# VSP2 Variable speed pressure units

Clean water

Domestic use

Civil use

## INSTALLATION AND USE

**VSP2** is a pre-assembled system intended for connecting to water mains or a primary collection tank. It provides water supply and pressurization and is ideal for residential, commercial, and public buildings. It's also suitable for hotels, park irrigation, as well as industrial water handling and treatment.

**VSP2** is compatible with clean water and aqueous solutions that do not chemically or mechanically harm the materials used and are free from abrasive or fibrous substances.

## PRODUCT DESCRIPTION

**VSP2** is a pressurization system comprising two pumping units connected in parallel. Integrated inverter devices automatically adjust their operation to varying water demands while ensuring constant pressure.

When system pressure drops due to water withdrawal, the first **VSP** unit starts working to provide the necessary water flow rate, maintaining pressure. Once the maximum rotation speed is reached, the second **VSP** unit starts to fulfill the system's water demand.

## COMPONENTS

※ **TWO VSP PUMPING UNITS** connected in parallel via suction and discharge manifolds. Each unit is equipped with ball valves on the supply and suction side, non-return valves on the suction side (FCR, PLURIJET, MK) or on the supply side (HT-PRO). The electronics integrated in VSP can manage the alternating operation of individual units.

**VSP2 is designed to protect the system from:**

※ dry running
※ overvoltage and undervoltage
※ combustion chamber

※ **BASE** made of metal profile and equipped with adjustable vibration-damping feet.

※ **PRESSURE TRANSDUCER** (4-20mA) installed on the supply manifold, which enables command and control of the pressurization unit.

※ **CONTROL PANEL** with thermal-magnetic circuit breakers for three-phase versions and thermal-magnetic circuit breakers for single-phase versions.

※ **POWER SUPPLY:**
- VSP2m: single-phase 230V ±10% 50/60Hz
- VSP2 : three-phase 400V ±10% 50/60Hz

## VSP2 – FCR

Pressurization units comprise two multistage centrifugal pumps with an integrated inverter in the motor, capable of maintaining constant pressure in the system. They are used for water supply in residential, commercial, and public buildings, as well as for garden irrigation and general clean water movement.

### TECHNICAL DATA

- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature between **-5 °C** and **+40 °C**
- Max. pressure in the pump body **10 bar**
- Continuous running duty **S1**

## VSP2 – PLURIJET

Pressurization units comprise two self-priming multistage centrifugal pumps with an integrated inverter in the motor, capable of maintaining a constant pressure in the system. They are utilized for water supply, including from underground reservoirs, in residential, commercial, and public buildings, as well as for garden irrigation and general clean water movement.

### TECHNICAL DATA

- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature between **-5 °C** and **+40 °C**
- Max. pressure in the pump body **10 bar**
- Continuous running duty **S1**

## VSP2 – MK

Pressurization units comprise two vertical multistage pumps with an integrated inverter in the motor, capable of maintaining a constant pressure in the system. They are used for water supply in residential, commercial, and public buildings, as well as for handling clean water.

### TECHNICAL DATA

- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature between **-5 °C** and **+40 °C**
- Max. pressure in pump body **11 bar**
- Continuous running duty **S1**

## VSP2 - HT PRO

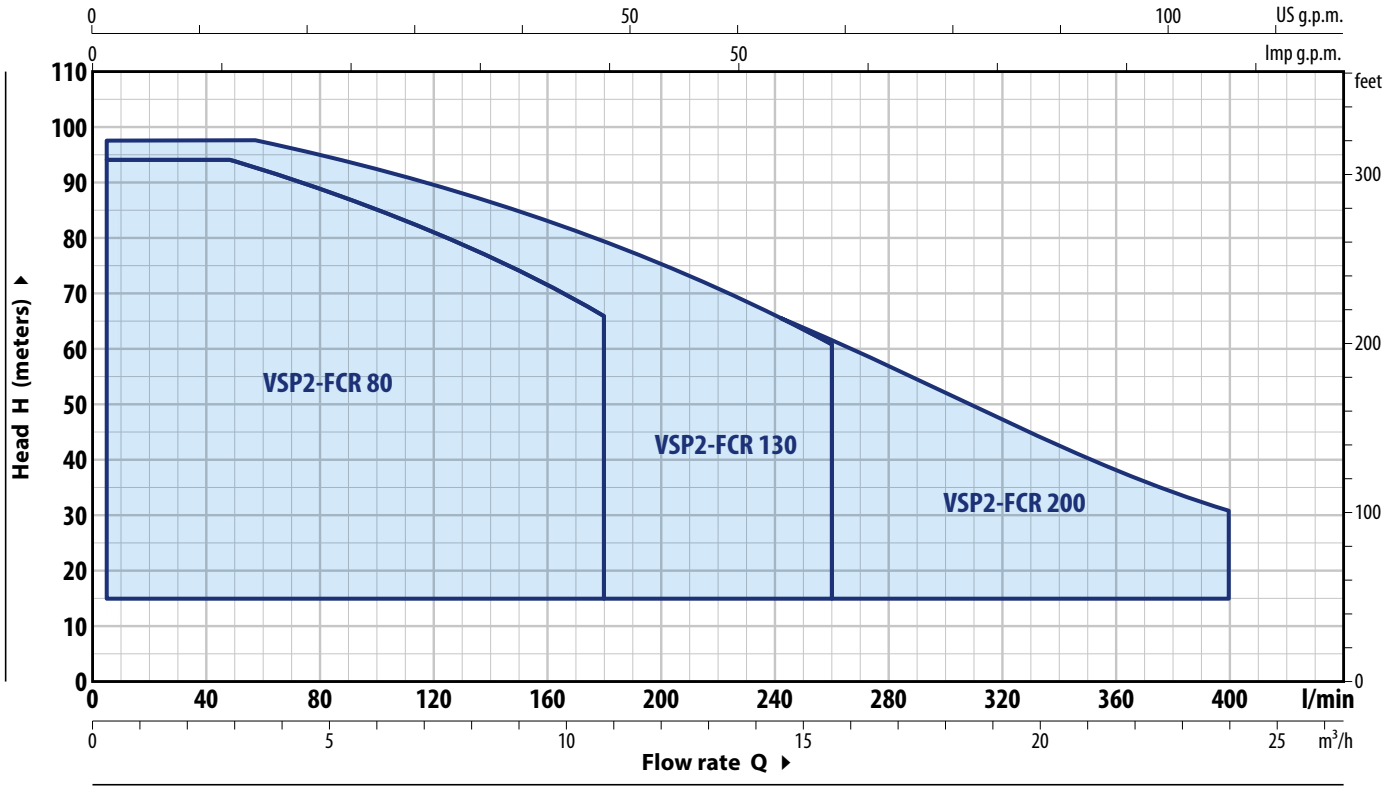
Pressurization units comprise two vertical multistage pumps with integrated inverters in the motor to maintain consistent pressure in the system. They're commonly used for water supply in commercial and public buildings, irrigation in parks and athletic fields, and for industrial water treatment.

### TECHNICAL DATA

- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature between **-5 °C** and **+40 °C**
- Max. pressure in pump body **16 bar**
- Continuous running duty **S1**

# VSP2 – FCR

## FIELD AND PERFORMANCE DATA

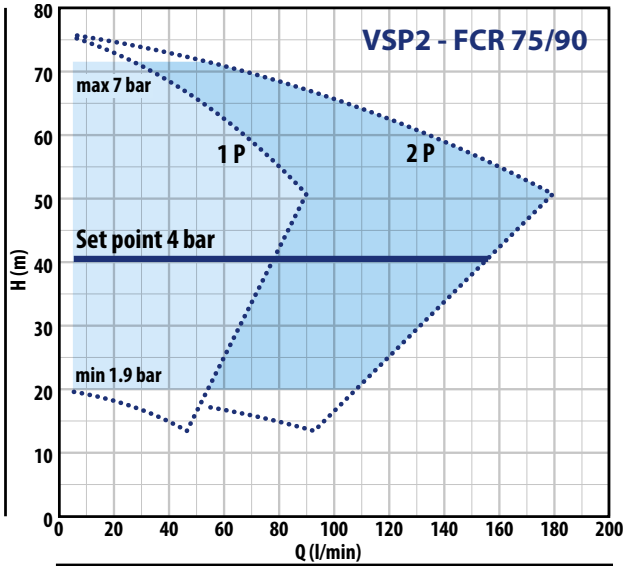


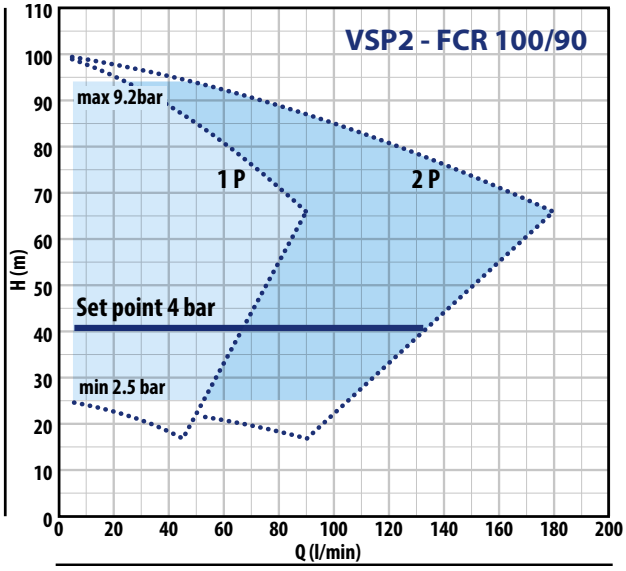

| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 6 | 7.2 | 9.6 | 10.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **100** | **120** | **160** | **180** |
| **VSP2m - FCR 75/90** | **VSP2 - FCR 75/90** | 2×1.5 | 2×2 | **H** m | 71.5 | 71.5 | 71.5 | 68.5 | 66 | 63 | 55.5 | 50.5 |
| – | **VSP2 - FCR 100/90** | 2×2.2 | 2×3 | | 94 | 94 | 94 | 89 | 85 | 80.5 | 71 | 66 |

