



LifeStar[®] MV
Aquatic Pump
Product Guide

FLOW CONTROL

The background is a vibrant, blue-toned illustration of an aquarium tunnel. On the left, three grey PVC pipes with orange-handled valves are mounted on a wooden structure. In the center, a large, realistic shark is swimming towards the viewer. The tunnel floor is a dark blue walkway that leads into the distance. The overall scene is lit with dramatic, cool blue and purple tones.

define
design
deliver

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QUALITY

SERVICE

INTEGRITY

LifeStar® MV Medium Head Aquatic Pump

2, 3, 5, AND 7 HP



Totally enclosed fan-cooled (TEFC) motor in all models.

The new LifeStar® MV pumps from Hayward Flow Control are a game changer in global aquatic and animal life support pump performance and versatility. Engineered for heavy-duty durability, the LifeStar® MV sets a new standard of pump performance.

With Best In Class hydraulics, the LifeStar® MV pumps are the first 3" pumps to achieve hydraulic efficiency of 350 GPM and heads to 100' (7 HP model), while saving more energy than any comparable pump on the market.

The LifeStar® MV features a modular corrosion resistant Glass Filled Polypropylene (GFPP) housing and oversized strainer basket for flexible installation and ease of service. A silicon carbide/silicon carbide shaft seal and all wetted hardware manufactured from 316 Stainless Steel are standard for superior life cycle in aquatic applications.

Heavy-duty TEFC motors are standard for all sizes and models. The LifeStar® MV is also available with a variable speed drive integrated into the motor housing.

KEY FEATURES & BENEFITS

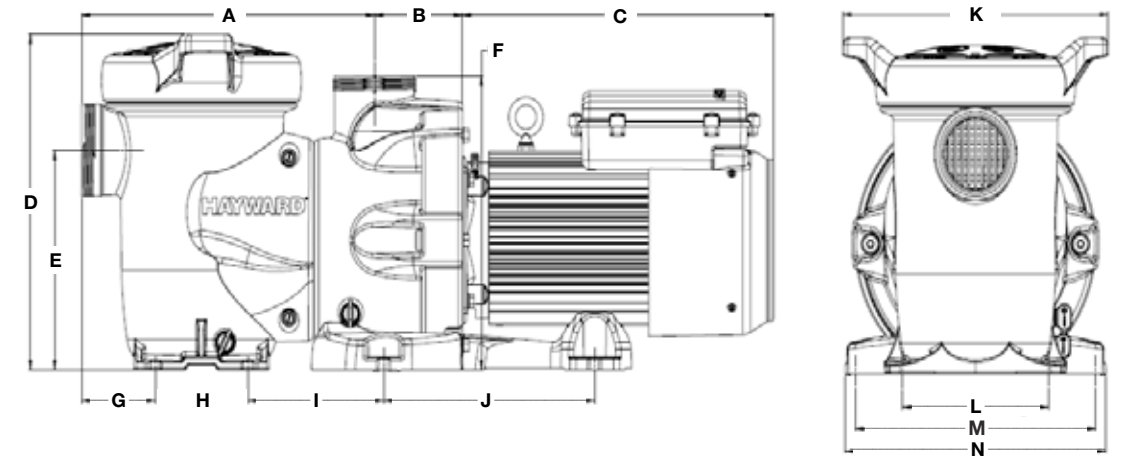
- Ideal for Sensitive Aquatic Environments, Fresh or Salt Water Systems
- Corrosion Resistant GFPP Housing for Long Term Performance
- True Union 2-1/2" x 3" Socket End Connections
- Modular Strainer Basket Design – Can Be Mounted Remotely
- Oversized Strainer Basket with HDPE 1/8th Perf Basket
- 3" ANSI Class 150 Flange Connection from Pump to Basket
- Silicon Carbide/Silicon Carbide Shaft Seal
- All Wetted Hardware Manufactured from 316 Stainless Steel
- FPM Seals Standard
- Available In 1-phase and 3-phase Models
- Industrial Grade TEFC Motors Standard with 220-240, 190/380-415, 190/380-415, 50Hz and 208-230, 208-230/460, 60Hz
- High Efficiency Enclosed Impeller
- Self-Priming Pump – Up to 10 feet
- For Indoor and Outdoor Use
- UL778 Listing
- 2-Year Warranty

TYPICAL APPLICATIONS

- Aquatic and Animal Life Support
- Aquaculture
- Research and Science
- Salt Water Systems



