

# VERTICAL PUMPS

## VERTICAL CENTRIFUGAL PUMPS

Vertical centrifugal pumps are suitable for installations with the pump immersed directly in the tank.

**GemmeCotti supplies the following models of vertical pumps:**

### HV PP/PVDF

- Thermoplastic pumps made of PP or PVDF.
- Capacity up to 40 m<sup>3</sup>/h.
- Head up to 22 m.
- Monobloc pump with semi open-impeller.
- Suitable for highly corrosive liquids with solids in suspension.
- Column length up to 1000 mm.

### HVL PP/PVDF

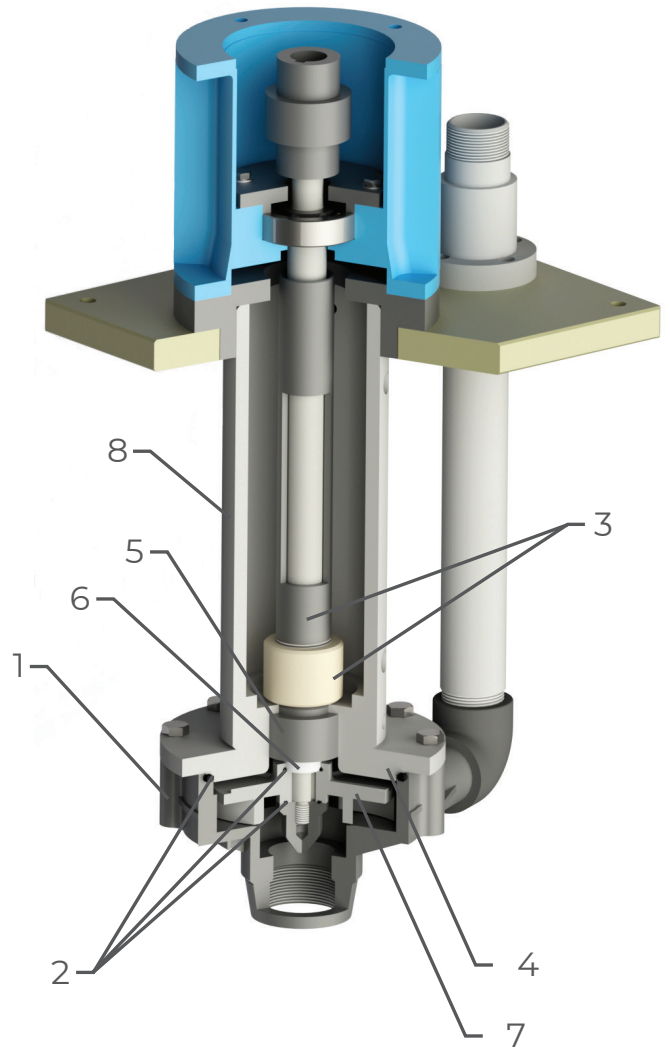
- Thermoplastic pumps made of PP or PVDF.
- Capacity up to 130 m<sup>3</sup>/h.
- Head up to 48 m.
- Centrifugal pump with coupling and semi open-impeller.
- Suitable for highly corrosive liquids with solids in suspension.
- Column length up to 2000 mm.

### HTM-V PP/PVDF

- Vertical magnetic drive pumps.
- Thermoplastic pumps made of PP or PVDF.
- Capacity up to 23 m<sup>3</sup>/h.
- Head up to 20 m.
- Column length: 320 mm.

### PVA AISI 316

- Vertical centrifugal cantilever pumps.
- Made of AISI 316.
- Capacity up to 24 m<sup>3</sup>/h.
- Head up to 26 m.
- Especially designed for the production of PCBs.



MATERIALS IN CONTACT WITH THE LIQUID		
PART NUMBER - DESCRIPTION	VERTICAL PUMPS	
	HV	HVL
1 - PUMP HEAD	PP or PVDF	PP or PVDF
2 - O-RING	EPDM or VITON	EPDM or VITON
3 - SHAFT COVERING/ GUIDE SHAFT COV.	PP	PP
4 - COVER	PP or PVDF	PP or PVDF
5 - BUSHING	PTFEC	PTFEC
6 - WEAR BUSHING	Al <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>
7 - IMPELLER	PP or PVDF	PP or PVDF
8 - COLUMN	PP or PVDF	PP or PVDF



### MAIN FEATURES

- Centrifugal monobloc pump.
- **Materials available:** PP / PVDF.
- **Max flow:** 40 m<sup>3</sup>/h; **Max head:** 22 m.
- **Temperature:** PP: max 70°C; PVDF: max 90°C.
- Suitable for highly corrosive liquids containing solids in suspension.
- **Column length:** from 500 to 1000 mm.

