

4" submersible pumps



Clean water
(Maximum
sand content 100 g/m³)



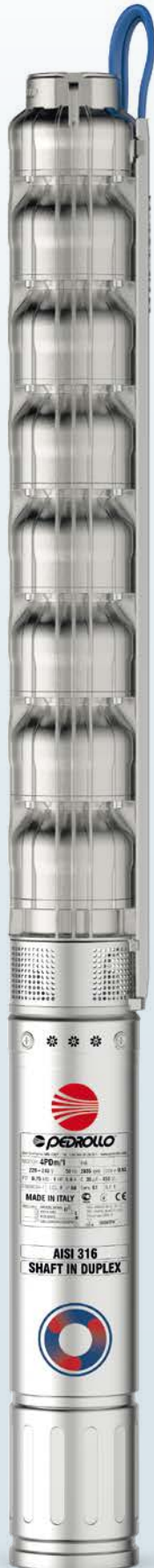
Domestic use



Civil use



Industrial use



PERFORMANCE RANGE

- Flow rate up to **500 l/min** (300 m³/h)
- Head up to **172 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **100 g/m³**
- **200 m** immersion limit
- Installation:
 - vertical
 - horizontal up to **12 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Single-phase 380 V - 60 Hz
- Three-phase 220 V - 60 Hz

Length of power cable:

- **2 m** powers from 0.37 to 2.2 kW
- **3.6 m** powers from 3 to 7.5 kW.

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

INSTALLATION AND USE

Suitable for use with clean water with a sand content of no more than **100 g/m³**. Because of their high efficiency and reliability, they are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure tanks, for irrigation, for washing plants and for pressure boosting in fire-fighting sets, etc.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 004128619-0001

