

LENNTECH
WATER TREATMENT SOLUTIONS

-  Clean water
-  Domestic use
-  Civil use



INSTALLATION AND USE

VSP is a versatile pumping unit designed for various applications. It's ideal for residential and commercial use, providing water supply and pressure boosting.

VSP seamlessly integrates with any pressurization system, including existing ones, ensuring maximum comfort and enabling significant energy savings.

PRODUCT DESCRIPTION

VSP is a system comprising a pump and an integrated frequency converter. Equipped with a pressure sensor, it ensures a constant pressure as the system's water demand fluctuates.

This ready-to-use product eliminates the need for configuration procedures. Users can adjust the working pressure and view operating parameters and alarm messages via the electrical panel.

For advanced users, the system offers access to an advanced menu for modifying factory parameters through a guided procedure, allowing adaptation to specific plant conditions.

VSP is an intelligent pumping unit, equipped with:

- ✳ **display and keypad** allowing simple and intuitive configuration and reading of operating parameters;
- ✳ interface ports for additional **analogue** and **digital** input and output **signals**;
- ✳ **PFC technology** maintains hydraulic performance unaffected even when supply voltages vary within $\pm 20\%$ of the nominal value;
- ✳ **RS 485 communication** for connection to a second device in parallel.

Integrated protection against:

- ✳ dry running
- ✳ overcurrent
- ✳ overvoltage and undervoltage
- ✳ combustion chamber
- ✳ short circuit
- ✳ lack of phases in the connections (for three-phase version)

TECHNICAL DATA

- Power supply:
 - **1~ 230V $\pm 10\%$ or 3~ 400V $\pm 10\%$**
 - Frequency: **50/60 Hz**
- Please refer to the technical data of the specific electro-pumps for liquid temperature, ambient temperature, and protection degree.

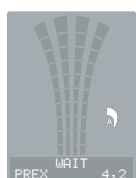
KEY FEATURES

- ✳ Easy installation, configuration, and adjustment.
- ✳ Greater comfort, thanks to optimized performance and low noise levels.
- ✳ Energy saving reduces startup and operating currents, ensuring.
- ✳ Automatic compensation for fluctuations in the supply voltage.
- ✳ Communication with another device to enhance system capabilities.
- ✳ Intelligent management of control and intervention in case of anomalies.

ELECTRICAL PANEL

It enables access to configuration menus, navigation through settings, adjustment of operating parameters, and activation or deactivation of the pumping unit.

1. Scroll arrow keys (▼) (▲)
2. ESC menu exit key (ESC)
3. ON/OFF button (⏻)
4. Confirmation button OK (OK)
5. 4-backlit display to indicate the operating status of the VSP



**WHITE display
EXPECTATION**



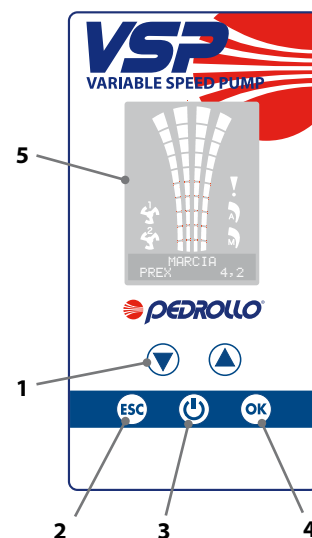
**Display VERDE
START**



**RED display
ERROR**

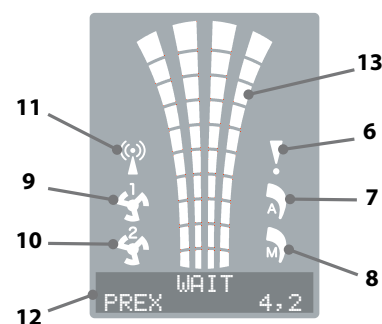


**YELLOW display
(MENU OF
PROGRAMMING)**

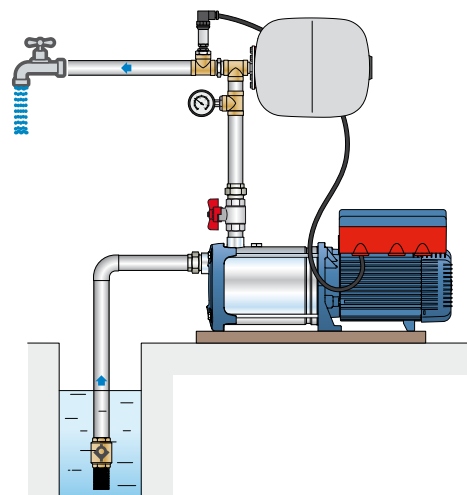
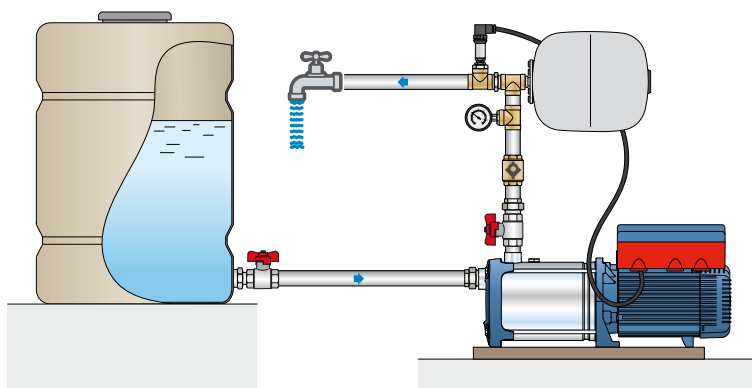


DISPLAY SYMBOLS

6. ALARM warning light !
7. AUTOMATIC operation indicator light (A)
8. MANUAL operation indicator light (M)
9. Indicator light for running pump no. 1 (1)
10. Indicator light for running pump no. 2 (2) (if present)
11. Wi-Fi active indicator light (Wi-Fi symbol) (if present)
12. Alphanumeric display with 2 lines for visualization of: voltage, frequency, current, power factor (cosφ), pressure, level, system operating status, system anomalies.
13. VSP operating status LED lights