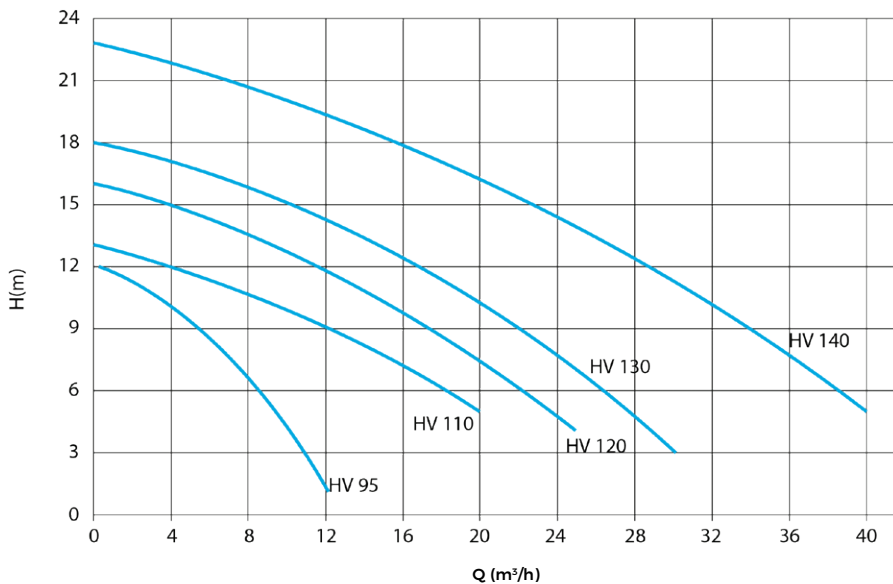
### STANDARD

- BSP threaded In and Out connections.

### OPTIONAL

- Dry-running protection device.
- Flanges available.
- Suction strainer.

### PERFORMANCE CURVES 50Hz - 2900 RPM







### MAIN FEATURES

- Centrifugal pump with coupling.
- **Materials available:** PP/PVDF.
- **Max flow:** 130 m<sup>3</sup>/h; **Max head:** 48 m.c.
- **Temperature:** PP: max 70°C; - PVDF: max 90°C.
- Suitable for highly corrosive liquids containing solids in suspension.
- **Column length:** from 500 to 2000 mm.

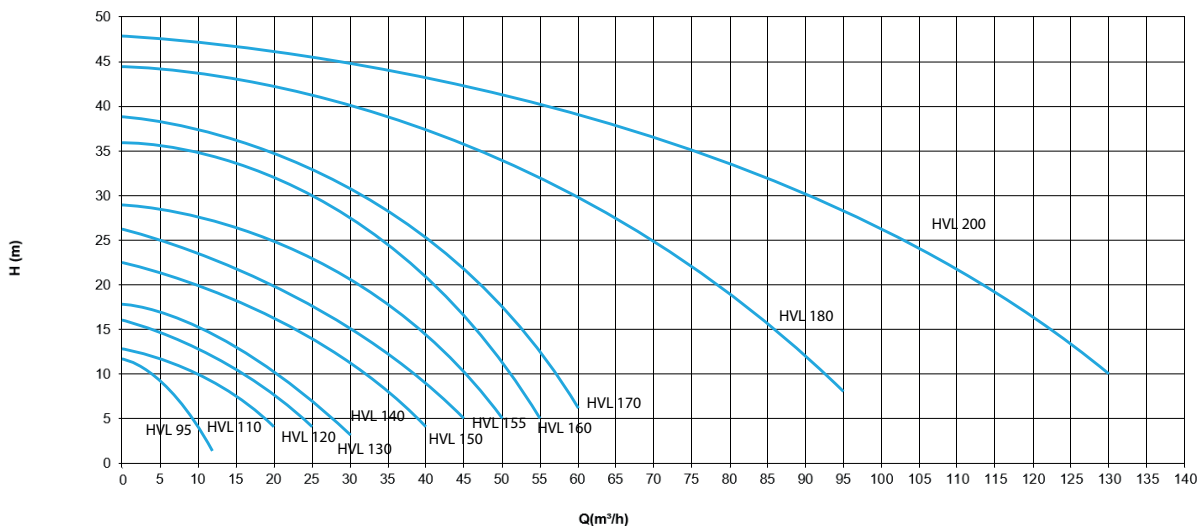
### STANDARD

- BSP threaded In and Out connections device.