OPTIONS AVAILABLE ON REQUEST

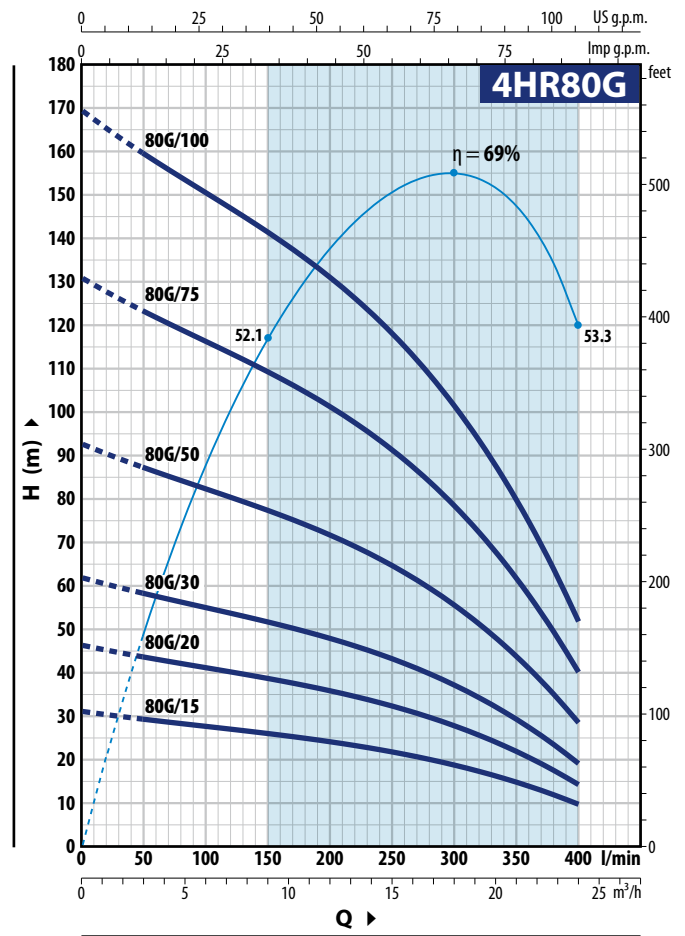
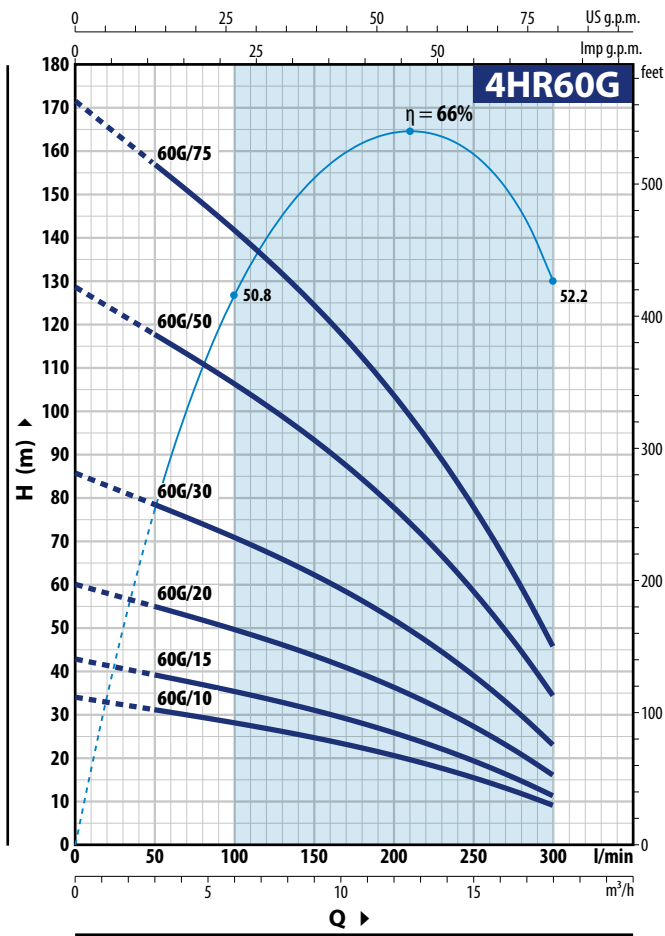
- Pump body with ISO 228/1 threaded ports
- Other voltages