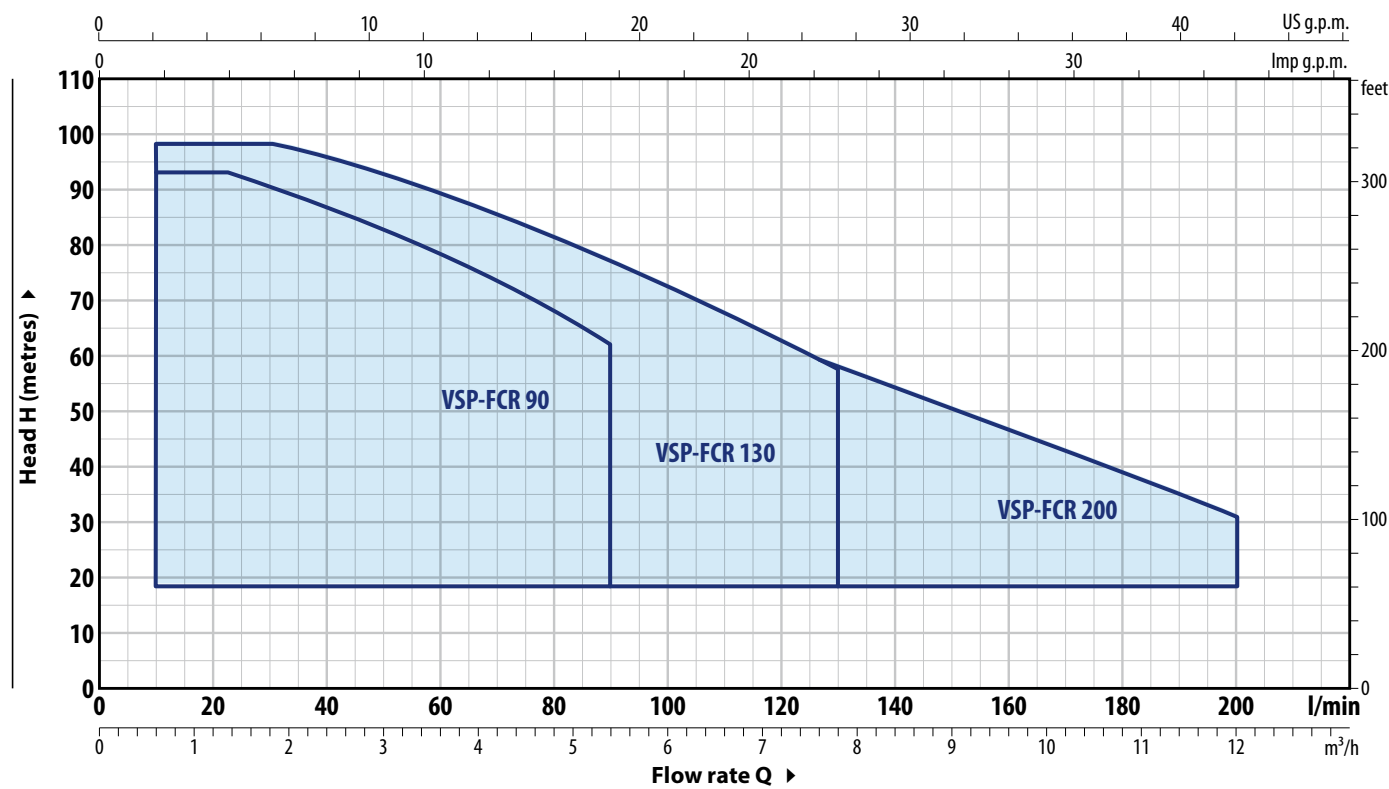
TYPICAL INSTALLATION



VSP – FCR

PERFORMANCE RANGE

50 Hz



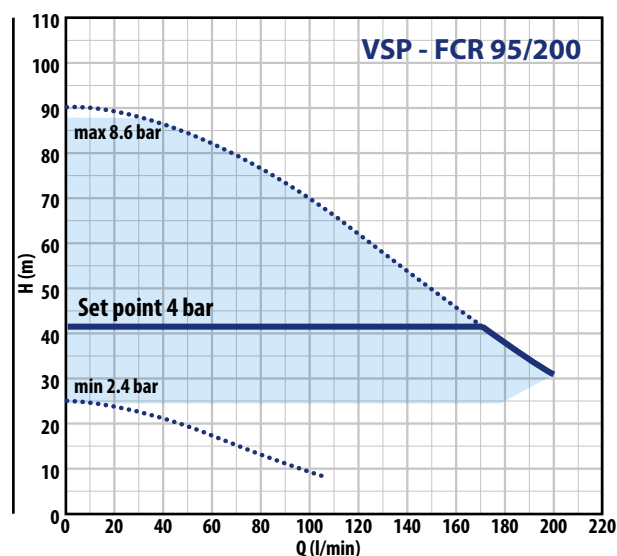
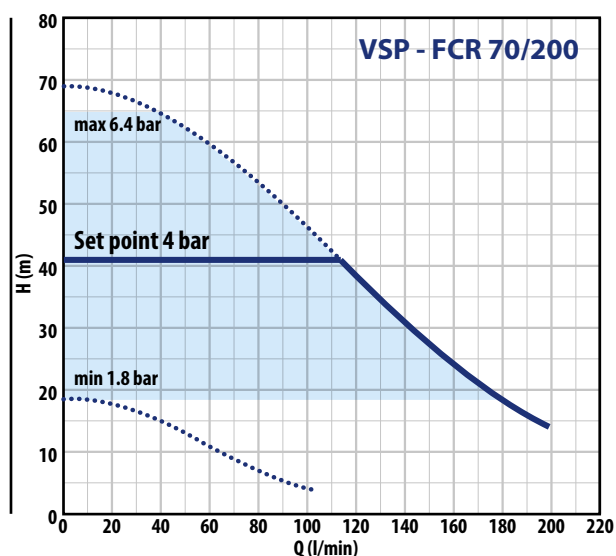
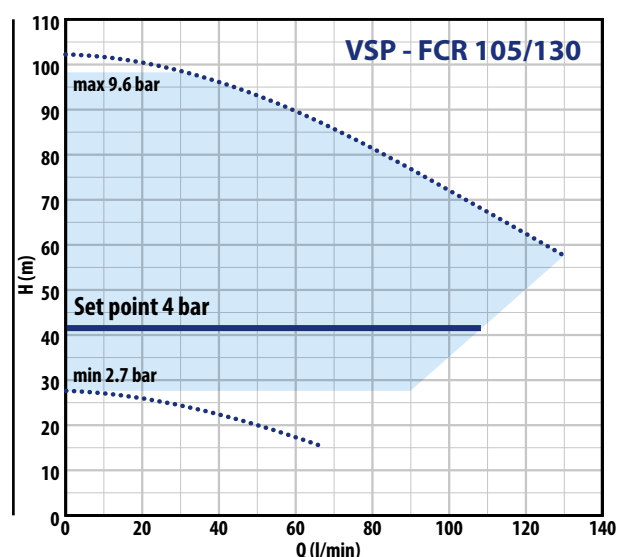
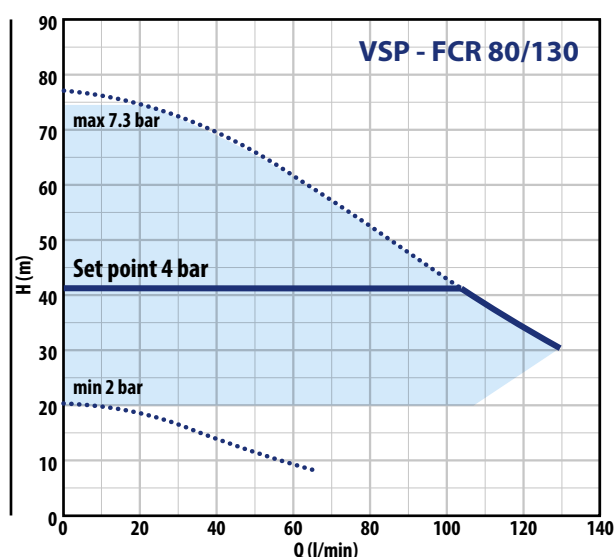
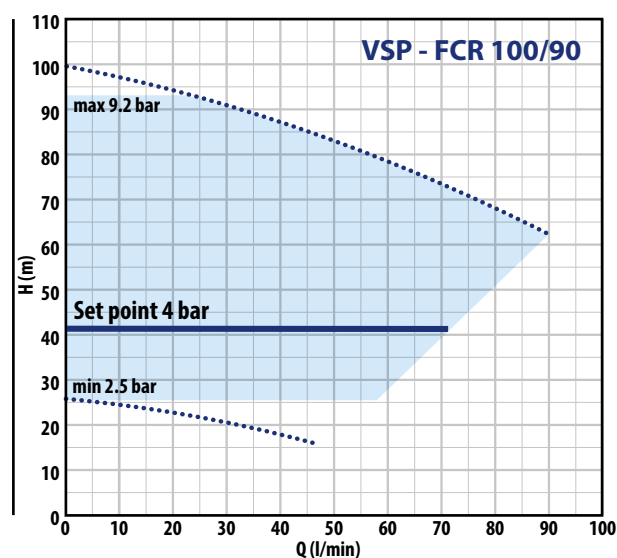
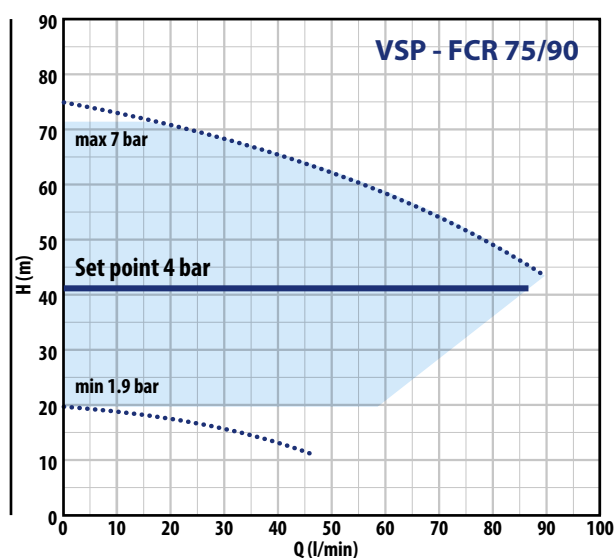
TECHNICAL DATA

TYPE	POWER		ABSORPTION	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂				Q	H	Set Point Min		Set Point Calibration Std		Set Point Max
Single-phase	kW	HP	230 V	litres/min	metres	bar	l/min	bar	l/min	bar	l/min
VSPm - FCR 75/90	1.5	2	9.8 A	5 – 90	71.5 – 43.5	1.9	5 – 60	4.0	5 – 86	7.0	5 – 16
VSPm - FCR 80/130	1.5	2	9.8 A	5 – 130	74.5 – 30	2.0	5 – 107	4.0	5 – 107	7.3	5 – 22
VSPm - FCR 70/200	1.5	2	9.8 A	5 – 200	65.5 – 21	1.8	5 – 180	4.0	5 – 115	6.4	5 – 36

TYPE	POWER		ABSORPTION 400 V	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂ kW	HP		Q litres/min	H metres	Set Point Min		Set Point Calibration Std		Set Point Max	
Three-phase						bar	l/min	bar	l/min	bar	l/min
VSP - FCR 75/90	1.5	2	3.6 A	5 – 90	71.5 – 43.5	1.9	5 – 60	4.0	5 – 86	7.0	5 – 16
VSP - FCR 100/90	2.2	3	4.9 A	5 – 90	94 – 62.5	2.5	5 – 58	4.0	5 – 71	9.2	5 – 20
VSP - FCR 80/130	1.5	2	3.6 A	5 – 130	74.5 – 30	2.0	5 – 107	4.0	5 – 107	7.3	5 – 22
VSP - FCR 105/130	2.2	3	4.9 A	5 – 130	98 – 57.5	2.7	5 – 90	4.0	5 – 107	9.6	5 – 30
VSP - FCR 70/200	1.5	2	3.6 A	5 – 200	65.5 – 21	1.8	5 – 180	4.0	5 – 115	6.4	5 – 36
VSP - FCR 95/200	2.2	3	4.9 A	5 – 200	87.5 – 42	2.4	5 – 178	4.0	5 – 175	8.6	5 – 32

