50 Hz

DOC - DIWA - DOMO
DOMO GRI - DN - DL
Series

DRAINAGE AND SEWAGE
ELECTRIC PUMPS

Cod. 191004441 Rev.A Ed.03/2012

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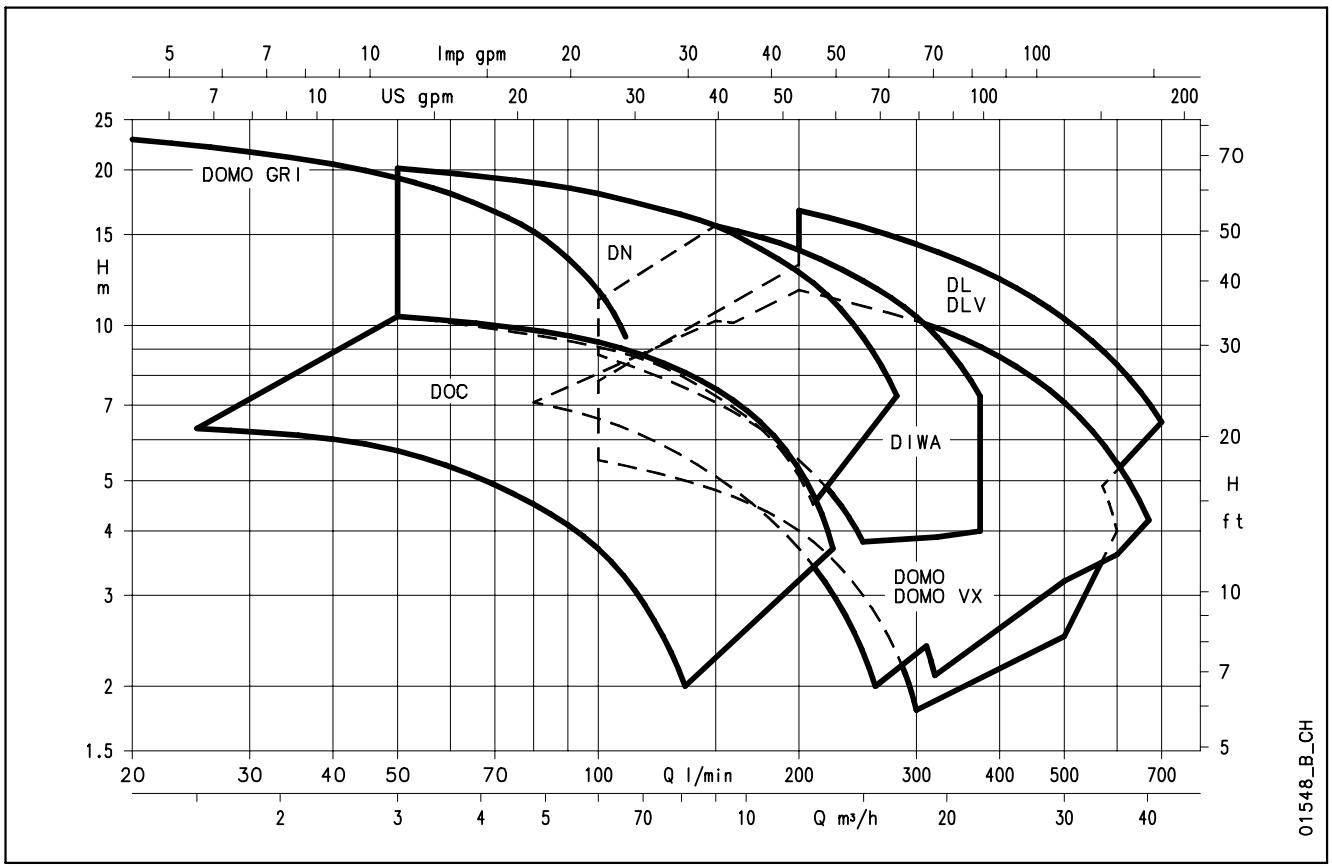
DOC - DIWA - DOMO - DOMO GRI - DN - DL SERIES
HYDRAULIC PERFORMANCE RANGE AT 50 Hz



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Submersible Electric Pumps for drainage of clean and dirty water

DOC Series

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

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.

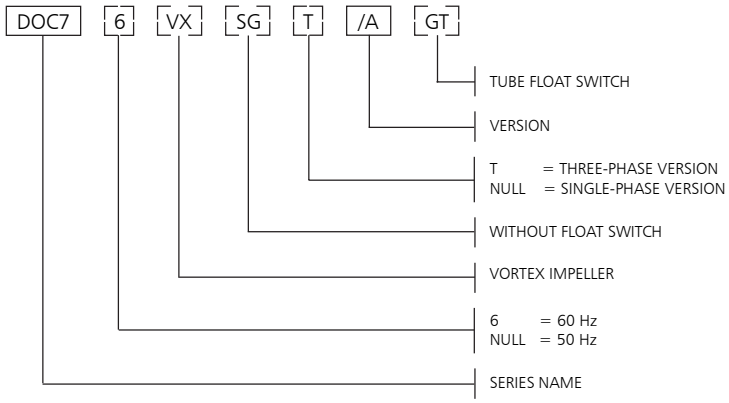
SPECIFICATIONS

- **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 **DOC3** 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.
- The **DOC7** 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 **DOC7VX** 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 DOC3 and DOC7 models, is available on request. It ensures the complete drainage of flooded floors (down to 3 mm from floor).

SOS KIT

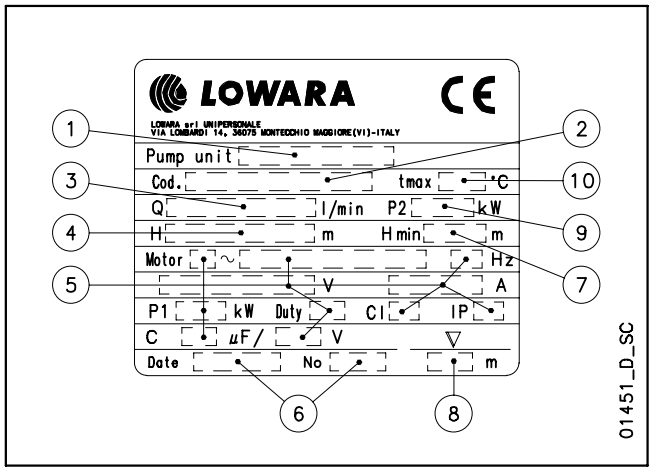
The **SOS Kit** is available, for quick emergency dewatering of flooded basements, garages and residential buildings.
The kit is composed of:
- a single-phase **DOC3** electric pump, equipped with float switch, 10 meters power cord with plug and a quick coupling already mounted for rapid hose connection.
- 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.

DOC SERIES
IDENTIFICATION CODE

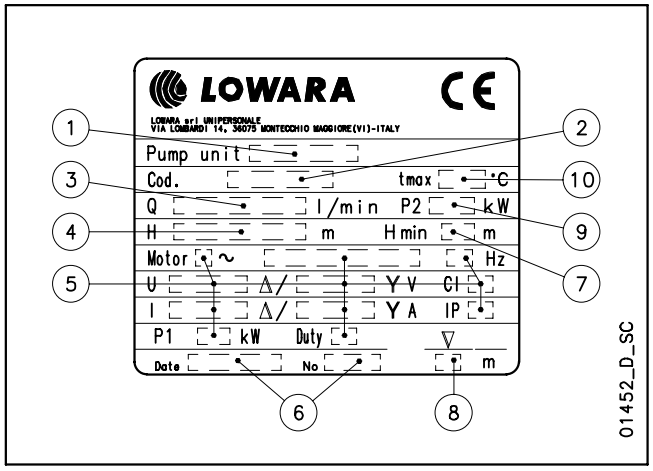


EXAMPLE : DOC 7VX/A
DOC 7 Series Electric pump, 50 Hz version,
Vortex impeller, single-phase, /A version.

SINGLE-PHASE RATING PLATE



THREE-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

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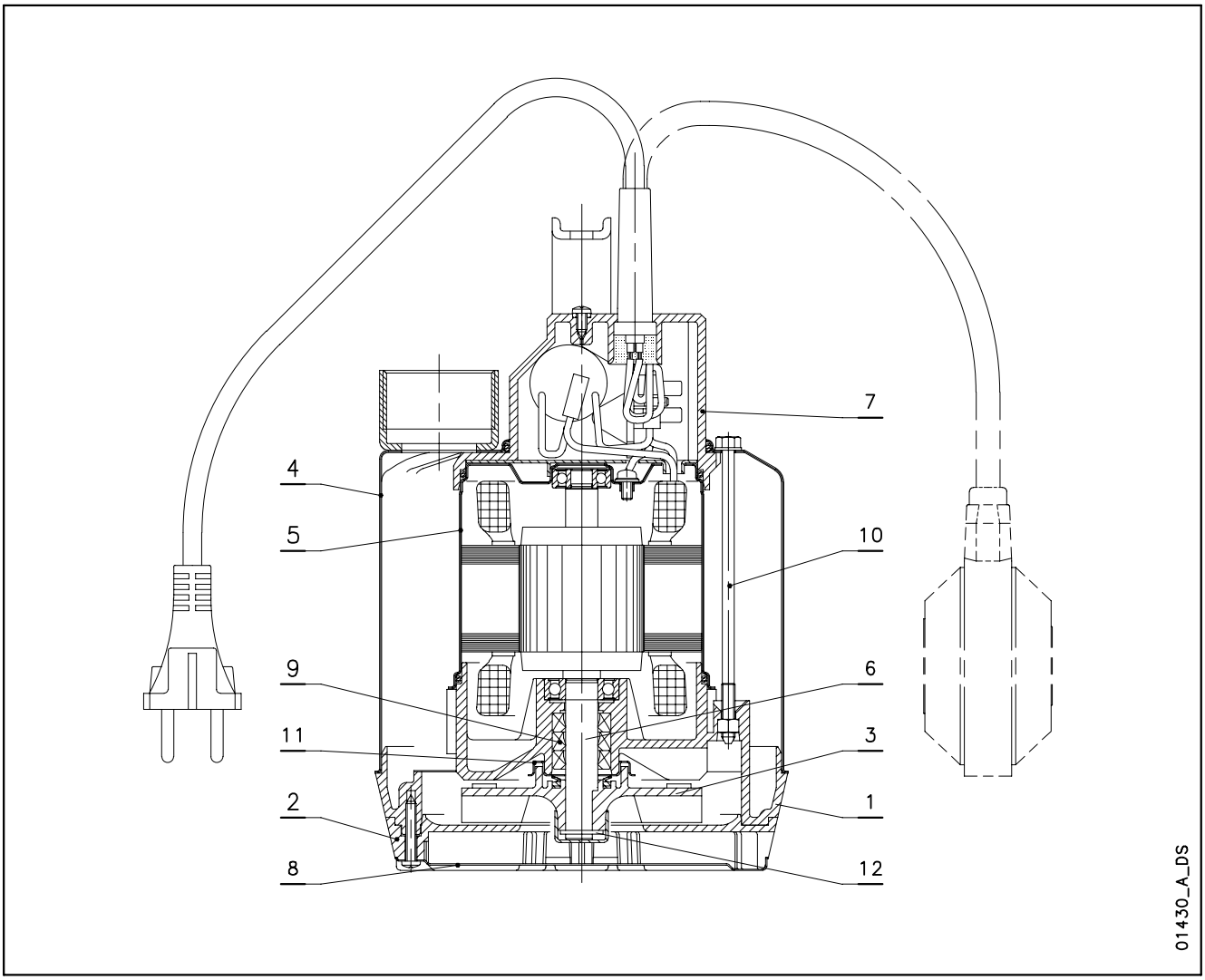
DOC SERIES
LIST OF MODELS AND TABLE OF MATERIALS



REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	PPO resin + 20 % GF		
2	Suction strainer	PPO resin + 20 % GF		
3	Impeller DOC3	PPO resin + 20 % GF		
	Impeller DOC7 - DOC7VX	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

doc-en_b_tm

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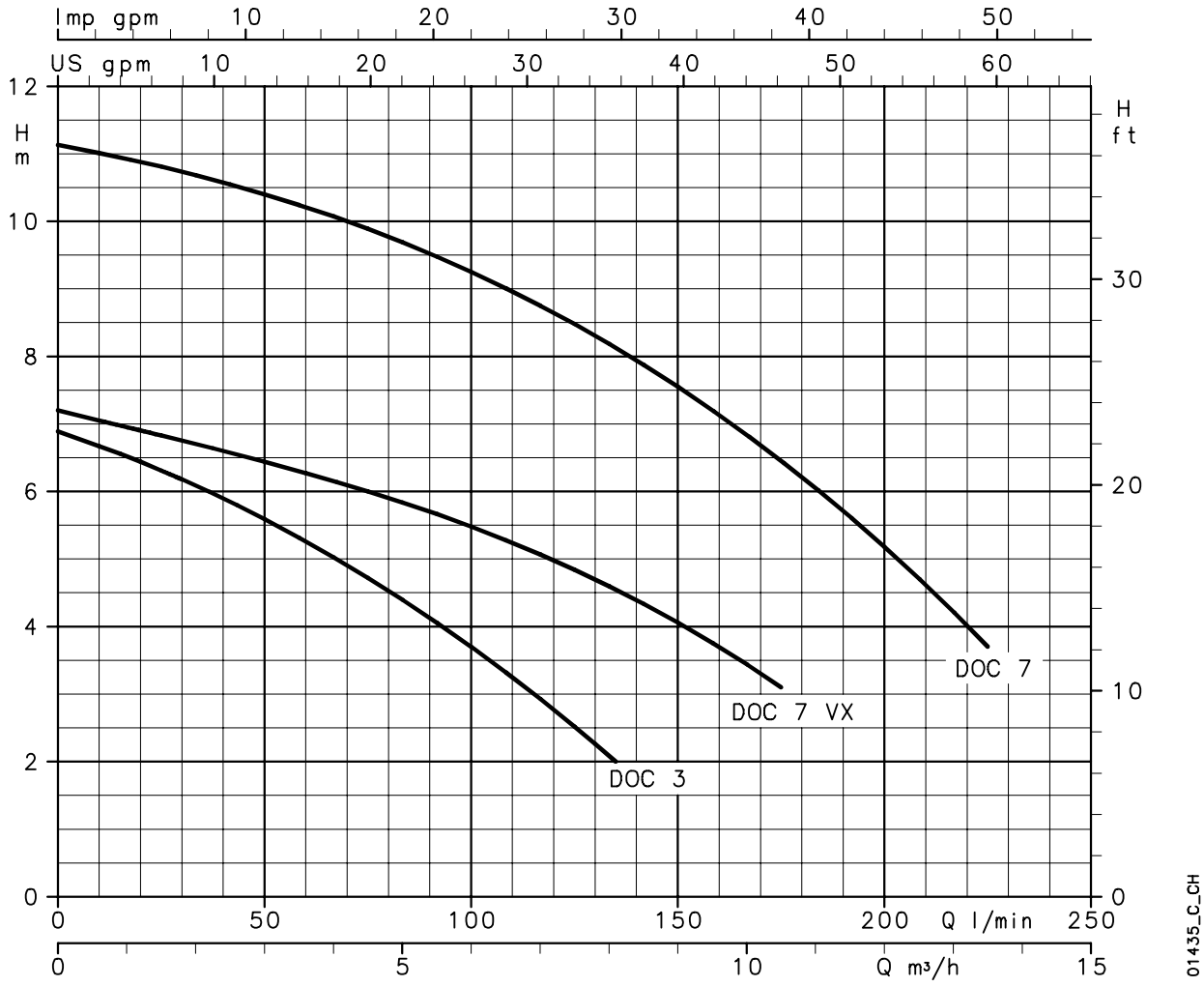
DOC SERIES
OPERATING CHARACTERISTICS AT 50 Hz

DOC	~ 2850 rpm	ISO 9906-Annex A



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									
DOC3	0,25	0,33	6,9	6,3	5,6	4,7	3,7	2,5	2,0		
DOC7(T)	0,55	0,75	11,1	10,8	10,4	9,9	9,3	8,5	8,1	6,5	3,7
DOC7VX(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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

doc-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DOC 3	0,31	1,43	6,3
DOC 7	0,78	3,47	16
DOC 7VX	0,66	2,96	16

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

*Maximum values within operating range

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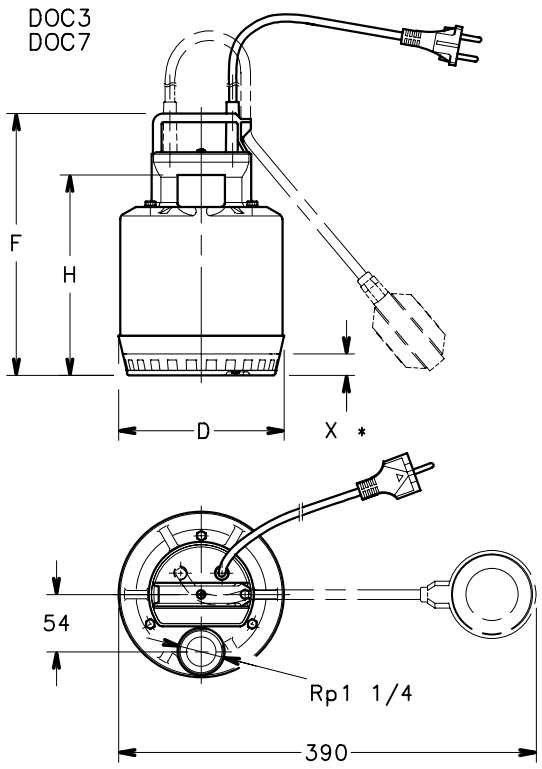
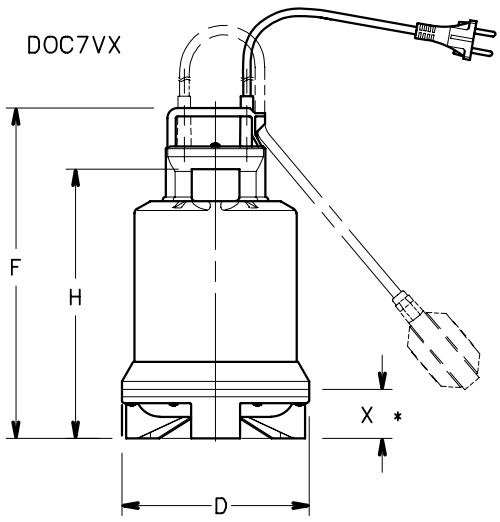
DOC SERIES
DIMENSIONS AND WEIGHTS





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PUMP TYPE		DIMENSIONS (mm)				WEIGHT
		F	H	D	X*	kg
DOC3	DOC3 GT	245	188	155	20	4
DOC7(T)	DOC7(T) GT	285	228	155	20	6
DOC7VX(T)	-	310	252	175	45	6

* Minimum liquid level.