GUARANTEE

2 years subject to terms and conditions

CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min⁻¹



4HR60G

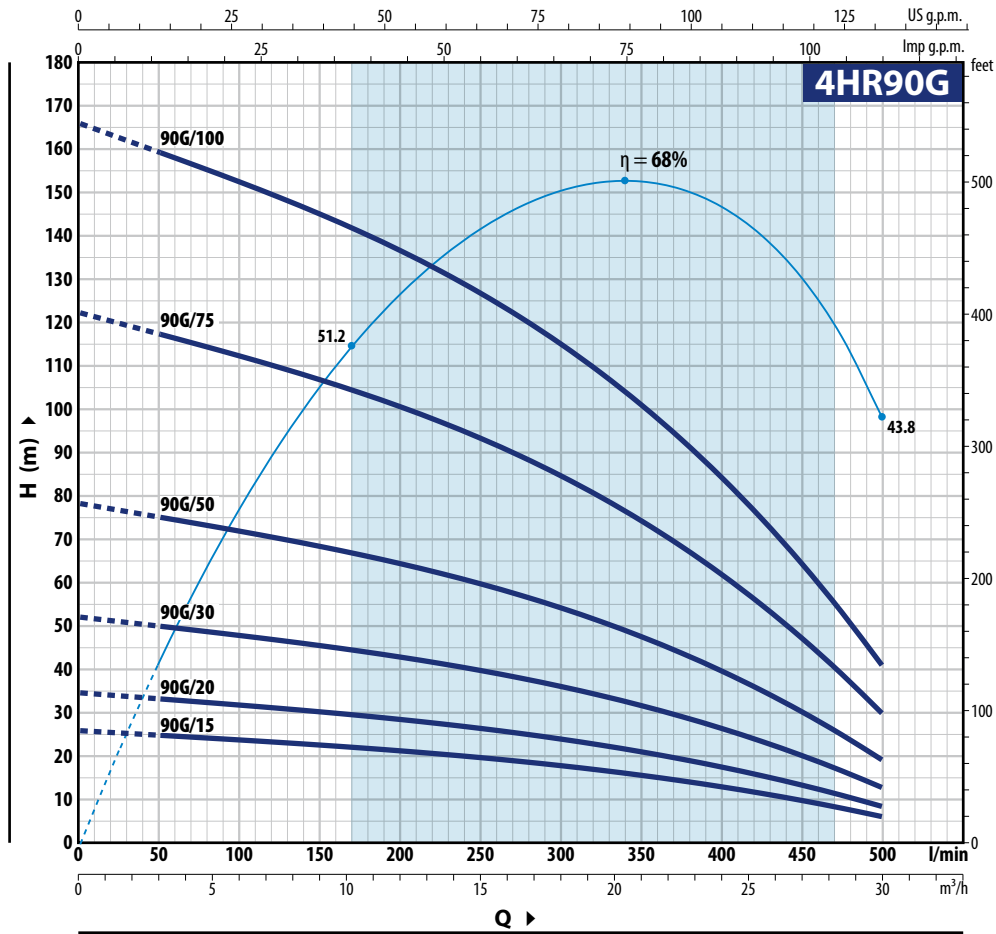
| MODEL | | N. STAGES | POWER (P ₂) | | Q | H metres | | | | | | | | |
|--------------|-------------|-----------|-------------------------|-----|----------|-------------------|------|------|------|------|------|------|------|------|
| Single-phase | Three-phase | | kW | HP | | m ³ /h | 0 | 3 | 6 | 7.5 | 9 | 10.5 | 12 | 15 |
| | | | | | l/min | 0 | 50 | 100 | 125 | 150 | 175 | 200 | 250 | 300 |
| 4HRm 60G/10 | 4HR 60G/10 | 4 | 0.75 | 1 | H metres | 34.5 | 31.5 | 28.5 | 26.7 | 25 | 23 | 20.8 | 15.7 | 9 |
| 4HRm 60G/15 | 4HR 60G/15 | 5 | 1.1 | 1.5 | | 43 | 39.5 | 35.5 | 33.5 | 31 | 28.5 | 26 | 19.6 | 11.5 |
| 4HRm 60G/20 | 4HR 60G/20 | 7 | 1.5 | 2 | | 60 | 55 | 49.5 | 47 | 43.5 | 40 | 36.5 | 27.5 | 16 |
| 4HRm 60G/30 | 4HR 60G/30 | 10 | 2.2 | 3 | | 86 | 79 | 71 | 67 | 62.5 | 57.5 | 52 | 39 | 23 |
| - | 4HR 60G/50 | 15 | 3.7 | 5 | | 129 | 118 | 107 | 100 | 94 | 86 | 78 | 58.5 | 34.5 |
| - | 4HR 60G/75 | 20 | 5.5 | 7.5 | | 172 | 157 | 142 | 134 | 125 | 115 | 104 | 78 | 46 |

