,10	0,03	0,04	0,05	0,07	0,08	0,007	0,008	0,01	0,0155	0,027	0,030	30	30
0,15	0,06	0,07	0,10	0,14	0,17	0,016	0,019	0,024	0,033	0,06	0,033	31	31
0,2	0,11	0,13	0,18	0,26	0,31	0,028	0,033	0,04	0,058	0,11	0,058	31	31
0,25	0,17	0,21	0,28	0,4	0,48	0,044	0,052	0,063	0,091	0,17	0,090	31	31
0,3	0,25	0,30	0,41	0,6	0,7	0,063	0,074	0,09	0,13	0,25	0,13	31	31
0,35	0,33	0,40	0,54	0,8	0,93	0,085	0,10	0,12	0,18	0,33	0,18	31	31
0,4	0,43	0,52	0,71	1,0	1,2	0,11	0,13	0,16	0,23	0,43	0,23	32	31
0,5	0,67	0,81	1,1	1,6	1,9	0,18	0,21	0,26	0,37	0,67	0,37	33	32
0,6	0,97	1,2	1,6	2,3	2,8	0,25	0,29	0,36	0,52	0,97	0,52	34	32
0,7	1,35	1,65	2,2	3,2	3,9	0,34	0,40	0,48	0,70	1,35	0,70	35	32
0,8	1,7	2,1	2,8	4,0	4,8	0,45	0,53	0,64	0,93	1,7	0,95	36	33
0,9	2,2	2,7	3,6	5,2	6,2	0,57	0,67	0,82	1,18	2,2	1,20	37	34
1,0	2,7	3,3	4,5	6,4	7,6	0,7	0,82	1,0	1,45	2,7	1,45	38	35
1,5	6,0	7,3	10	14	17	1,6	1,9	2,3	3,3	6	3,3	47	40
2,0	11	14	18	26	31	2,8	3,3	4,0	5,8	11	5,8	61	48
2,5	17	21	28	40	48	4,4	5,2	6,3	9,1	17	9,1	78	58
3,0	25	30	41	60	70	6,3	7,4	9	13	25	13	100	71
3,5	33	40	55	78	93	8,5	10	12	18	33	18	123	85
4,0	43	52	70	100	120	11	13	16	23	42	23	150	100
4,5	55	67	90	130	160	14	21	26	37	55	37	190	120
5,0	67	82	110	160	190	18	29	36	52	67	52	220	140

- 1) Flow resistance in bends is due to the contraction of the liquid threads resulting from the change of direction: the development of the bends must therefore be included in the length of the pipeline.
- 2) Flow resistance in valves and gates was determined on the basis of practical tests.

VOLUMETRIC CAPACITY

Litres per minute l/min	Cubic metres per hour m ³ /h	Cubic feet per hour ft ³ /h	Cubic feet per minute ft ³ /min	Imp. gal. per minute Imp. gal./min	US gal. per minute Us gal./min
1,0000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

Newton per square metre N/m ²	kilo Pascal kPa	bar bar	Pound force per square inch psi	metre of water m H ₂ O	millimetre of mercury mm Hg
1,0000	0,0010	1 x 10 ⁻⁵	1.45 x 10 ⁻⁴	1.02 x 10 ⁻⁴	0,0075
1000,0000	1,0000	0,0100	0,1450	0,1020	7,5006
1 x 10 ⁵	100,0000	1,0000	14,5038	10,1972	750,0638
6894,7570	6,8948	0,0689	1,0000	0,7031	51,7151
9806,6500	9,8067	0,0981	1,4223	1,0000	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	1,0000

LENGTH

millimetre mm	centimetre cm	metre m	inch in	foot ft	yard yd
1,0000	0,1000	0,0010	0,0394	0,0033	0,0011
10,0000	1,0000	0,0100	0,3937	0,0328	0,0109
1000,0000	100,0000	1,0000	39,3701	3,2808	1,0936
25,4000	2,5400	0,0254	1,0000	0,0833	0,0278
304,8000	30,4800	0,3048	12,0000	1,0000	0,3333
914,4000	91,4400	0,9144	36,0000	3,0000	1,0000

VOLUME

cubic metre m ³	litre litro	millilitre ml	imp. Gallon imp. gal.	US gallon US gal.	cubic foot ft ³
1,0000	1000,0000	1 x 10 ⁶	219,9694	264,1720	35,3147
0,0010	1,0000	1000,0000	0,2200	0,2642	0,0353
1 x 10 ⁻⁶	0,0010	1,0000	2.2 x 10 ⁻⁴	2.642 x 10 ⁻⁴	3.53 x 10 ⁻⁵
0,0045	4,5461	4546,0870	1,0000	1,2009	0,1605
0,0038	3,7854	3785,4120	0,8327	1,0000	0,1337
0,0283	28,3168	28316,8466	6,2288	7,4805	1,0000

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- 1) The tissue in plants that brings water upward from the roots;
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