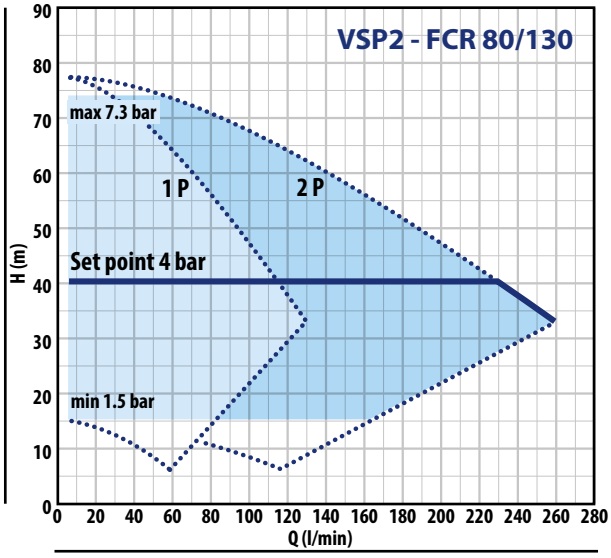
| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 15.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **120** | **160** | **200** | **240** | **260** |
| **VSP2m - FCR 80/130** | **VSP2 - FCR 80/130** | 2×1.5 | 2×2 | **H** m | 74.5 | 74.5 | 74.5 | 71 | 64.5 | 56 | 47 | 38 | 33.5 |
| – | **VSP2 - FCR 105/130** | 2×2.2 | 2×3 | | 98 | 98 | 98 | 95.5 | 90 | 83.5 | 75.5 | 66 | 61 |

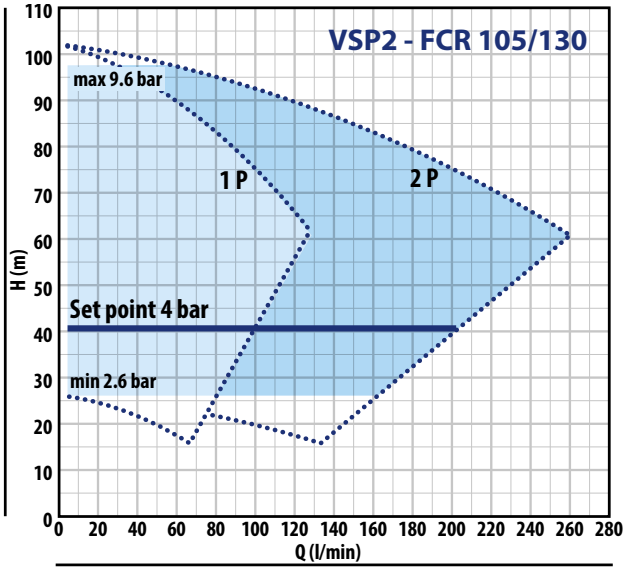
| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 18 | 20.4 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **120** | **160** | **200** | **240** | **300** | **340** | **400** |
| **VSP2m - FCR 70/200** | **VSP2 - FCR 70/200** | 2×1.5 | 2×2 | **H** m | 67.5 | 67.5 | 67.5 | 67.5 | 64 | 58.5 | 51.5 | 44 | 31.5 | 23.5 | 14 |
| – | **VSP2 - FCR 95/200** | 2×2.2 | 2×3 | | 87.5 | 87.5 | 87.5 | 87.5 | 85 | 80.5 | 74 | 66 | 52.5 | 43 | 31 |

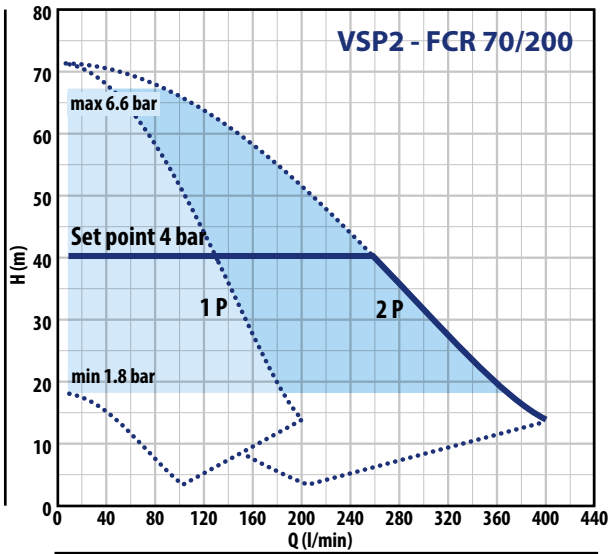
## PERFORMANCE CURVES

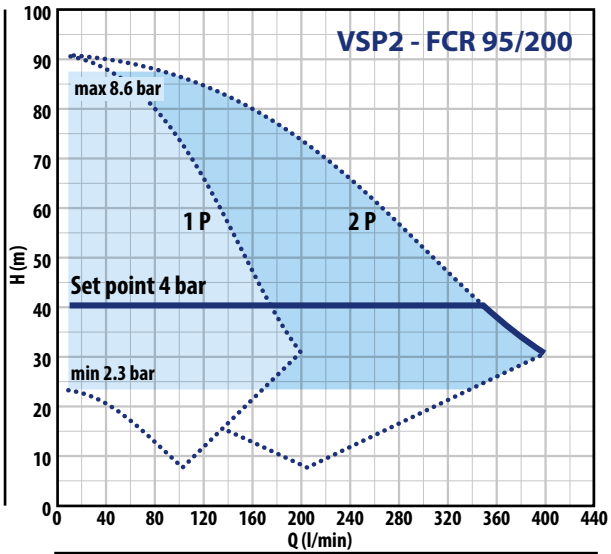


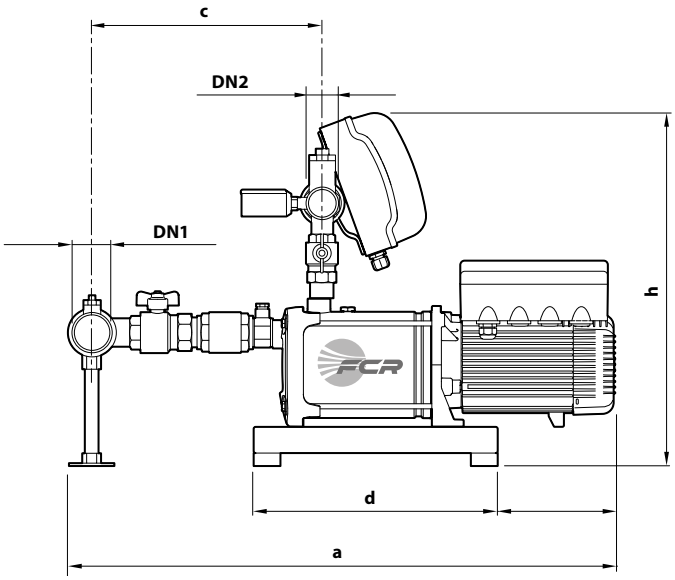



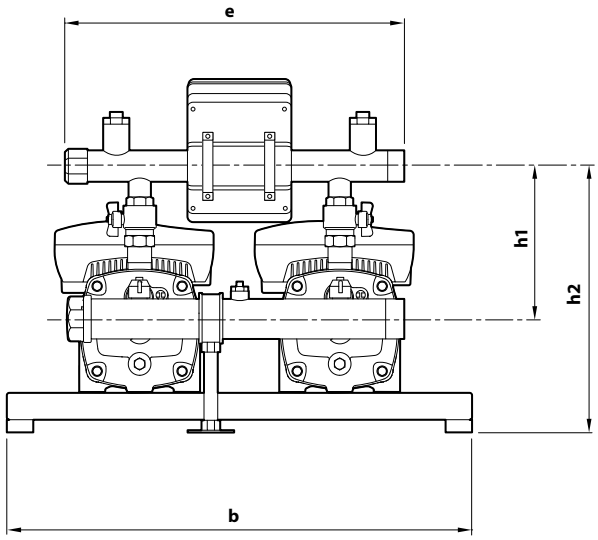



# VSP2 – FCR

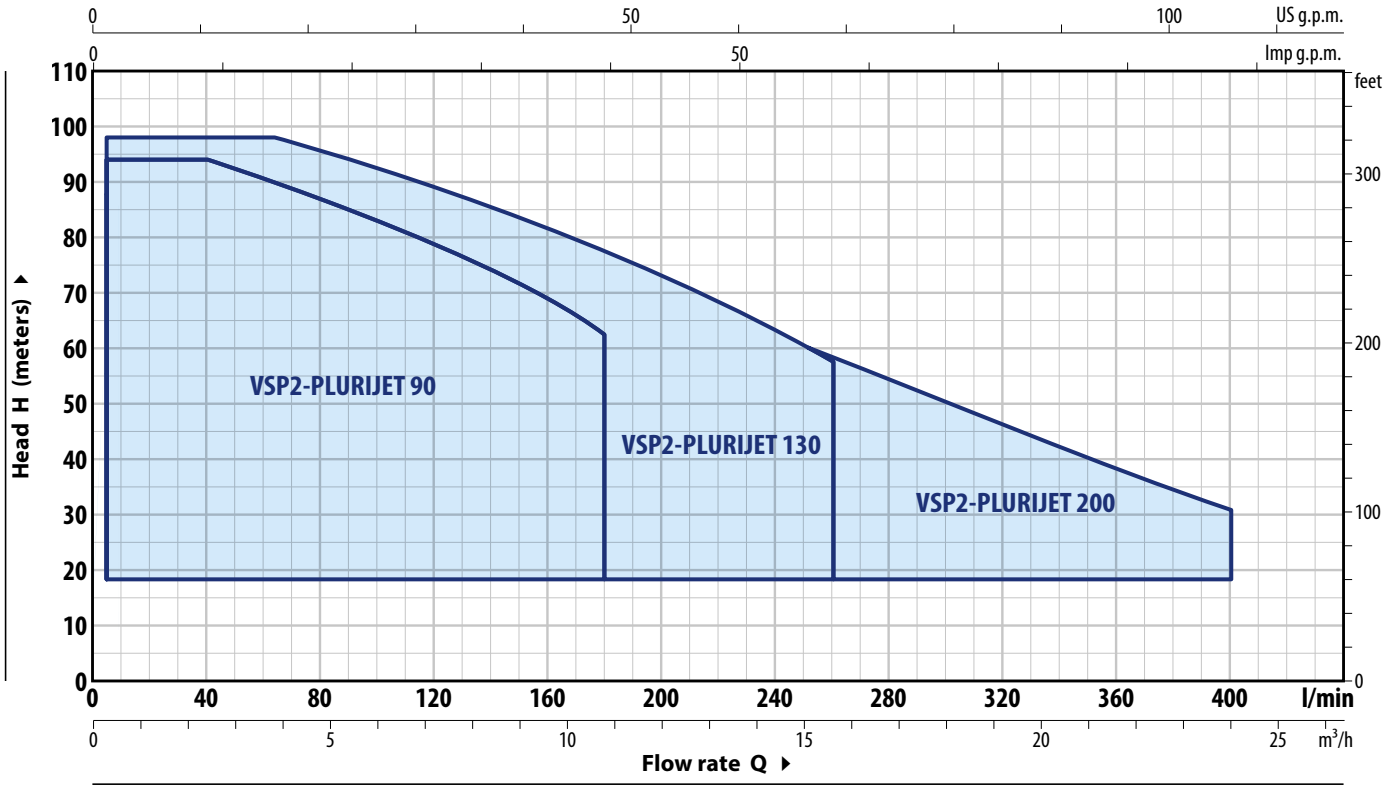
## DIMENSIONS AND WEIGHT




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | b | c | d | e | h | h1 | h2 | 1~ | 3~ |
| **VSP2m - FCR 75/90** | **VSP2 - FCR 75/90** | **2″** | **1½″** | 760 | 700 | 339 | 370 | 510 | 560 | 205 | 394 | 80 | 80 |
| – | **VSP2 - FCR 100/90** | | | 786 | | | | | | | | – | 81 |
| **VSP2m - FCR 80/130** | **VSP2 - FCR 80/130** | | | 760 | | | | | | | | 81 | 81 |
| – | **VSP2 - FCR 105/130** | | | 786 | | | | | | | | – | 81 |
| **VSP2m - FCR 70/200** | **VSP2 - FCR 70/200** | **2½″** | **1½″** | 803 | | 375 | | | | | | 87 | 87 |
| – | **VSP2 - FCR 95/200** | | | 829 | | | | | | | | – | 87 |