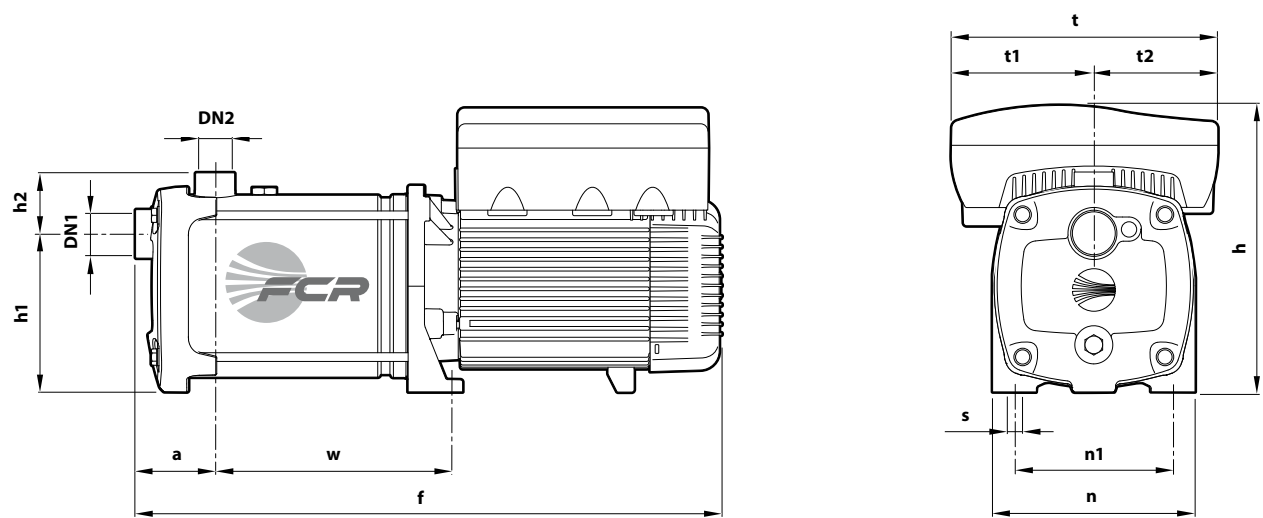
PERFORMANCE CURVES

50 Hz



VSP – FCR

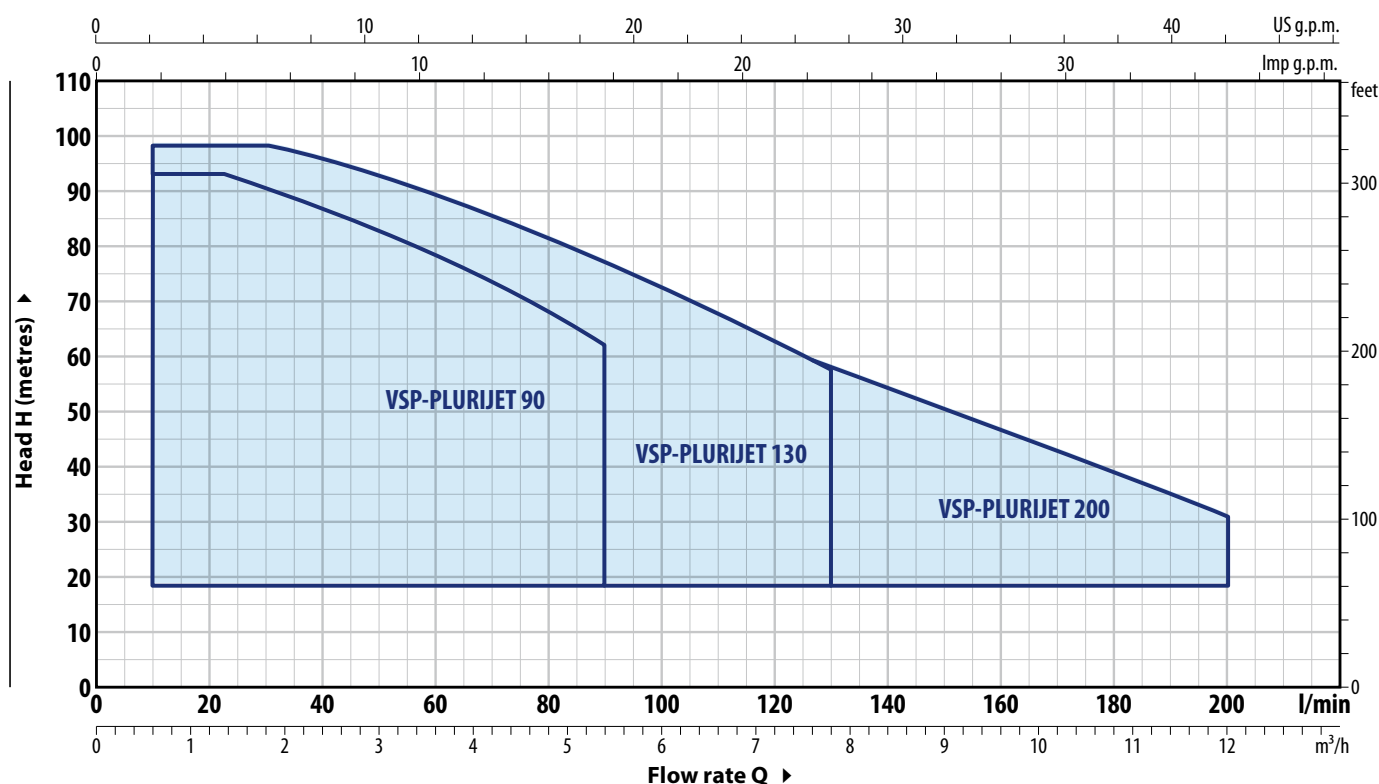
DIMENSIONS AND WEIGHT



TYPE		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	f	a	w	h	h1	h2	t	t1	t2	n	n1	s	1~	3~
VSPm - FCR 75/90	VSP - FCR 75/90	1¼"	1"	445	75	139	260	145	59	242	129	113	185	145	11	21.7	21.7
–	VSP - FCR 100/90			471		165										–	21.9
VSPm - FCR 80/130	VSP - FCR 80/130			445		139										21.9	21.9
–	VSP - FCR 105/130			471		165										–	21.9
VSPm - FCR 70/200	VSP - FCR 70/200			445		139										24.1	23.9
–	VSP - FCR 95/200			471		165										–	24.0

PERFORMANCE RANGE

50 Hz



TECHNICAL DATA

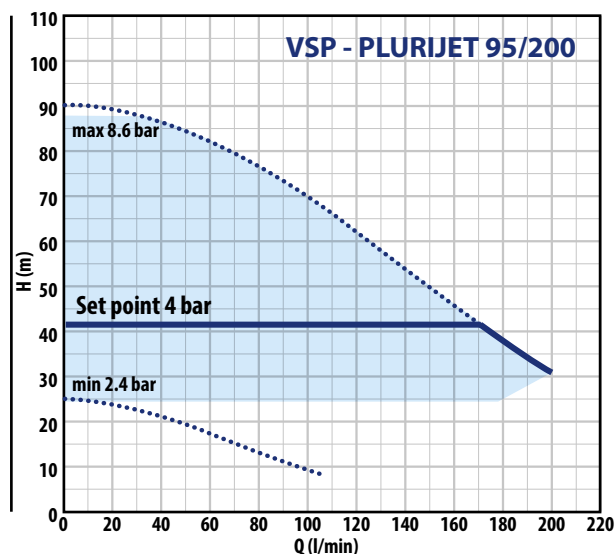
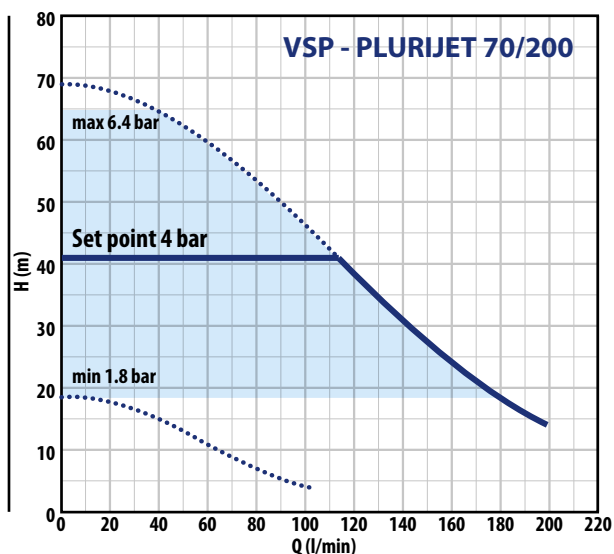
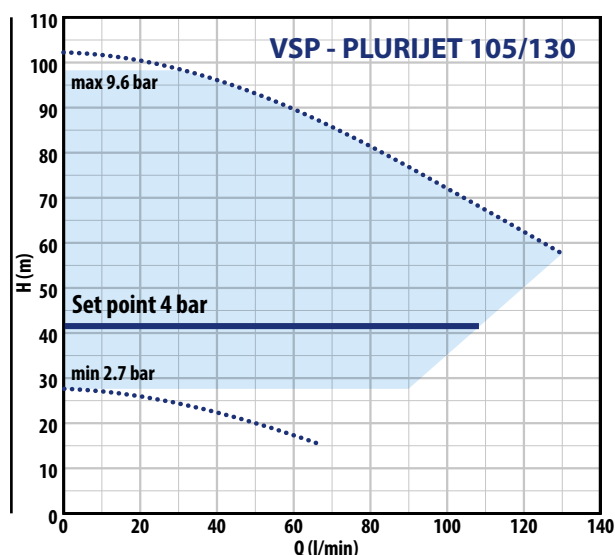
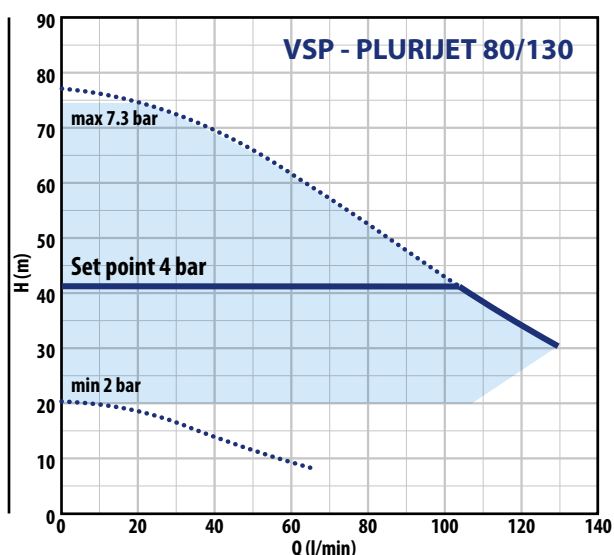
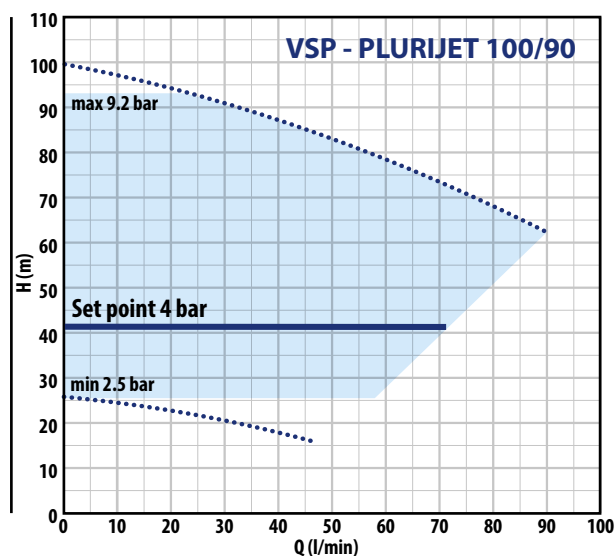
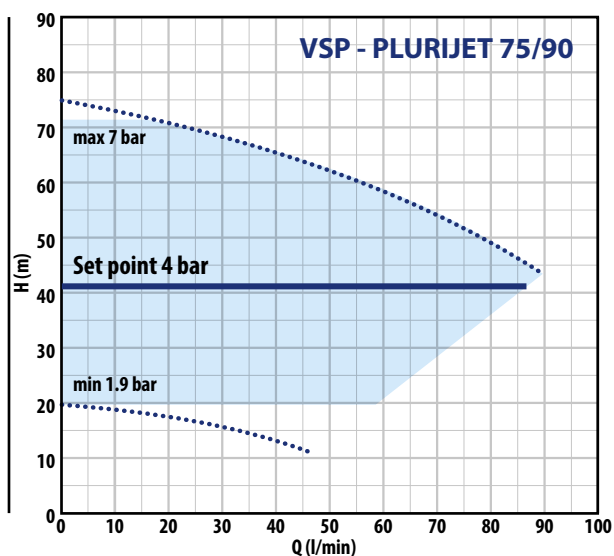
TYPE	POWER		ABSORPTION 230 V	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂ kW	HP		Q litres/min	H metres	Set Point Min bar l/min		Set Point Calibration Std bar l/min		Set Point Max bar l/min	
Single-phase											
VSPm - PLURIJET 75/90	1.5	2	9.8 A	5 – 90	71.5 – 43.5	1.9	5 – 60	4.0	5 – 86	7.0	5 – 16
VSPm - PLURIJET 80/130	1.5	2	9.8 A	5 – 130	74.5 – 30	2.0	5 – 107	4.0	5 – 107	7.3	5 – 22
VSPm - PLURIJET 70/200	1.5	2	9.8 A	5 – 200	65.5 – 21	1.8	5 – 180	4.0	5 – 115	6.4	5 – 36