### OPTIONAL

- Dry-running protection device.
- Flanges available.
- Suction strainer.

### PERFORMANCE CURVES 50Hz - 2900 RPM

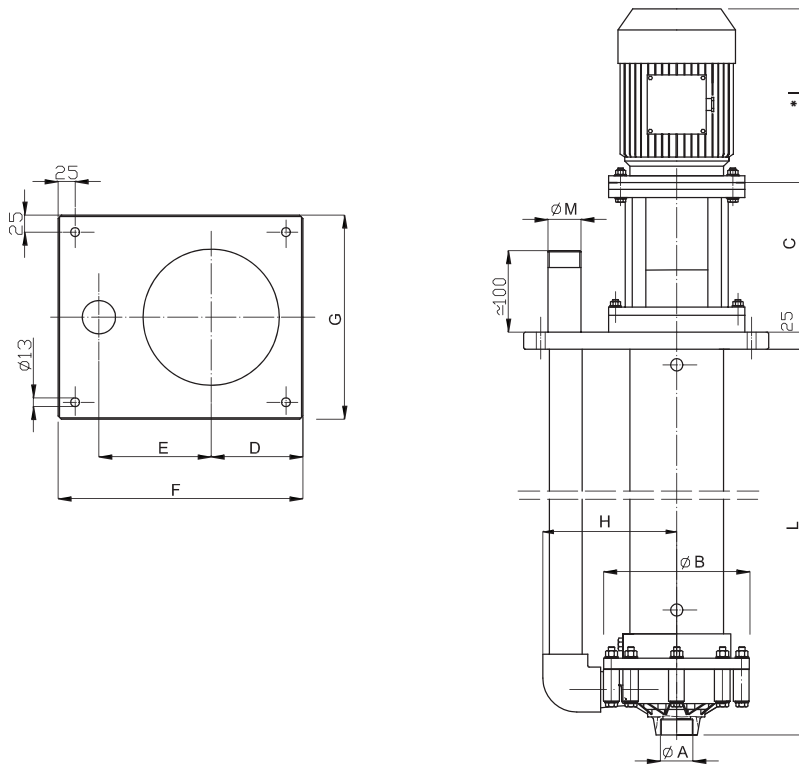




**HVL TECHNICAL DATA**

PUMP SIZE	MATERIAL	Q MAX		H MAX		SUCTION CONNECTION	DISCHARGE CONNECTION	COLUMN LENGTHS (mm)	SUITABLE MOTOR POWER (kW) 2900 rpm	MOTOR FLANGE AND FRAME
		50Hz (m³/h)	60Hz (USGPM)	50Hz (m/c)	60Hz (ft)					
HVL 95	PP- PVDF	12	62	12	55	2" FEMALE	1" 1/2 MALE	from 500 to 2000	0.75	80 2A - B5
HVL 110	PP- PVDF	20	105	13	60	2" FEMALE	1" 1/2 MALE	from 500 to 2000	1.1	80 2B - B5
HVL 120	PP- PVDF	25	132	16	75	2" FEMALE	1" 1/2 MALE	from 500 to 2000	1.5	90 S - B5
HVL 130	PP- PVDF	30	158	18	90	2" FEMALE	1" 1/2 MALE	from 500 to 2000	2.2	90 L - B5
HVL 140	PP- PVDF	40	210	22	105	2" FEMALE	1" 1/2 MALE	from 500 to 2000	3-4	100 L - 112 M - B5

**HVL 95 - 110 - 120 - 130 - 140 PP/PVDF**



**DIMENSIONS - mm -**

PUMP TYPE	MOTOR FLANGE B5	kW	DIMENSIONS - mm -										
			Ø A	Ø M	Ø B	C	D	E	F	G	H	I	L
HVL 95	802A	0.75				210						215	
HVL 110	802B	1.1				210						230	
HVL 120	90 S	1.5	2" FEMALE	1" 1/2 MALE	215	220	135	165	360	300	196	255	Upon request from 500 to 2000 mm
HVL 130	90 L	2.2				220						280	
HV 140	100L	3				230						315	
HV 140	112M	4	230	337									