## FIELD AND PERFORMANCE DATA



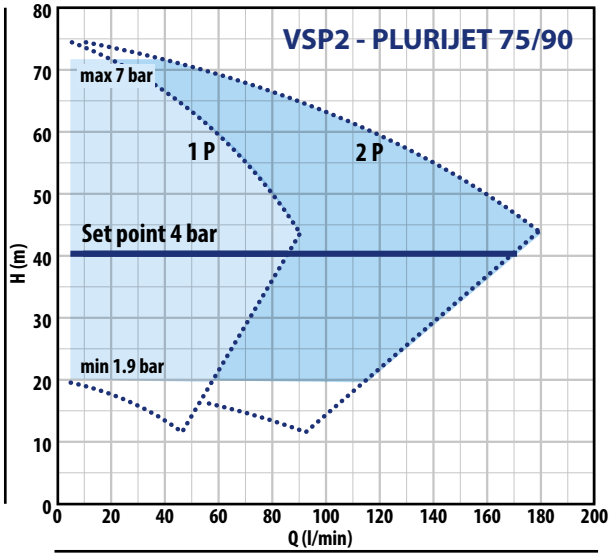

| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 6 | 7.2 | 9.6 | 10.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **100** | **120** | **160** | **180** |
| **VSP2m - PJ 75/90** | **VSP2 - PJ 75/90** | 2×1.5 | 2×2 | **H** m | 71.5 | 71.5 | 71 | 66 | 63 | 59.5 | 49.5 | 43.5 |
| – | **VSP2 - PJ 100/90** | 2×2.2 | 2×3 | | 94 | 94 | 94 | 87.5 | 83 | 78.5 | 68 | 62.5 |

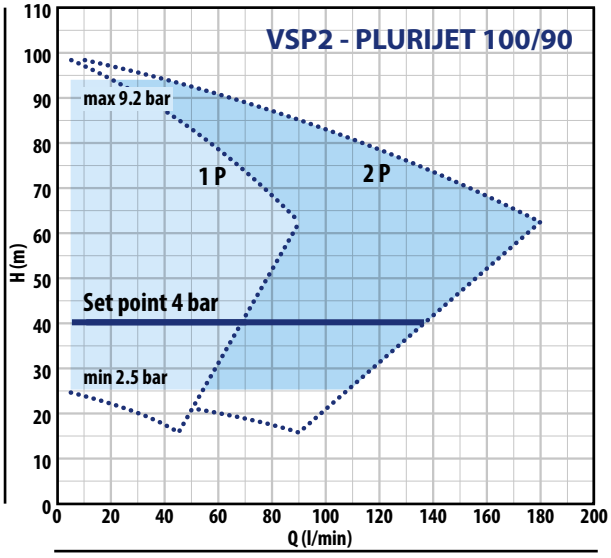
| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 15.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **120** | **160** | **200** | **240** | **260** |
| **VSP2m - PJ 80/130** | **VSP2 - PJ 80/130** | 2×1.5 | 2×2 | **H** m | 74.5 | 74.5 | 74.5 | 69.5 | 62 | 52.5 | 43 | 34 | 30 |
| – | **VSP2 - PJ 105/130** | 2×2.2 | 2×3 | | 98 | 98 | 98 | 96 | 89.5 | 81 | 72 | 62 | 57.5 |

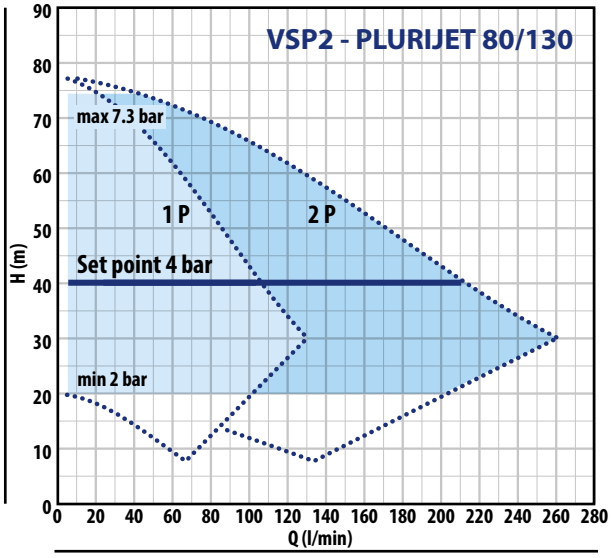
| MODEL | | POWER P2 | | Q m³/h | 0 | 0.3 | 2.4 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 18 | 20.4 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **120** | **160** | **200** | **240** | **300** | **340** | **400** |
| **VSP2m - PJ 70/200** | **VSP2 - PJ 70/200** | 2×1.5 | 2×2 | **H** m | 65.5 | 65.5 | 65.5 | 65 | 60 | 53.5 | 46 | 38.5 | 27.5 | 21 | 14 |
| – | **VSP2 - PJ 95/200** | 2×2.2 | 2×3 | | 87.5 | 87.5 | 87.5 | 87 | 82.5 | 76.5 | 70 | 62.5 | 50.5 | 42 | 31 |