4HR80G

| MODEL | | N. STAGES | POWER (P ₂) | | Q | H metres | | | | | | | | |
|--------------|-------------|-----------|-------------------------|-----|----------|-------------------|------|------|------|------|------|------|------|------|
| Single-phase | Three-phase | | kW | HP | | m ³ /h | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 |
| | | | | | l/min | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 |
| 4HRm 80G/15 | 4HR 80G/15 | 4 | 1.1 | 1.5 | H metres | 31 | 29 | 27.5 | 25.7 | 23.8 | 21.5 | 18.4 | 14.5 | 9.5 |
| 4HRm 80G/20 | 4HR 80G/20 | 6 | 1.5 | 2 | | 46 | 43.5 | 41 | 38.5 | 35.5 | 32 | 27.5 | 21.7 | 14 |
| 4HRm 80G/30 | 4HR 80G/30 | 8 | 2.2 | 3 | | 61.5 | 58 | 55 | 51.5 | 47.5 | 43 | 37 | 29 | 19 |
| - | 4HR 80G/50 | 12 | 3.7 | 5 | | 92 | 87 | 82 | 77 | 71 | 64.5 | 55.5 | 43.5 | 28 |
| - | 4HR 80G/75 | 17 | 5.5 | 7.5 | | 131 | 123 | 116 | 109 | 101 | 91 | 78 | 61.5 | 40 |
| - | 4HR 80G/100 | 22 | 7.5 | 10 | | 170 | 160 | 151 | 141 | 131 | 118 | 101 | 80 | 51.5 |

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.



4HR90G

| MODEL | | N. STAGES | POWER (P ₂) | | Q | H metres | | | | | | | | | |
|--------------|-------------|-----------|-------------------------|-----|---|----------|------|------|------|------|------|------|------|------|------|
| Single-phase | Three-phase | | kW | HP | | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 30 |
| 4HRm 90G/15 | 4HR 90G/15 | 3 | 1.1 | 1.5 | 0 | 26.5 | 25 | 24.1 | 23 | 21.6 | 20.1 | 18.2 | 16 | 13.4 | 6.5 |
| 4HRm 90G/20 | 4HR 90G/20 | 4 | 1.5 | 2 | 0 | 35 | 33.5 | 32 | 30.5 | 29 | 26.8 | 24.3 | 21.3 | 17.8 | 8.5 |
| 4HRm 90G/30 | 4HR 90G/30 | 6 | 2.2 | 3 | 0 | 52.5 | 50.5 | 48.5 | 46 | 43.5 | 40 | 36.5 | 32 | 26.7 | 13 |
| - | 4HR 90G/50 | 9 | 3.7 | 5 | 0 | 79 | 76 | 72 | 69 | 65 | 60 | 54.5 | 48 | 40 | 19.5 |
| - | 4HR 90G/75 | 14 | 5.5 | 7.5 | 0 | 123 | 118 | 113 | 107 | 101 | 94 | 85 | 75 | 62.5 | 30.5 |
| - | 4HR 90G/100 | 19 | 7.5 | 10 | 0 | 166 | 160 | 153 | 145 | 137 | 127 | 115 | 101 | 85 | 41.5 |

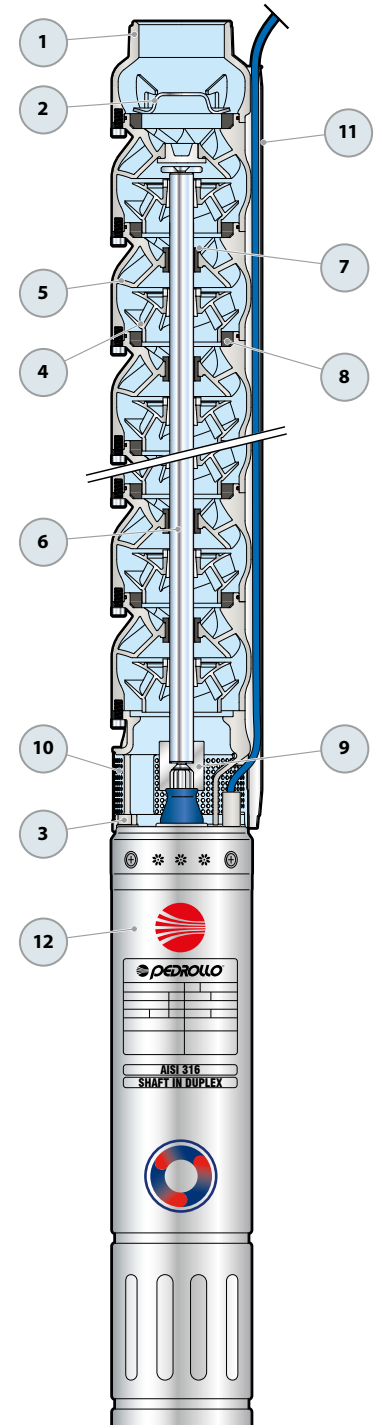
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