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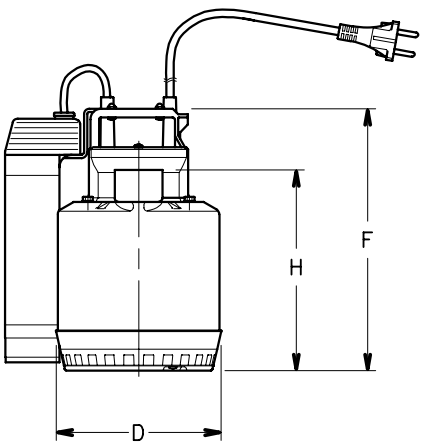
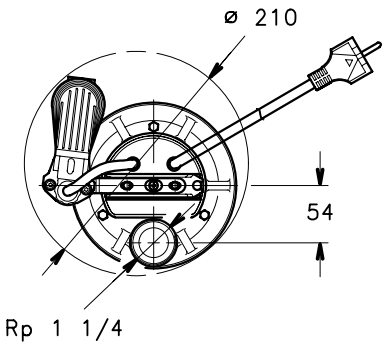
DOC3 GT
DOC7 GT





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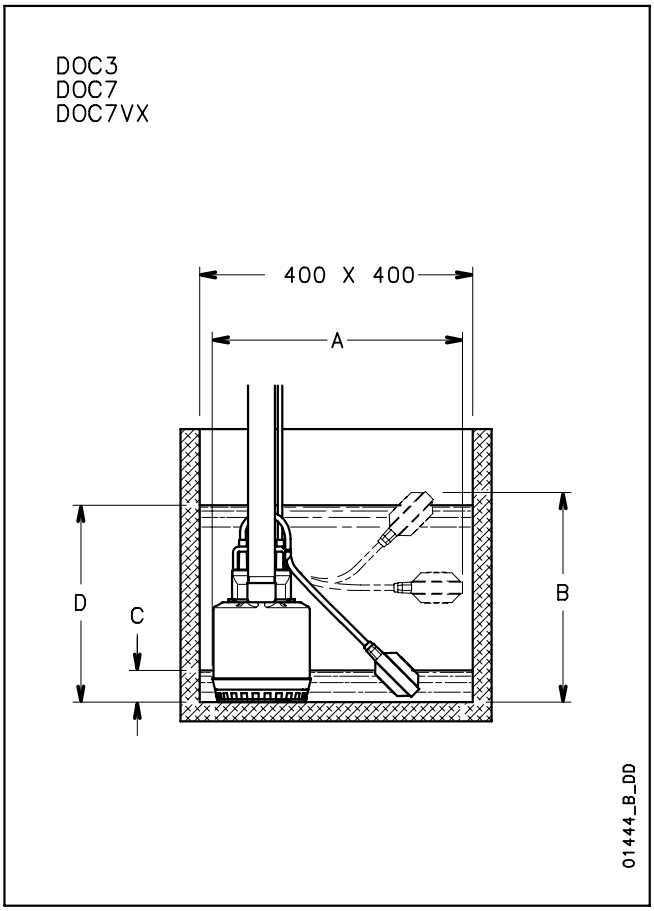
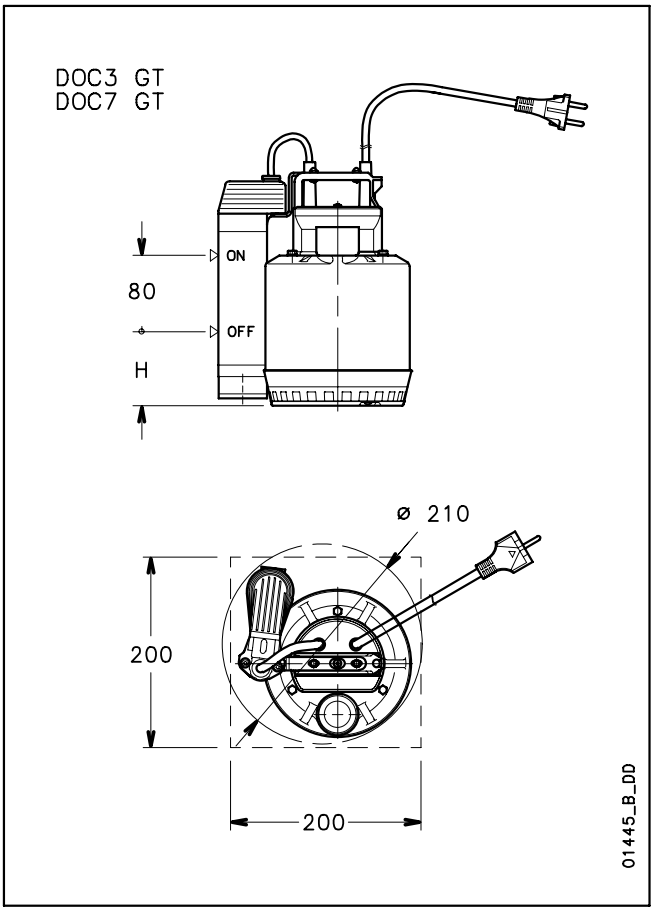
DOC SERIES
INSTALLATION EXAMPLES



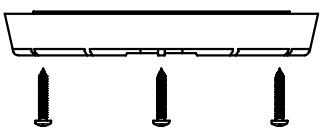


PUMP TYPE		DIMENSIONS (mm)		MINIMUM WATER LEVEL	MAXIMUM WATER LEVEL	MINIMUM WATER LEVEL
		A	B	C*	D*	H
DOC3	DOC3 GT	390	330	50	310	90
DOC7	DOC7 GT	390	370	90	350	90
DOC7VX	-	390	395	115	375	-

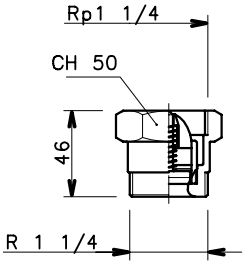
* Indicative values depending on the float switch adjustment.

docliv-2p50-en_d_td

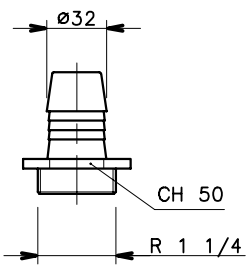
ACCESSORIES



Shallow suction device (3 mm)



VRD check valve



RPG pipe fitting

01448_A_DD

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Submersible Electric Pumps for drainage of clean and slightly dirty water

DIWA 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 m^3/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.

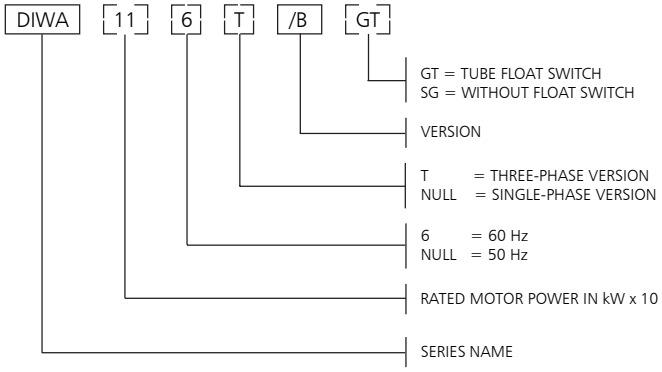
SPECIFICATIONS

- **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

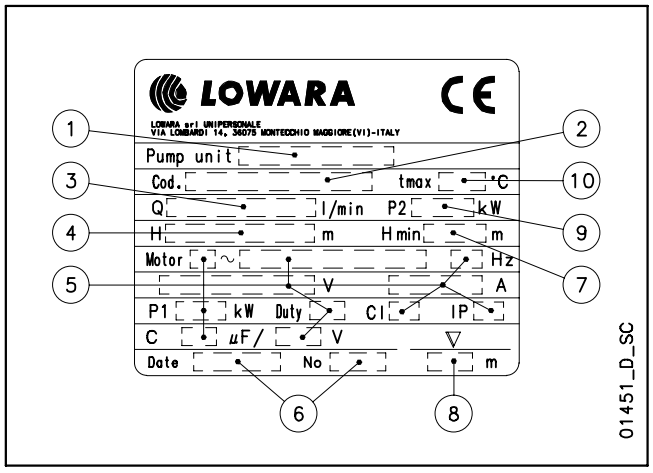
- Watertight electric motor protected by multiple seal system with **oil chamber**.
  A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuosly lubricated by the **DRIVELUB system**, provide an extreme barrier against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

DIWA SERIES
IDENTIFICATION CODE

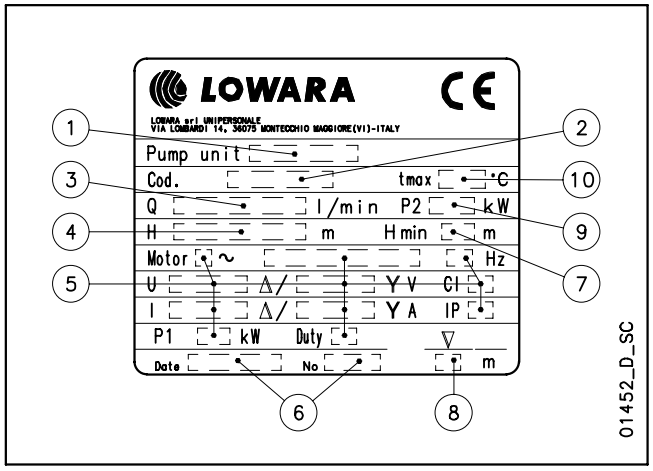


EXAMPLE : DIWA 11/B
DIWA Series Electric pump, rated motor power 1,1 kW,
50 Hz version, single-phase, /B version.

SINGLE-PHASE RATING PLATE



THREE-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

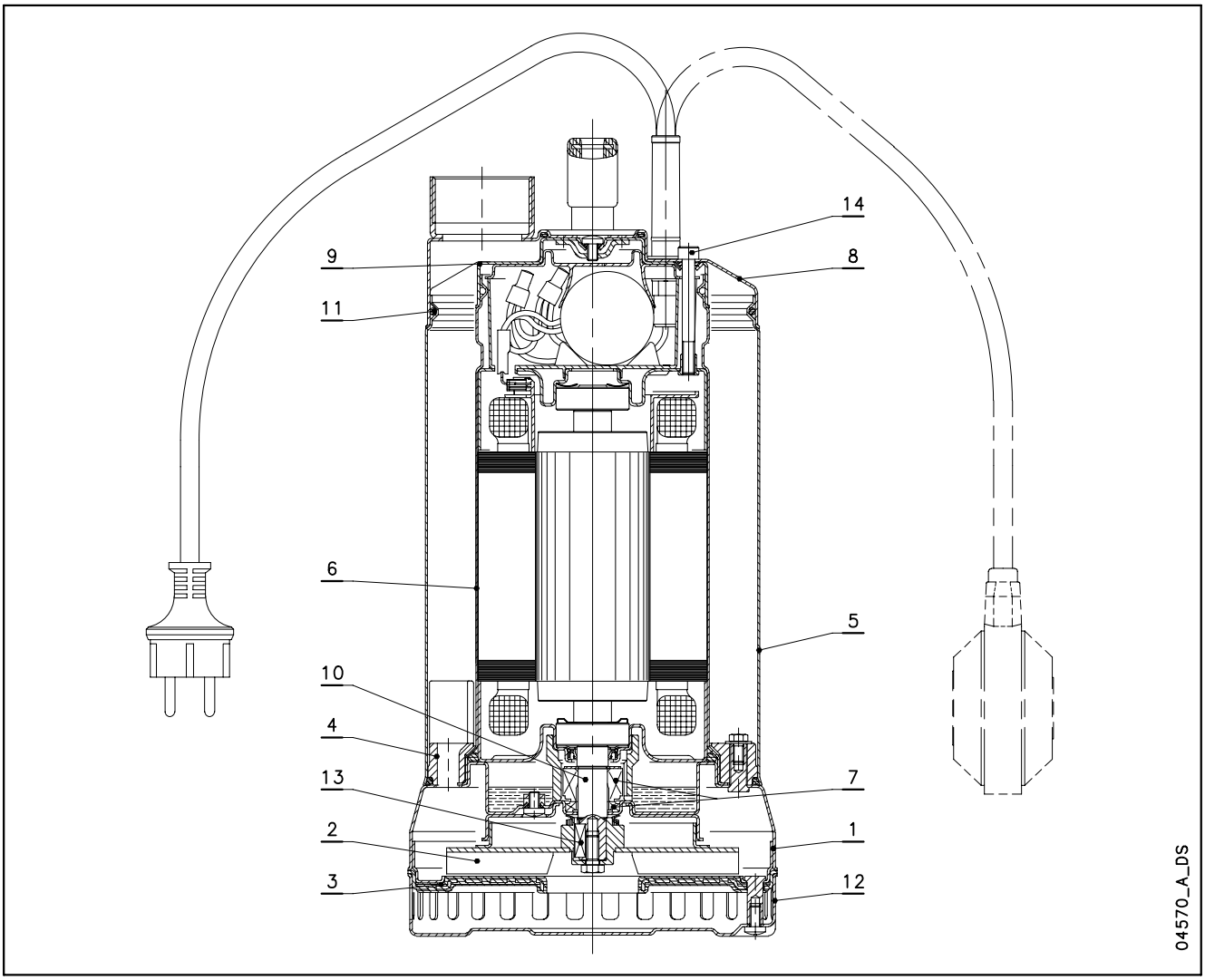
7 - Minimum head

8 - Maximum immersion depth

9 - Rated output

10 - Maximum liquid temperature

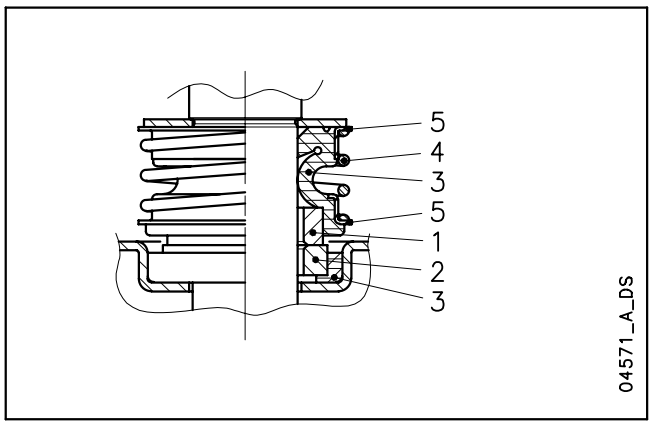
DIWA SERIES
LIST OF MODELS AND TABLE OF MATERIALS



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

diwa-en_b_tm

DIWA 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	2	3	4	5	
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
Q_1Q_1PGG	Q_1	Q_1	P	G	G	0 +50
OTHER MECHANICAL SEAL TYPES						
Q_1Q_1VGG	Q_1	Q_1	V	G	G	0 +50

diwa_tipi-ten-mec-en_b_tc

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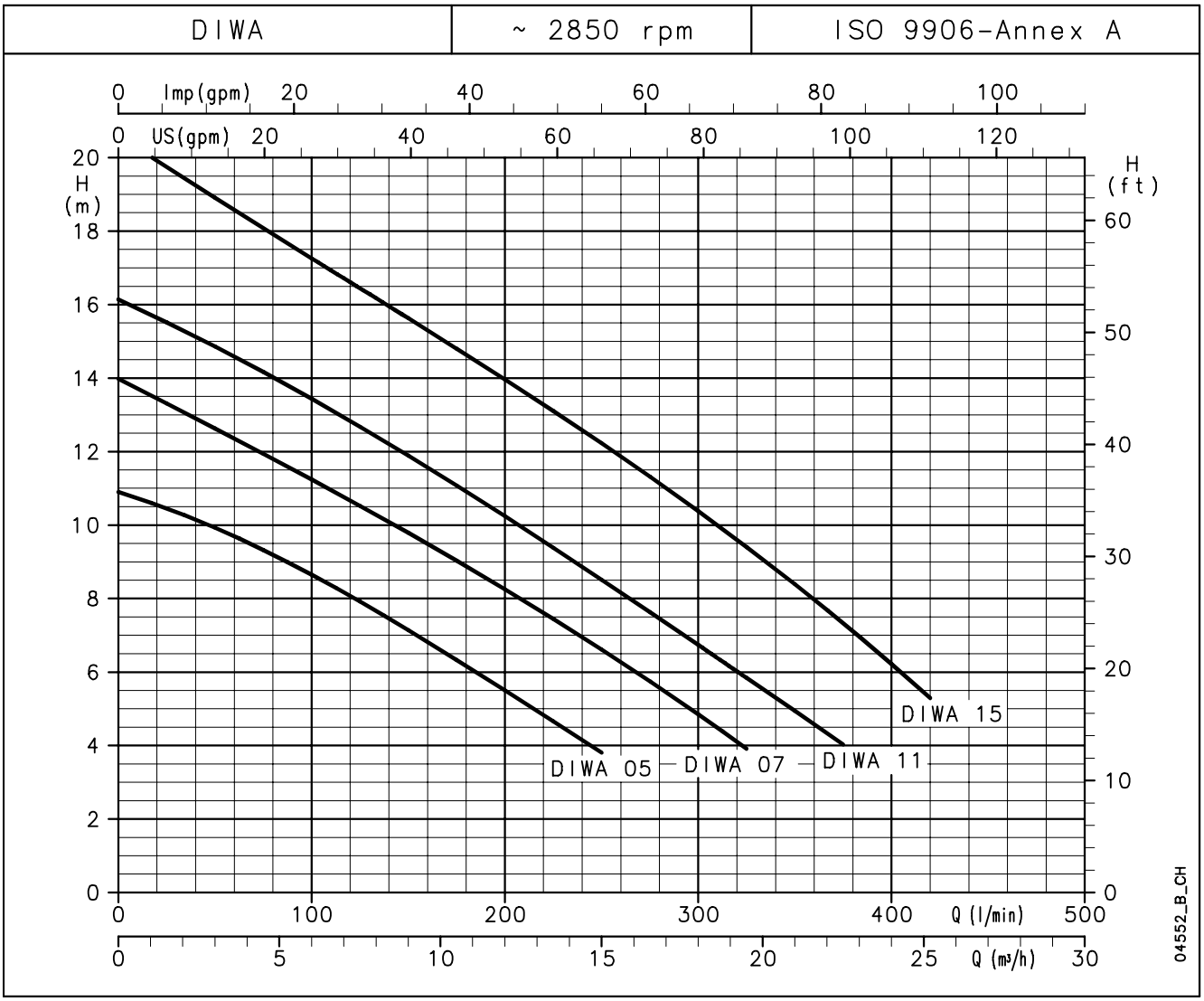
DIWA SERIES
OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	100	125	150	175	200	225	250	300	325	375	420
			m^3/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												
DIWA 05(T)	0,55	0,75	10,9	8,6	7,9	7,1	6,3	5,5	4,7	3,8				
DIWA 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		
DIWA 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	
DIWA 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 r = 1,0 kg/dm³ and kinematic viscosity n = 1 mm²/s.

diwa-2p50-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DIWA 05	0,79	3,92	16
DIWA 07	1,25	6,20	22
DIWA 11	1,53	6,83	30
-	-	-	-

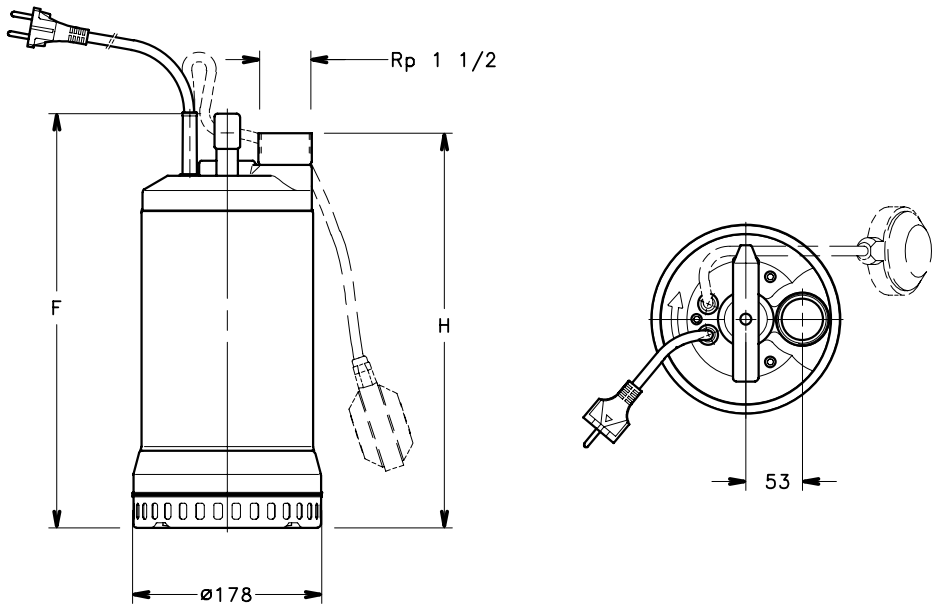
PUMP TYPE THREE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	ABSORBED CURRENT* 380-415 V A
DIWA 05T	0,72	2,56	1,48
DIWA 07T	1,2	4,26	2,46
DIWA 11T	1,44	4,64	2,68
DIWA 15T	2,05	6,74	3,89

*Maximum values within operating range

diwa-2p50-en_a_te

DIWA SERIES
DIMENSIONS AND WEIGHTS

DIWA



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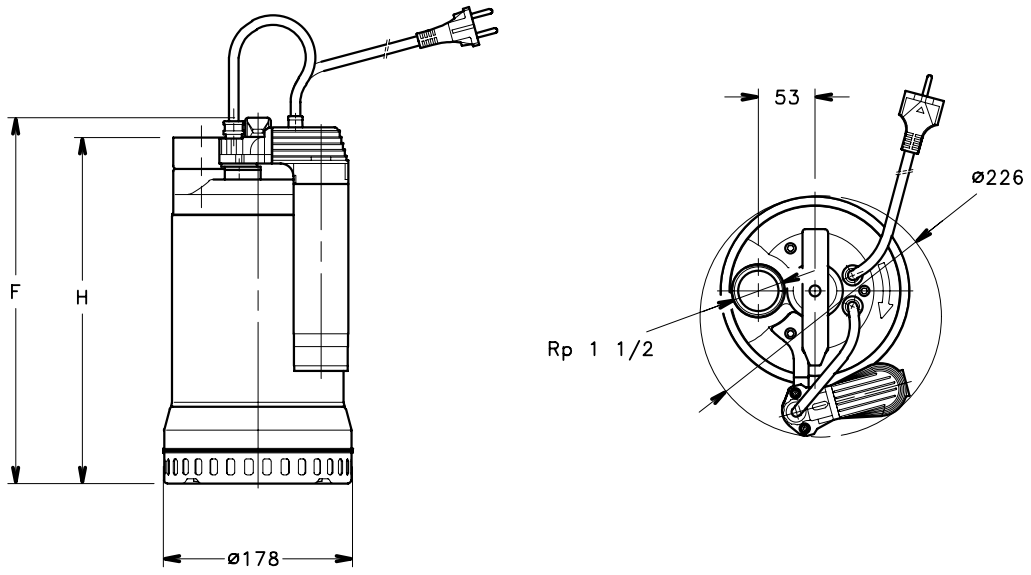
PUMP TYPE SINGLE-PHASE		DIMENSIONS (mm)		WEIGHT
		F	H	kg
DIWA05	DIWA05 GT	348	330	12
DIWA07	DIWA07 GT	393	375	14,3
DIWA11	DIWA11 GT	393	375	17
-	-	-	-	-

PUMP TYPE THREE-PHASE	DIMENSIONS (mm)		WEIGHT
	F	H	kg
DIWA05T	348	330	11
DIWA07T	363	345	13
DIWA11T	393	375	15
DIWA15T	393	375	16,5

diwa-2p50-en_b_td

DIWA GT



04559_A_DD

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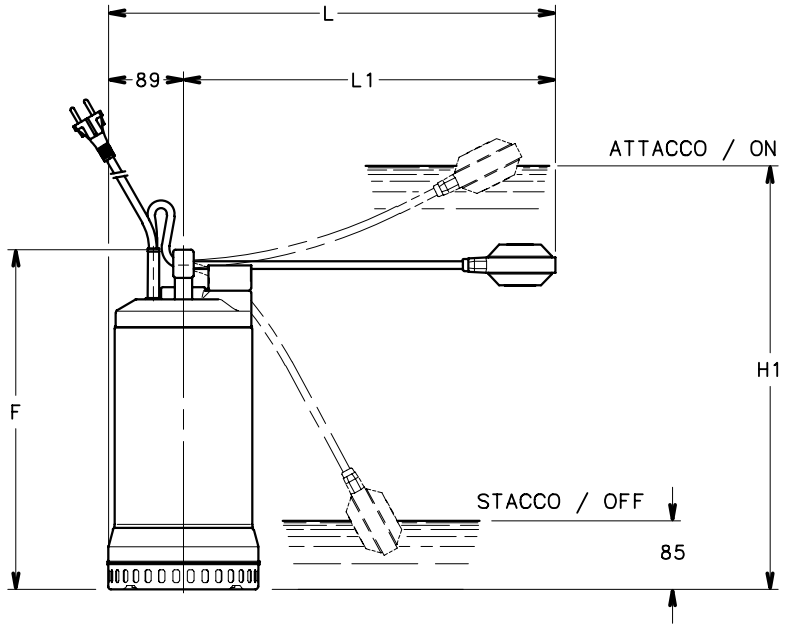
DIWA SERIES
INSTALLATION EXAMPLES

DIWA

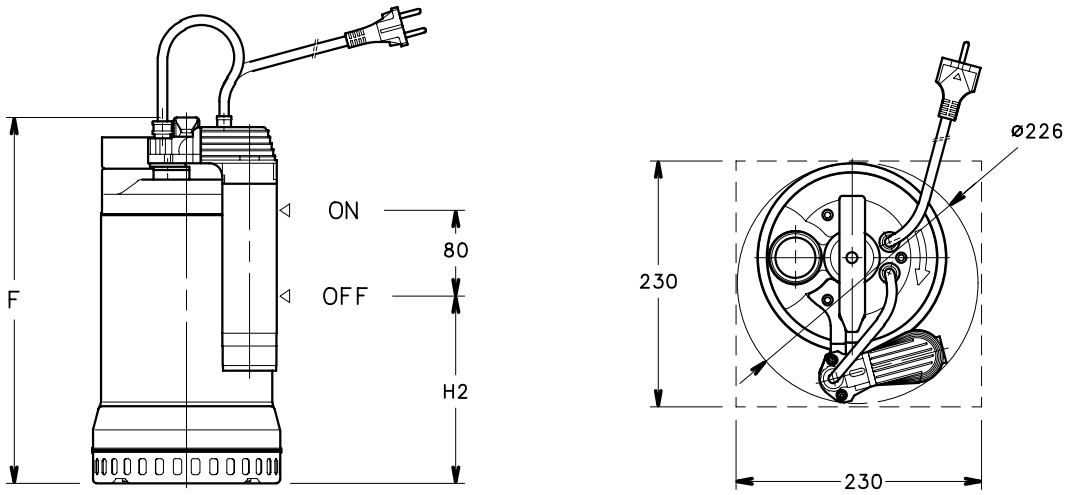


04553_E_DD

PUMP TYPE		DIMENSIONS (mm)				
		F	L	L1	H1	H2
DIWA05	DIWA05 GT	348	459	370	430	180
DIWA07	DIWA07 GT	393	504	415	490	180
DIWA11	DIWA11 GT	393	524	435	490	180

diwaliv-2p50-en_d_td

DIWA GT



04563_B_DD

LOWARA
a xylem brand

Submersible Electric Pumps for drainage of dirty water

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

DOMO 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 **DOMO 7** and **DOMO 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** (DOMO S7 and DOMO S7VX models with stainless steel impeller are also available).
- The **DOMO 10-15-20** and **DOMO 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 continuosly lubricated by the **DRIVELUB system**, provide an extreme barrier against infiltration.