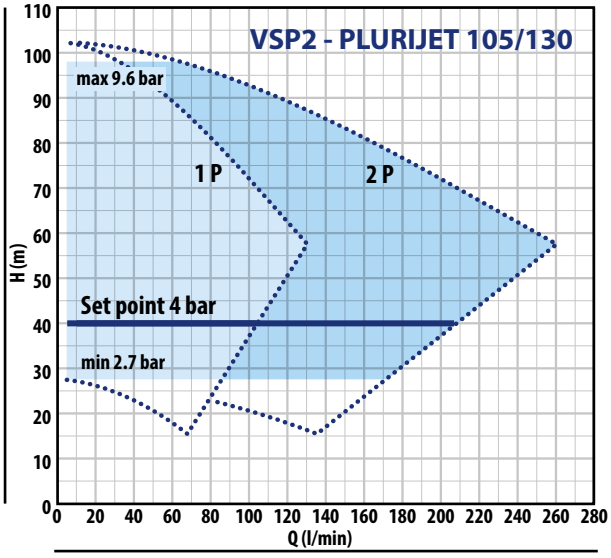
# VSP2 – PLURIJET

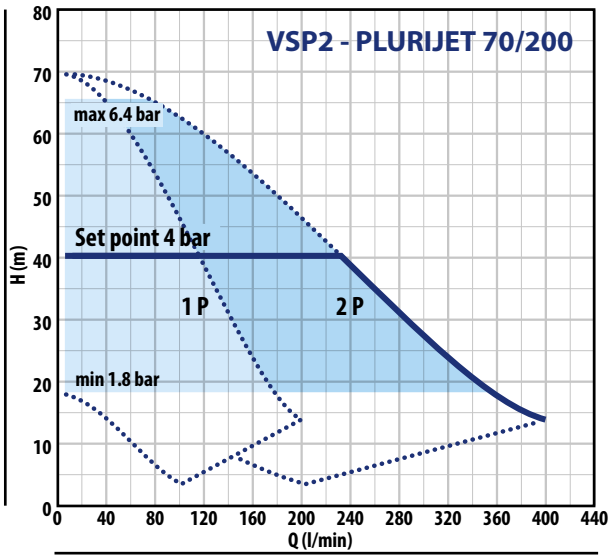
## PERFORMANCE CURVES

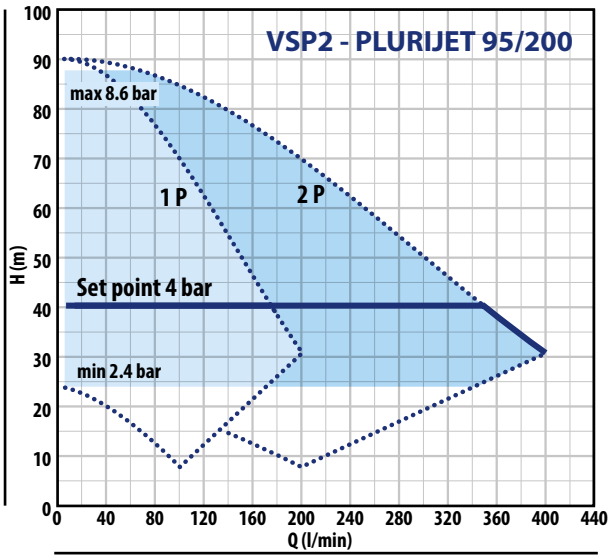


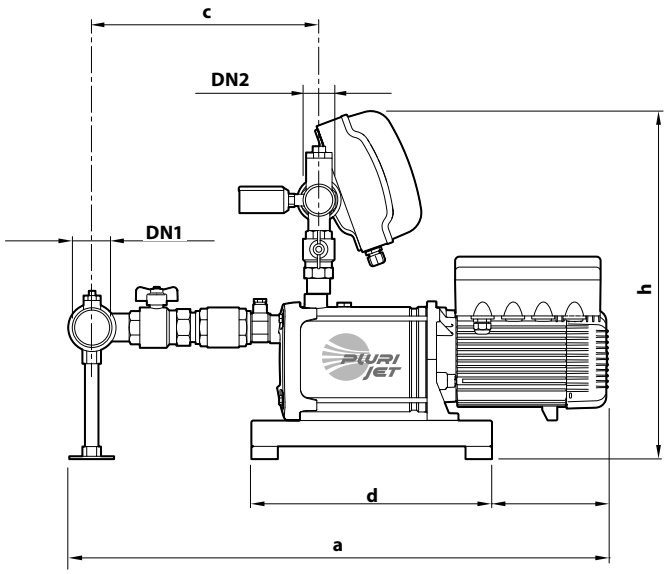



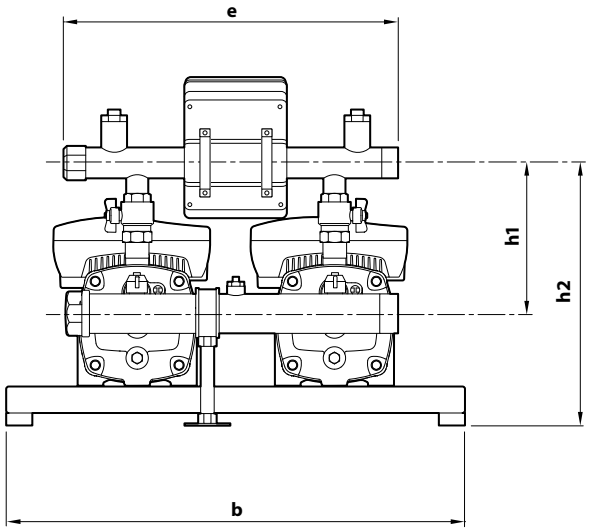



## DIMENSIONS AND WEIGHT

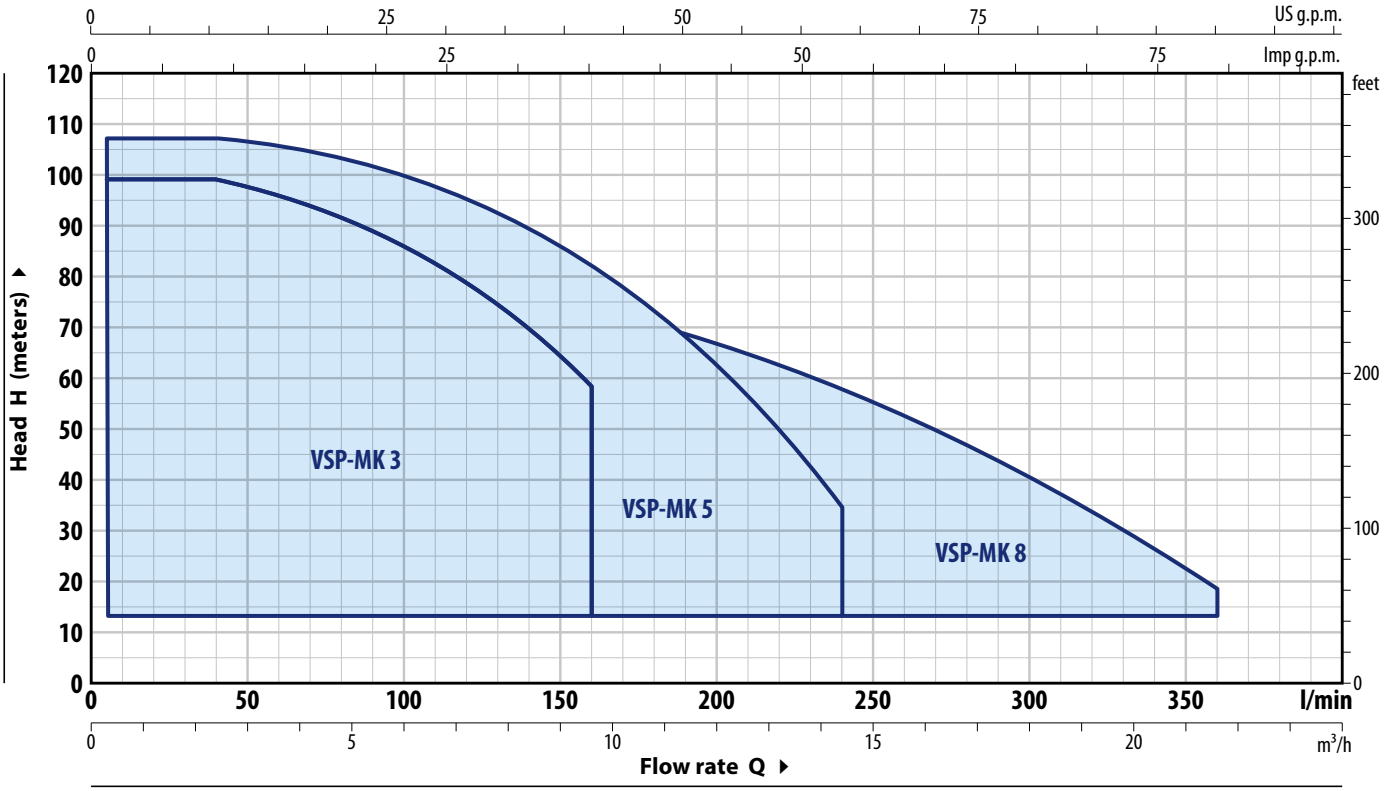



| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | DN1 | DN2 | a | b | c | d | e | h | h1 | h2 | 1~ | 3~ |
| VSP2m - PLURIJET 75/90 | VSP2 - PLURIJET 75/90 | 2" | 1½" | 812 | 700 | 339 | 370 | 510 | 560 | 205 | 394 | 80 | 80 |
| – | VSP2 - PLURIJET 100/90 | | | 838 | | | | | | | | – | 85 |
| VSP2m - PLURIJET 80/130 | VSP2 - PLURIJET 80/130 | | | 812 | | | | | | | | 80 | 81 |
| – | VSP2 - PLURIJET 105/130 | | | 838 | | | | | | | | – | 85 |
| VSP2m - PLURIJET 70/200 | VSP2 - PLURIJET 70/200 | 2½" | 1½" | 855 | | 375 | | | | | | 83 | 83 |
| – | VSP2 - PLURIJET 95/200 | | | 881 | | | | | | | | – | 87 |