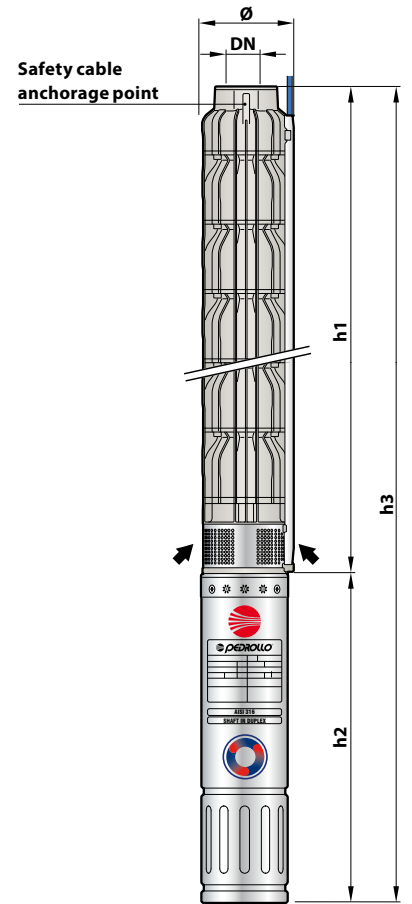
| | |
|---------------------------|---|
| 1 DELIVERY BODY | Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with NPT ANSI B 1.20.1 |
| 2 NON-RETURN VALVE | Stainless steel AISI 304 |
| 3 MOTOR BRACKET | Precision cast stainless steel AISI 304 in compliance with NEMA standards |
| 4 IMPELLERS | Precision cast stainless steel AISI 304 |
| 5 DIFFUSERS | Precision cast stainless steel AISI 304 |
| 6 PUMP SHAFT | Stainless steel AISI 304 |
| 7 PUMP BEARINGS | Special elastomer |
| 8 WEAR RINGS | Special elastomer |
| 9 DRIVE COUPLING | Stainless steel AISI 304 |
| 10 FILTER | Stainless steel AISI 304 |
| 11 CABLE COVER | Stainless steel AISI 304 |
| 12 MOTOR 4" | 4PD = rewindable oil filled submersible motor |



DIMENSIONS AND WEIGHT (pumps paired with 4PD submersible motor)

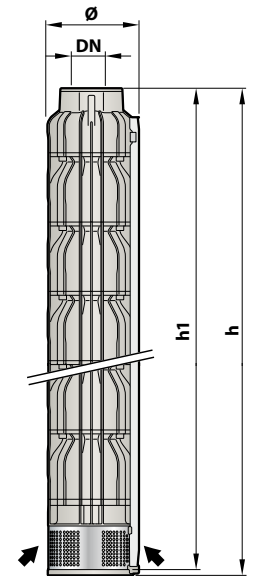
| MODEL | DN | N. STAGES | Ø | DIMENSIONS mm | | | kg |
|---------------------|--------|-----------|-----|---------------|-----|------|------|
| | | | | h1 | h2 | h3 | |
| Single-phase | | | | | | | |
| 4HRm 60G/10 - PD | 2" NPT | 4 | 100 | 438 | 356 | 794 | 16.9 |
| 4HRm 60G/15 - PD | | 5 | | 511 | 396 | 907 | 20.1 |
| 4HRm 60G/20 - PD | | 7 | | 657 | 437 | 1094 | 24.4 |
| 4HRm 60G/30 - PD | | 10 | | 876 | 492 | 1368 | 31.9 |
| 4HRm 80G/15 - PD | | 4 | | 438 | 396 | 834 | 18.4 |
| 4HRm 80G/20 - PD | | 6 | | 584 | 437 | 1021 | 22.7 |
| 4HRm 80G/30 - PD | | 8 | | 730 | 492 | 1222 | 28.7 |
| 4HRm 90G/15 - PD | | 3 | | 365 | 396 | 761 | 17.1 |
| 4HRm 90G/20 - PD | | 4 | | 438 | 437 | 875 | 20.0 |
| 4HRm 90G/30 - PD | | 6 | | 584 | 492 | 1076 | 26.0 |