LOWARA
a xylem brand

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

DOMO GRI Series

The DOMO GRI series electric pumps are equipped with an extremely efficient and highly reliable grinder system.
The grinder is able to macerate all the solids and the filaments present in the sewage and to pass it through small discharge pipes (25 mm diameter).
DOMO GRI is available in the 1,1 kW power.
DRIVELUB SEAL SYSTEM.

APPLICATIONS

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

SPECIFICATIONS

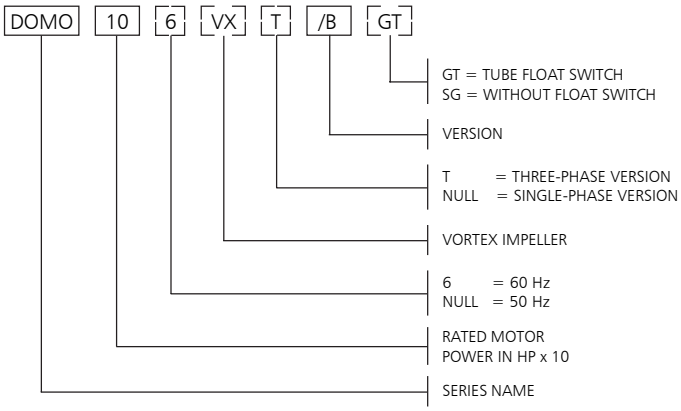
- **Maximum liquid temperature**: **35°C** with fully submerged pump.
- **Dry motor**.
- **Power cord**: **H07RN-F**
  - single-phase: with plug.
  - three-phase: without plug.
- **Insulation class 155°C (F)**.
- **IPX8 protection**.
- **Maximum immersion depth**: **5 m**.

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

DRIVELUB SEAL SYSTEM

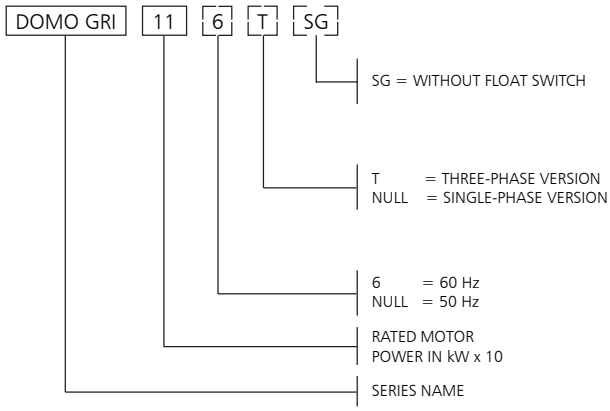
- Watertight electric motor protected by multiple seal system with **oil chamber**.
  A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuosly lubricated by the **DRIVELUB system**, provide an extreme barrier against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

DOMO SERIES IDENTIFICATION CODE



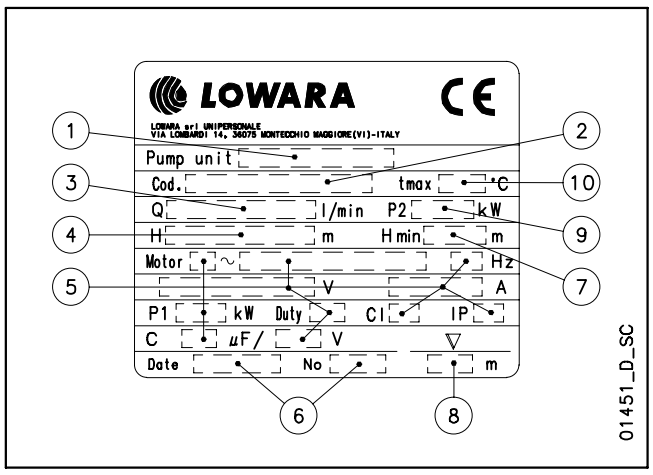
EXAMPLE : DOMO 10/B
DOMO Series Electric pump, rated motor power 1 HP,
50 Hz version, single-phase, /B version.

DOMO GRI SERIES IDENTIFICATION CODE

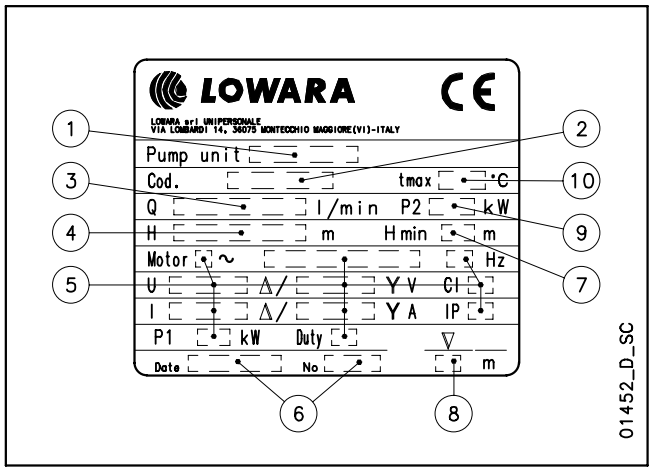


EXAMPLE : DOMO GRI 11
DOMO GRI (grinder) Series Electric pump,
rated motor power 1,1 kW, 50 Hz version, single-phase.

SINGLE-PHASE RATING PLATE



THREE-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

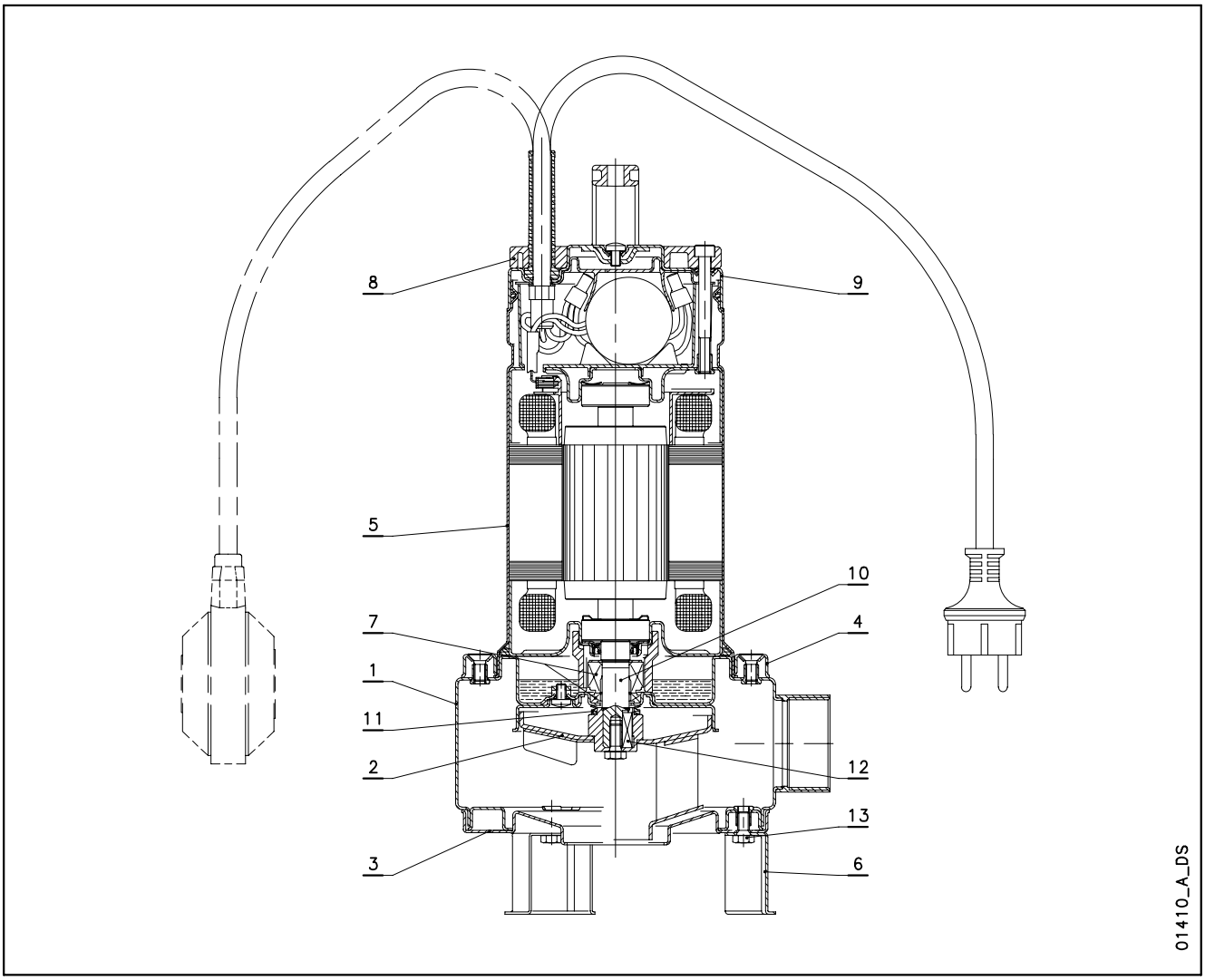
7 - Minimum head

8 - Maximum immersion depth

9 - Rated output

10 - Maximum liquid temperature

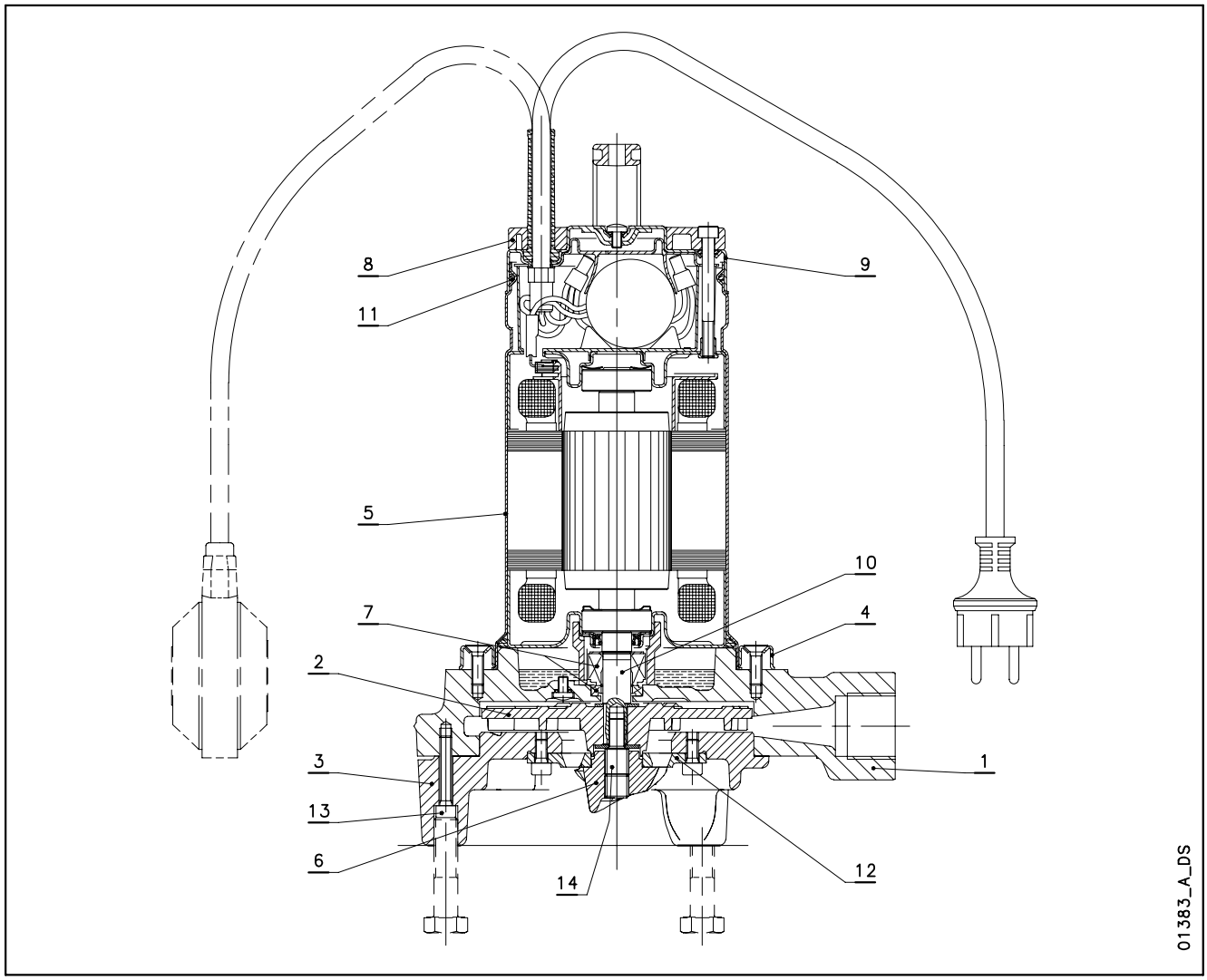
DOMO SERIES
LIST OF MODELS AND TABLE OF MATERIALS



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

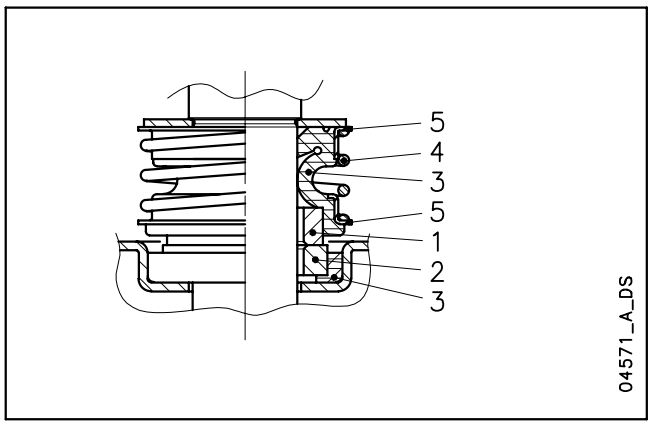
domo-en_b_tm

DOMO GRI SERIES
LIST OF MODELS AND TABLE OF MATERIALS



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 - DOMO 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	2	3	4	5	
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
Q_1Q_1PGG	Q_1	Q_1	P	G	G	0 +35
OTHER MECHANICAL SEAL TYPES						
Q_1Q_1VGG	Q_1	Q_1	V	G	G	0 +35

domo_tipi-ten-mec-en_b_tc

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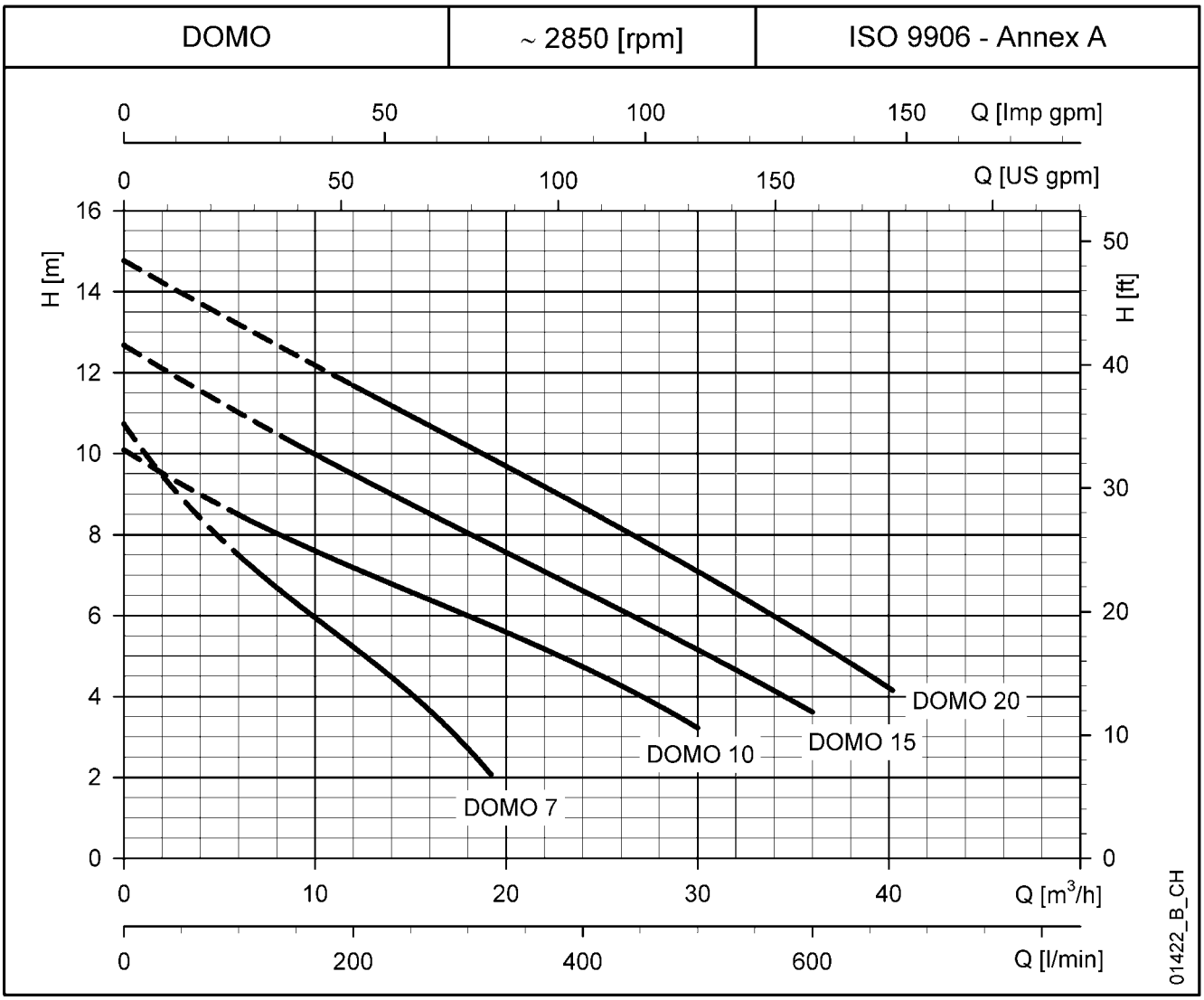
DOMO SERIES
OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY										
			l/min	0	100	150	200	250	300	320	400	500	600	670
			m³/h	0	6	9	12	15	18	19,2	24	30	36	40,2
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER											
DOMO 7(T) - S7(T)	0,55	0,75	10,7	7,5	6,3	5,2	4,1	2,7	2,1					
DOMO 10(T)	0,75	1	10,1	8,5	7,8	7,2	6,6	6,0	5,8	4,7	3,2			
DOMO 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		
DOMO 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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

domo-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DOMO 7 - (S7)	0,8 (0,76)	3,94 (3,83)	16
DOMO 10	1,14	5,84	22
DOMO 15	1,58	7,02	30
-	-	-	-

