

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 -  
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 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 efficient maintenance in tight quarters.

### KEY FEATURES AND BENEFITS

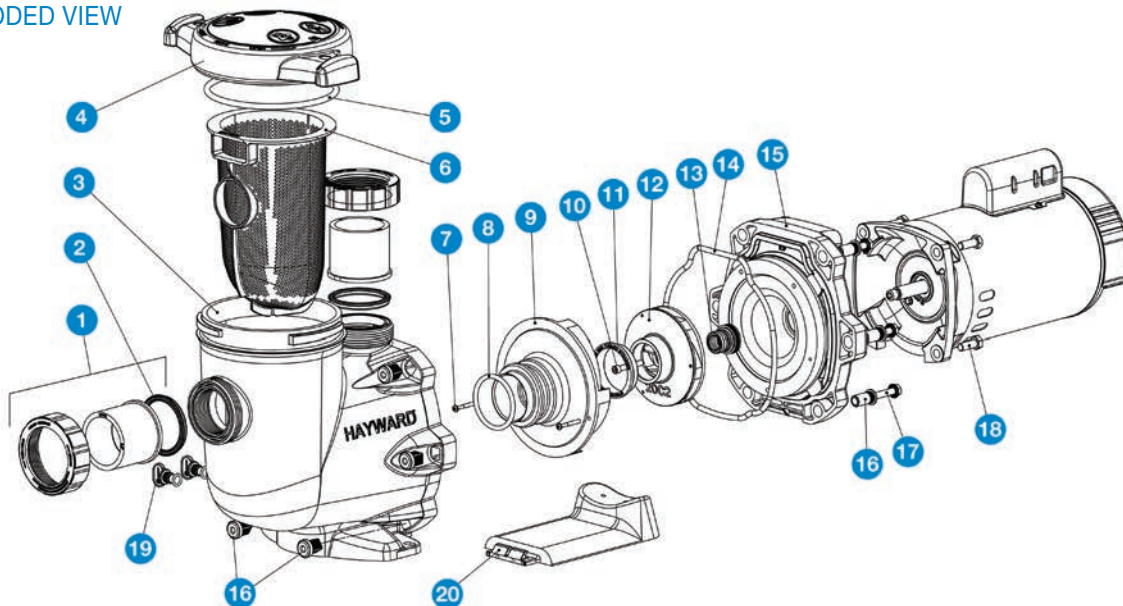
- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- All Wetted Hardware Manufactured from 316 Stainless Steel
- Silicon Carbide Shaft Seal Suitable for Fresh and Salt Water Use
- Corrosion Resistant Housing
- Self-Priming Pump
- Suitable For High Volume Pumping
- Clear High Capacity Basket 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

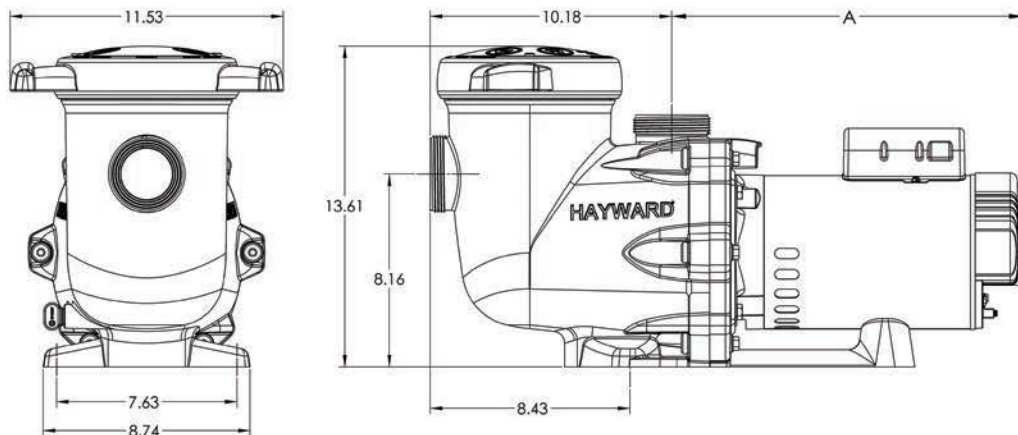


### EXPLODED VIEW





## A SERIES DIAGRAM



## A SERIES DIMENSIONS

RATED HP	DIM A	
	1 PHASE - ODP in. / mm	3 PHASE - 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	--
5	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 | 9. Diffuser                        | 16. Housing Insert/Seal Plate Spacer |
| 2. Union Gasket                              | 10. Impeller Screw                 | 17. Housing Bolt                     |
| 3. Pump Strainer Housing                     | 11. Impeller Ring                  | 18. Motor Bolt                       |
| 4. Strainer Cover                            | 12. Impellers with Impeller Screws | 19. Drain Plug with O-Ring           |
| 5. Strainer Cover O-Ring                     | 13. Shaft Seal Assembly            | 20. Bracket, Motor Support           |
| 6. Strainer Basket                           | 14. Housing O-Ring                 |                                      |
| 7. Diffuser Screw                            | 15. Seal Plate                     |                                      |
| 8. Diffuser O-Ring                           |                                    |                                      |



