



# A-Series LifeStar® Aquatic Pump Guide

FLOW CONTROL

define  
design  
deliver

# A-Series LifeStar® Aquatic Pump

1/2, 3/4, 1, 1-1/2, 2, 3, 5 HP



Single Phase/  
Three Phase -  
ODP MOTOR



Three Phase -  
TEFC MOTOR

The new A-Series **LifeStar®** pump from Hayward Flow Control is designed for operation in aquatic and animal life support systems. Its specialized construction makes it safe for even the most sensitive aquatic habitats. The LifeStar pump features a corrosion resistant Glass Filled Polypropylene housing, a silicon carbide/silicon carbide shaft seal and all wetted hardware manufactured from 316 Stainless Steel for superior performance in aquatic applications.

The Hayward LifeStar pump is a self-priming, energy efficient and fully rated single speed premium pump that provides high flow rates and reduced energy consumption. The integral, no-rib basket traps debris and prevents solids from damaging pump or downstream components. The clear trap cover incorporates 1/4 turn sealing for fast and efficient maintenance in tight quarters.

## KEY FEATURES AND BENEFITS

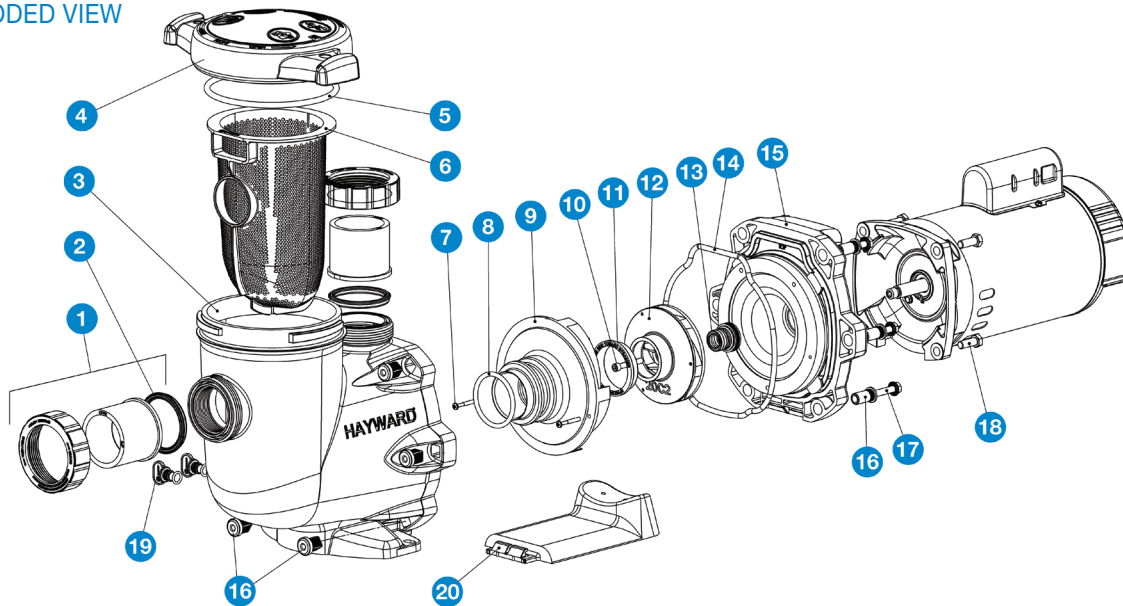
- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- All Wetted Hardware Manufactured from 316 Stainless Steel
- Silicon Carbide/Silicon Carbide Shaft Seal Suitable for Fresh and Salt Water Use
- Corrosion Resistant Housing
- Self-Priming Pump
- Suitable For High Volume Pumping
- Clear High Capacity Basket Strainer Lid for Visual Inspection
- Elevated Base Ensures Better Ventilation and Protection from Flooding
- Perforated HDPE Basket

## TYPICAL APPLICATIONS

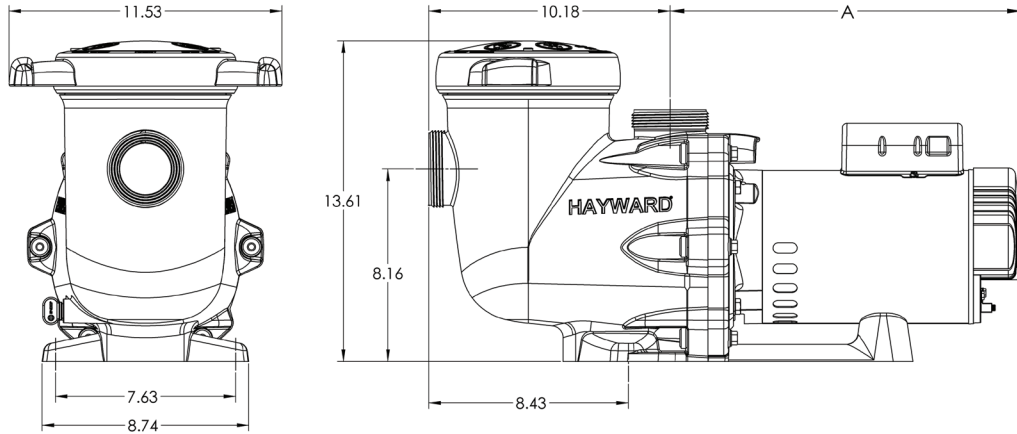
- Aquatic and Animal Life Support
- Aquaculture
- Research and Science
- Salt Water Systems