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

*Maximum values within operating range

domo-2p50-en_b_te

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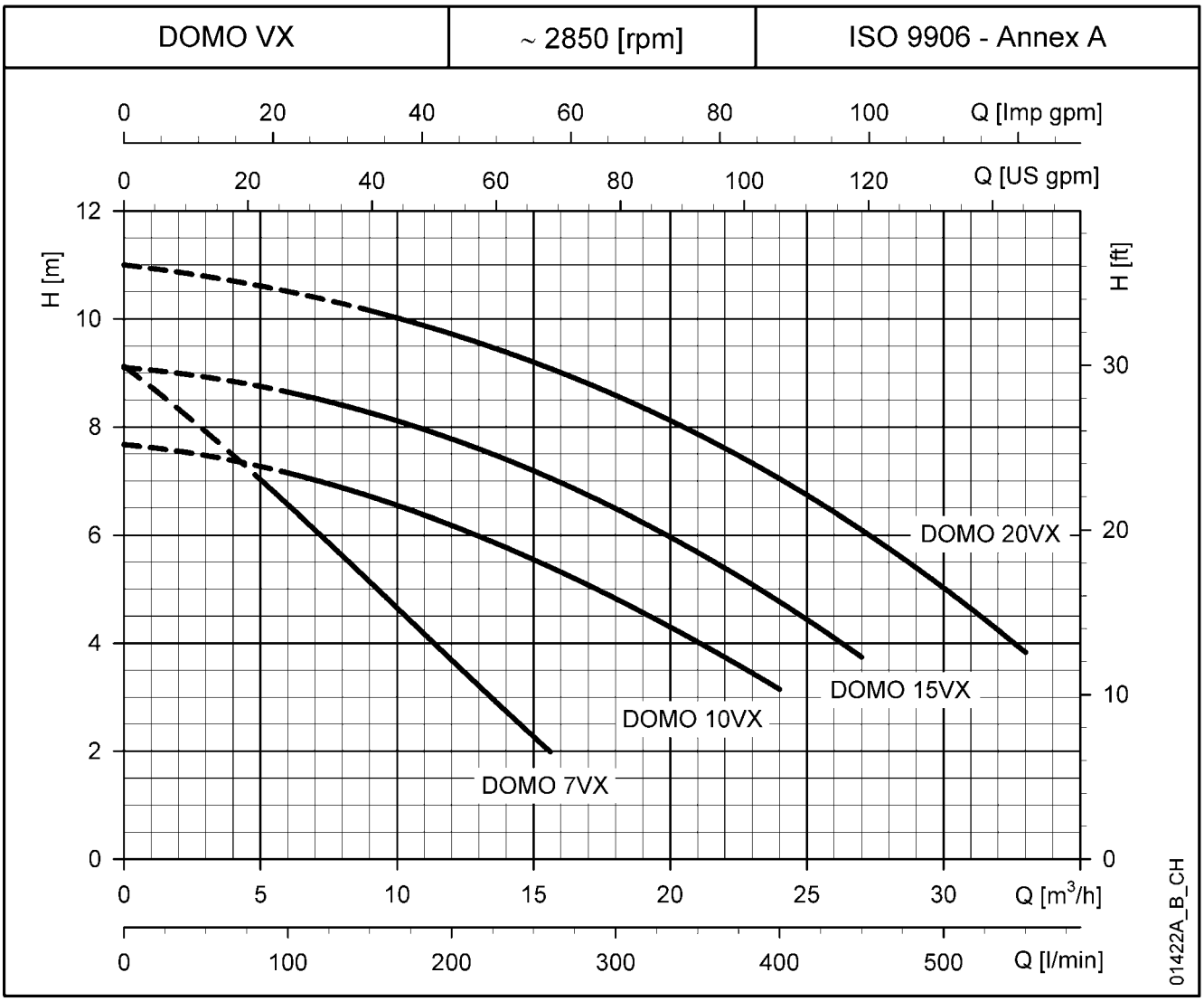
DOMO VX SERIES
OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	80	100	150	175	200	225	260	300	400	450	550
			m³/h	0	4,8	6	9	10,5	12	13,5	15,6	18	24	27	33
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER												
DOMO 7VX(T) - S7VX(T)	0,55	0,75	9,1	7,1	6,6	5,1	4,4	3,7	3,0	2,0					
DOMO 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			
DOMO 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		
DOMO 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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

domovx-2p50-en_b_th

ELECTRICAL DATA TABLE

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

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

*Maximum values within operating range

domovx-2p50-en_b_te

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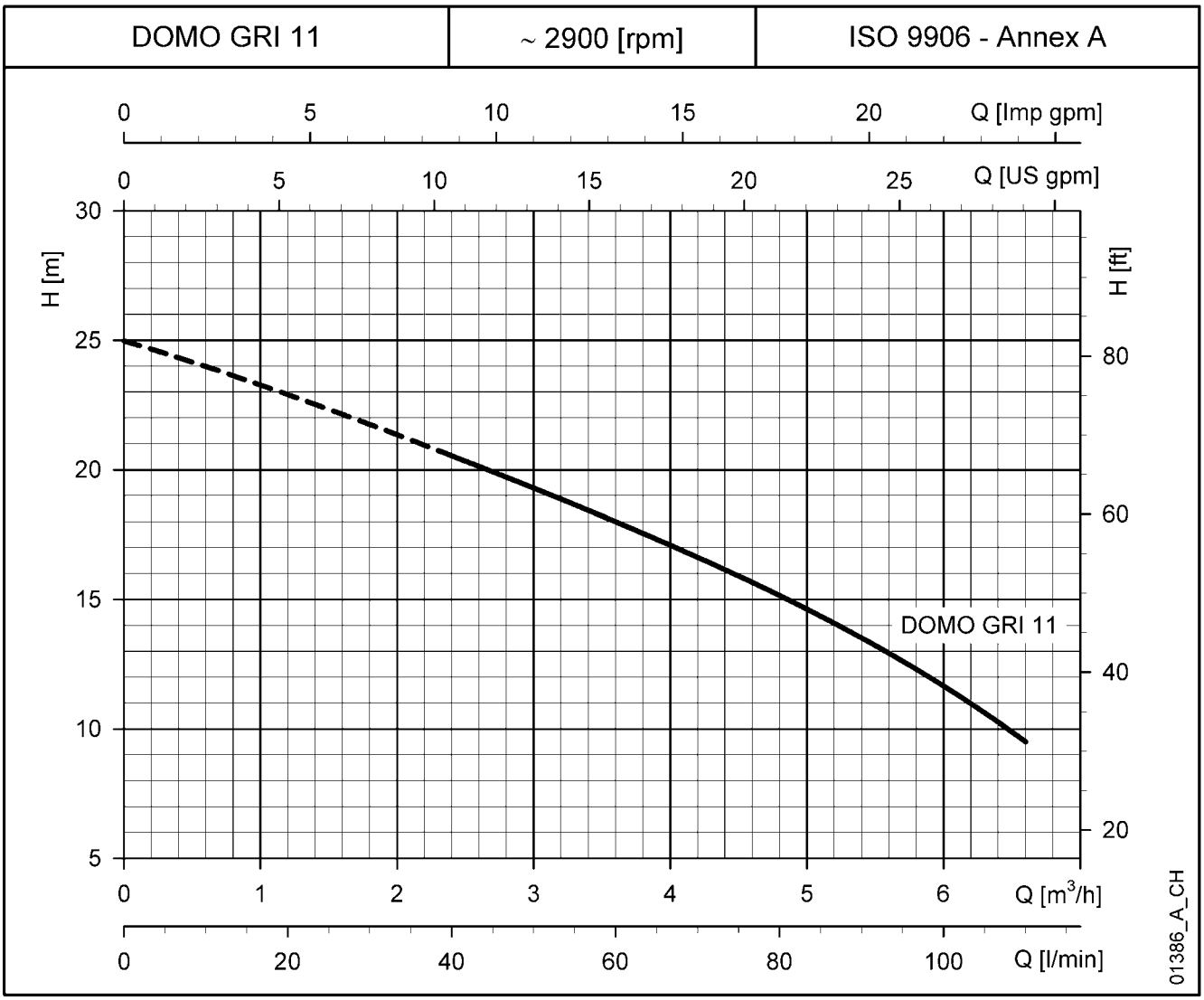
a xylem brand

DOMO 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	110
			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											
DOMO 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
DOMO GRI 11 T														

These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

domo-gri-2p50-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DOMO GRI 11 (SG)	1,50	6,84	30

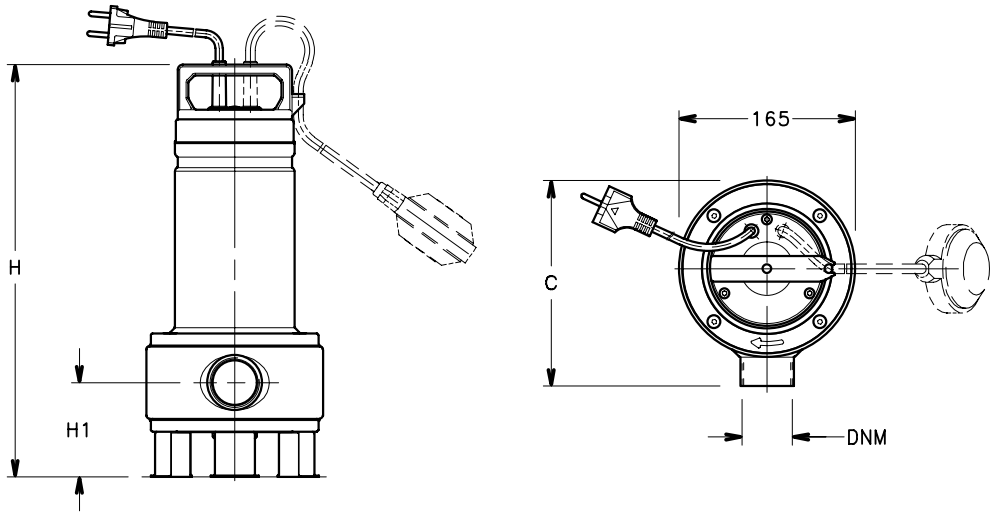
PUMP TYPE THREE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	ABSORBED CURRENT* 380-415 V A
DOMO GRI 11 T	1,39	4,55	2,63

* Maximum value in specified range

domo-gri-2p50-en_b_te

DOMO SERIES
DIMENSIONS AND WEIGHTS

DOMO



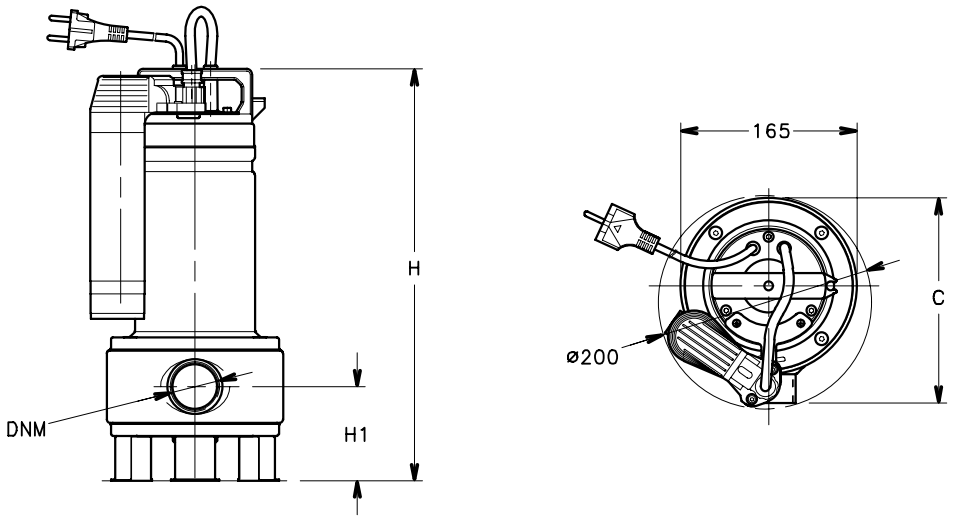
01421_D_DD

PUMP TYPE SINGLE-PHASE		DIMENSIONS (mm)			DNM	WEIGHT
		H	H1	C		kg
DOMO 7 DOMO 7VX	DOMO 7 GT DOMO 7VX GT	391	88	193	Rp1½	10,2
DOMO10 DOMO10VX	DOMO10 GT DOMO10VX GT	468	111,5	198	Rp2	13,6
DOMO15 DOMO15VX	DOMO15 GT DOMO15VX GT	468	111,5	198	Rp2	15,3
-	-	-	-	-	-	-

PUMP TYPE THREE-PHASE	DIMENSIONS (mm)			DNM	WEIGHT
	H	H1	C		kg
DOMO 7T DOMO 7VXT	391	88	193	Rp1½	8,9
DOMO10T DOMO10VXT	438	111,5	198	Rp2	11,6
DOMO15T DOMO15VXT	468	111,5	198	Rp2	13,6
DOMO20T DOMO20VXT	468	111,5	198	Rp2	14,6

domo-2p50-en_c_td

DOMO GT



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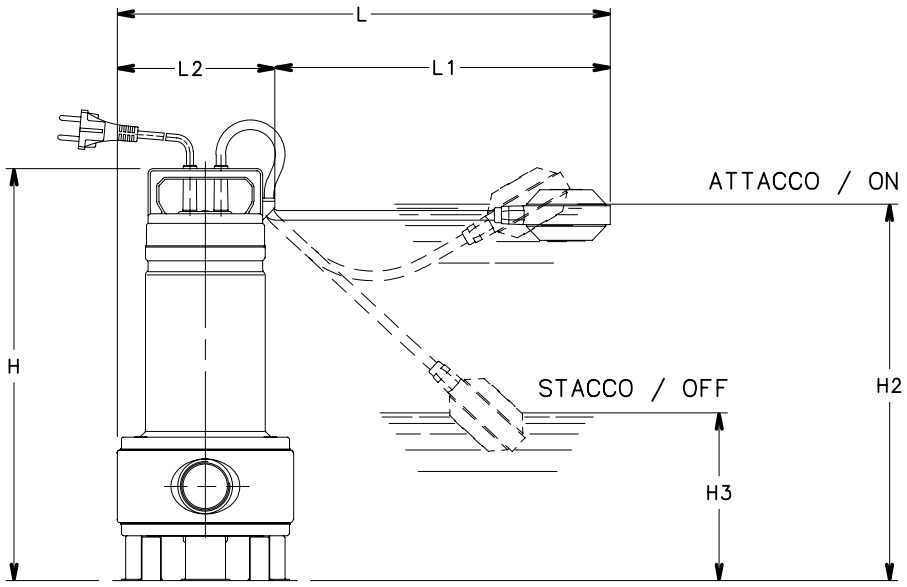
DOMO - DOMO GRI SERIES
INSTALLATION EXAMPLES

DOMO
DOMO GR I

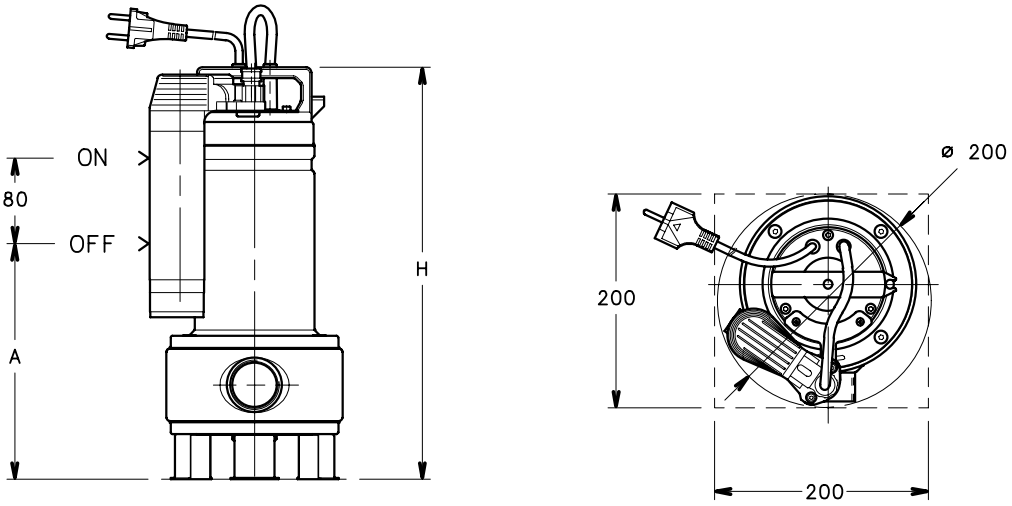


01424_F_DD

PUMP TYPE		DIMENSIONS (mm)						
		H	H2	H3	L	L1	L2	A
DOMO 7 - DOMO 7 GT	DOMO 7VX - DOMO 7VX GT	391	375	155	420	275	145	225
DOMO10 - DOMO10 GT	DOMO10VX - DOMO10VX GT	468	420	155	495	350	145	255
DOMO15 - DOMO15 GT	DOMO15VX - DOMO15VX GT	468	420	155	495	350	145	255
DOMO GRI 11	-	446	400	135	508	350	158	-

domoliv-2p50-en_d_td

DOMO GT



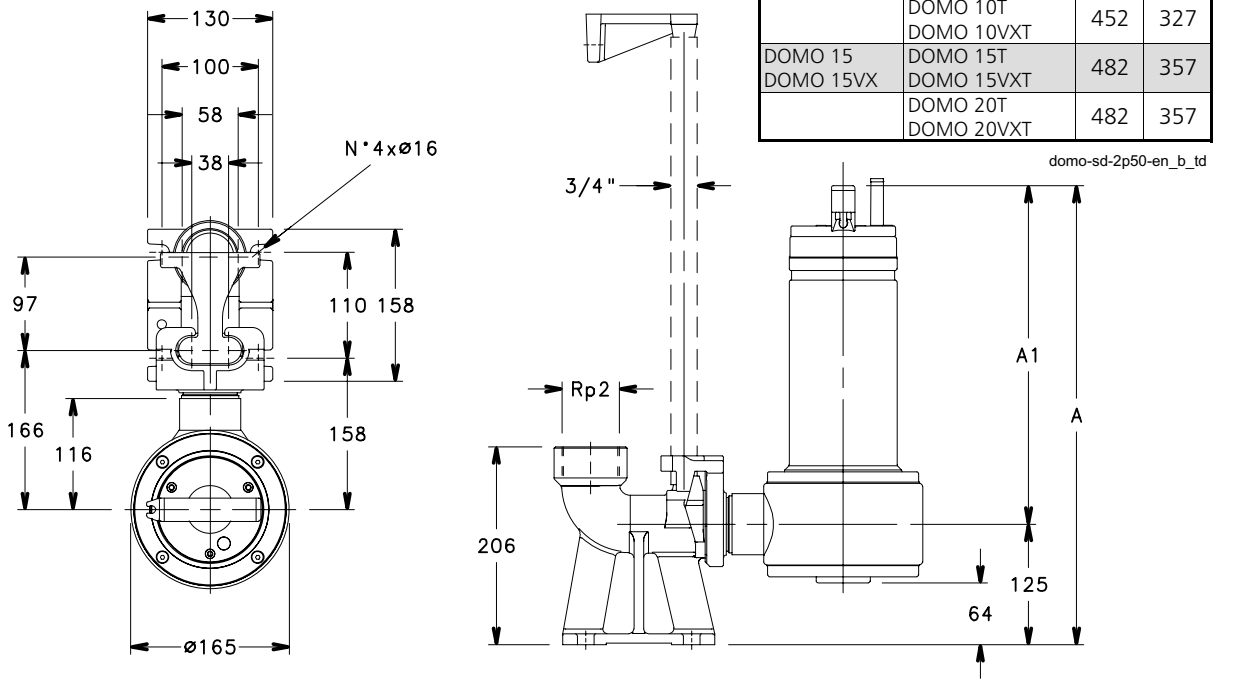
01419_A_DD

LOWARA
a xylem brand

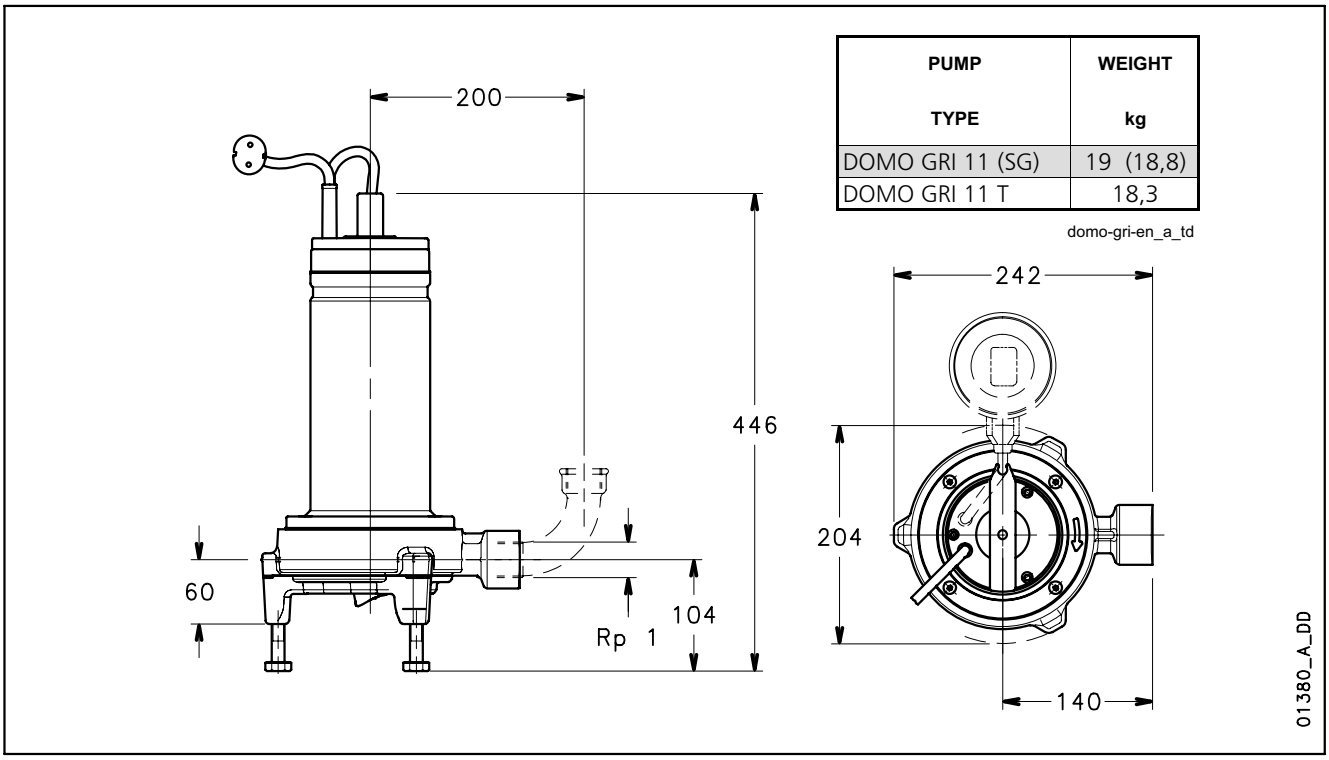
DOMO SERIES
INSTALLATION WITH SD LOWERING DEVICE

PUMP TYPE		DIMENSIONS (mm)	
SINGLE-PHASE	THREE-PHASE	A	A1
DOMO 10 DOMO 10VX		482	357
	DOMO 10T DOMO 10VXT	452	327
DOMO 15 DOMO 15VX	DOMO 15T DOMO 15VXT	482	357
	DOMO 20T DOMO 20VXT	482	357