| MODEL | DN | N. STAGES | Ø | DIMENSIONS mm | | | kg |
|--------------------|--------|-----------|-----|---------------|-----|------|------|
| | | | | h1 | h2 | h3 | |
| Three-phase | | | | | | | |
| 4HR 60G/10 - PD | 2" NPT | 4 | 100 | 438 | 356 | 794 | 16.9 |
| 4HR 60G/15 - PD | | 5 | | 511 | 371 | 882 | 19.2 |
| 4HR 60G/20 - PD | | 7 | | 657 | 396 | 1053 | 22.9 |
| 4HR 60G/30 - PD | | 10 | | 876 | 437 | 1313 | 28.7 |
| 4HR 60G/50 - PD | | 15 | | 1241 | 505 | 1746 | 40.2 |
| 4HR 60G/75 - PD | | 20 | | 1606 | 589 | 2195 | 51.6 |
| 4HR 80G/15 - PD | | 4 | | 438 | 371 | 809 | 17.6 |
| 4HR 80G/20 - PD | | 6 | | 584 | 396 | 980 | 21.1 |
| 4HR 80G/30 - PD | | 8 | | 730 | 437 | 1167 | 25.4 |
| 4HR 80G/50 - PD | | 12 | | 1022 | 505 | 1527 | 35.3 |
| 4HR 80G/75 - PD | | 17 | | 1387 | 589 | 1976 | 46.1 |
| 4HR 80G/100 - PD | | 22 | | 1752 | 800 | 2552 | 62.3 |
| 4HR 90G/15 - PD | | 3 | | 365 | 371 | 736 | 16.3 |
| 4HR 90G/20 - PD | | 4 | | 438 | 396 | 834 | 18.5 |
| 4HR 90G/30 - PD | | 6 | | 584 | 437 | 1021 | 22.7 |
| 4HR 90G/50 - PD | | 9 | | 803 | 505 | 1308 | 31.3 |
| 4HR 90G/75 - PD | | 14 | | 1168 | 589 | 1757 | 42.1 |
| 4HR 90G/100 - PD | | 19 | | 1533 | 800 | 2333 | 58.3 |