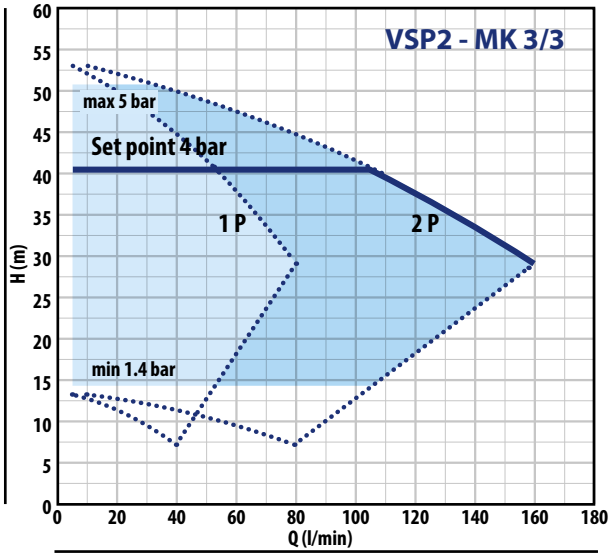
# VSP2 – MK

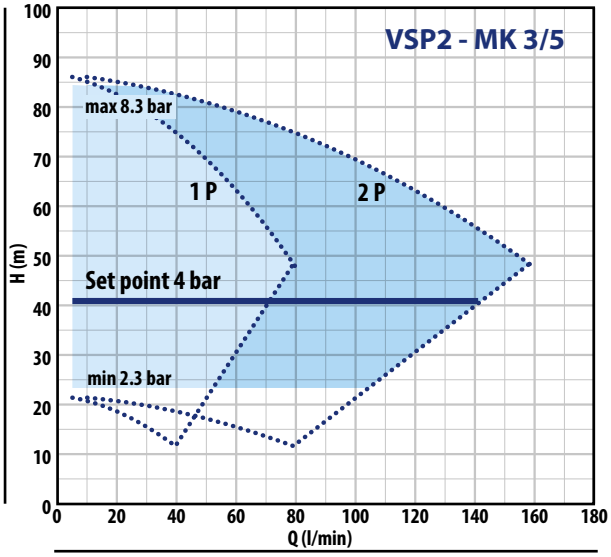
## FIELD AND PERFORMANCE DATA

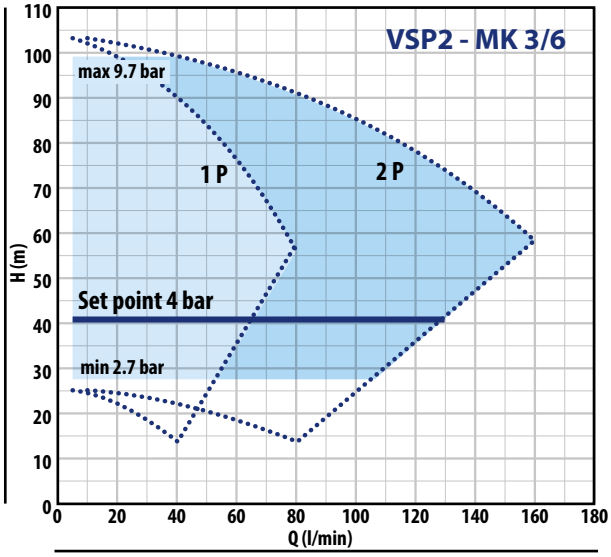


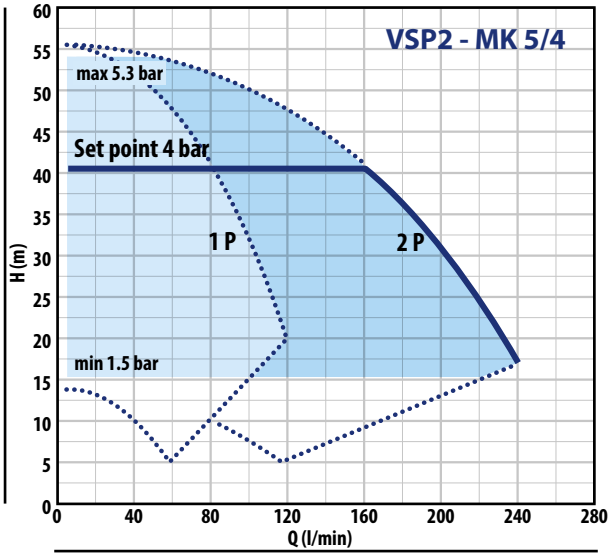

| MODEL | | POWER P2 | | Q m³/h | 0 | 0.6 | 2.4 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 16.8 | 19.2 | 21.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **kW** | **HP** | l/min | **0** | **5** | **40** | **80** | **120** | **160** | **200** | **240** | **280** | **320** | **360** |
| **VSP2m - MK 3/3** | **VSP2 - MK 3/3** | 2×0.75 | 2×1 | | 51 | 51 | 50 | 45 | 38.5 | 29 | | | | | |
| **VSP2m - MK 3/5** | **VSP2 - MK 3/5** | 2×1.1 | 2×1.5 | | 84.5 | 84.5 | 83 | 75 | 64 | 48 | | | | | |
| **VSP2m - MK 3/6** | **VSP2 - MK 3/6** | 2×1.5 | 2×2 | | 99 | 99 | 99 | 90 | 77 | 58 | | | | | |
| **VSP2m - MK 5/4** | **VSP2 - MK 5/4** | 2×0.75 | 2×1 | | 54 | 54 | 54 | 50 | 45 | 37.5 | 28.5 | 17 | | | |
| **VSP2m - MK 5/5** | **VSP2 - MK 5/5** | 2×1.1 | 2×1.5 | | 68.5 | 68.5 | 67.5 | 62.5 | 56 | 47 | 35.5 | 21.5 | | | |
| **VSP2m - MK 5/7** | **VSP2 - MK 5/7** | 2×1.5 | 2×2 | **H** m | 95 | 95 | 95 | 88 | 78 | 66 | 50 | 30 | | | |
| – | **VSP2 - MK 5/8** | 2×2.2 | 2×3 | | 108 | 108 | 108 | 100 | 90 | 75 | 57 | 34 | | | |
| **VSP2m - MK 8/4** | **VSP2 - MK 8/4** | 2×1.1 | 2×1.5 | | 53 | 53 | 53 | 53 | 51 | 47.5 | 43 | 37.5 | 30.5 | 22.1 | 12 |
| **VSP2m - MK 8/5** | **VSP2 - MK 8/5** | 2×1.5 | 2×2 | | 67.5 | 67.5 | 67.5 | 67 | 64 | 59.5 | 54 | 47 | 38 | 27.5 | 15.5 |
| – | **VSP2 - MK 8/6** | 2×2.2 | 2×3 | | 81.5 | 81.5 | 81.5 | 80 | 77 | 72 | 64.5 | 56 | 45.5 | 33 | 18.5 |