domo-sd-2p50-en_b_td



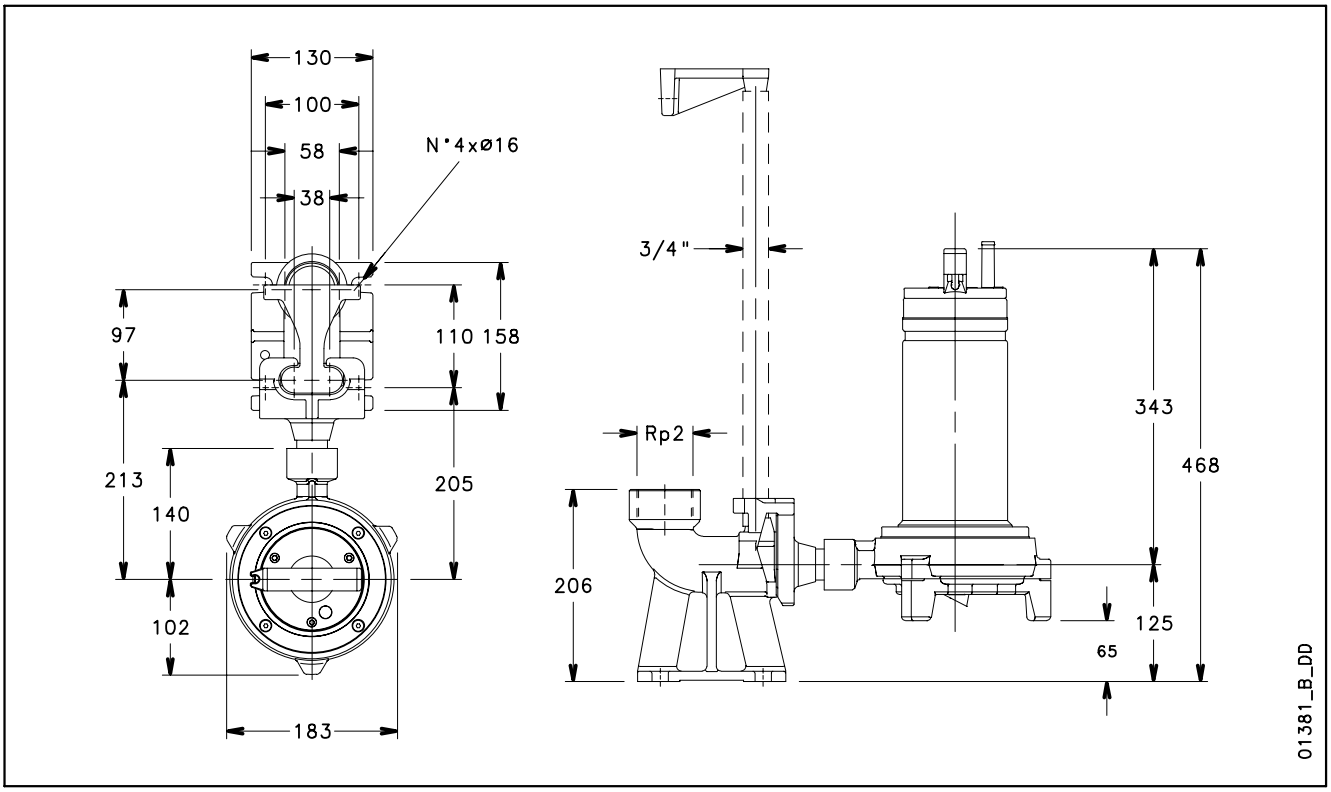
DOMO GRI SERIES
DIMENSIONS AND WEIGHTS



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

domo-gri-en_a_td

INSTALLATION WITH SD LOWERING DEVICE



LOWARA
a xylem brand

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 m^3/h) delivery.
This range consists of three pumps with up to 0,75 kW rated power.

DN Series

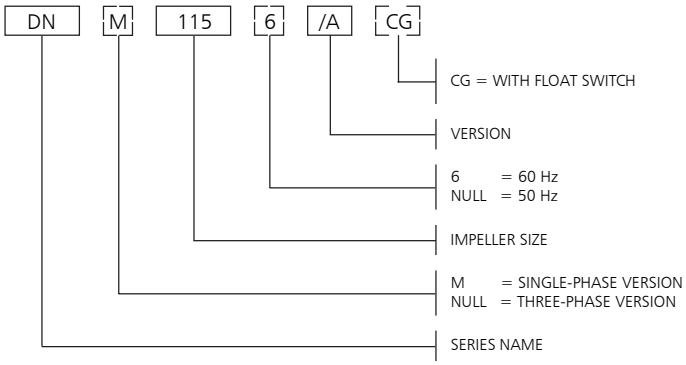
APPLICATIONS

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

SPECIFICATIONS

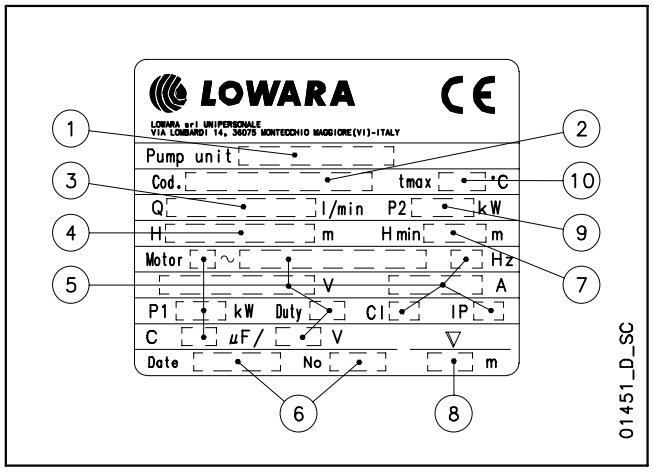
- **Maximum liquid temperature**:
  - **50°C** with fully submerged pump.
  - **25°C** with partially submerged pump.
- Open **impeller** with **abrasion-resistant** rubber coating.
- **Mechanical seal** protected by **sand labyrinth**.
- Maximum dimension of **suspended solids**: **5 mm**.
- **Motor** in a dielectric non-toxic **oil bath**, which ensures the lubrification 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.

DN SERIES
IDENTIFICATION CODE

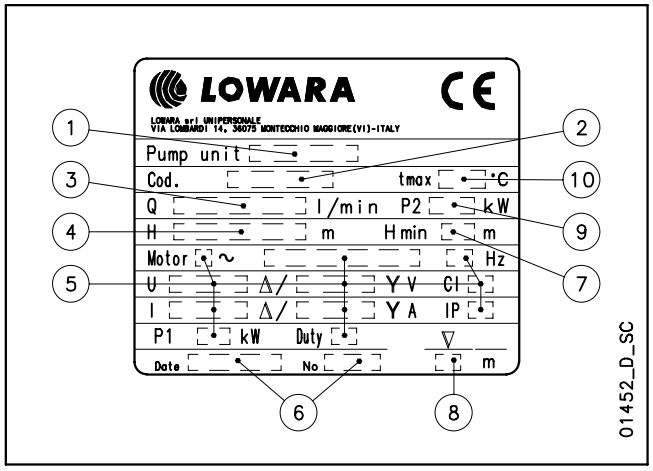


EXAMPLE : DNM 115/A
DN Series Electric pump, impeller size 115,
50 Hz version, single-phase, /A version.

SINGLE-PHASE RATING PLATE



THREE-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

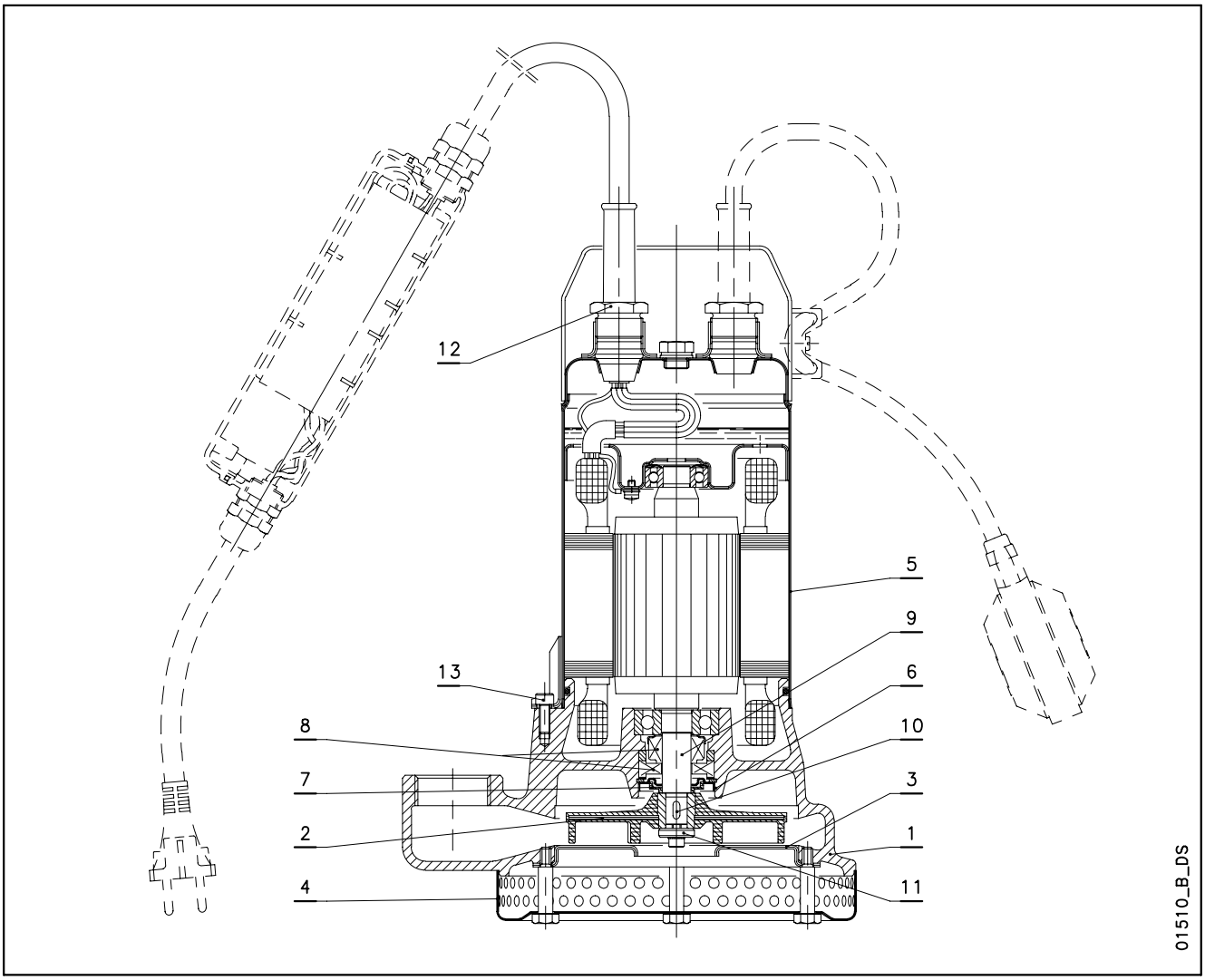
7 - Minimum head

8 - Maximum immersion depth

9 - Rated output

10 - Maximum liquid temperature

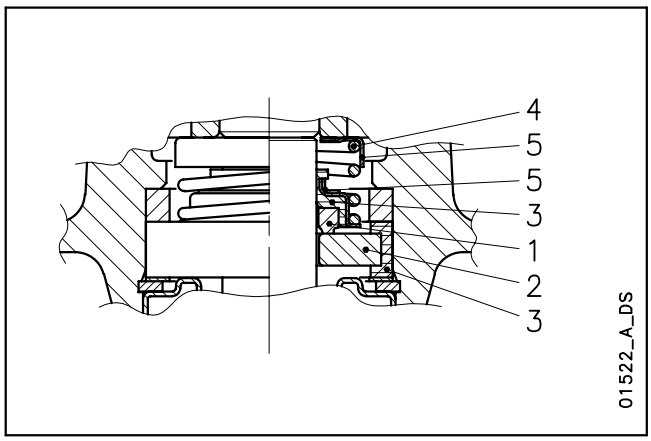
DN SERIES
LIST OF MODELS AND TABLE OF MATERIALS



REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	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

DN 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

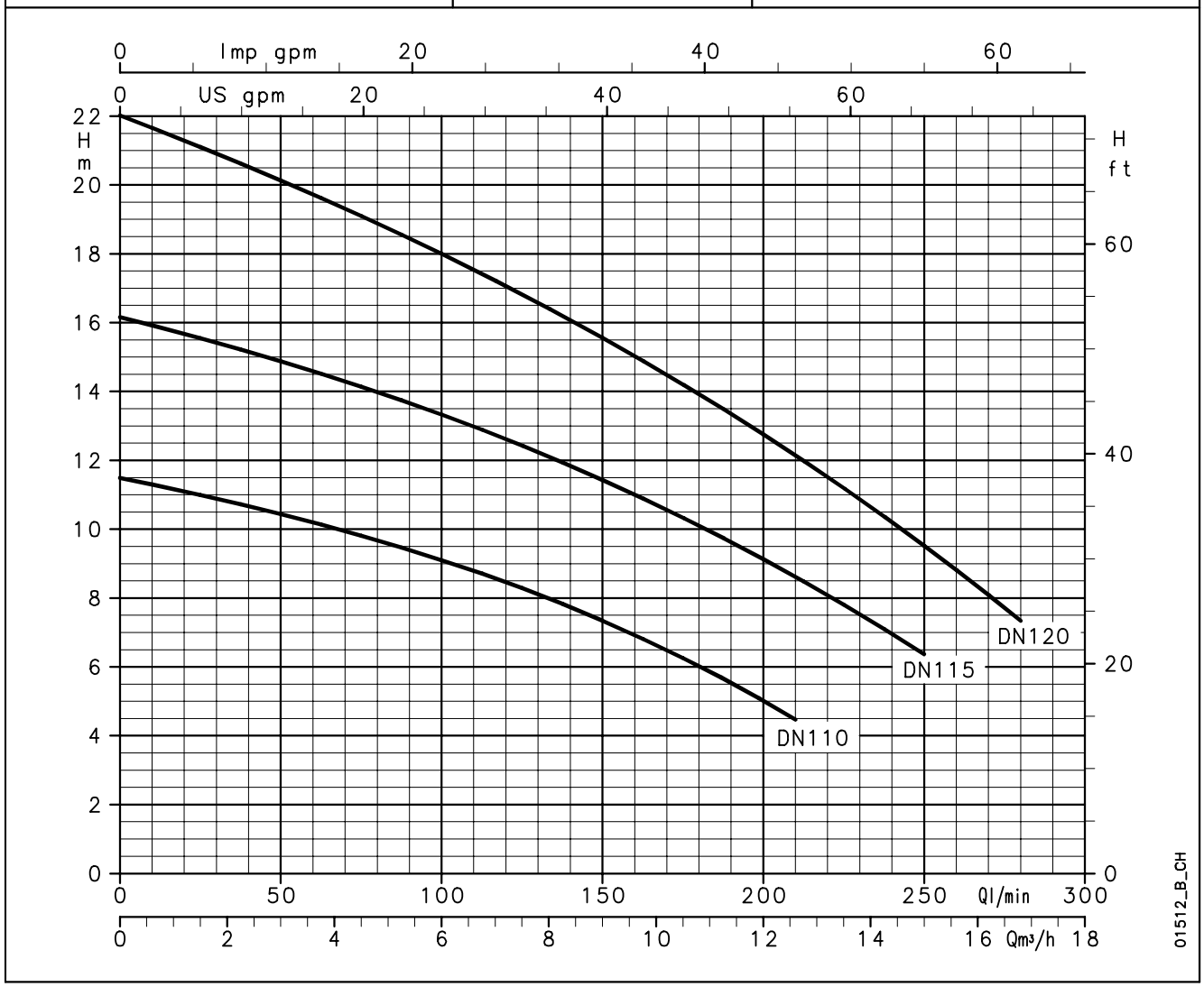
TYPE	POSITION					TEMPERATURE (°C)
	1	2	3	4	5	
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
BVPFF	B	V	P	F	F	0 +50

dn-dl-dlv_tipi-ten-mec-en_b_tc

LOWARA
a xylem brand

DN SERIES
OPERATING CHARACTERISTICS AT 50 Hz

DN – DNM	~ 2850 rpm	ISO 9906-Annex A



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	25	50	75	100	125	150	175	210	225	250	280
			m^3/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												
DN(M) 110	0,6	0,8	11,5	11,0	10,4	9,8	9,1	8,3	7,3	6,3	4,5			
DN(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	
DN(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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

dn-2p50-en_a_th

ELECTRICAL DATA TABLE

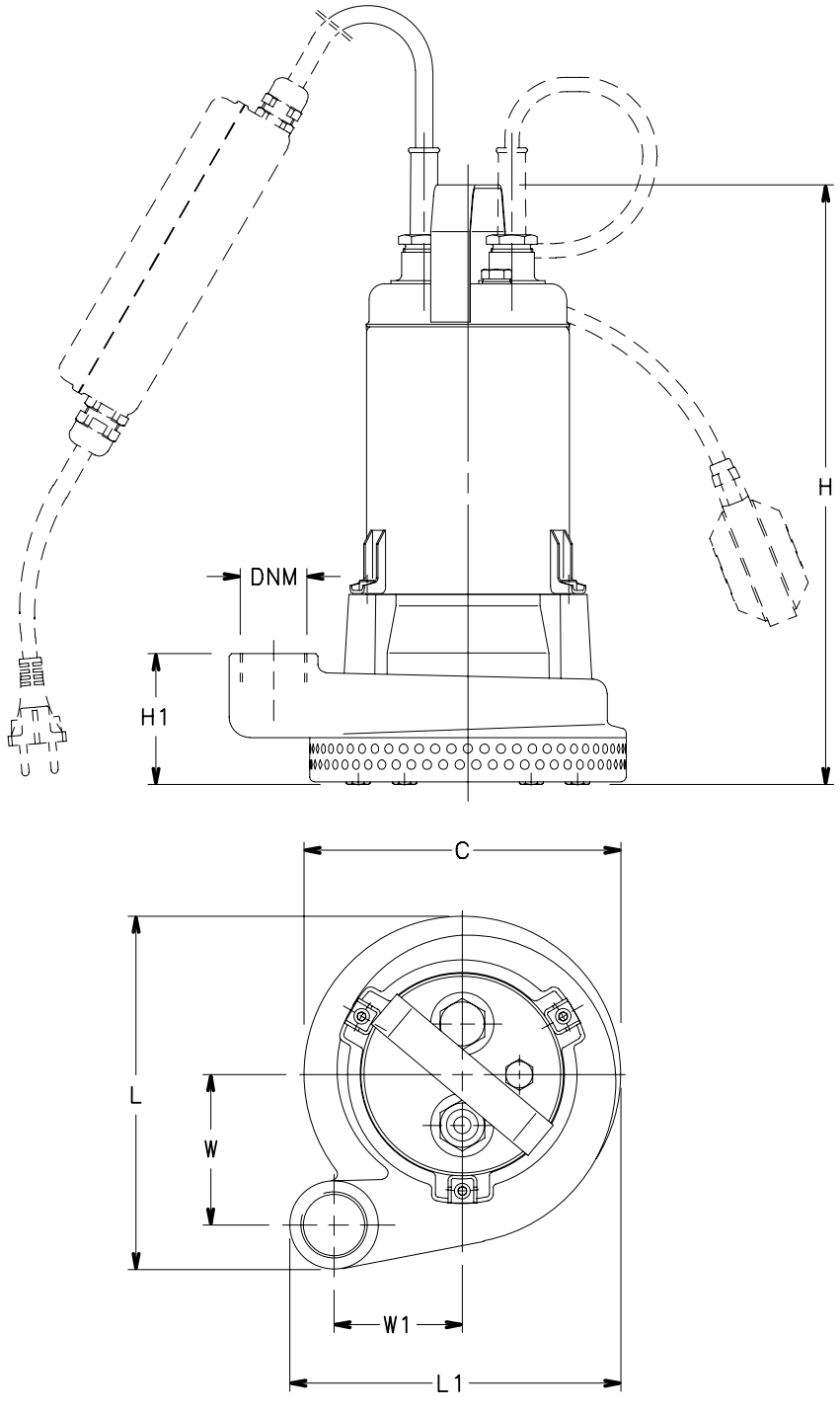
PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DNM 110	0,68	3,56	25
DNM 115	0,90	4,28	25
DNM 120	1,03	4,77	25

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

*Maximum values within operating range.

dn-2p50-en_b_te

DN SERIES
DIMENSIONS AND WEIGHTS



PUMP TYPE	DIMENSIONS (mm)							DNM	WEIGHT
	C	H	H1	L	L1	W	W1		kg
DNM110-DN110	Ø 200	380	81	223	209	95	81	Rp 1¼	18,5
DNM115-DN115	Ø 200	380	81	223	209	95	81	Rp 1¼	18,5
DNM120-DN120	Ø 200	380	81	223	209	95	81	Rp 1¼	19,5

dn-2p50-en_b_td

LOWARA
a xylem brand

Submersible Electric Pumps for pumping sewage

The DL series electric pumps come with single-channel or Vortex impeller (DLV), and are designed to handle solids-laden wastewater, with up to 22 m head and 42 m^3/h delivery.
0,6 kW to 1,5 kW rated power.
Solids handled up to 50 mm in diameter.