DIMENSIONS



DIMENSIONS – INCHES / MILLIMETERS

A	B	C	D	E	F	G	H	I	J	K	L	M	N
in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm
14.07 / 357	4.23 / 107	14.94 / 379	13.95 / 354	9.13 / 232	12.23 / 311	3.54 / 90	4.44 / 113	6.53 / 166	10.14 / 258	12.76 / 324	7.00 / 178	11.55 / 293	12.50 / 317

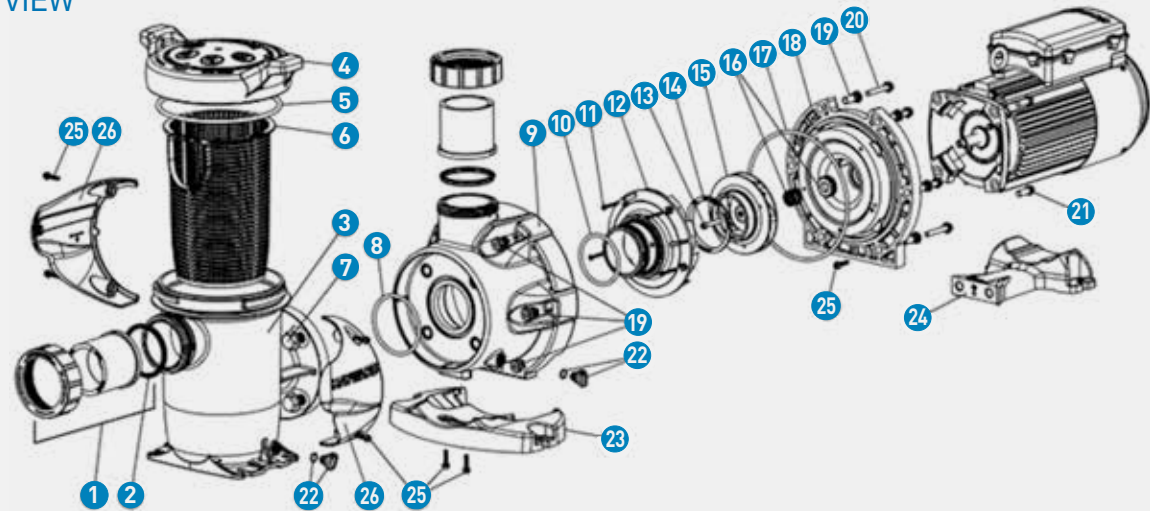
TECHNICAL SPECS / PERFORMANCE DATA

PUMP OUTPUT (GPM) VS. TOTAL RESISTANCE TO FLOW (per ft. of head)

HP/KW	40	50	60	70	80	90
	Flow Rate (GPM/m ³ /hr)					
2.0 / 1.49	165 / 37	150 / 34	135 / 30	115 / 26	80 / 18	—
3.0 / 2.24	200 / 45	185 / 42	160 / 36	140 / 31	100 / 22	—
5.0 / 3.7	230 / 52	215 / 48	195 / 44	165 / 37	140 / 31	110 / 25
7.0 / 5.2	335 / 76	310 / 70	280 / 63	260 / 59	225 / 51	185 / 42

* Values Based on 60Hz

EXPLODED VIEW



PARTS LIST

1. Union Connector Kit (Includes Union Nut, Union Connector, Union Gasket - 2 each)
2. Union Gasket
3. Strainer Housing with Drain Plug
4. Strainer Cover Kit (Includes Strainer Cover, Lock Ring, O-Ring)
5. Strainer Cover O-Ring
6. Strainer Basket
7. Strainer Housing Flange Bolt/Washer - 4 each
8. Strainer Housing Flange O-Ring
9. Pump Housing with Drain Plug
10. Diffuser O-Ring
11. Diffuser Screws (4 Pack)
12. Diffuser, 2-7 HP
13. Impeller Screw
14. Impeller Ring, 2-7 HP
15. Impeller with Impeller Screw, 2-7 HP
16. Shaft Seal Assembly
17. Pump Housing O-Ring
18. Seal Plate
19. Housing Insert/Seal Plate Spacer
20. Housing Bolt
21. Motor Bolt (4 Pack)
22. Drain Plug with O-Ring
23. Pump Housing Base
24. Motor Support Base
25. Base Screws (7 Pack)
26. Right and Left Side Plate Set

ADDITIONAL FEATURES



3" ANSI standard flanged connection allows strainer basket to be removed and mounted remotely.

LifeStar® MV-VS with variable speed pump featuring digital control interface that can be rotated on the pump or detached and wall mounted, allowing convenient access and viewing.



COMING SOON!