TYPE	POWER		ABSORPTION 400 V	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂ kW	HP		Q litres/min	H metres	Set Point Min bar l/min		Set Point Calibration Std bar l/min		Set Point Max bar l/min	
Three-phase											
VSP - PLURIJET 75/90	1.5	2	3.6 A	5 – 90	71.5 – 43.5	1.9	5 – 60	4.0	5 – 86	7.0	5 – 16
VSP - PLURIJET 100/90	2.2	3	4.9 A	5 – 90	94 – 62.5	2.5	5 – 58	4.0	5 – 71	9.2	5 – 20
VSP - PLURIJET 80/130	1.5	2	3.6 A	5 – 130	74.5 – 30	2.0	5 – 107	4.0	5 – 107	7.3	5 – 22
VSP - PLURIJET 105/130	2.2	3	4.9 A	5 – 130	98 – 57.5	2.7	5 – 90	4.0	5 – 107	9.6	5 – 30
VSP - PLURIJET 70/200	1.5	2	3.6 A	5 – 200	65.5 – 21	1.8	5 – 180	4.0	5 – 115	6.4	5 – 36
VSP - PLURIJET 95/200	2.2	3	4.9 A	5 – 200	87.5 – 42	2.4	5 – 178	4.0	5 – 175	8.6	5 – 32

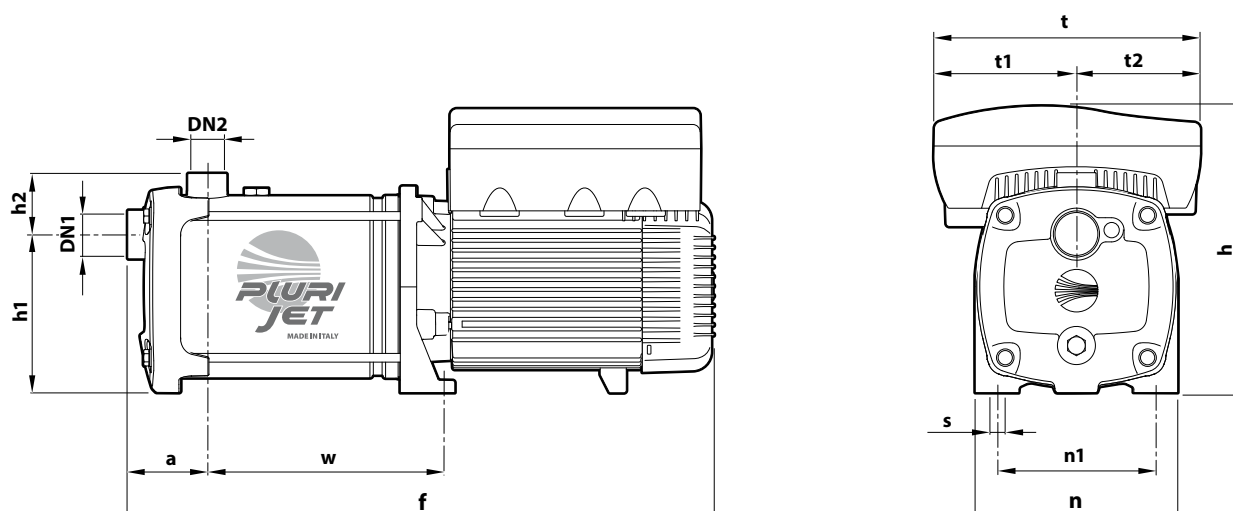
VSP – PLURIJET

PERFORMANCE CURVES

50 Hz



DIMENSIONS AND WEIGHT

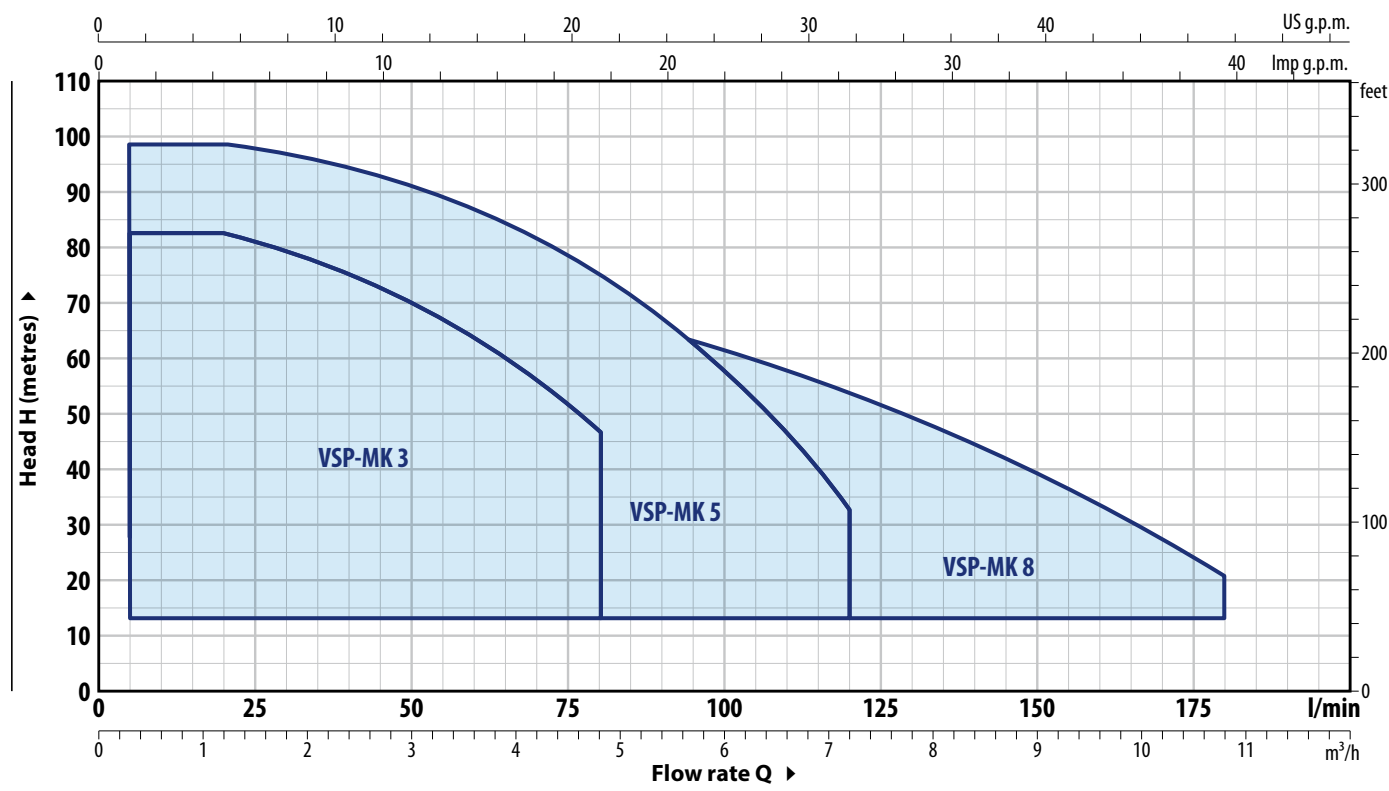


TYPE		PORTS		DIMENSIONS mm													kg	
Single-phase	Three-phase	DN1	DN2	f	a	w	h	h1	h2	t	t1	t2	n	n1	s	1~	3~	
VSPm - PLURIJET 75/90	VSP - PLURIJET 75/90	1¼"	1"	497	75	191	260	145	59	242	129	113	185	145	11	21.7	21.7	
–	VSP - PLURIJET 100/90			523		217										–	23.9	
VSPm - PLURIJET 80/130	VSP - PLURIJET 80/130			497		191										21.9	21.9	
–	VSP - PLURIJET 105/130			523		217										–	24.1	
VSPm - PLURIJET 70/200	VSP - PLURIJET 70/200			497		191										21.9	21.9	
–	VSP - PLURIJET 95/200			523		217										–	24.0	