DL Series

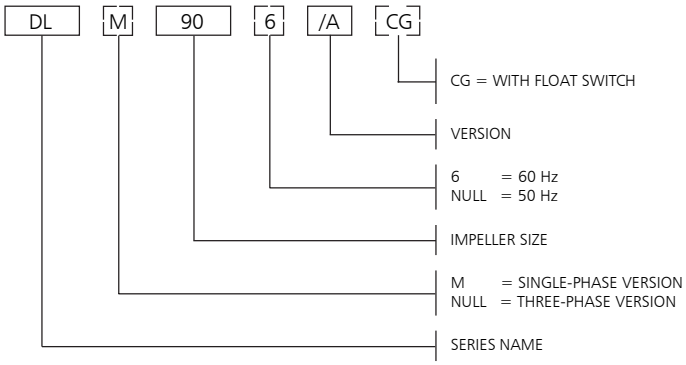
APPLICATIONS

- 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

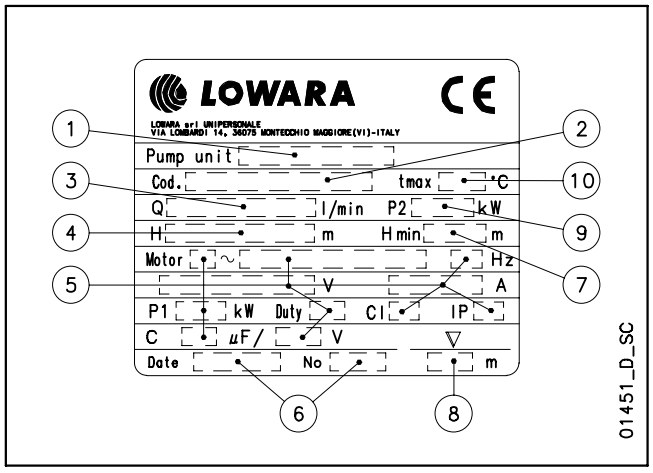
- **Maximum liquid temperature**:
  - **50°C** with fully submerged pump.
  - **25°C** with partially submerged pump.
- **Mechanical seal** protected by **sand labyrinth**.
- Maximum dimension of **suspended solids**:
  - **45 mm** for **DL80, DL90, DL105, MINIVORTEX, VORTEX**.
  - **50 mm** for **DL109, DL125, DLV100, DLV115**.
- **Motor** in a dielectric non-toxic **oil bath**, which ensures the lubrification 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.

DL - DLV SERIES
IDENTIFICATION CODE

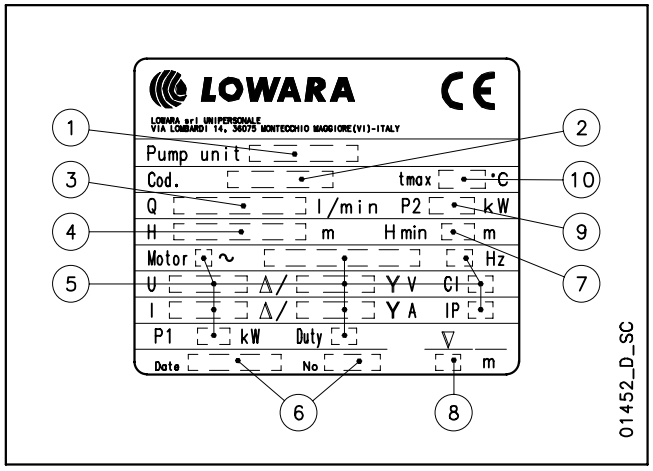


EXAMPLE : DLM 90/A
DL Series electric pump, impeller size 90,
50 Hz version, single-phase, /A version.

SINGLE-PHASE RATING PLATE



THREE-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

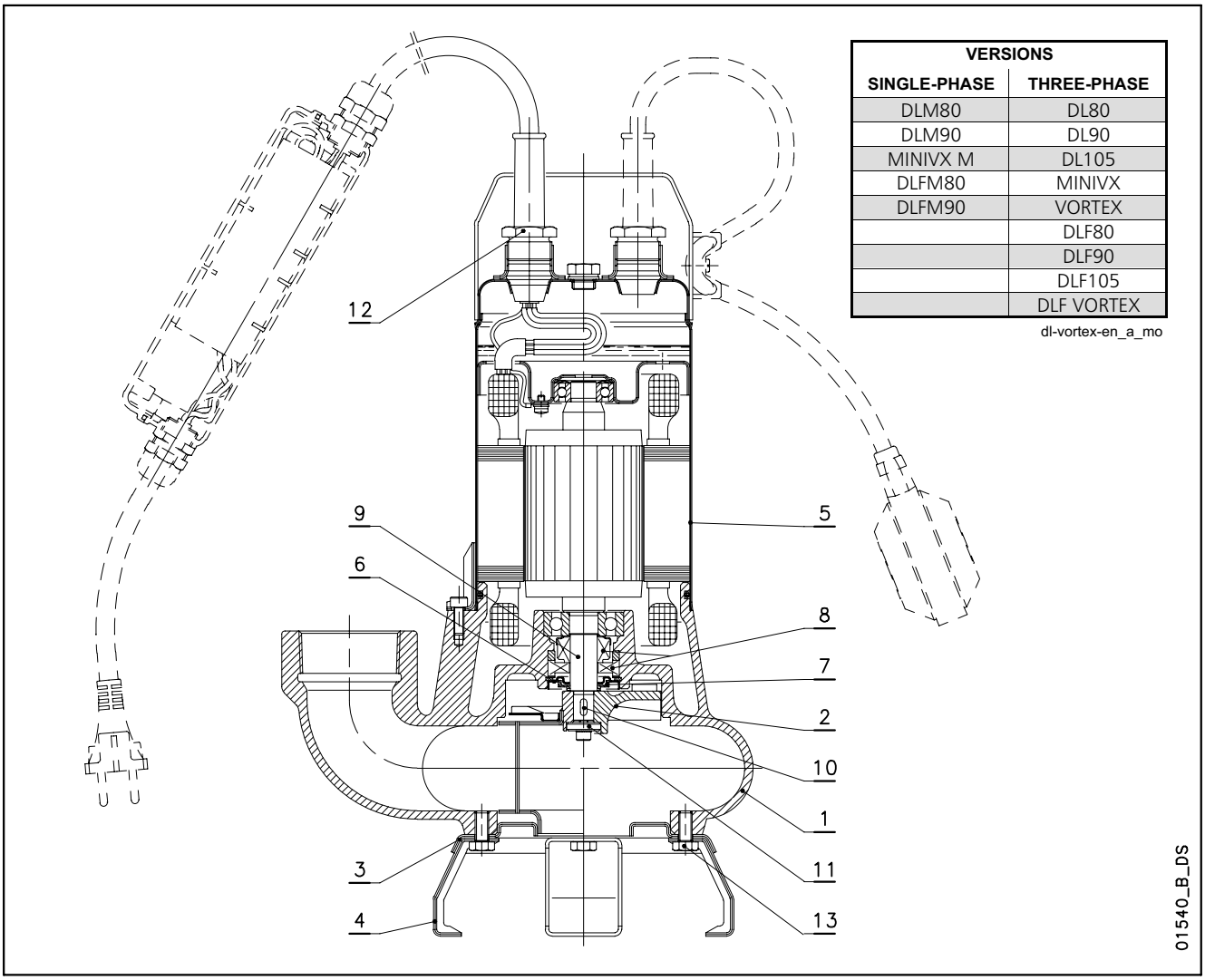
7 - Minimum head

8 - Maximum immersion depth

9 - Rated output

10 - Maximum liquid temperature

DL-VORTEX SERIES
LIST OF MODELS AND TABLE OF MATERIALS



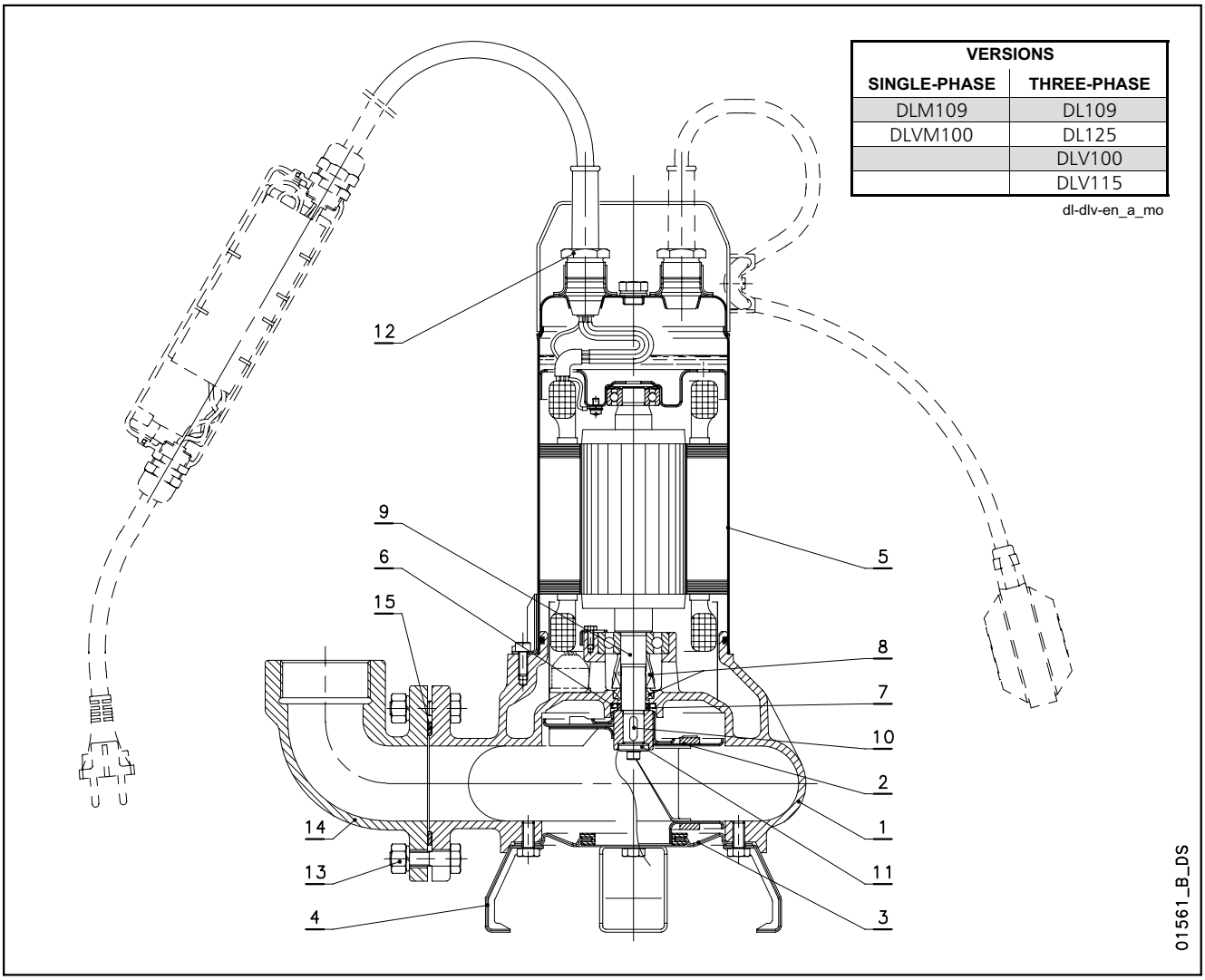
VERSIONS	
SINGLE-PHASE	THREE-PHASE
DLM80	DL80
DLM90	DL90
MINIVX M	DL105
DLFM80	MINIVX
DLFM90	VORTEX
	DLF80
	DLF90
	DLF105
	DLF VORTEX

dl-vortex-en_a_mo

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

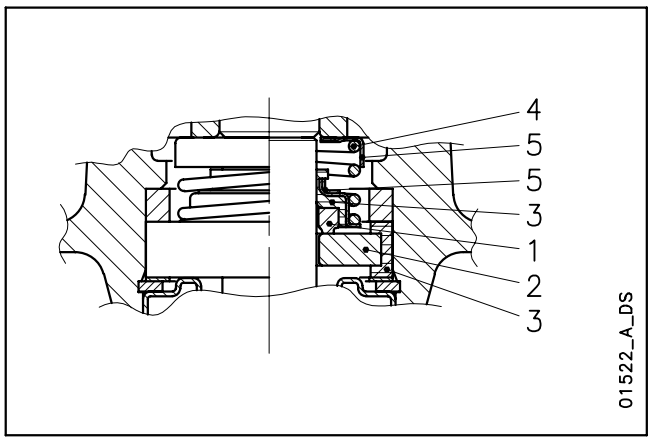
DL-DLV SERIES
LIST OF MODELS AND TABLE OF MATERIALS



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

DL80 - DL90 - DL105 - MINIVORTEX - VORTEX SERIES
MECHANICAL SEAL



LIST OF MATERIALS

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

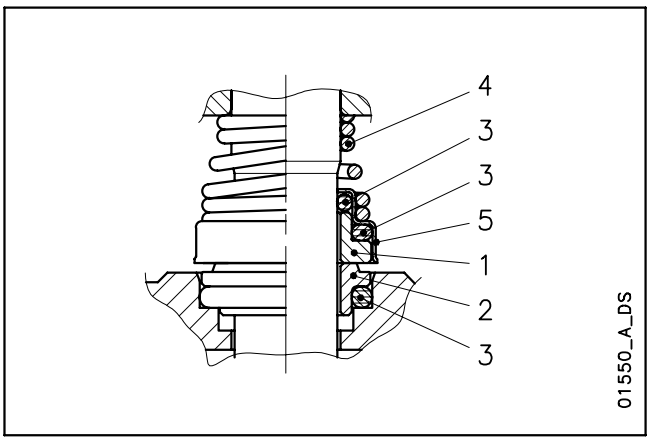
dn-dl-dlv_ten-mec-en_c_tm

SEAL TYPES

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

dn-dl-dlv_tipi-ten-mec-en_b_tc

DL109 - DL125 - DLV100 - DLV115 SERIES
MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	G : AISI 316
U_3 : Tungsten Carbide	V : FPM	F : AISI 304
V : Ceramic Alumina		

dl-dlv_ten-mec-en_a_tm

SEAL TYPES

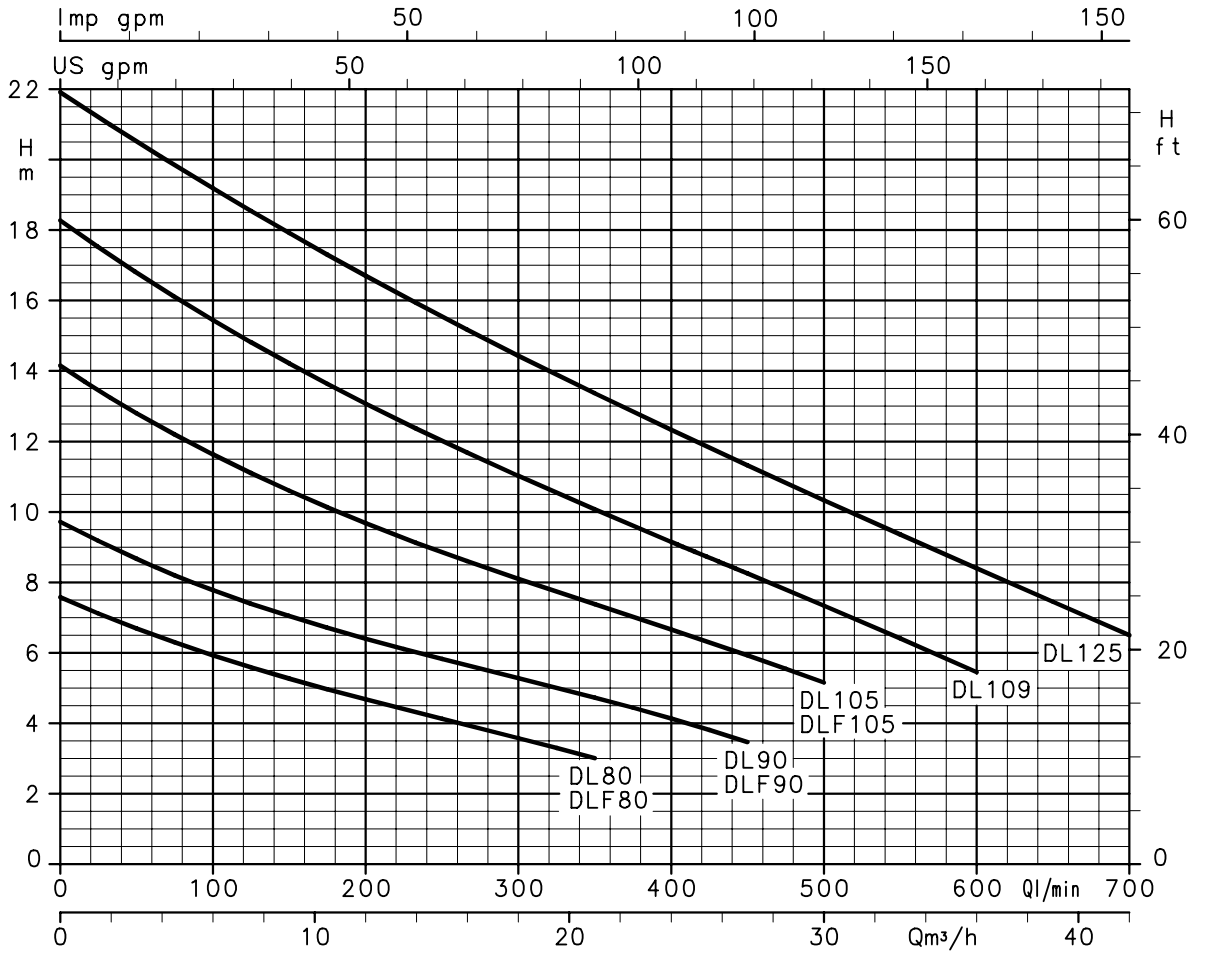
TYPE	POSITION					TEMPERATURE (°C)
	1	2	3	4	5	
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
VBPGF	V	B	P	G	F	0 +50
OTHER MECHANICAL SEAL TYPES						
U_3U_3VFF	U_3	U_3	V	F	F	0 +50

dl-dlv_tipi-ten-mec-en_b_tc

LOWARA
a xylem brand

DL SERIES
OPERATING CHARACTERISTICS AT 50 Hz

DL	~ 2850 rpm	ISO 9906-Annex A



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY											
			l/min	0	100	150	200	250	300	350	400	450	500	600	700
			m^3/h	0	6	9	12	15	18	21	24	27	30	36	42
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER												
DL(M) 80-DLF(M) 80	0,6	0,8	7,6	5,9	5,3	4,7	4,1	3,6	3,0						
DL(M) 90-DLF(M) 90	0,6	0,8	9,7	7,8	7,0	6,4	5,8	5,3	4,7	4,1	3,5				
DL 105 - DLF105	1,1	1,5	14,1	11,6	10,6	9,7	8,9	8,1	7,4	6,7	5,9	5,2			
DL(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		
DL 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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

dl-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
DLM80-DLFM80	0,79	3,91	25
DLM90-DLFM90	0,89	4,27	25
-	-	-	-
DLM109	1,55	6,87	35
-	-	-	-

PUMP TYPE THREE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	ABSORBED CURRENT* 380-415 V A
DL80-DLF80	0,8	-	2,09
DL90-DLF90	0,92	3,81	2,2
DL105-DLF105	1,43	4,66	2,69
DL109	1,54	5,44	3,14
DL125	2,14	6,58	3,8