## 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 - 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	TEFC*

\*Consult Hayward for availability

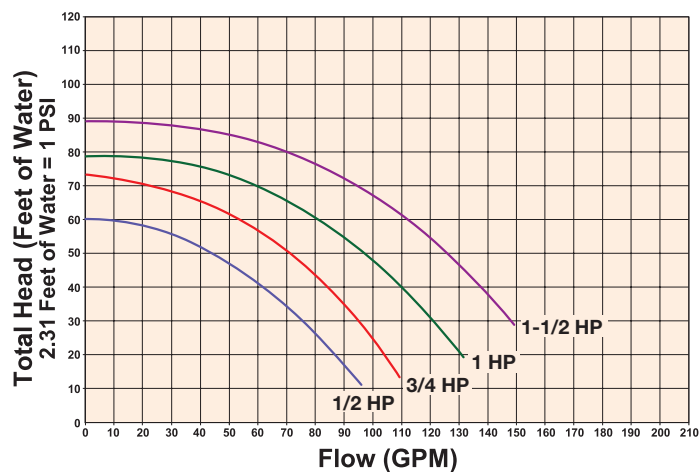
## SAMPLE SPECIFICATION

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 Phase ODP or Three Phase Total Enclosed Fan Cooled.

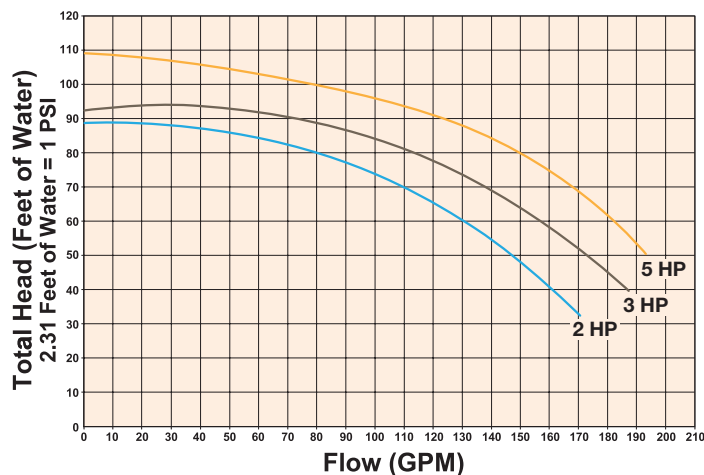
Pumps shall be LifeStar-series manufactured by Hayward Flow Control products. Pumps shall carry a 2-year warranty.

## PUMP PERFORMANCE CURVES

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



2, 3, 5 Rated HP



## Additional Hayward Aquatic Products

### HCP SERIES CENTRIFUGAL PUMP

#### KEY FEATURES

- HP Rating from 5-1/2 to 12-1/2
- Self Priming Pump
- Corrosion Resistant
- High Capacity Integrated Strainer
- Clear Basket Strainer Lid for Visual Inspection
- Silicon Carbide/Silicon Carbide Shaft Face Seals



### 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



### HCF SERIES SAND FILTERS NEXT GENERATION

#### KEY FEATURES

- FRP Gel Coated Body
- Tool-Free 9" Twist Lock/Thread-Free Dome Lid
- EPDM Seals and O-Rings
- Internally Mounted 12" x 16" Lid with Clear Viewing Windows and Cord Ring Positive Seal
- Duplex or Multi-plex Units Available



### 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



### SB SERIES BASKET STRAINERS

#### KEY FEATURES

- PVC, CPVC, GFPP and Easter® 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)



### BY SERIES BUTTERFLY VALVES

#### KEY FEATURES

- PVC, CPVC and GFPP Bodies and Discs
- FPM, EPDM and Nitrile Seat Materials
- Meets ANSI B16.10 Face-to-Face Dimensions
- Lever Handle or Gear Box Operator
- 316 Grade Stainless Steel Shaft
- Dead End Service Fully Rated
- 316 Stainless Steel Lugs Available



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