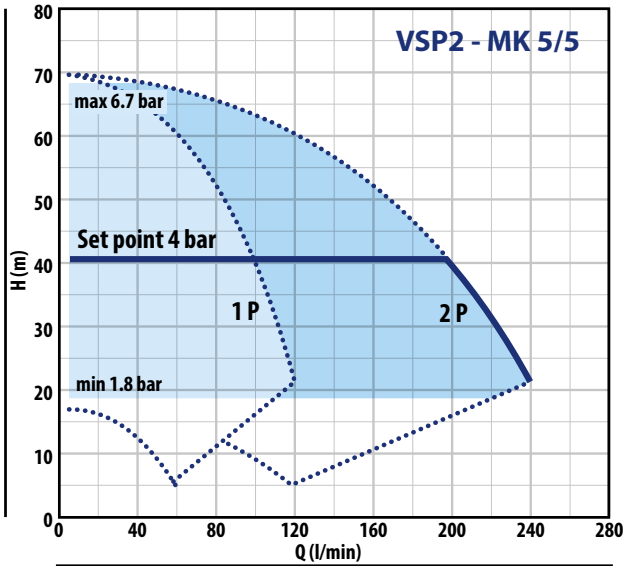
## PERFORMANCE CURVES

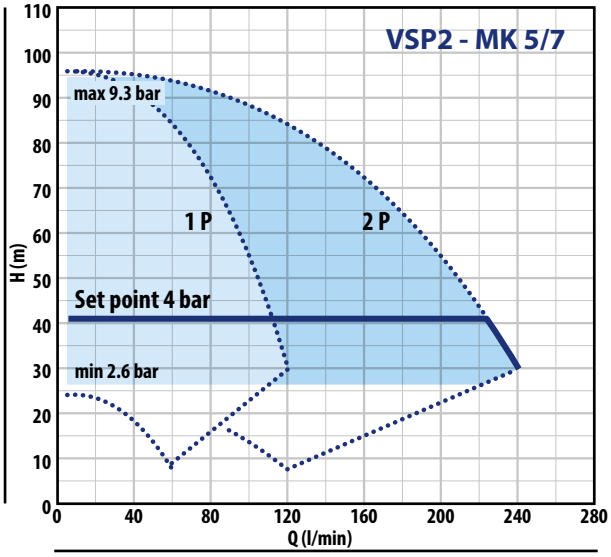


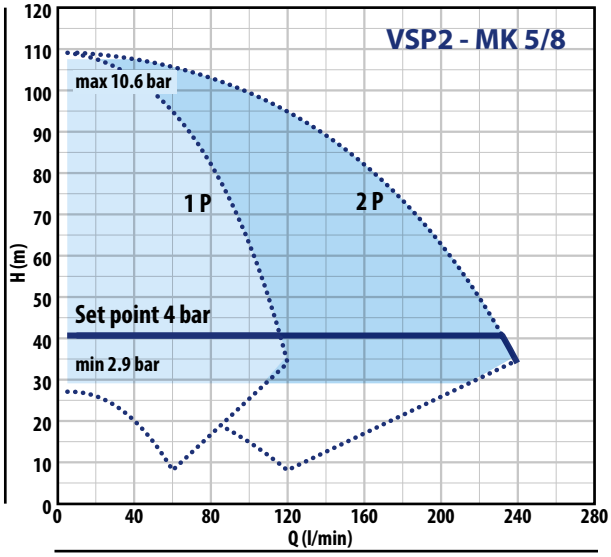



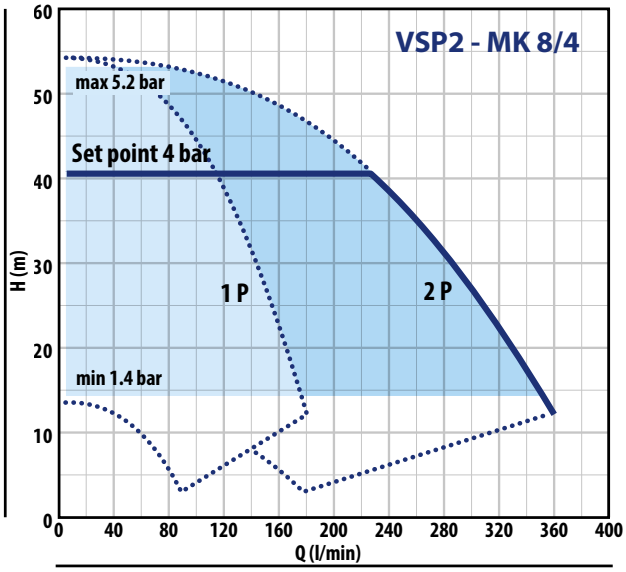



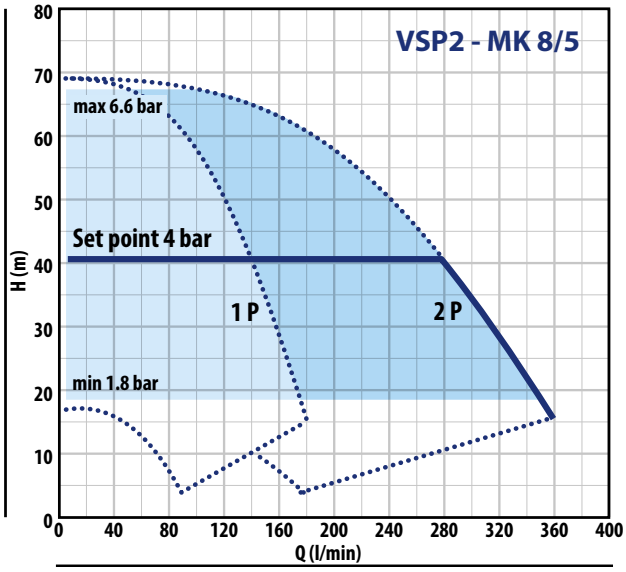



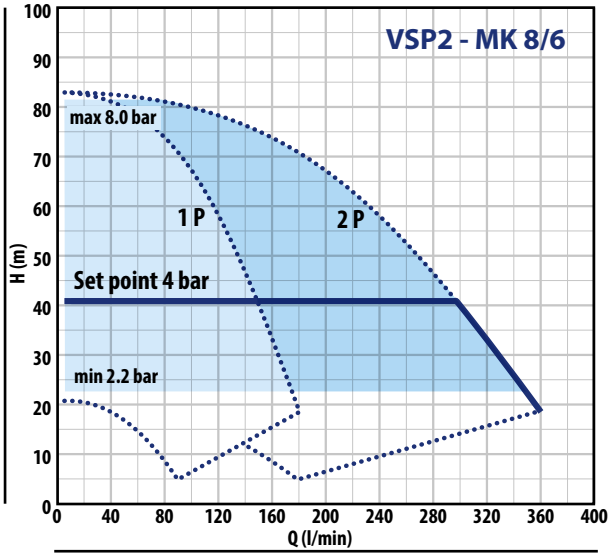
# VSP2 – MK

## PERFORMANCE CURVES

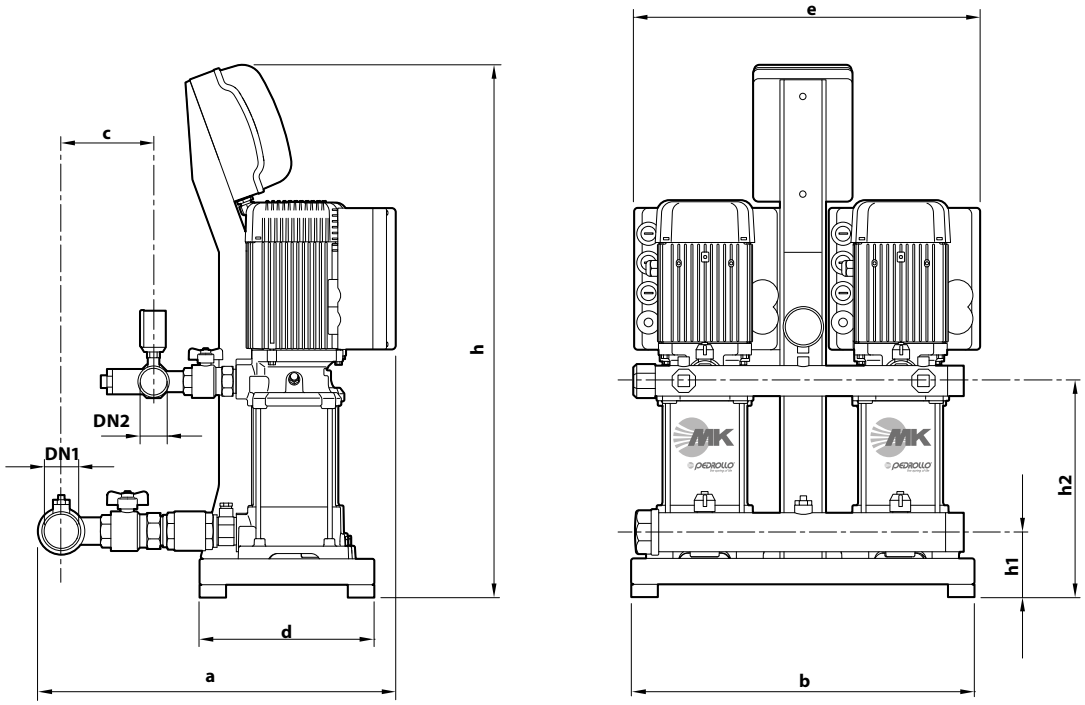


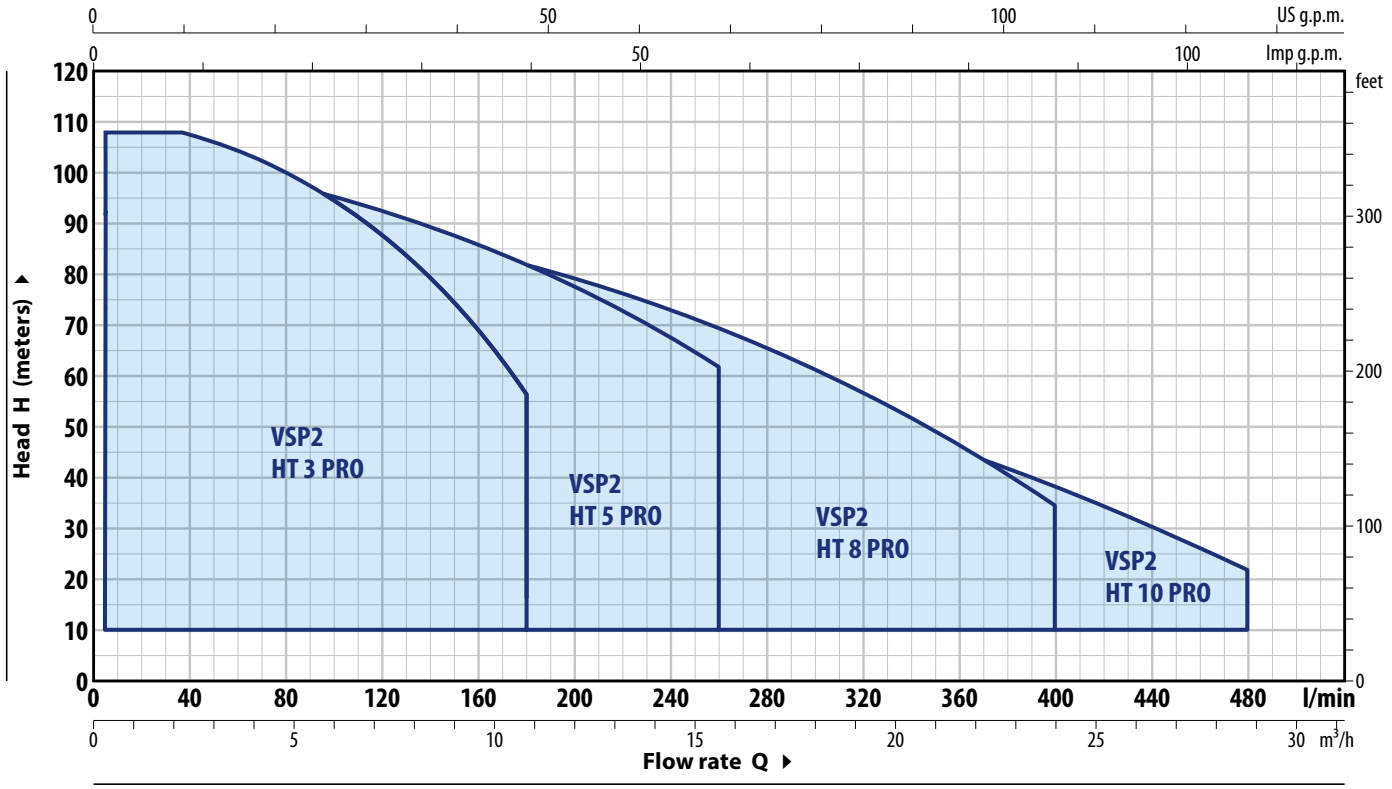
## DIMENSIONS AND WEIGHT




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | b | c | d | e | h | h1 | h2 | 1~ | 3~ |
| **VSP2m - MK 3/3** | **VSP2 - MK 3/3** | | | | | | | | | | 235 | 75 | 75 |
| **VSP2m - MK 3/5** | **VSP2 - MK 3/5** | | | | | | | | | | 289 | 79 | 79 |
| **VSP2m - MK 3/6** | **VSP2 - MK 3/6** | | | | | | | | | | 316 | 83 | 83 |
| **VSP2m - MK 5/4** | **VSP2 - MK 5/4** | **2″** | **1½″** | 555 | | 135 | | | | | 262 | 76 | 76 |
| **VSP2m - MK 5/5** | **VSP2 - MK 5/5** | | | | | | | | | | 289 | 79 | 79 |
| **VSP2m - MK 5/7** | **VSP2 - MK 5/7** | | | | 530 | | 270 | 510 | 863 | 102 | 343 | 83 | 83 |
| – | **VSP2 - MK 5/8** | | | | | | | | | | 370 | – | 84 |
| **VSP2m - MK 8/4** | **VSP2 - MK 8/4** | | | | | | | | | | 316 | 82 | 82 |
| **VSP2m - MK 8/5** | **VSP2 - MK 8/5** | **2½″** | **1½″** | 600 | | 171 | | | | | 262 | 83 | 83 |
| – | **VSP2 - MK 8/6** | | | | | | | | | | 289 | – | 89 |

# VSP2 – HT-PRO

## FIELD AND PERFORMANCE DATA



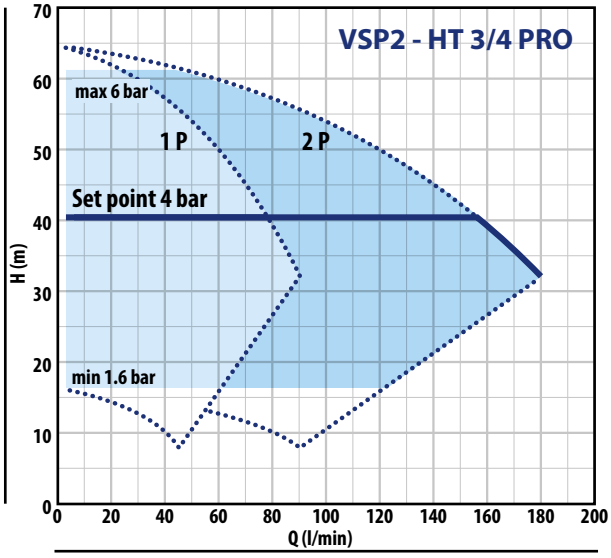

| MODEL | | POWER P2 | | Q | m³/h | 0 | 0.3 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 8.4 | 9.6 | 10.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **5** | **40** | **60** | **80** | **100** | **120** | **140** | **160** | **180** |
| VSP2m - HT3/4 PRO | VSP2 - HT3/4 PRO | 2×0.75 | 2×1 | H | m | 61 | 61 | 61 | 59.5 | 57 | 54 | 50 | 45.5 | 39.5 | 32 |
| VSP2m - HT3/5 PRO | VSP2 - HT3/5 PRO | 2×1.1 | 2×1.5 | | | 76.5 | 76.5 | 76.5 | 74.5 | 71.5 | 67.5 | 63 | 56.5 | 49.5 | 40 |
| VSP2m - HT3/6 PRO | VSP2 - HT3/6 PRO | 2×1.5 | 2×2 | | | 92 | 92 | 92 | 89.5 | 85.5 | 81 | 75.5 | 68 | 59 | 48 |
| – | VSP2 - HT3/7 PRO | 2×1.8 | 2×2.5 | | | 108 | 108 | 107.5 | 104 | 100 | 94.5 | 88 | 79.5 | 69 | 56 |

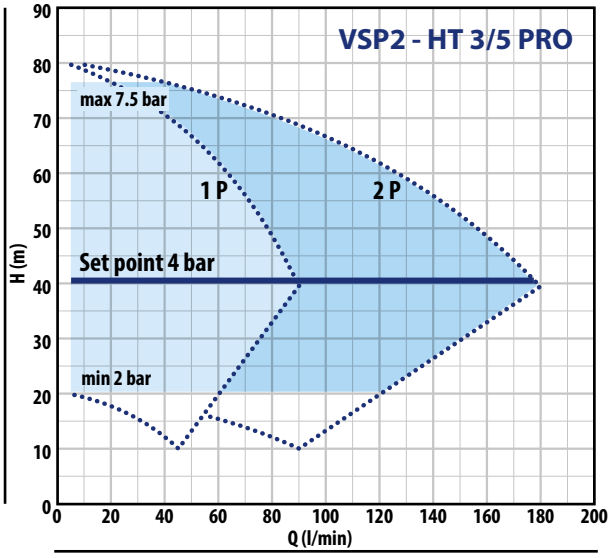
| MODEL | | POWER P2 | | Q | m³/h | 0 | 0.3 | 4.8 | 7.2 | 9.6 | 10.8 | 12 | 15.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **5** | **80** | **120** | **160** | **180** | **200** | **260** |
| VSP2m - HT5/2 PRO | VSP2 - HT5/2 PRO | 2×0.75 | 2×1 | H | m | 32.5 | 32.5 | 32.5 | 31 | 28.5 | 27.5 | 26 | 20.5 |
| VSP2m - HT5/3 PRO | VSP2 - HT5/3 PRO | 2×1.1 | 2×1.5 | | | 49 | 49 | 49 | 46.5 | 43 | 41 | 39 | 31 |
| VSP2m - HT5/4 PRO | VSP2 - HT5/4 PRO | 2×1.5 | 2×2 | | | 65.5 | 65.5 | 65 | 62 | 57.5 | 55 | 52 | 41 |
| – | VSP2 - HT5/5 PRO | 2×1.8 | 2×2.5 | | | 81.5 | 81.5 | 81.5 | 77.5 | 72 | 68.5 | 65 | 51.5 |
| – | VSP2 - HT5/6 PRO | 2×2.2 | 2×3 | | | 97 | 97 | 97 | 92.5 | 86 | 82.5 | 78 | 62 |