## EXPLODED VIEW



## A SERIES DIAGRAM



## A SERIES DIMENSIONS

RATED HP	DIM A		
	1 PHASE - ODP in / mm	3 PHASE - ODP in / mm	3 PHASE - TEFC in / mm
1/2	13-5/8 / 346	--	13-13/16 / 351
3/4	13-7/8 / 352	--	14-3/16 / 360
1	14-3/8 / 365	--	14-11/16 / 373
1-1/2	14-7/8 / 378	--	15-5/16 / 389
2	14-7/8 / 378	--	15-5/8 / 397
3	17-1/8 / 435	--	16-1/16 / 408
5	17-1/8 / 435	17-1/8 / 435	--

Dimensions are subject to change without notice - consult factory for installation information.

## AVAILABLE SPARE PARTS

- True Union Connections
- Hardware
- Shaft Seal
- Impellers
- Seals
- Strainer Cover and Basket
- Seal Plate
- Base Risers

## PARTS LIST

1. True Union Connection and Nut with O-Ring
2. Union Gasket
3. Pump Strainer Housing
4. Strainer Cover
5. Strainer Cover O-Ring
6. Strainer Basket
7. Diffuser Screw
8. Diffuser O-Ring
9. Diffuser
10. Impeller Screw
11. Impeller Ring
12. Impellers with Impeller Screws
13. Shaft Seal Assembly
14. Housing O-Ring
15. Seal Plate
16. Housing Insert/Seal Plate Spacer
17. Housing Bolt
18. Motor Bolt
19. Drain Plug with O-Ring
20. Bracket, Motor Support



# SPECIFICATIONS

- HOUSING:**..... Glass Filled Polypropylene
- CONNECTIONS:**..... 2” True Union Socket
- MOTOR SHAFT:** ..... 303 SS (Non-Wetted)
- SHAFT FACE SEAL:** ..... Silicon Carbide/Silicon Carbide
- SHAFT SECONDARY SEAL:**..... EPDM
- ALL WETTED HARDWARE:** ..... 316 SS (Impeller Insert, Impeller Screw and 2 Diffuser Screws)
- MAIN HOUSING GASKET:**..... EPDM
- MOTOR BOLTS:**..... 316 SS
- HOUSING BOLTS:**..... 316 SS
- MOTORS:**..... Single Phase/Three Phase - Open Drip Proof (ODP)  
Three Phase - Totally Enclosed Fan Cooled (TEFC)
- HP RATINGS:** ..... 1/2, 3/4, 1, 1-1/2, 2, 3, 5
- STRAINER BASKET:**..... HDPE

### TECHNICAL SPECS AND PERFORMANCE DATA

DESCRIPTION	RATED HP	TRUE UNION SOCKET CONNECTORS	SERVICE FACTOR	VOLTAGE SUPPLY	PHASE	MOTOR FRAME
1/2 HP Aquatic Pump	1/2	2"	1.99	115/208-230	1	ODP
				208-230/460	3	TEFC
3/4 HP Aquatic Pump	3/4	2"	1.85	115/208-230	1	ODP
				208-230/460	3	TEFC
1 HP Aquatic Pump	1	2"	1.85	115/208-230	1	ODP
				208-230/460	3	TEFC
1-1/2 HP Aquatic Pump	1-1/2	2"	1.60	115/208-230	1	ODP
				230/460	3	TEFC
2 HP Aquatic Pump	2	2"	1.35	208-230	1	ODP
				230/460	3	TEFC
3 HP Aquatic Pump	3	2"	1.20	208-230	1	ODP
				230/460	3	TEFC
5 HP Aquatic Pump	5	2"	1.00	208-230	1	ODP
				230/460	3	ODP

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## SAMPLE SPECIFICATION

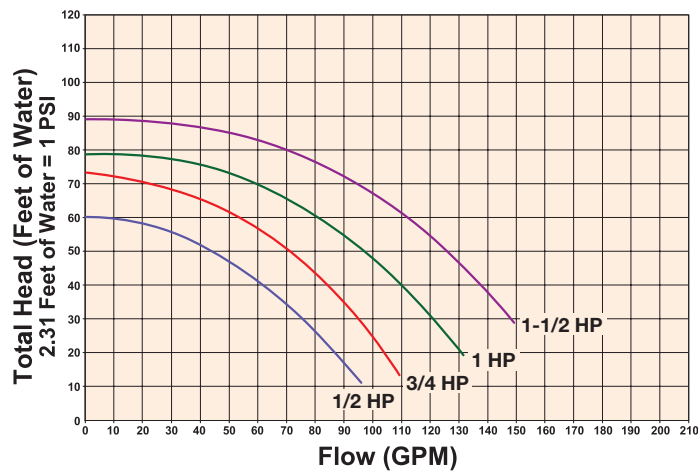
All centrifugal, life-support pumps (1/2 hp - 5 hp) shall have glass filled polypropylene bodies conforming to ASTM D4101, Cell Classification 85580. All seals and O-rings shall be EPDM. The primary pump mechanical-seal must be silicon carbide/silicon carbide. The pump must contain an integral basket strainer and a clear lid for visual inspection of the basket during operation. All wetted hardware must be 316 stainless steel only. Inlet and outlet port connections shall be true-union to allow quick installation and/or pump removal. Pump shall be self-priming to avoid cavitation. Motors to be Single and Three Phase ODP or Three Phase TEFC.