VSP – MK

PERFORMANCE RANGE

50 Hz



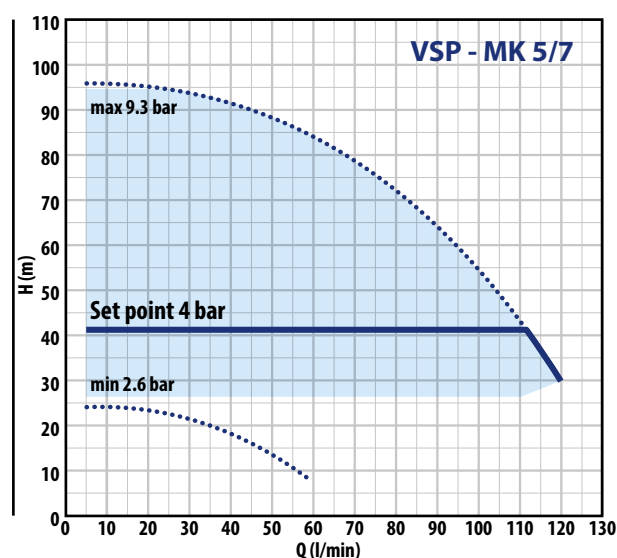
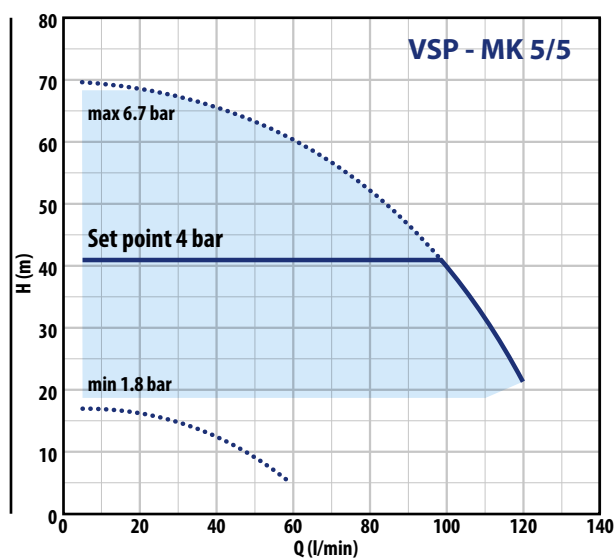
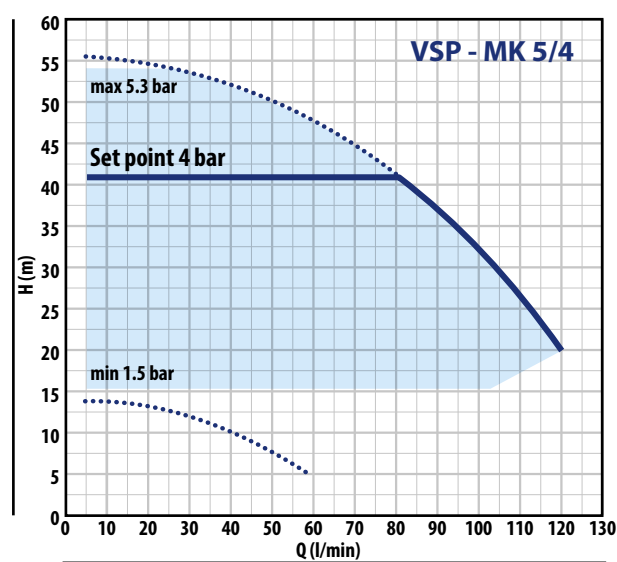
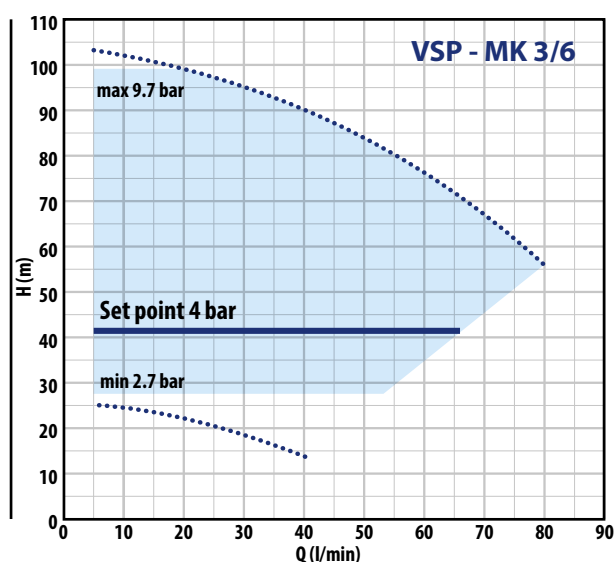
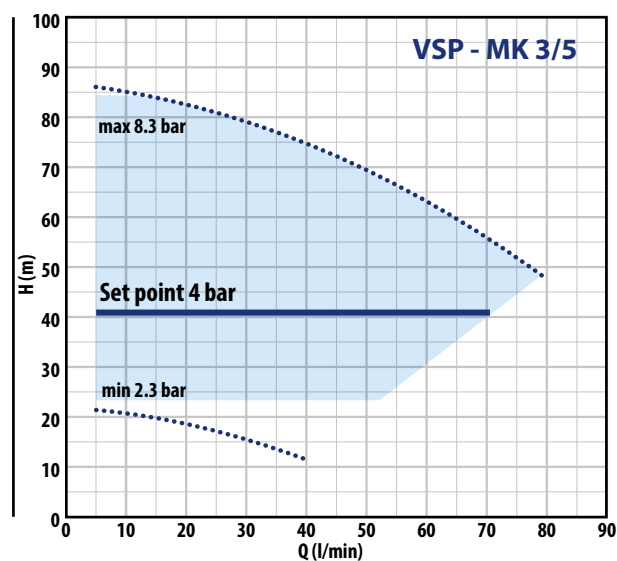
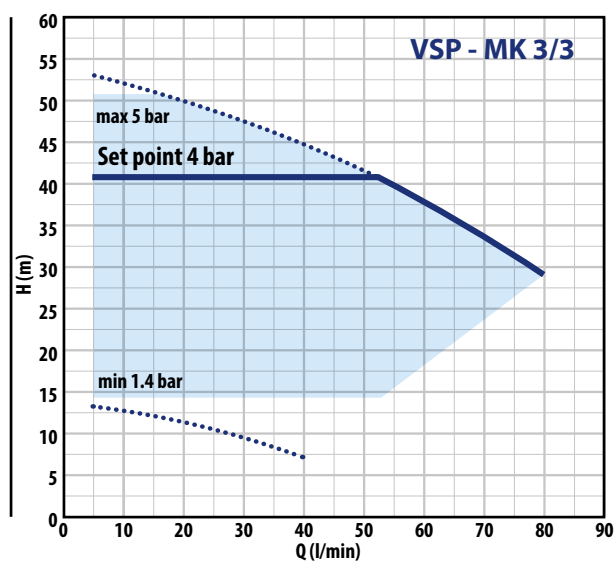
TECHNICAL DATA

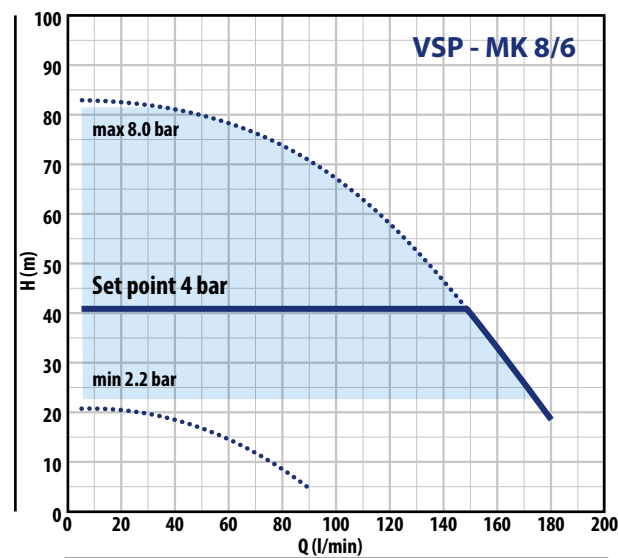
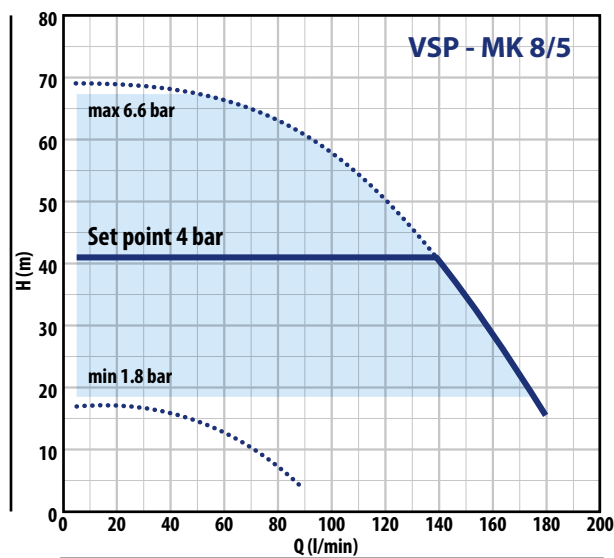
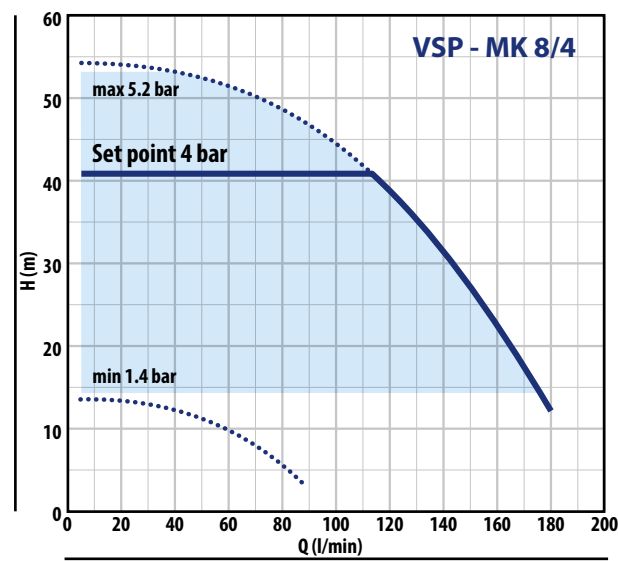
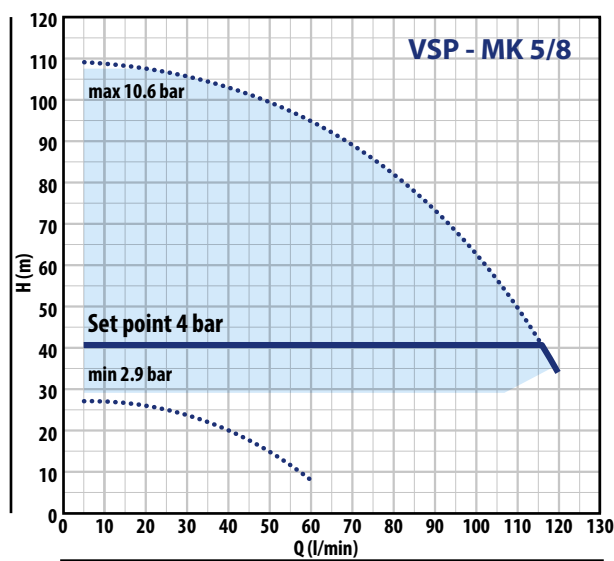
TYPE	POWER		ABSORPTION	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂			Q	H	Set Point Min		Set Point Calibration Std		Set Point Max	
Single-phase	kW	HP	230 V			litres/min	metres	bar	l/min	bar	l/min
VSPm - MK 3/3	0.75	1	6.2 A	10 – 80	52 – 29	1.4	5 – 52	4.0	5 – 52	5.0	5 – 14
VSPm - MK 3/5	1.1	1.5	7.8 A	10 – 80	85 – 48	2.3	5 – 52	4.0	5 – 72	8.3	5 – 13
VSPm - MK 3/6	1.5	2	9.0 A	10 – 80	101 – 56	2.7	5 – 53	4.0	5 – 65	9.7	5 – 19
VSPm - MK 5/4	0.75	1	6.4 A	20 – 120	55 – 20	1.5	5 – 101	4.0	5 – 82	5.3	5 – 26
VSPm - MK 5/5	1.1	1.5	6.5 A	20 – 120	69 – 21.5	1.8	5 – 108	4.0	5 – 99	6.7	5 – 13
VSPm - MK 5/7	1.5	2	9.0 A	20 – 120	95 – 30	2.6	5 – 109	4.0	5 – 111	9.3	5 – 16
VSPm - MK 8/4	1.1	1.5	8.3 A	40 – 180	53 – 12	1.4	5 – 175	4.0	5 – 115	5.2	5 – 30
VSPm - MK 8/5	1.5	2	10.0 A	40 – 180	68 – 15.5	1.8	5 – 175	4.0	5 – 138	6.6	5 – 45