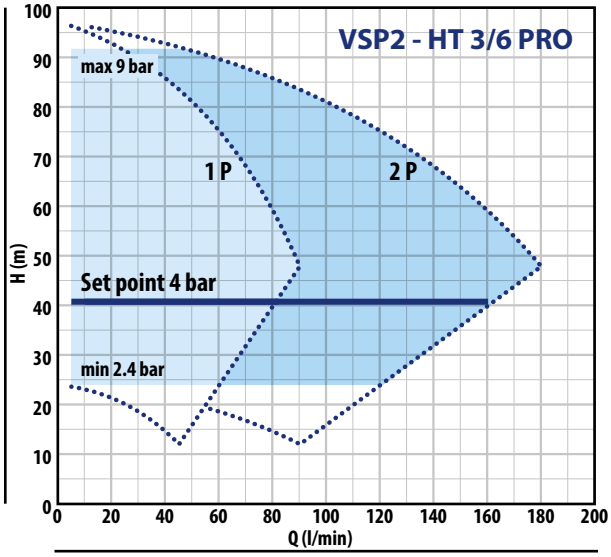
| MODEL | | POWER P2 | | Q | m³/h | 0 | 0.3 | 4.8 | 7.2 | 9.6 | 10.8 | 14.4 | 18 | 21.6 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **5** | **80** | **120** | **160** | **180** | **240** | **300** | **360** | **400** |
| VSP2m - HT8/3 PRO | VSP2 - HT8/3 PRO | 2×1.1 | 2×1.5 | H | m | 45 | 45 | 45 | 44 | 42 | 41 | 36.5 | 30.5 | 23 | 17 |
| VSP2m - HT8/4 PRO | VSP2 - HT8/4 PRO | 2×1.5 | 2×2 | | | 60 | 60 | 60 | 58.5 | 56 | 54.5 | 48.5 | 40.5 | 31 | 23 |
| – | VSP2 - HT8/5 PRO | 2×1.8 | 2×2.5 | | | 74.5 | 74.5 | 74.5 | 73.5 | 70 | 68 | 61 | 51 | 38.5 | 28.5 |
| – | VSP2 - HT8/6 PRO | 2×2.2 | 2×3 | | | 91 | 91 | 91 | 88 | 84 | 82 | 73 | 61 | 46 | 34.5 |

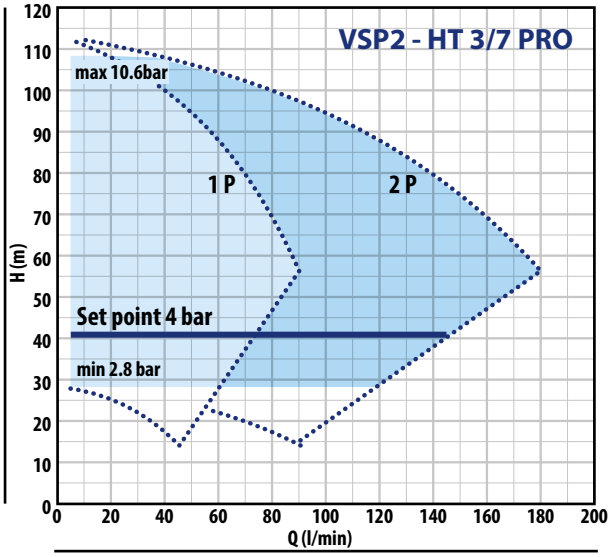
| MODEL | | POWER P2 | | Q | m³/h | 0 | 0.3 | 4.8 | 7.2 | 9.6 | 12 | 14.4 | 18 | 22.8 | 26.4 | 28.8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single-phase | Three-phase | kW | HP | | l/min | **0** | **5** | **80** | **120** | **160** | **200** | **240** | **300** | **380** | **440** | **480** |
| VSP2m - HT10/3 PRO | VSP2 - HT10/3 PRO | 2×1.5 | 2×2 | H | m | 45 | 45 | 45 | 43.5 | 42 | 40 | 38 | 33.5 | 26.5 | 20.5 | 13 |
| – | VSP2 - HT10/4 PRO | 2×1.8 | 2×2.5 | | | 60 | 60 | 60 | 58 | 56 | 53.5 | 50.5 | 45 | 35.5 | 27 | 17 |
| – | VSP2 - HT10/5 PRO | 2×2.2 | 2×3 | | | 73.5 | 73.5 | 73.5 | 72.5 | 70 | 67 | 63 | 56 | 44.5 | 34 | 21.5 |