Pumps shall be LifeStar-series manufactured by Hayward Flow Control products. Pumps shall carry a 2-year warranty.

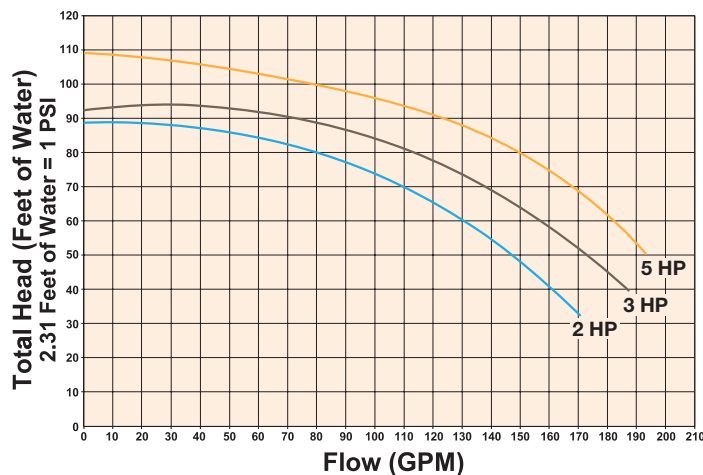
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## PUMP PERFORMANCE CURVES

1/2, 3/4, 1, 1-1/2 Rated HP



2, 3, 5 Rated HP



## Additional Hayward Aquatic Products

### LS SERIES AQUATIC SAND FILTER

#### KEY FEATURES

- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- Integral Molded Drain Plug
- Integral Top Diffuser
- Efficient, Multilateral Underdrain Assembly
- Durable Flanged Inspection Cover
- Corrosion Resistant Thermoplastic Housing and Base
- All Wetted Hardware Manufactured from 316 Stainless Steel



### FLV SERIES BAG AND CARTRIDGE FILTERS

#### KEY FEATURES

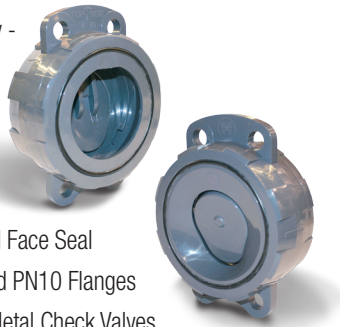
- Platinum Glass Filled Polypropylene Material
- One-Piece Injection Molded Construction with True Union Connections
- Hand Removable Ergonomic Cover with Liquid Displacing Dome
- Vent Valve on Cover Included
- In-Line or Loop Configuration
- Integral Mounting Base
- Available for Bags or Cartridges



### WCV SERIES FULL PATTERN WAFER CHECK VALVES

#### KEY FEATURES

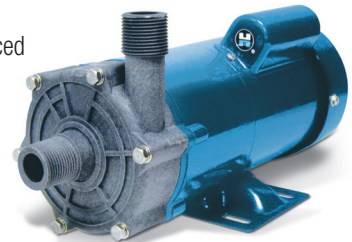
- Robust Wide Pattern Body - No Need for Spacers or Specialty Flanges
- PVC or CPVC Body
- One-Piece Disc and Shaft Design
- FPM or EPDM Gasket and Face Seal
- Designed for ANSI150 and PN10 Flanges
- High Cv Rating Equal to Metal Check Valves



### R SERIES MAGNETIC DRIVE PUMPS

#### KEY FEATURES

- HP Rating from 1/3 to 5
- GFPP and Carbon Reinforced ETFE Materials
- Low Friction Operation
- Easy Maintenance, No Special Tools
- Seal-Less Design



### SB SERIES BASKET STRAINERS

#### KEY FEATURES

- PVC, CPVC, GFPP and Eastar® Materials
- True Union End Connections
- Ergonomic Hand Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- PVC, CPVC and PP Baskets Standard
- NSF/ANSI 61 Listed (PVC and CPVC)



### BYV SERIES BUTTERFLY VALVES

#### KEY FEATURES

- One Piece Injection Molded PVC, CPVC or GFPP Body
- Size Range 2" - 12"
- PVC, CPVC or GFPP Hydro-dynamic Disc
- Viton®, EPDM and Nitrile Seat Materials
- Available with 316SS Overmolded Lugs
- Hand Lever with 19 Lockable Stop positions
- All Sizes Meet ANSI B16.10 / ISO 5752 Narrow Face-to-Face Dimensions



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