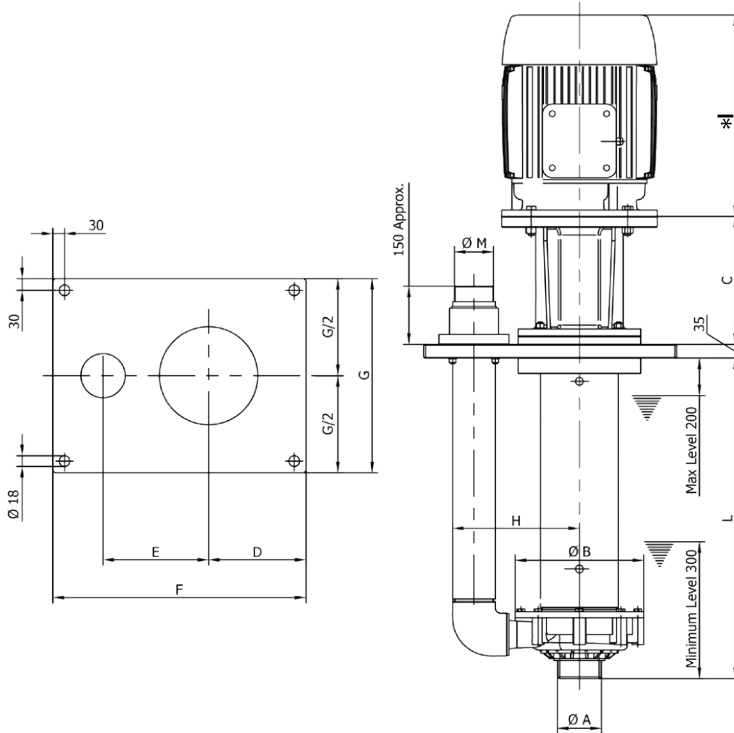
\* Different according to the motor supplier



**HVL TECHNICAL DATA**

PUMP SIZE	MATERIAL	Q MAX		H MAX		SUCTION CONNECTION	DISCHARGE CONNECTION	COLUMN LENGTHS (mm)	SUITABLE MOTOR POWER (kW) 2900 rpm	MOTOR FLANGE AND FRAME
		50Hz (m <sup>3</sup> /h)	60Hz (USCPM)	50Hz (m/c)	60Hz (ft)					
HVL 150	PP- PVDF	45	240	26	120	3" MALE	2" MALE	from 500 to 2000	5.5 - 7.5	132 S2A - 132 SB - B5
HVL 155	PP- PVDF	50	265	29	140	3" MALE	2" MALE	from 500 to 2000	5.5 - 7.5	132 S2A - 132 SB - B5
HVL 160	PP- PVDF	55	290	36	175	3" MALE	2" MALE	from 500 to 2000	7.5 - 9.2	132 SB - 132 MA - B5
HVL 170	PP- PVDF	57	300	39	180	3" MALE	2" MALE	from 500 to 2000	9	132 S - B5
HVL 180	PP- PVDF	95	502	44	208	4" MALE	3" 1/2 MALE	from 500 to 2000	11 - 22 - 37	160M - 180M - 200L - B5
HVL 200	PP- PVDF	130	687	48	227	4" MALE	3" 1/2 MALE	from 500 to 2000	11 - 22 - 37	160M - 180M - 200L - B5

**HVL 150 - 155 - 160 - 170 - 180 - 200 PP/PVDF**



**DIMENSIONS - mm -**

PUMP TYPE	MOTOR FLANGE B5	kW	DIMENSIONS - mm -												
			Ø A	Ø M	Ø B	C	D	E	F	G	H	I	L		
HVL 150	132 SA 132 SB	5.5 7.5				265									
HVL 155	132 SA 132 SB	5.5 7.5											380		
HVL 160	132 SB 132 MA	7.5 9.2	3" MALE	2" MALE	275		170	215	480	380	260		380 418	Upon request from 500 to 2000 mm	
HVL 170	132 S	9				250							420		
HVL 180 - HVL 200	160 M 180 M 200 L	11 22 37	4" MALE	3" 1/2 MALE	330	330	250	271	650	500	325		531 645 760		

\* Different according to the motor supplier



**Vertical mag drive centrifugal pumps series HTM-V** are made of thermoplastic materials (**Polypropylene** and **PVDF**) and are suitable to handle chemicals and corrosive liquids. This kind of pump has been designed for a vertical submerged installation, providing high reliability for intank and sump applications. HTM-V are **seal-less magnetic drive pumps** without any kind of labyrinth or mechanical seal. **The column of the pump is hermetically sealed** and it allows complete isolation of the motor, the extension shaft and external magnet of the pump from the process liquid.