SPECIFICATIONS

PUMP HOUSING:	..... Glass-Filled Polypropylene
CONNECTIONS:	..... 2-1/2" x 3" True Union CPVC Socket Schedule 80
MOTOR SHAFT:	..... 303 SS (Non-Wetted)
SHAFT FACE SEAL:	..... Silicon Carbide/Silicon Carbide
SHAFT SECONDARY SEAL:	..... FPM
ALL WETTED HARDWARE:	..... 316 SS (Impeller Insert, Impeller Screw and 2 Diffuser Screws)
MAIN HOUSING GASKET:	..... FPM
MOTOR BOLTS:	..... 316 SS
HOUSING BOLTS:	..... 316 SS
MOTORS:	..... Single and Three Phase – Totally Enclosed Fan Cooled (TEFC)
HP RATINGS:	..... 2, 3, 5, 7
STRAINER BASKET:	..... HDPE, 1/8" Perf
VOLTAGES:	..... 220-240, 190/380-415, 190/380-415, 50Hz 208-230, 208-230/460, 60Hz

SAMPLE SPECIFICATION

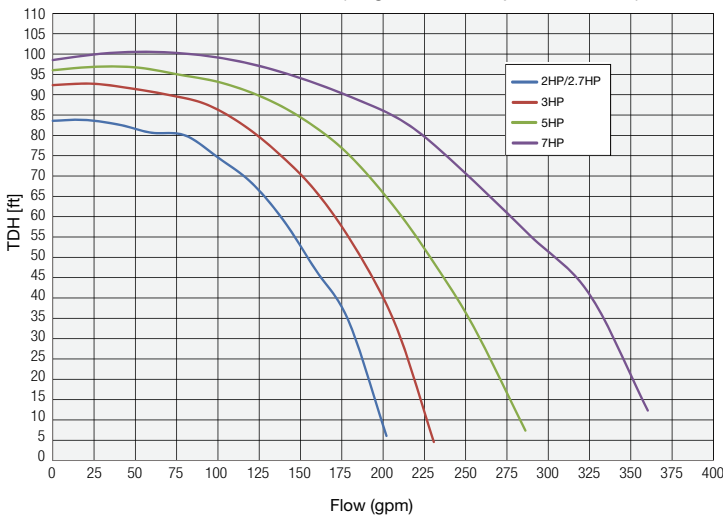
All centrifugal, life-support pumps (2 hp - 7 hp, up to 300 GPM) shall have glass filled polypropylene bodies conforming to ASTM D4101, Cell Classification 85580. All body and shaft seals and O-rings shall be FPM. The primary pump mechanical seal must be silicon carbide/silicon carbide. The pump must contain a modular basket strainer and a clear lid for visual inspection of the basket during operation. Pump Housing and Modular basket to have 3" ANSI Class 150 flange connection.

All wetted hardware must be 316 stainless steel only. Inlet and outlet port connections shall be 2-1/2" x 3" schedule 80 CPVC sockets with true union design to allow quick installation and/or pump removal.

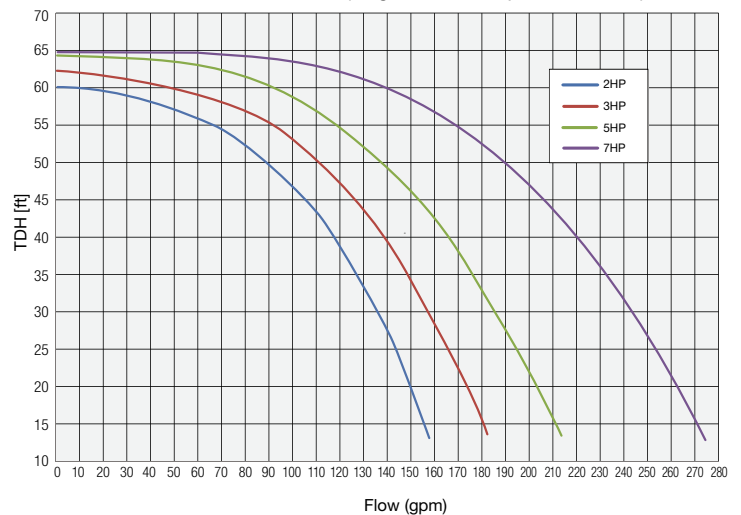
Pump shall be self-priming to avoid cavitation. Motors to be Single or Three Phase TEFC as standard. Pumps shall be LifeStar® MV manufactured by Hayward Flow Control products. Pumps shall carry a 2-year warranty.

PUMP PERFORMANCE CURVES

LIFESTAR® MV Curves 60Hz (single and three phase models)



LIFESTAR® MV Curves 50Hz (single and three phase models)



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