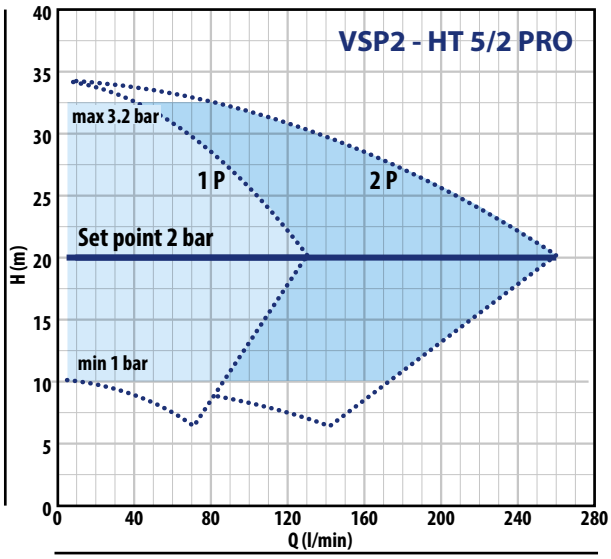
## PERFORMANCE CURVES

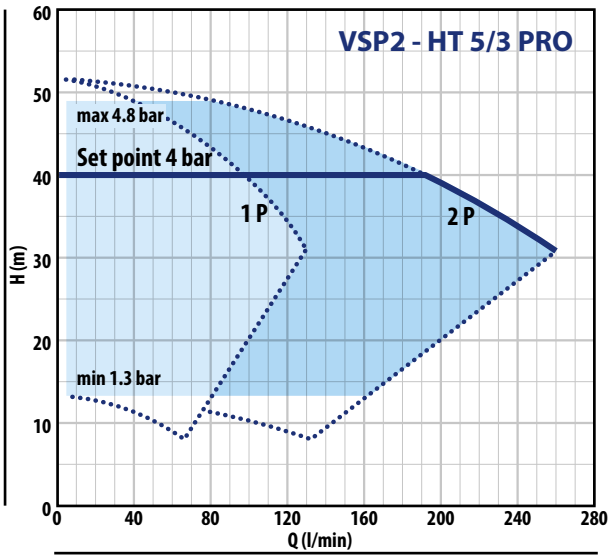


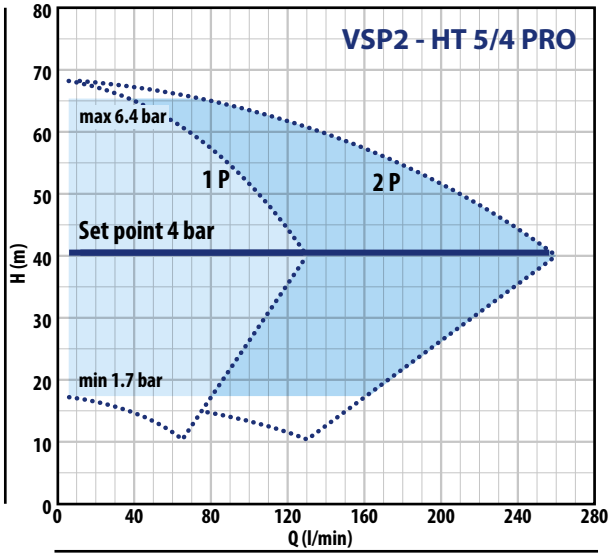



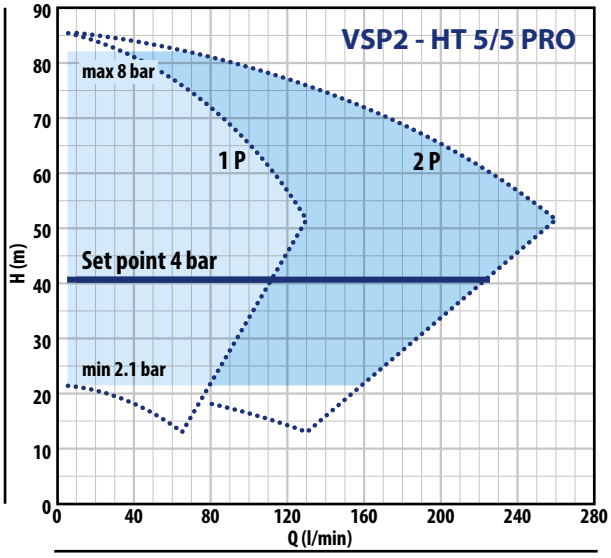



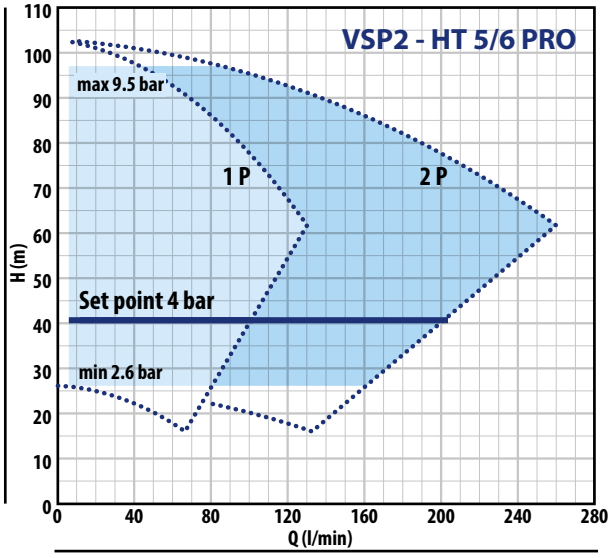



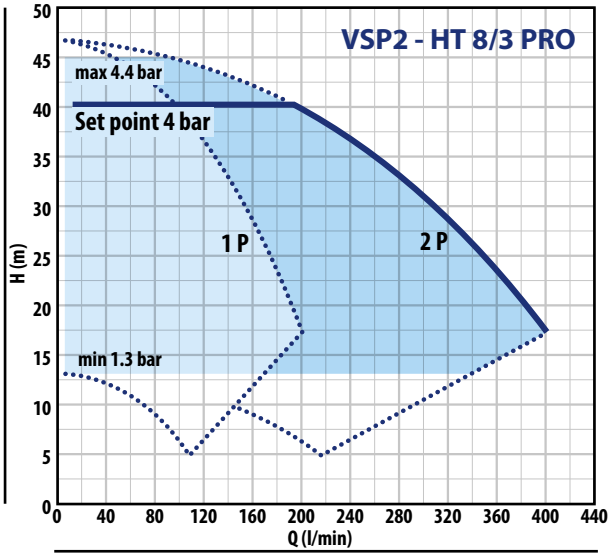
# VSP2 – HT-PRO

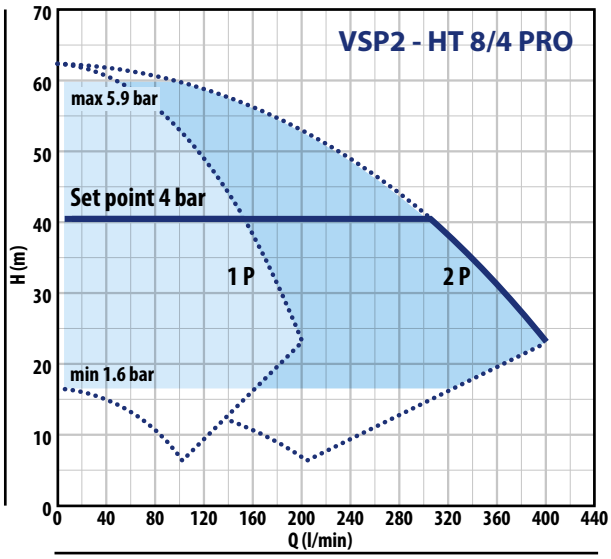
## PERFORMANCE CURVES

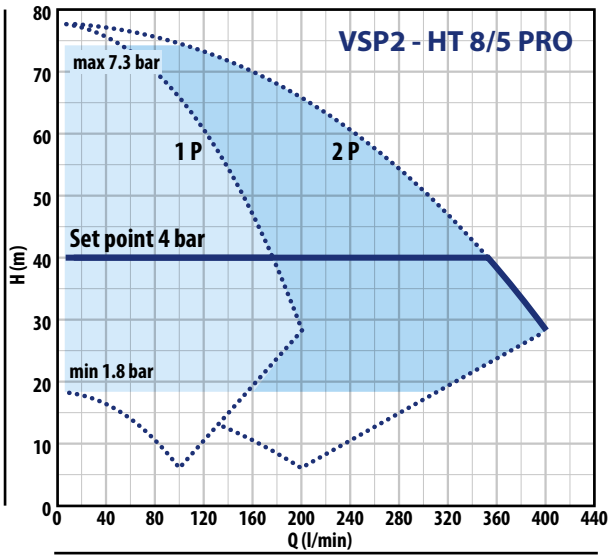


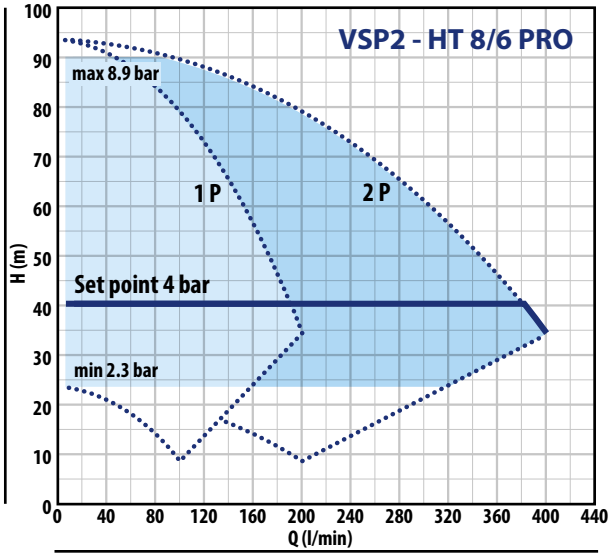



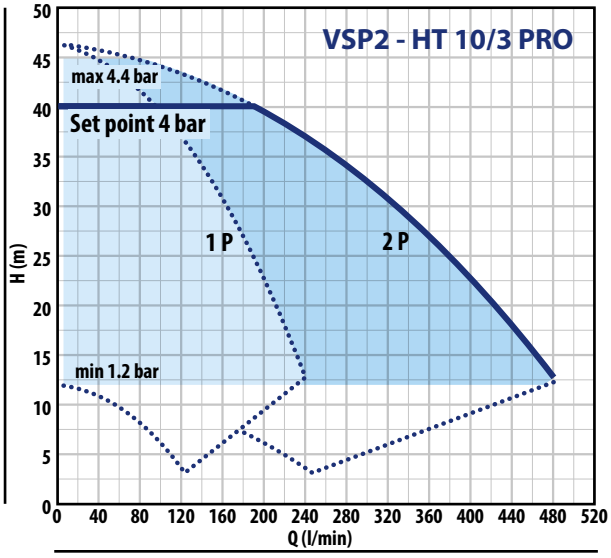



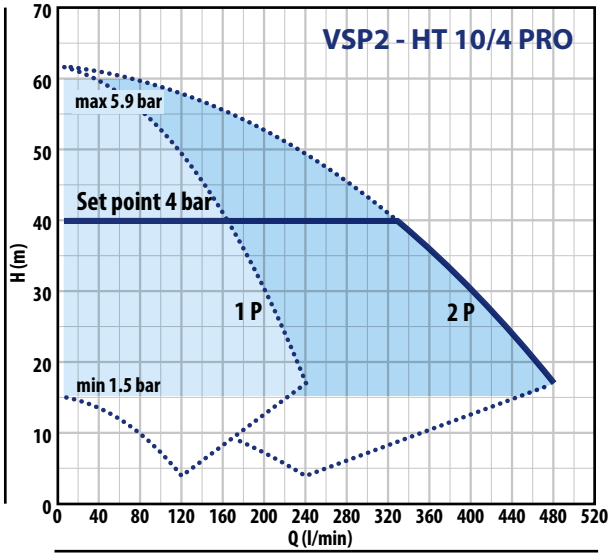



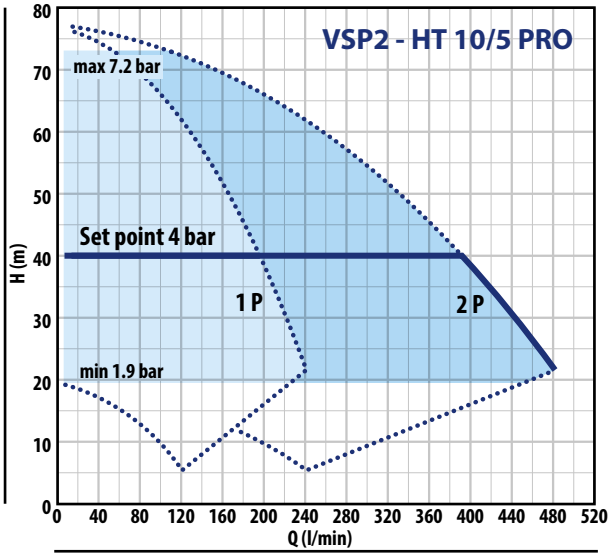



## PERFORMANCE CURVES



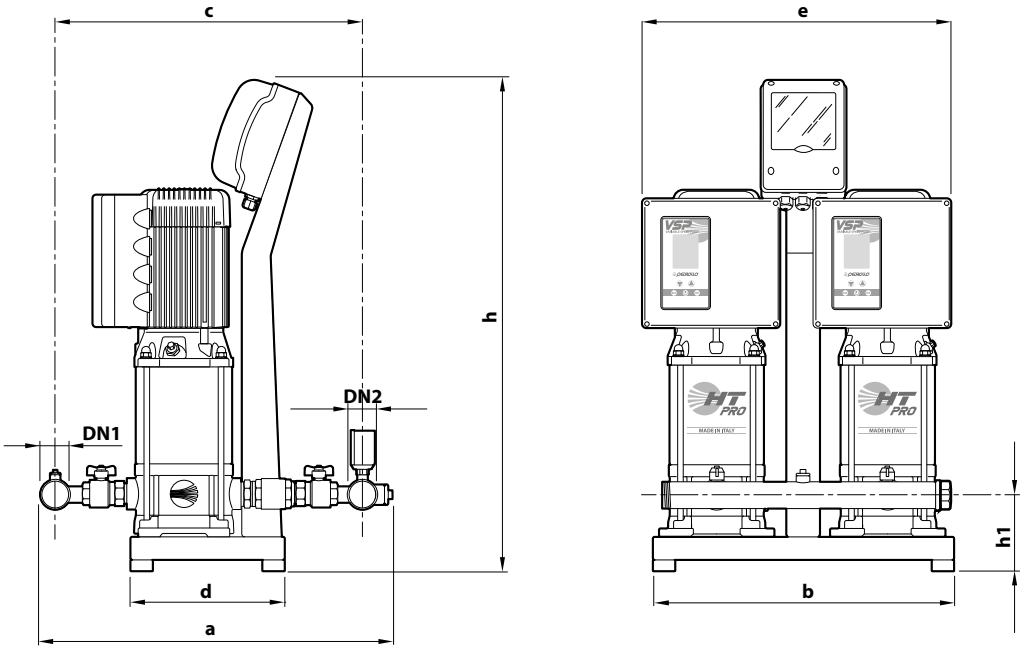



# VSP2 – HT-PRO

## DIMENSIONS AND WEIGHT




| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single-phase** | **Three-phase** | **DN1** | **DN2** | a | b | c | d | e | h | h1 | 1~ | 3~ |
| **VSP2m-HT 3/4 PRO** | **VSP2-HT 3/4 PRO** | **2″** | **2″** | 694 | 530 | 576 | 270 | 542 | 863 | 135 | 97 | 97 |
| **VSP2m-HT 3/5 PRO** | **VSP2-HT 3/5 PRO** | | | | | | | | | | 97 | 97 |
| **VSP2m-HT 3/6 PRO** | **VSP2-HT 3/6 PRO** | | | | | | | | | | 100 | 100 |
| – | **VSP2-HT 3/7 PRO** | | | | | | | | | | – | 110 |
| **VSP2m-HT 5/2 PRO** | **VSP2-HT 5/2 PRO** | **2″** | **2″** | 740 | | 622 | | | | | 96 | 96 |
| **VSP2m-HT 5/3 PRO** | **VSP2-HT 5/3 PRO** | | | | | | | | | | 96 | 96 |
| **VSP2m-HT 5/4 PRO** | **VSP2-HT 5/4 PRO** | | | | | | | | | | 100 | 100 |
| – | **VSP2-HT 5/5 PRO** | | | | | | | | | | – | 105 |
| – | **VSP2-HT 5/6 PRO** | | | | | | | | | | – | 107 |
| **VSP2m-HT 8/3 PRO** | **VSP2-HT 8/3 PRO** | **2½″** | **2½″** | 833 | | 698 | | | | 140 | 101 | 101 |
| **VSP2m-HT 8/4 PRO** | **VSP2-HT 8/4 PRO** | | | | | | | | | | 105 | 105 |
| – | **VSP2-HT 8/5 PRO** | | | | | | | | | | – | 112 |
| – | **VSP2-HT 8/6 PRO** | | | | | | | | | | – | 114 |
| **VSP2m - HT 10/3 PRO** | **VSP2 - HT 10/3 PRO** | | | | | | | | | | 101 | 101 |
| – | **VSP2 - HT 10/4 PRO** | | | | | | | | | | – | 105 |
| – | **VSP2 - HT 10/5 PRO** | | | | | | | | | | – | 112 |