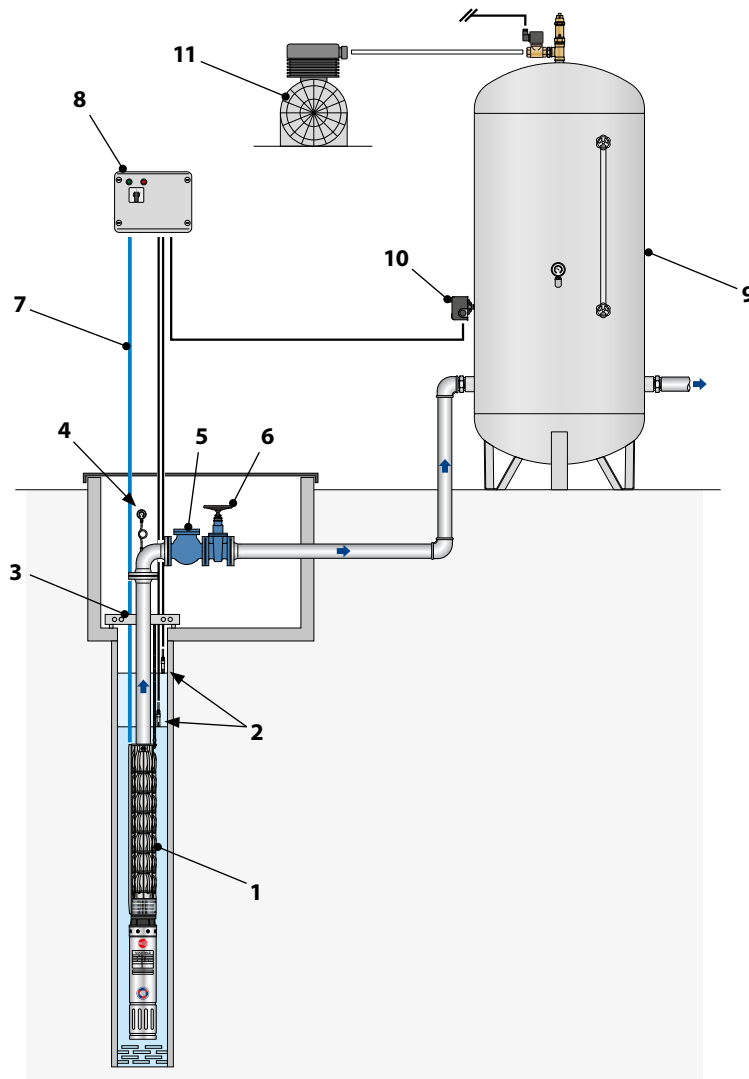


DIMENSIONS AND WEIGHT (pump only)

| MODEL pump | PORT DN | N. STAGES | DIMENSIONS mm | | | kg |
|-------------------|------------|--------------|---------------|------|------|------|
| | | | Ø | h1 | h | |
| 4HR 60G/10 - HYD | 2" NPT | 4 | 100 | 438 | 441 | 7.8 |
| 4HR 60G/15 - HYD | | 5 | | 511 | 514 | 9.2 |
| 4HR 60G/20 - HYD | | 7 | | 657 | 660 | 12.0 |
| 4HR 60G/30 - HYD | | 10 | | 876 | 879 | 16.2 |
| 4HR 60G/50 - HYD | | 15 | | 1241 | 1244 | 23.3 |
| 4HR 60G/75 - HYD | | 20 | | 1606 | 1609 | 30.3 |
| 4HR 80G/15 - HYD | | 4 | | 438 | 441 | 7.6 |
| 4HR 80G/20 - HYD | | 6 | | 584 | 587 | 10.3 |
| 4HR 80G/30 - HYD | | 8 | | 730 | 733 | 13.0 |
| 4HR 80G/50 - HYD | | 12 | | 1022 | 1025 | 18.3 |
| 4HR 80G/75 - HYD | | 17 | | 1387 | 1390 | 25.1 |
| 4HR 80G/100 - HYD | | 22 | | 1752 | 1755 | 31.8 |
| 4HR 90G/15 - HYD | | 3 | | 365 | 368 | 6.2 |
| 4HR 90G/20 - HYD | | 4 | | 438 | 441 | 7.5 |
| 4HR 90G/30 - HYD | | 6 | | 584 | 587 | 10.2 |
| 4HR 90G/50 - HYD | | 9 | | 803 | 806 | 14.3 |
| 4HR 90G/75 - HYD | | 14 | | 1168 | 1171 | 21.1 |
| 4HR 90G/100 - HYD | | 19 | | 1533 | 1536 | 27.8 |



STANDARD INSTALLATION



COMPONENTS

- 1) Submersible pump
- 2) Level probes
- 3) Pump anchorage
- 4) Pressure gauge
- 5) Non-return valve
- 6) Gate valve; for flow rate regulation
- 7) Power cable
- 8) Control box
- 9) Pressure tank
- 10) Pressure switch
- 11) Electro valve/electro-compressor