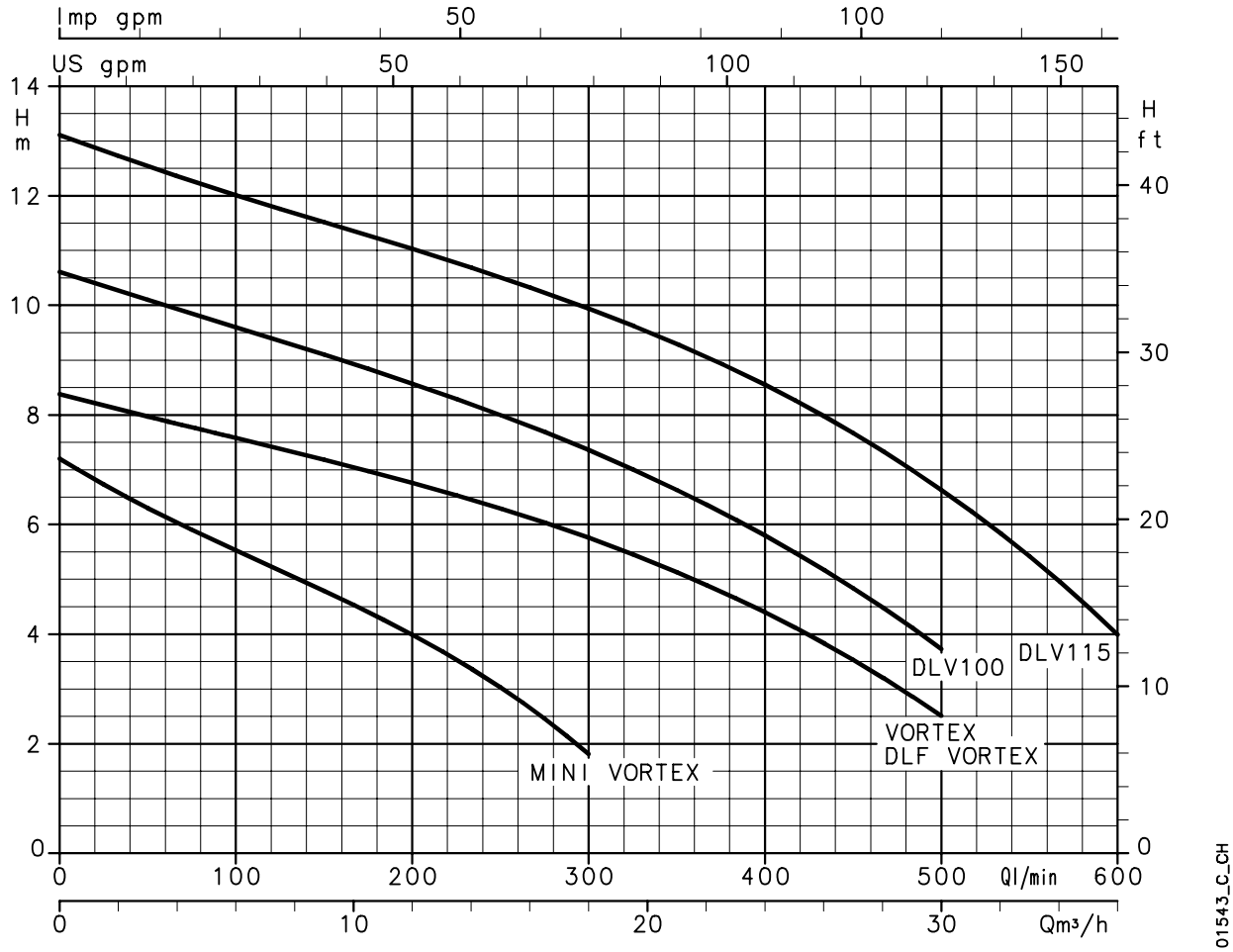
*Maximum values within operating range.

dl-2p50-en_b_te

LOWARA
a xylem brand

DLV SERIES
OPERATING CHARACTERISTICS AT 50 Hz

DLV	~ 2850 rpm	ISO 9906-Annex A



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												
MINI VORTEX(M)	0,6	0,8	7,2	6,3	5,5	4,8	4,0	3,0	1,8						
VORTEX-DLF 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		
DLV(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		
DLV 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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/s.

dlv-2p50-en_b_th

ELECTRICAL DATA TABLE

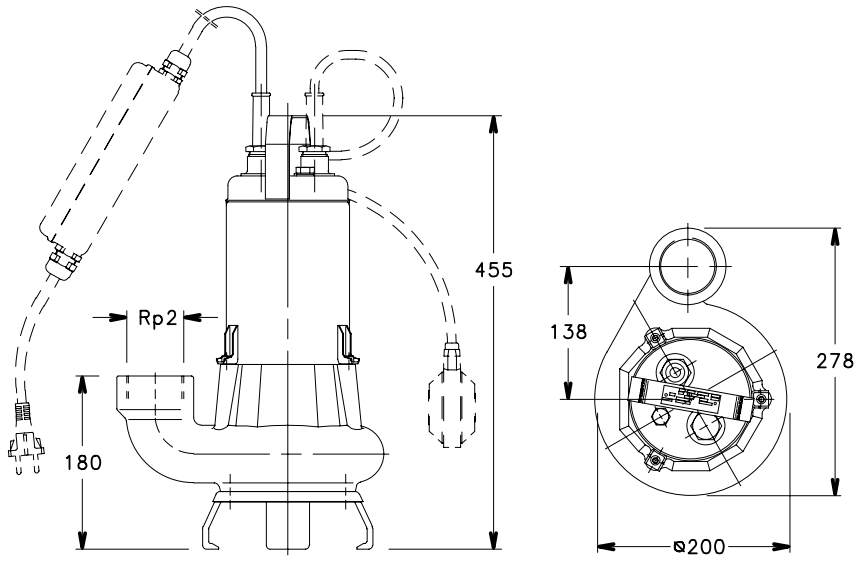
PUMP TYPE SINGLE-PHASE	ABSORBED POWER* kW	ABSORBED CURRENT* 220-240 V A	CAPACITOR µF / 450 V
MINI VORTEX M	1,05	4,82	25
-	-	-	-
DLVM100	1,64	7,30	35
-	-	-	-

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

*Maximum values within operating range.

dlv-2p50-en_b_te

DL - VORTEX SERIES
DIMENSIONS AND WEIGHTS

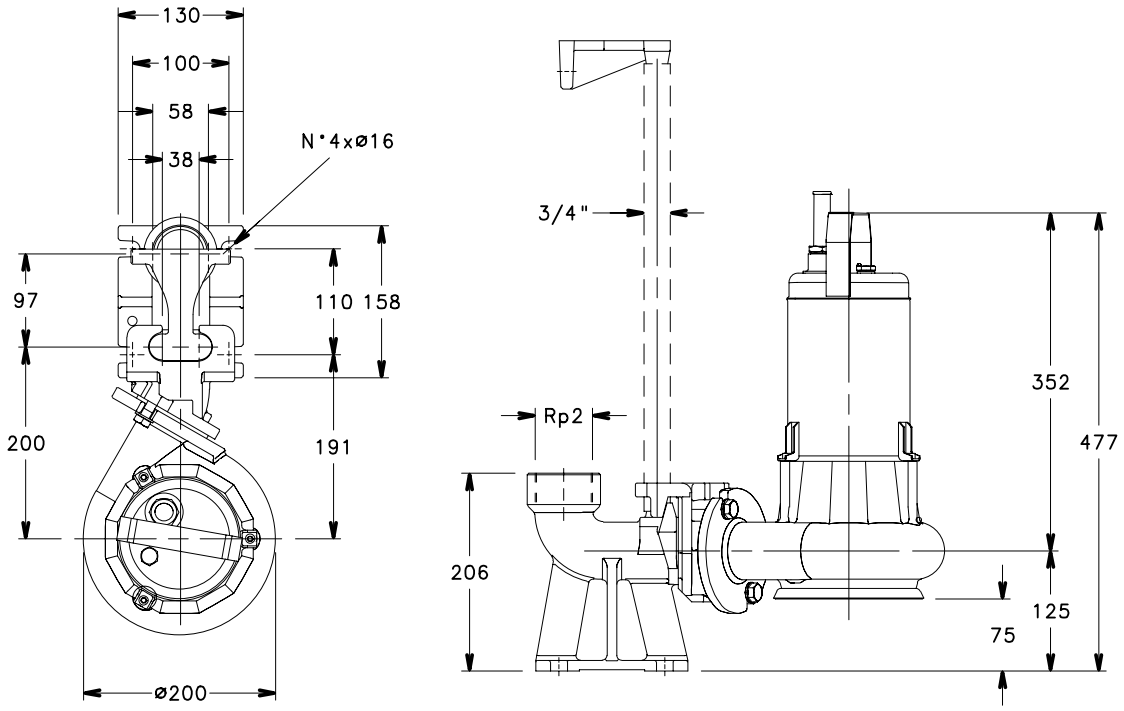


PUMP TYPE	WEIGHT kg
DL80-DLM80	19,5
DL90-DLM90	20
DL105	21
MINIVORTEX (M)	19
VORTEX	19

dl-vortex-2p50-en_a_td

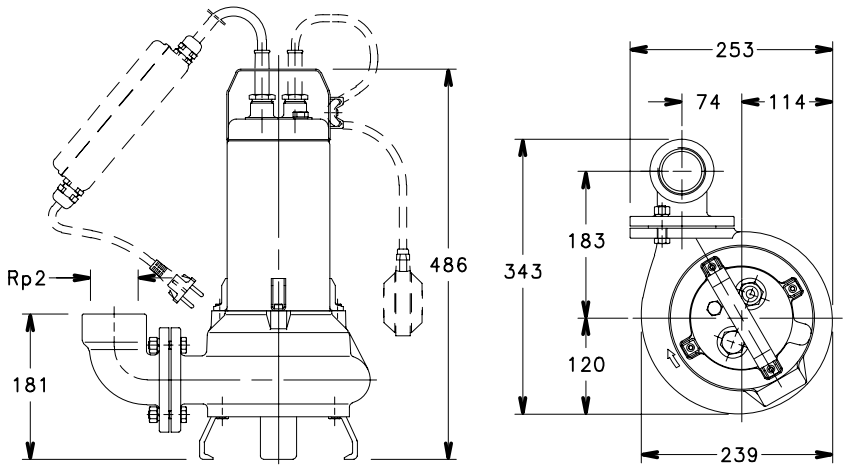
01541_D_DD

DLF SERIES
INSTALLATION WITH SD LOWERING DEVICE



01547_B_DD

DL - DLV SERIES
DIMENSIONS AND WEIGHTS

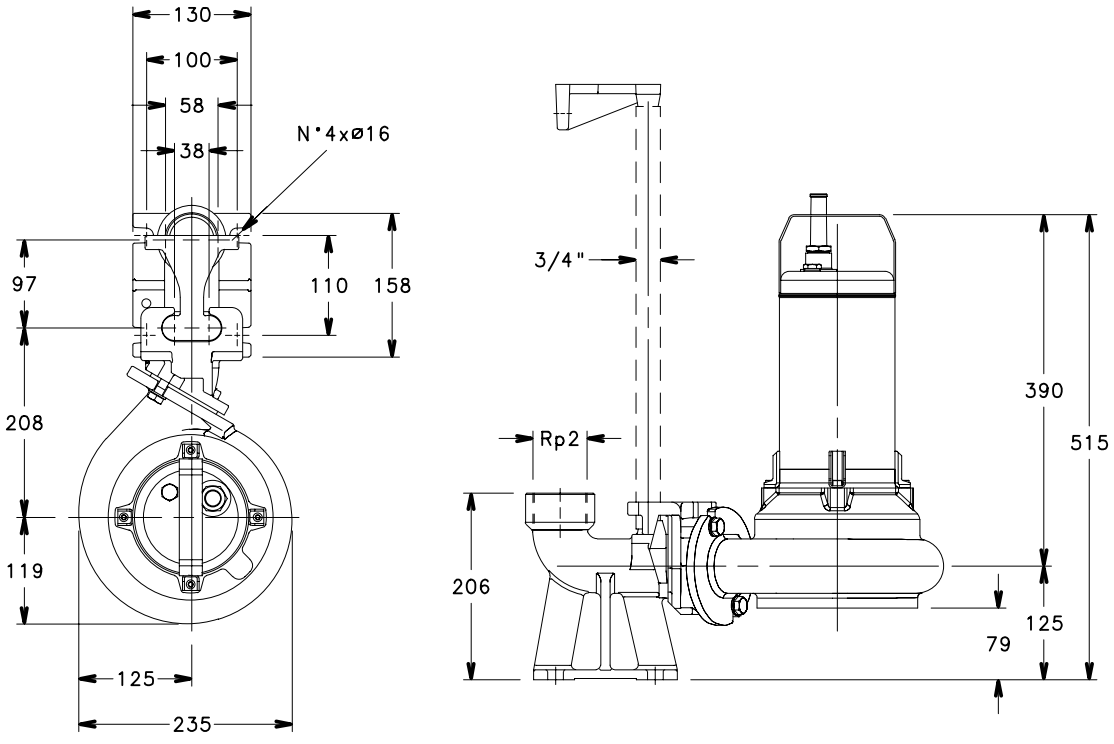


PUMP TYPE	WEIGHT kg
DL109-DLM109	27
DL125	27
DLV100-DLVM100	27
DLV115	27

dl-dlv-2p50-en_a_td

01562_D_DD

DL-DLV SERIES
INSTALLATION WITH SD LOWERING DEVICE



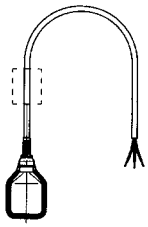
01567_D_DD

LOWARA
a xylem brand

TECHNICAL APPENDIX

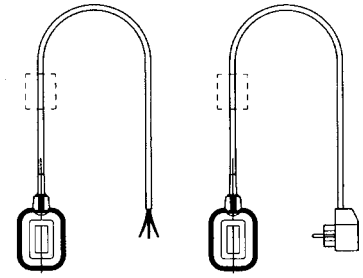
LEVEL REGULATORS

SMALL MODEL
(floating)



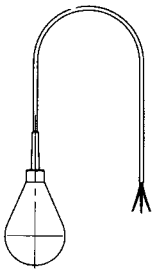
For single function (draining).
Cable lengths 1.5, 5, 10 m.
Counterweight available on request for versions with 5 and 10 m cable.

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)



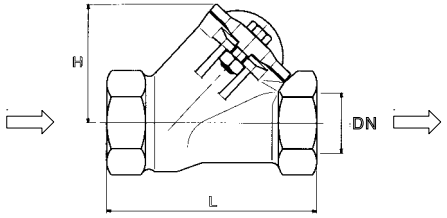
For solids-laden water.
Cable lengths:
10, 13, 15, 20, 30, 50 m.

BALL CHECK VALVES FOR WASTEWATER

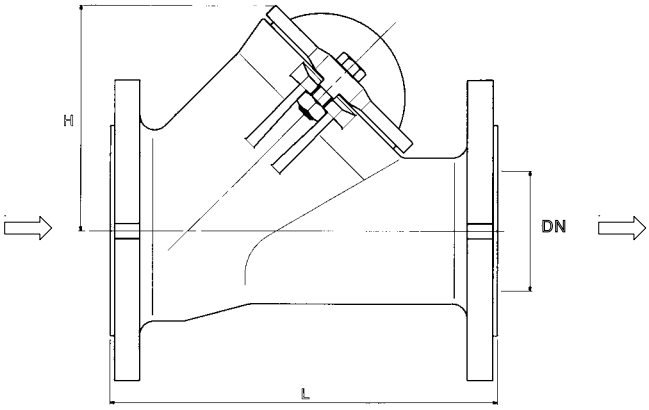
No-clog, maximum reliability, low flow resistance.
Maximum operating pressure: 10 bar.
Maximum temperature: 85°C.
Horizontal and vertical operating position.

MODEL	DIMENSIONS (mm)			WEIGHT
	Ø BALL	L	H	kg
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

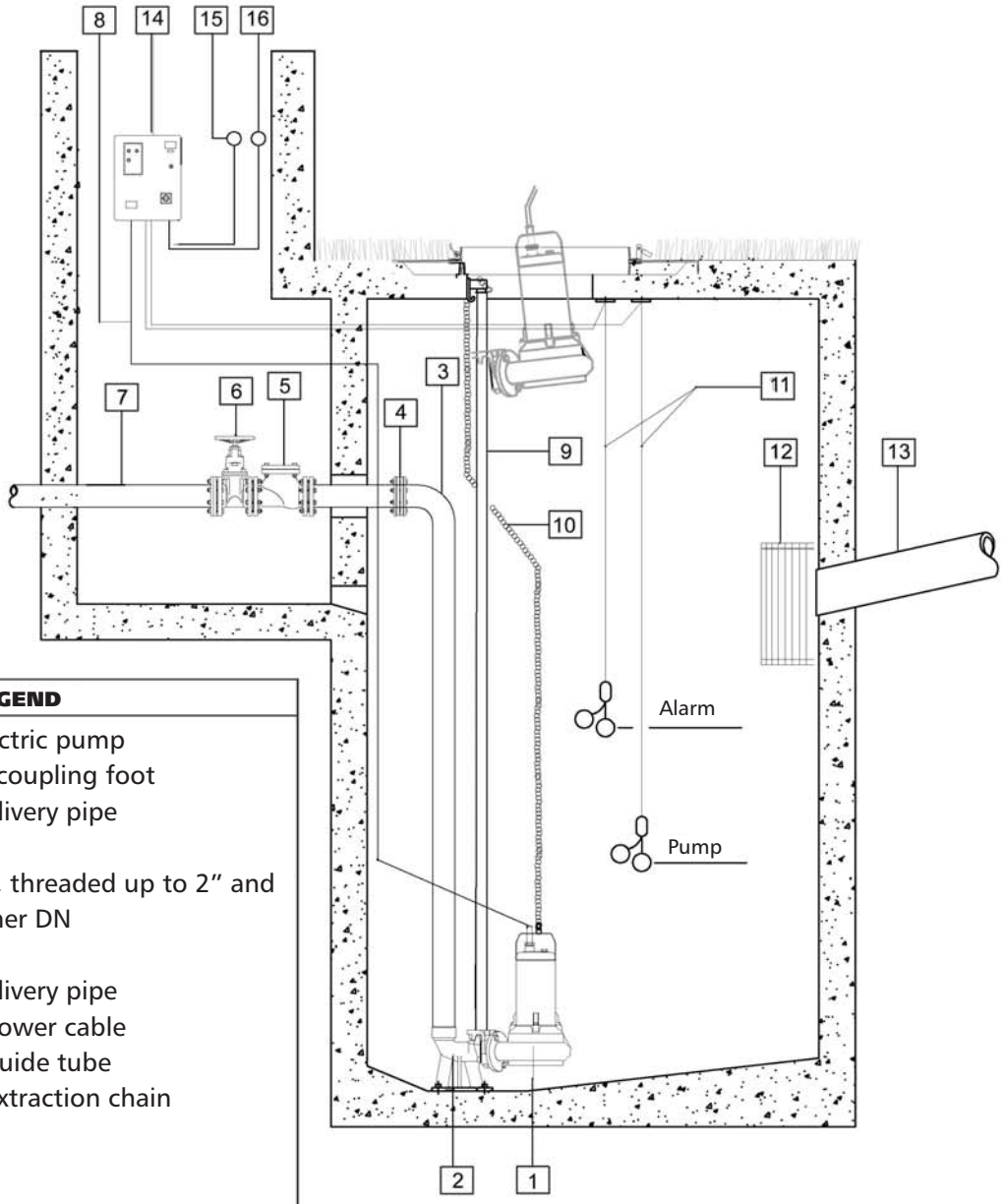


Rp 1 1/4 - 1 1/2 - 2 MODEL



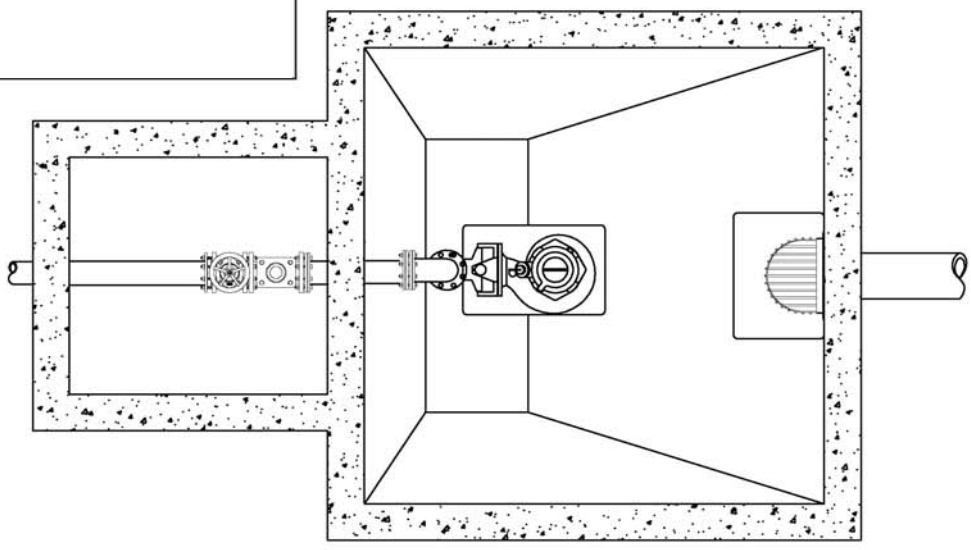
65 - 80 - 100 - 150 - 200 - 250 MODEL

EXAMPLE OF INSTALLATION OF SINGLE-PUMP SYSTEM

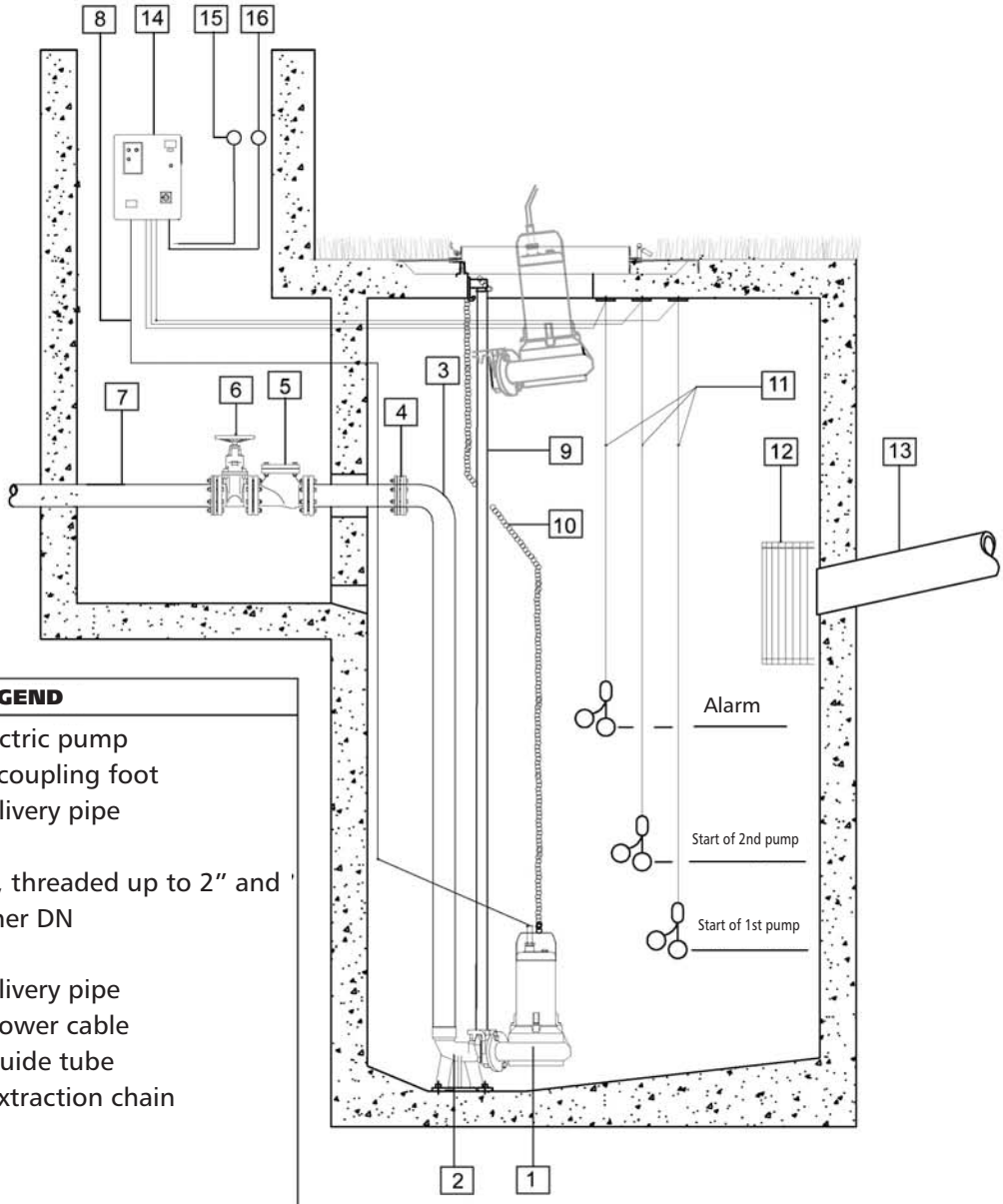


LEGEND

1. Submersible electric pump
2. Cast iron quick coupling foot
3. Polyethylene delivery pipe
4. Counterflange
5. Ball check valve, threaded up to 2" and flanged for higher DN
6. Gate valve
7. Polyethylene delivery pipe
8. Electric pump power cable
9. Stainless steel guide tube
10. Stainless steel extraction chain
11. Level floats
12. Inlet sluice gate
13. Inlet pipe
14. Electric panel
15. Alarm siren
16. Alarm light