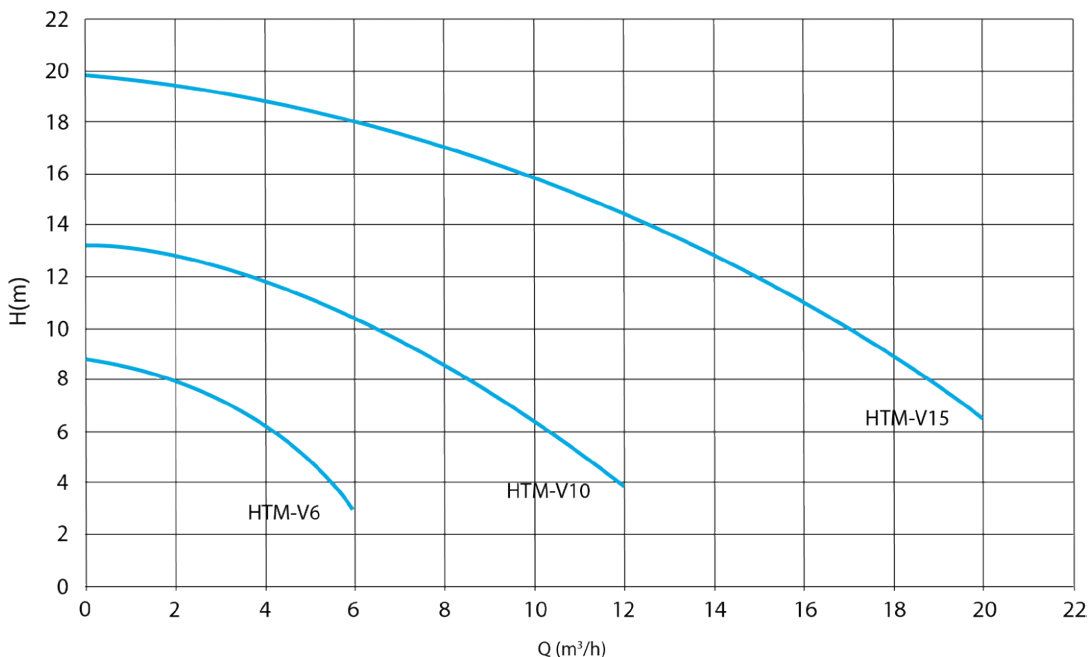
### MAIN FEATURES

- **Materials available:** PP / PVDF.
- **Materials in contact with the liquid:** casing and impeller: PP/PVDF; o-ring: EPDM (standard for PP pumps); VITON (standard for PVDF pumps); shaft: Al<sup>2</sup>O<sup>3</sup> 99,7%; bushing: PTFEC.
- **Max flow:** 22 m<sup>3</sup>/h; **Max head** 20 m.
- **Temperature:** PP: max 70°C – PVDF: max 90°C.
- Compact design, **column length 320mm.**

### OPTIONAL

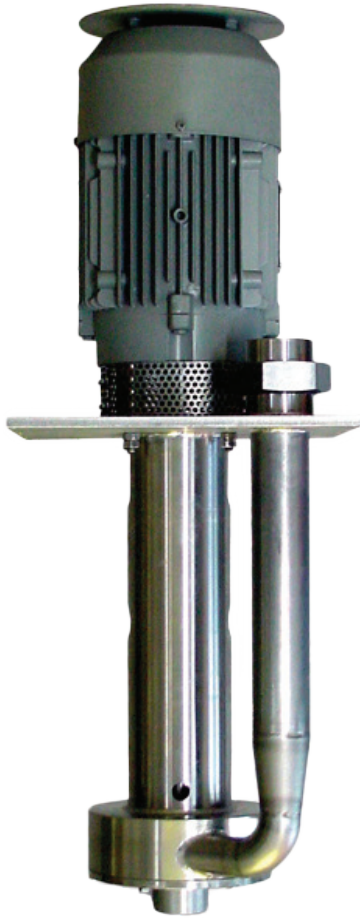
- Dry running protection device.
- Also available with bracket suitable for NEMA motors.

### PERFORMANCE CURVES 50Hz - 2900 RPM





## CENTRIFUGAL VERTICAL CANTILEVER PUMPS



### MAIN FEATURES

- **Materials available:** AISI 316.
- **Max flow:** 24 m<sup>3</sup>/h; **Max head:** 26 m.
- Fume labyrinth seal. A combined system of labyrinth, rings and PTFE lip seal guarantees tightness against gas and vapours.
- Impeller with low axial thrust.
- **Suitable for corrosive liquids containing solids.**
- Especially **designed for use in the production of printed circuit boards (PCB).**  
AISI 316 version is suitable for potassium permanganate applications at 90°C.
- **Two different types available:** PVA 1 for tank transfer and PVA 2 used as a boosting pump. PVA 2 model should be installed in the same tank where PVA 1. This provides a tight system which prevents any leaks.

### PERFORMANCE CURVES 50Hz - 2900 RPM