TYPE	POWER		ABSORPTION	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂			Q	H	Set Point Min		Set Point Calibration Std		Set Point Max	
Three-phase	kW	HP	400 V			litres/min	metres	bar	l/min	bar	l/min
VSP - MK 3/3	0.75	1	1.7 A	10 – 80	52 – 29	1.4	5 – 52	4.0	5 – 52	5.0	5 – 14
VSP - MK 3/5	1.1	1.5	2.3 A	10 – 80	85 – 48	2.3	5 – 52	4.0	5 – 72	8.3	5 – 13
VSP - MK 3/6	1.5	2	2.8 A	10 – 80	101 – 56	2.7	5 – 53	4.0	5 – 65	9.7	5 – 19
VSP - MK 5/4	0.75	1	2.0 A	20 – 120	55 – 20	1.5	5 – 101	4.0	5 – 82	5.3	5 – 26
VSP - MK 5/5	1.1	1.5	2.2 A	20 – 120	69 – 21.5	1.8	5 – 108	4.0	5 – 99	6.7	5 – 13
VSP - MK 5/7	1.5	2	3.0 A	20 – 120	95 – 30	2.6	5 – 109	4.0	5 – 111	9.3	5 – 16
VSP - MK 5/8	2.2	3	3.5 A	20 – 120	108 – 34	2.9	5 – 109	4.0	5 – 115	10.6	5 – 14
VSP - MK 8/4	1.1	1.5	2.8 A	40 – 180	53 – 12	1.4	5 – 175	4.0	5 – 115	5.2	5 – 30
VSP - MK 8/5	1.5	2	3.4 A	40 – 180	68 – 15.5	1.8	5 – 175	4.0	5 – 138	6.6	5 – 45
VSP - MK 8/6	2.2	3	3.8 A	40 – 180	81 – 18.5	2.2	5 – 175	4.0	5 – 149	8.0	5 – 22

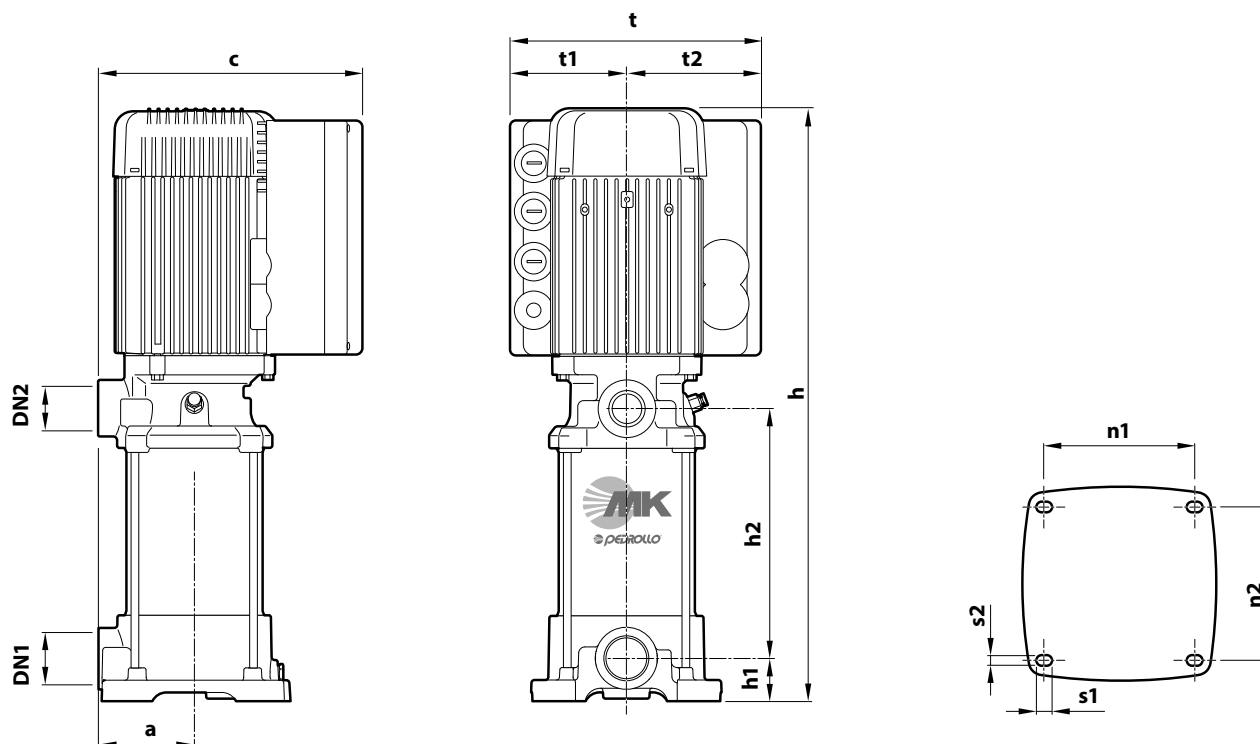
PERFORMANCE CURVES

50 Hz





DIMENSIONS AND WEIGHT



TYPE		PORTS		DIMENSIONS mm														kg	
Single-phase	Three-phase	DN1	DN2	a	c	h	h1	h2	t	t1	t2	n1	n2	S1	s2	1~	3~		
VSPm - MK 3/3	VSP - MK 3/3	1¼"	1"	93	255	447	41	132	242	113	129	143	146	14.5	10	23.3	23.3		
VSPm - MK 3/5	VSP - MK 3/5					501		186								25.5	25.5		
VSPm - MK 3/6	VSP - MK 3/6					528		213								27.3	27.3		
VSPm - MK 5/4	VSP - MK 5/4					474		159								23.8	23.8		
VSPm - MK 5/5	VSP - MK 5/5					501		186								25.2	25.2		
VSPm - MK 5/7	VSP - MK 5/7					555		240								28.3	28.3		
–	VSP - MK 5/8					602		267								–	28.6		
VSPm - MK 8/4	VSP - MK 8/4					474		159								26.6	26.6		
VSPm - MK 8/5	VSP - MK 8/5					501		186								27.0	27.0		
–	VSP - MK 8/6					548		213								–	29.4		