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



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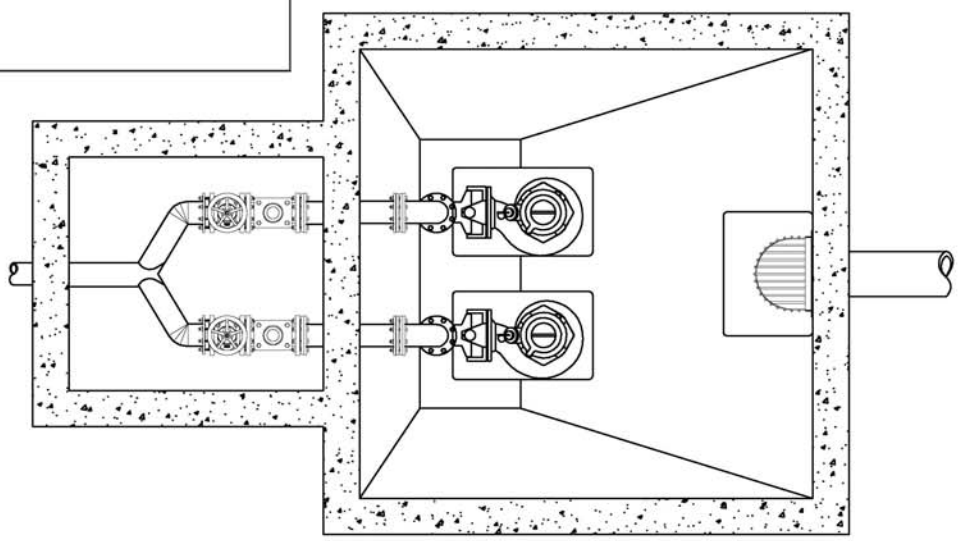
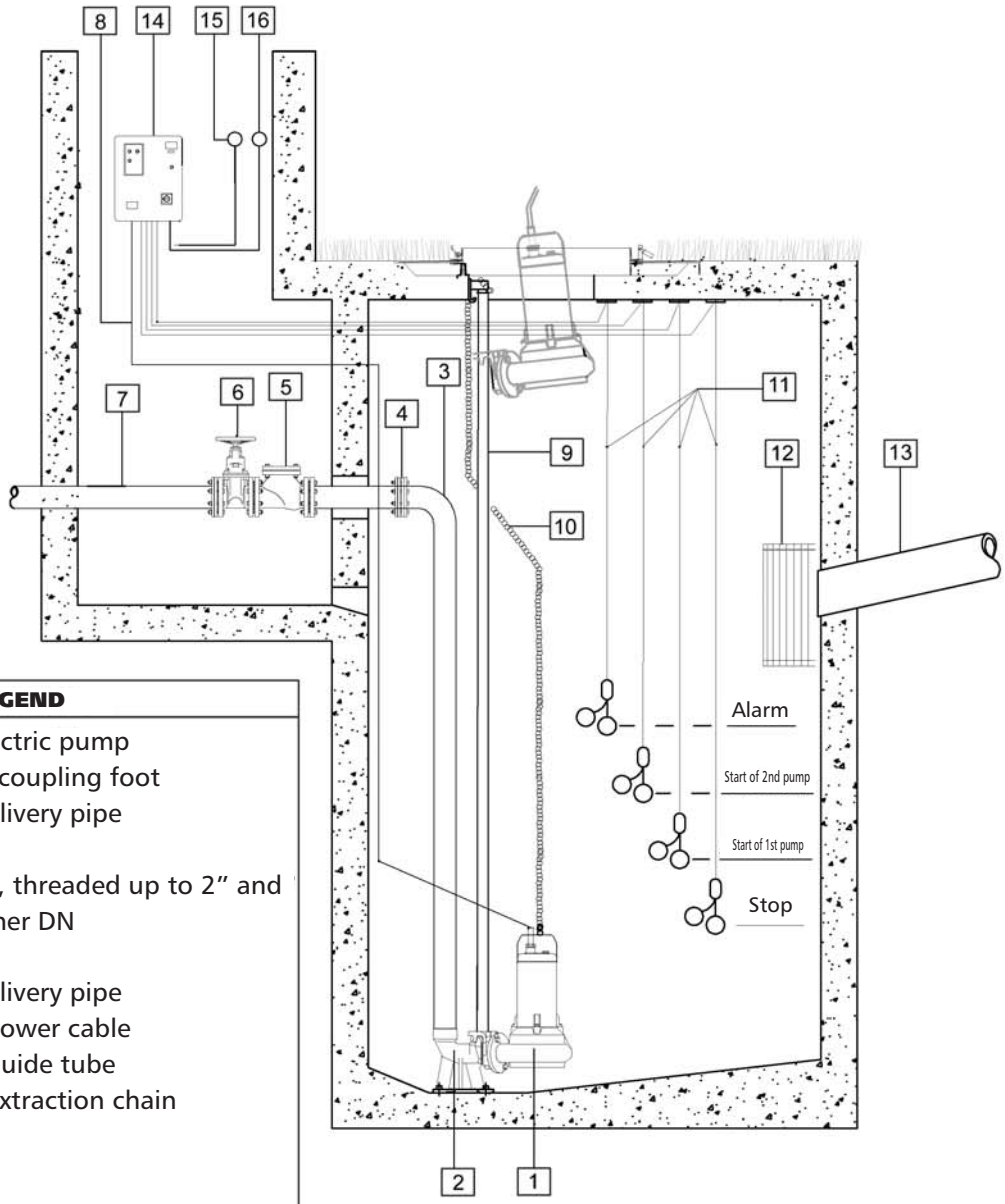


EXAMPLE OF INSTALLATION OF TWO-PUMPS SYSTEM WITH FOUR LEVEL REGULATORS



LEGEND

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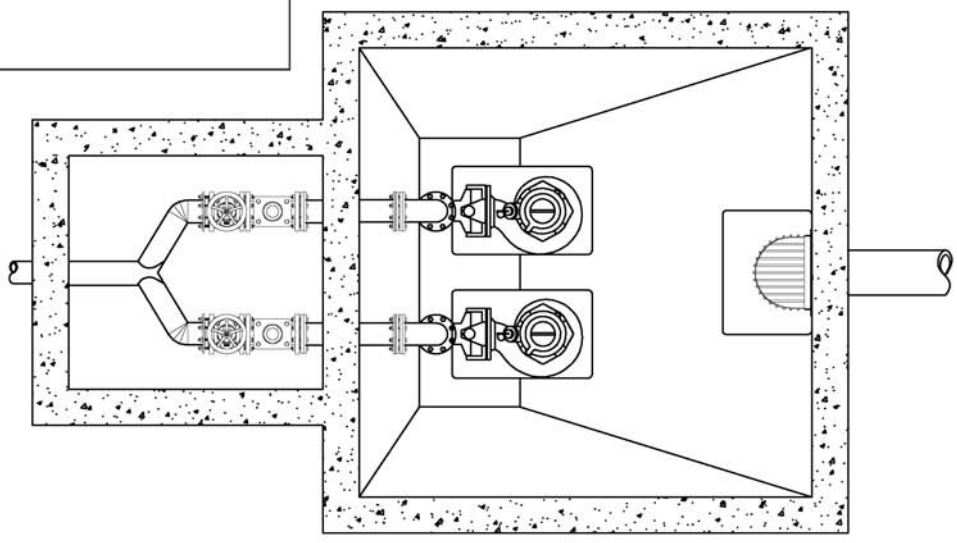


FLOW RESISTANCE

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

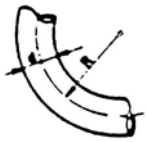
FLOW RATE			NOMINAL DIAMETER IN mm AND INCHES																
m³/h	l/min.		15 ½"	20 ¾"	25 1"	32 1 ¼"	40 1½"	50 2"	65 2½"	80 3"	100 4"	125 5"	150 6"	175 7"	200 8"	250 10"	300 12"	350 14"	400 16"
0,6	10	V	0,94	0,53	0,34	0,21													
		hr	11,8	2,82	1	0,25													
0,9	15	V	1,42	0,8	0,51	0,31													
		hr	25,1	6,04	2,16	0,55													
1,2	20	V	1,89	1,06	0,68	0,41	0,27												
		hr	43,1	10,4	3,72	0,95	0,31												
1,5	25	V	2,36	1,33	0,85	0,52	0,33												
		hr	64,5	15,8	5,68	1,47	0,47												
1,8	30	V	2,83	1,59	1,02	0,62	0,4												
		hr	92	22,3	8	2,09	0,66												
2,1	35	V	3,3	1,86	1,19	0,73	0,46	0,3											
		hr	123	29,8	10,8	2,81	0,89	0,31											
2,4	40	V	3,77	2,12	1,36	0,83	0,53	0,34											
		hr	164	38,2	13,8	2,65	1,15	0,4											
3	50	V	4,72	2,65	1,7	1,04	0,66	0,42											
		hr	246	58,2	21,5	5,6	1,75	0,61											
3,6	60	V		3,18	2,04	1,24	0,8	0,51											
		hr		82	30	8	2,48	0,86											
4,2	70	V		3,72	2,38	1,45	0,93	0,59											
		hr		110	40	10,8	3,33	1,14											
4,8	80	V		4,25	2,72	1,66	1,06	0,68											
		hr		141	51,5	13,9	4,3	1,46											
5,4	90	V			3,06	1,87	1,19	0,76	0,45										
		hr			64	17,5	5,4	1,82	0,46										
6	100	V			3,4	2,07	1,33	0,85	0,5										
		hr			79	21,4	6,6	2,22	0,56										
7,5	125	V			4,25	2,59	1,66	1,06	0,63										
		hr			120	33	10	3,4	0,86										
9	150	V				3,11	1,99	1,27	0,75	0,5									
		hr				47	14,2	4,74	1,21	0,43									
10,5	175	V				3,63	2,32	1,49	0,88	0,58									
		hr				63	19	6,3	1,63	0,57									
12	200	V				4,15	2,65	1,7	1,01	0,66									
		hr				82	24,5	8,1	2,1	0,74									
15	250	V				5,18	3,32	2,12	1,26	0,83	0,53								
		hr				126	37,5	12,3	3,2	1,12	0,36								
18	300	V					3,98	2,55	1,51	1	0,64								
		hr					53	17,3	4,5	1,58	0,51								
24	400	V					5,31	3,4	2,01	1,33	0,85								
		hr					92	29,5	7,8	2,7	0,89								
30	500	V					6,63	4,25	2,51	1,66	1,06	0,68							
		hr					140	44,8	12	4,13	1,36	0,48							
36	600	V						5,1	3,02	1,99	1,27	0,82							
		hr						63	16,9	5,8	1,93	0,68							
42	700	V						5,94	3,52	2,32	1,49	0,95							
		hr						84	22,6	7,8	2,6	0,9							
48	800	V						6,79	4,02	2,65	1,70	1,09	0,75						
		hr						108	29	10	3,35	1,16	0,43						
54	900	V						7,64	4,52	2,99	1,91	1,22	0,85						
		hr						134	36	12,5	4,2	1,45	0,54						
60	1000	V							5,03	3,32	2,12	1,36	0,94						
		hr							44,5	15,2	5,14	1,76	0,66						
75	1250	V							6,28	4,15	2,65	1,70	1,18	0,87					
		hr							68	23	7,9	2,68	1	0,48					
90	1500	V							7,54	4,98	3,18	2,04	1,42	1,04					
		hr							96	32,6	11,2	3,77	1,42	0,68					
105	1750	V							8,79	5,81	3,72	2,38	1,65	1,21	0,93				
		hr							129	43,5	15	5,04	1,9	0,91	0,45				
120	2000	V								6,63	4,25	2,72	1,89	1,39	1,06	0,68			
		hr								56	19,4	6,5	2,43	1,18	0,58	0,16			
150	2500	V								8,29	5,31	3,40	2,36	1,73	1,33	0,85			
		hr								85	30	9,8	3,75	1,79	0,89	0,25			
180	3000	V								9,95	6,37	4,08	2,83	2,08	1,59	1,02	0,71		
		hr								120	42	13,8	5,3	2,53	1,25	0,35	0,15		
300	5000	V									10,62	6,79	4,72	3,47	2,65	1,70	1,18	0,87	0,66
		hr									124,9	41,3	16,74	7,81	4,03	1,34	0,54	0,25	0,13
600	10000	V										13,59	9,44	6,93	5,31	3,4	2,36	1,73	1,33
		hr										161	65	30,2	15,6	5,16	2,09	0,97	0,5
1200	20000	V														6,79	4,72	3,47	2,65
		hr														20,1	8,13	3,8	1,95
1800	30000	V															7,7	5,2	4,0
		hr															18,07	8,39	4,32
3000	50000	V															11,8	8,67	6,63
		hr															49,5	23	11,8
4500	75000	V															17,7	13	9,9
		hr															110,5	51,3	26,4
6000	100000	V																17,33	13,27
		hr																90,6	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

Hr = FLOW RESISTANCE (m/100 m OF PIPELINE)

V = WATER SPEED (m/sec)

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

WATER SPEED	SHARP BENDS					SMOOTH BENDS					STANDARD GATE VALVES	FOOT VALVES	CHECK VALVES
													
m/ ec	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,s			
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_2O	millimetre of mercury mm Hg
1,0000	0,0010	1×10^{-5}	1.45×10^{-4}	1.02×10^{-4}	**0,0075**
1000,0000	**1,0000**	0,0100	0,1450	0,1020	7,5006
1×10^5	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**

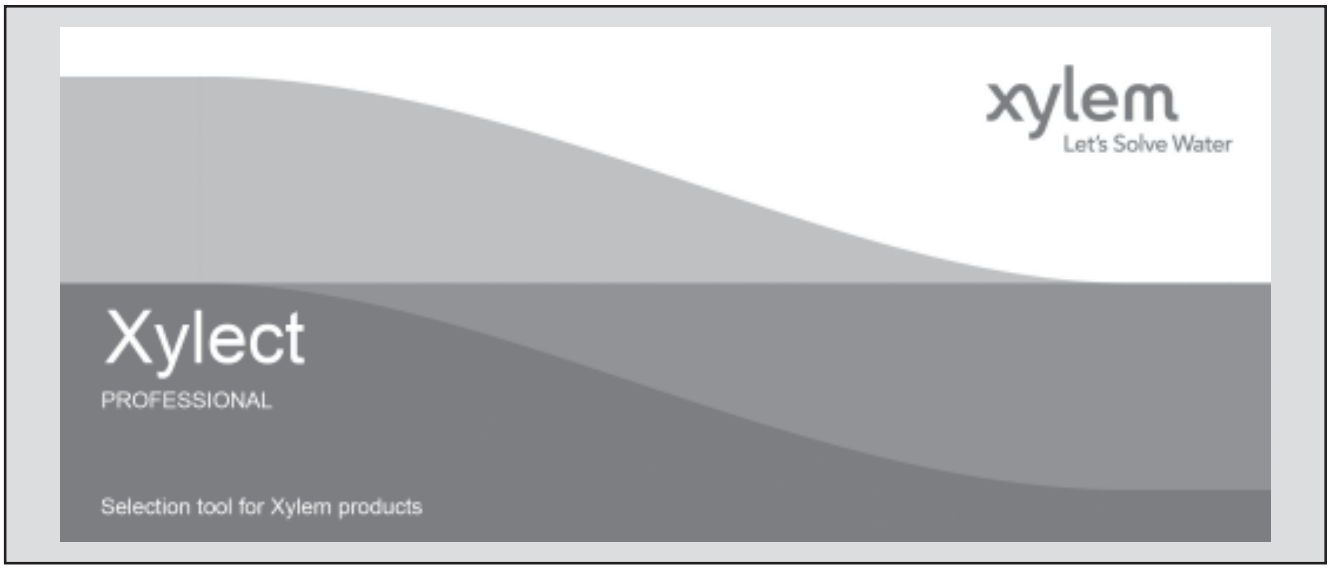
VOLUME

cubic metre m^3	litre litro	millilitre ml	imp. Gallon imp. gal.	US gallon US gal.	cubic foot ft^3
1,0000	1000,0000	1×10^6	219,9694	264,1720	**35,3147**
0,0010	**1,0000**	1000,0000	0,2200	0,2642	0,0353
1×10^{-6}	0,0010	**1,0000**	2.2×10^{-4}	2.642×10^{-4}	3.53×10^{-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**

G-at_pp-en_a_sc

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect



Xylect is pump solution selection software with an extensive online database of product information across the entire Lowara, and Vogel range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

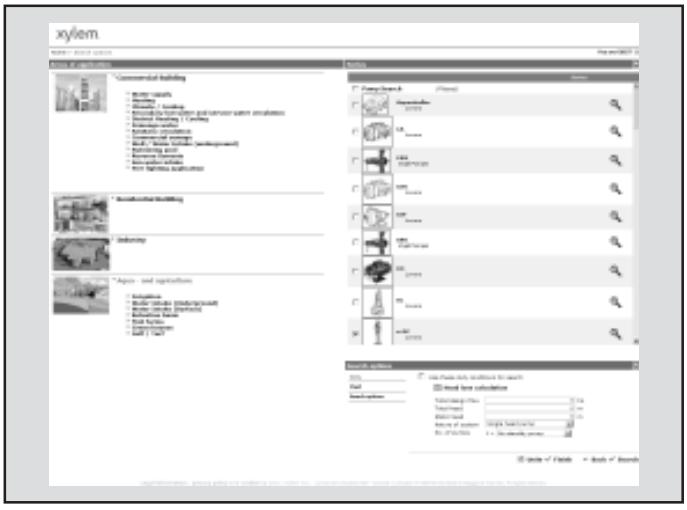
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara and Vogel products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect gives a detailed output:

- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect

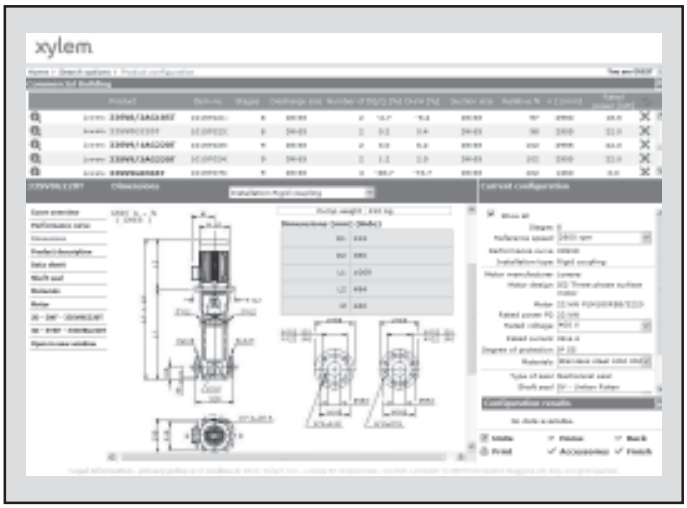
The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylect is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects
- Share projects with other Xylect users

Every user have a My Xylect space, where all projects are saved.

For more information about Xylect please contact our sales network or visit www.xylect.com.



Dimensional drawings appear on the screen and can be downloaded in dxf format.

Xylem |'zīləm|

1) The tissue in plants that brings water upward from the roots;
2) a leading global water technology company.

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to xyleminc.com.

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