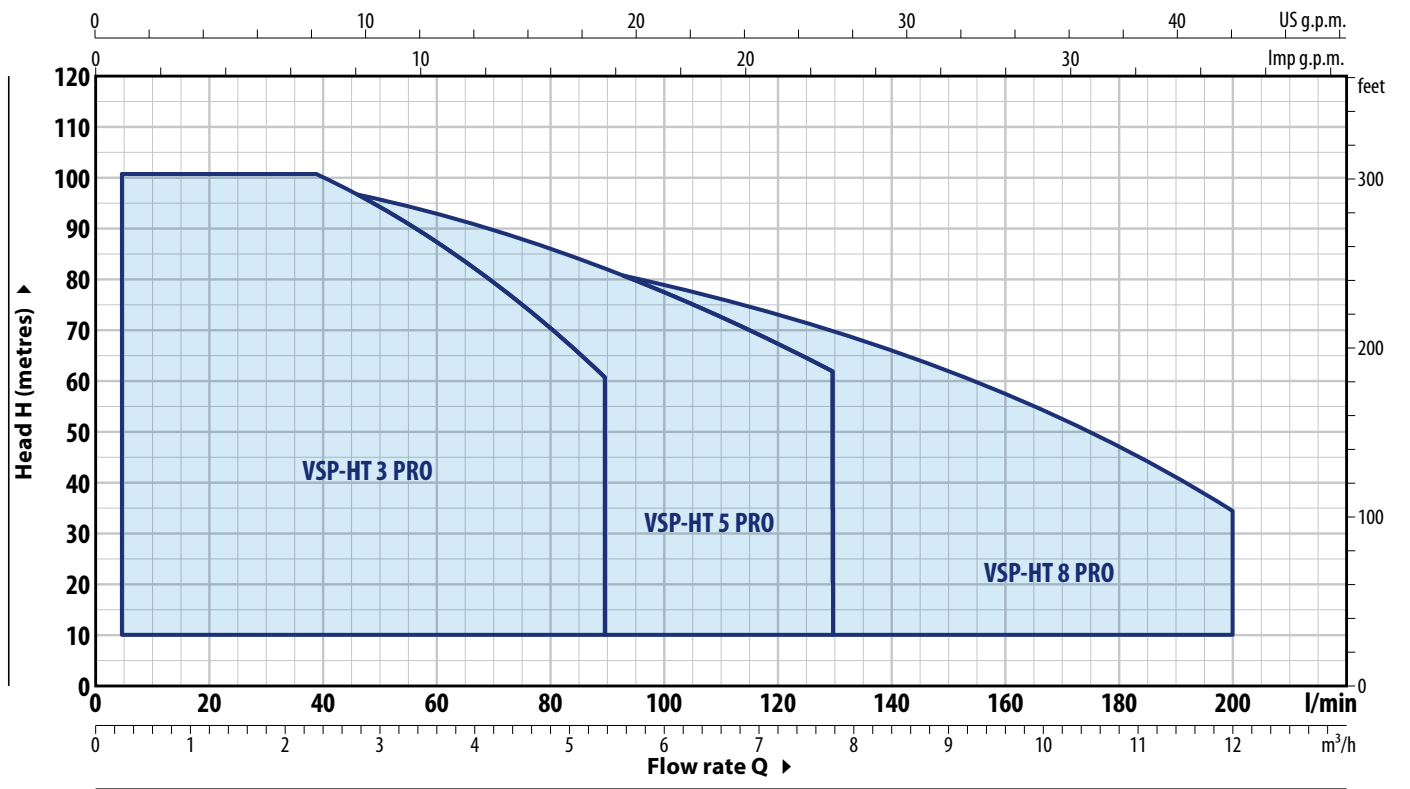
LENNTECH
WATER TREATMENT SOLUTIONS

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VSP – HT-PRO

PERFORMANCE RANGE

50 Hz



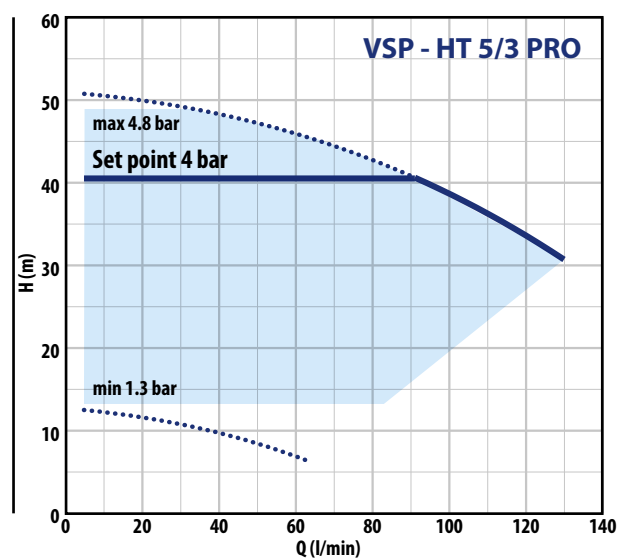
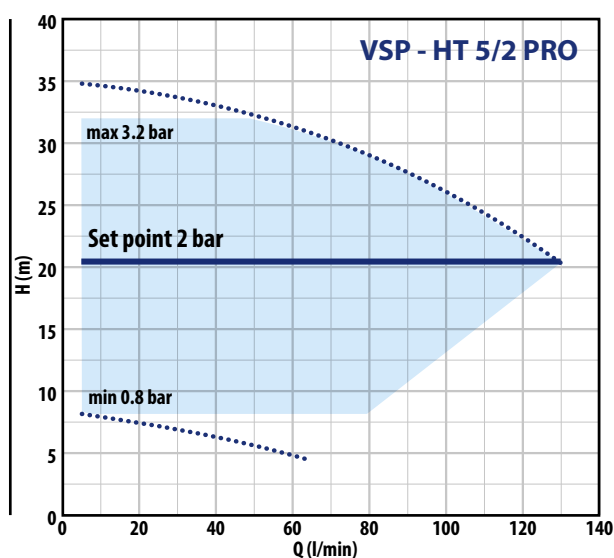
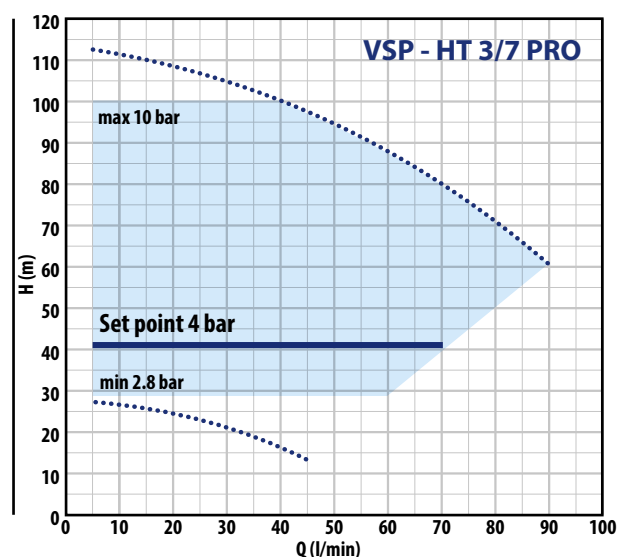
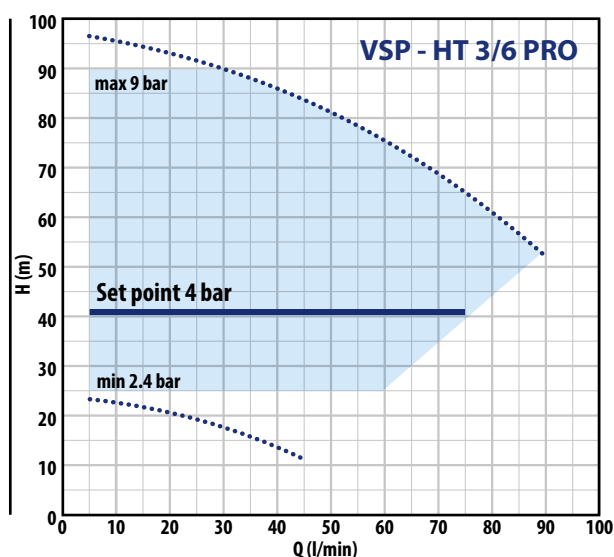
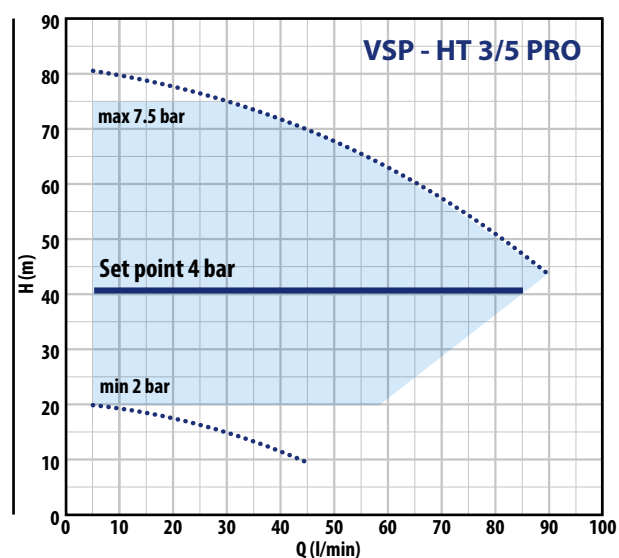
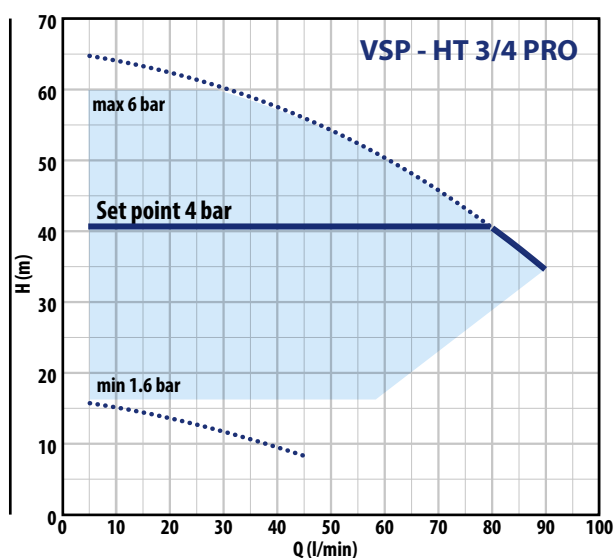
TECHNICAL DATA

TYPE	POWER		ABSORPTION	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂			Q	H	Set Point Min		Set Point Calibration Std		Set Point Max	
Single-phase	kW	HP	230 V			litres/min	metres	bar	l/min	bar	l/min
VSPm - HT 3/4 PRO	0.75	1	7.5 A	5 – 90	65 – 35	1.6	5 – 59	4.0	5 – 73	5.9	5 – 19
VSPm - HT 3/5 PRO	1.1	1.5	9.0 A	5 – 90	80 – 44	2.0	5 – 62	4.0	5 – 86	7.4	5 – 22
VSPm - HT 3/6 PRO	1.5	2	10.5 A	5 – 90	96 – 52	2.4	5 – 62	4.0	5 – 84	8.8	5 – 20
VSPm - HT 5/2 PRO	0.75	1	7.0 A	5 – 130	35 – 20.5	0.8	5 – 83	2.0	5 – 114	3.1	5 – 22
VSPm - HT 5/3 PRO	1.1	1.5	8.0 A	5 – 130	51.5 – 31	1.3	5 – 91	4.0	5 – 71	4.8	5 – 14
VSPm - HT 5/4 PRO	1.5	2	9.5 A	5 – 130	68.5 – 41	1.7	5 – 90	4.0	5 – 108	6.1	5 – 26
VSPm - HT 8/3 PRO	1.1	1.5	8.5 A	20 – 200	46.5 – 17	1.1	5 – 182	4.0	5 – 58	4.1	5 – 28
VSPm - HT 8/4 PRO	1.5	2	10.0 A	20 – 200	62 – 23	1.5	5 – 180	4.0	5 – 128	5.4	5 – 48

TYPE	POWER		ABSORPTION	PERFORMANCE		PERFORMANCE (ADJUSTABLE SET POINT)					
	P ₂			Q	H	Set Point Min		Set Point Calibration Std		Set Point Max	
Three-phase	kW	HP	400 V			litres/min	metres	bar	l/min	bar	l/min
VSP - HT 3/4 PRO	0.75	1	2.5 A	5 – 90	65 – 35	1.6	5 – 59	4.0	5 – 73	5.9	5 – 19
VSP - HT 3/5 PRO	1.1	1.5	3.0 A	5 – 90	80 – 44	2.0	5 – 62	4.0	5 – 86	7.4	5 – 22
VSP - HT 3/6 PRO	1.5	2	3.5 A	5 – 90	96 – 52	2.4	5 – 62	4.0	5 – 84	8.8	5 – 20
VSP - HT 3/7 PRO	1.8	2.5	4.2 A	5 – 90	112 – 61	2.8	5 – 62	4.0	5 – 76	10.2	5 – 25
VSP - HT 5/2 PRO	0.75	1	2.3 A	5 – 130	35 – 20.5	0.8	5 – 83	2.0	5 – 114	3.1	5 – 22
VSP - HT 5/3 PRO	1.1	1.5	2.4 A	5 – 130	51.5 – 31	1.3	5 – 91	4.0	5 – 71	4.8	5 – 14
VSP - HT 5/4 PRO	1.5	2	3.2 A	5 – 130	68.5 – 41	1.7	5 – 90	4.0	5 – 108	6.1	5 – 26
VSP - HT 5/5 PRO	1.8	2.5	4.0 A	5 – 130	85 – 51.5	2.1	5 – 91	4.0	5 – 128	7.5	5 – 42
VSP - HT 5/6 PRO	2.2	3	4.3 A	5 – 130	103 – 62	2.6	5 – 92	4.0	5 – 118	9.3	5 – 25
VSP - HT 8/3 PRO	1.1	1.5	3.0 A	20 – 200	46.5 – 17	1.1	5 – 182	4.0	5 – 58	4.1	5 – 28
VSP - HT 8/4 PRO	1.5	2	3.4 A	20 – 200	62 – 23	1.5	5 – 180	4.0	5 – 128	5.4	5 – 48
VSP - HT 8/5 PRO	1.8	2.5	4.0 A	20 – 200	77.5 – 28.5	1.8	5 – 181	4.0	5 – 156	6.7	5 – 44
VSP - HT 8/6 PRO	2.2	3	4.5 A	20 – 200	93 – 34.5	2.3	5 – 186	4.0	5 – 179	8.2	5 – 32

PERFORMANCE CURVES

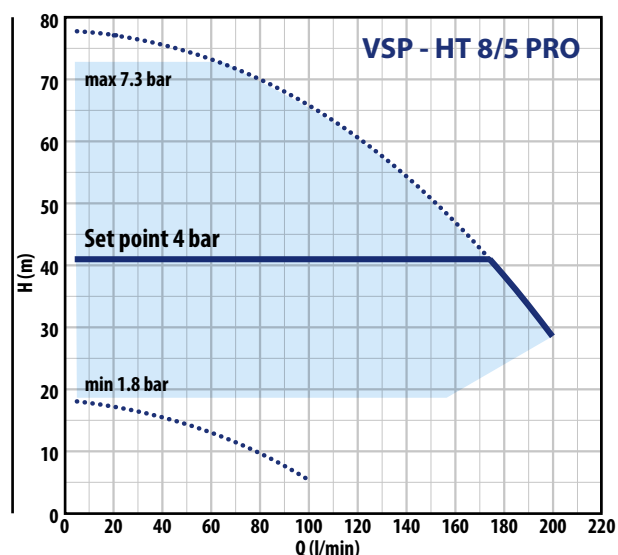
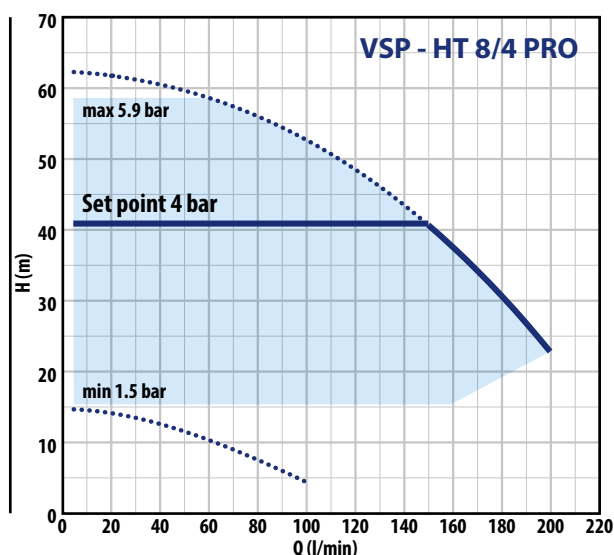
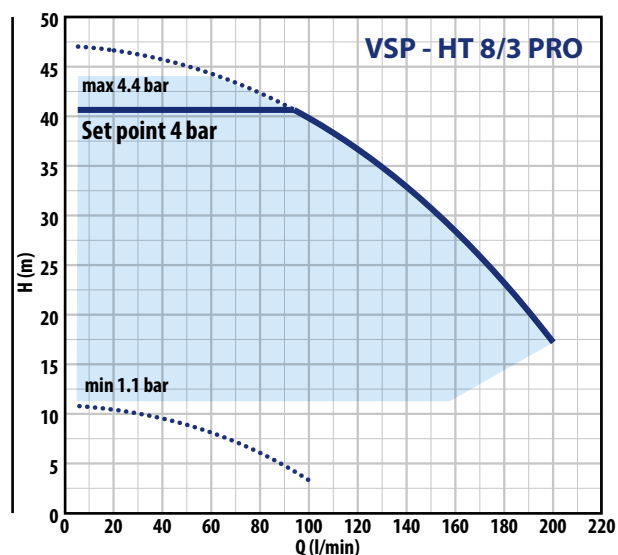
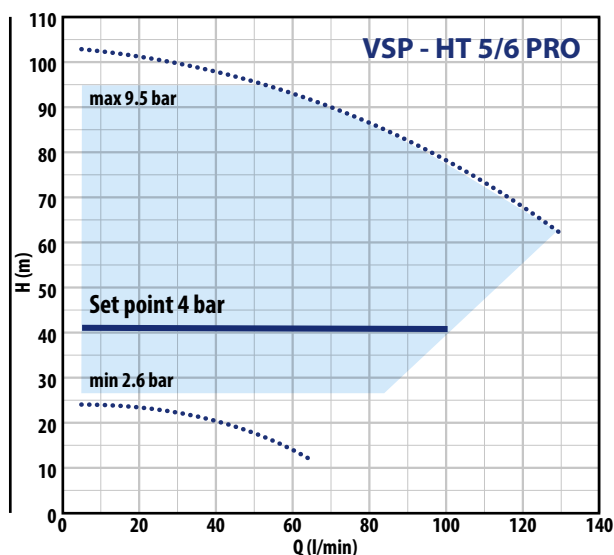
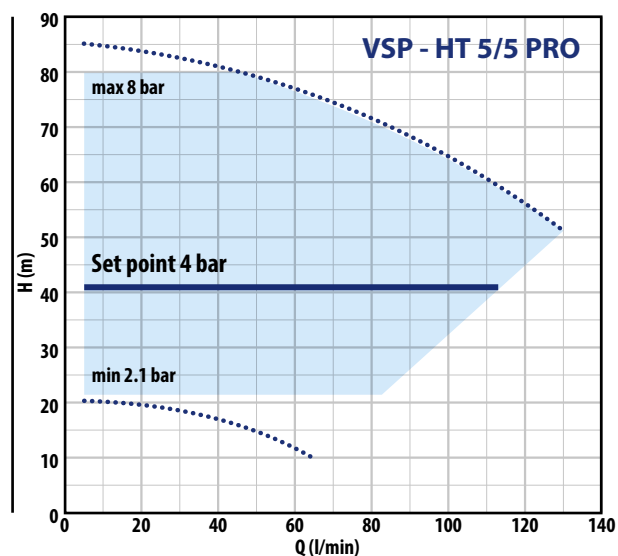
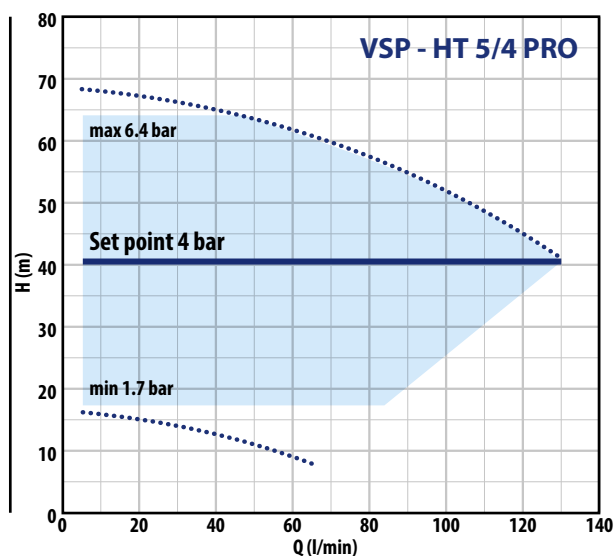
50 Hz



VSP – HT-PRO

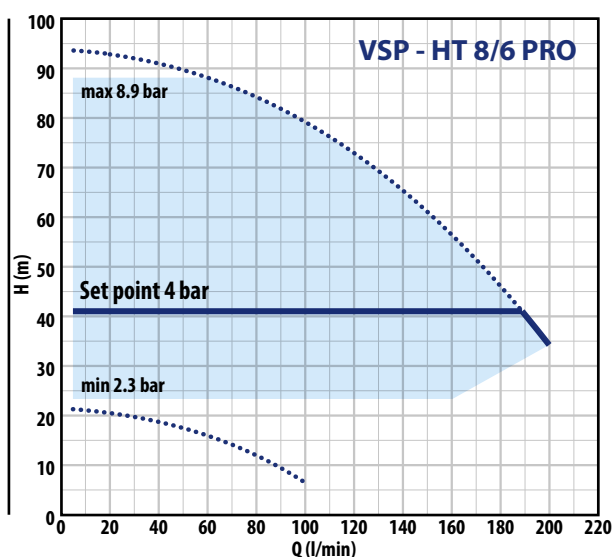
PERFORMANCE CURVES

50 Hz

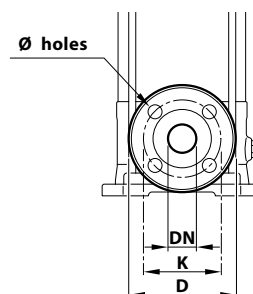
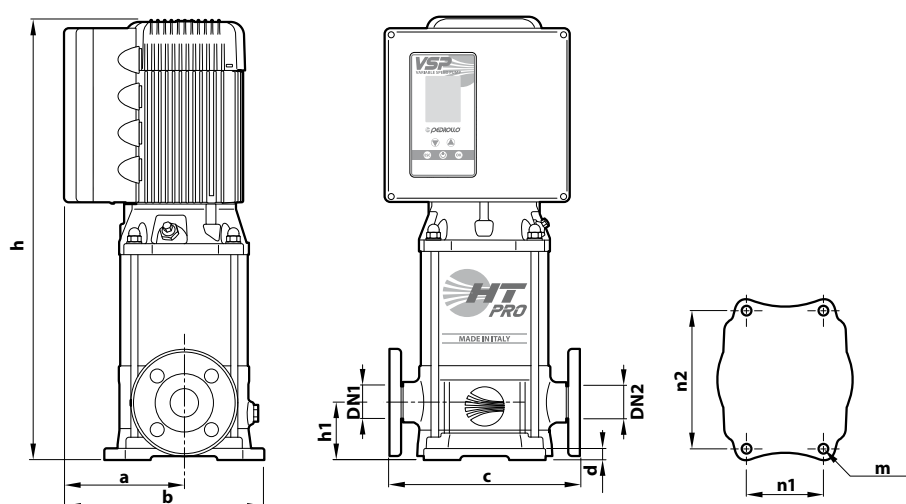


PERFORMANCE CURVES

50 Hz



DIMENSIONS AND WEIGHT



TYPE	DN	D	K	Ø
VSP	mm	mm	mm	mm
HT 3	25	115	85	14
HT 5	32	140	100	18
HT 8	40	150	110	

TYPE		PORTS		DIMENSIONS mm									kg													
Single-phase	Three-phase	DN1	DN2	a	b	c	d	h	h1	n1	n2	m	1~	3~												
VSPm - HT 3/4 PRO	VSP - HT 3/4 PRO	1"	1"	164	269	212	15	509	75	100	180	Ø 13	35.3	34.8												
VSPm - HT 3/5 PRO	VSP - HT 3/5 PRO							535					35.5	35.0												
VSPm - HT 3/6 PRO	VSP - HT 3/6 PRO							561					36.2	37.1												
—	VSP - HT 3/7 PRO							607					—	41.2												
VSPm - HT 5/2 PRO	VSP - HT 5/2 PRO	1¼"	1¼"			164		269	212				15	457	75	100	180	Ø 13	33.2	33.2						
VSPm - HT 5/3 PRO	VSP - HT 5/3 PRO													483					33.4	33.4						
VSPm - HT 5/4 PRO	VSP - HT 5/4 PRO													509					35.3	35.4						
—	VSP - HT 5/5 PRO													555					—	39.1						
—	VSP - HT 5/6 PRO	1½"	1½"						164					269	212				15	581	75	100	180	Ø 13	—	40.1
VSPm - HT 8/3 PRO	VSP - HT 8/3 PRO																			488					33.9	33.9
VSPm - HT 8/4 PRO	VSP - HT 8/4 PRO																			514					35.8	35.9
—	VSP - HT 8/5 PRO																			560					—	39.4
—	VSP - HT 8/6 PRO	1½"	1½"												164					269	240				15	586