



245 W. Roosevelt Road
Building 12, Suite 83
West Chicago, IL 60185
800-323-4498

www.aquamarkboosters.com



Installation, Operation & Maintenance Manual for AquaMark model AM-LG

Minimum incoming supply line 1 1/4"

Standard electrical connection is 120 volt. 20 amp dedicated circuit suggested.

THIS PUMP MUST BE PRIMED!

Open the city water supply valve to the booster. Open the discharge valve from the pressure booster system that supplies water to the building. Run water in the building for a minute. This will force water into the pump housing from the city. The pump will be primed.

- We recommend a bypass valve configuration be installed on ALL booster pump installations.
- In normal operation the bypass valve should be in the closed position.
- In normal operation the supply line valve from the city water main MUST remain open.
- In normal operation the discharge valve to the building from the booster should be open.
- There is a relief valve included and installed on this AquaMark pressure booster system. This relief valve discharge shall be piped to a floor drain.
- Yearly inspections should be made to check for leaks or unusual noise and proper maintenance procedures performed if necessary.

Relief valve discharge outlet shall be piped to floor drain. Follow local codes pertaining to relief valve piping and drainage.

Installation

- Leave 12” of clear space around the pressure booster to allow for service work to be performed as necessary in the future.
- Plumb pressure booster as shown in the diagram included in this manual.
- Supply pressure booster with correct incoming minimum supply line size (or greater) as noted on the first page of this manual.
- Plumb a three valve bypass system during installation of this pressure booster. When service needs to be performed this will allow normal city water pressure to be supplied to the building while servicing/repairing the pressure booster system.
- Unions are recommended when installing this pressure booster system.
- Optional accessories include anti-vibration mat, vibration isolator and diaphragm type tank to be installed after the booster system (the tank will allow for extended shut down periods during low flow demands).
- Have your electrician supply this pressure booster with a dedicated circuit.

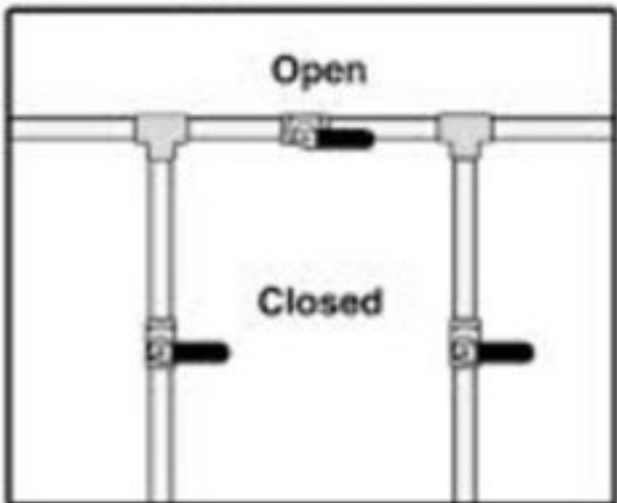
Operation

- Make sure valve from city water supply to the pressure booster is in the full open position.
- Make sure valve on the discharge side of the pressure booster is in the full open position.
- Make sure that the bypass valve line is in the full closed position (if the bypass valve is in the open position the pressure booster will not shut off).
- Supply electrical power to the pressure booster by switching the wall mounted cut-off switch to the on position.
- Pressure booster will turn on and boost pressure to the desired set-point. Pressure booster will continue to run until the demand has been met. Pressure booster will enter sleep mode after demand has been met and a pre-determined amount of time has passed.

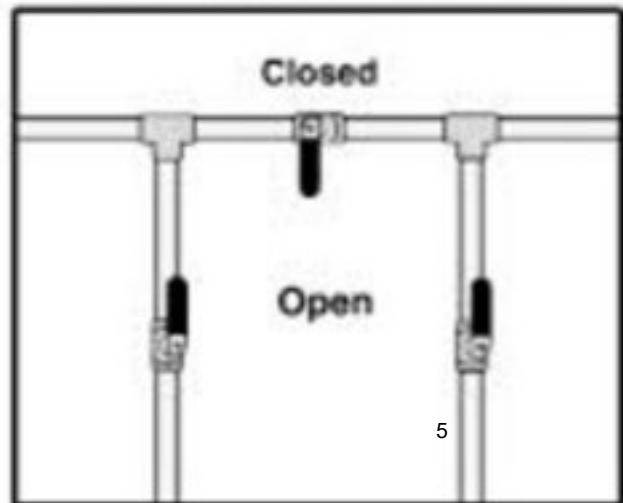
Maintenance

- This pressure booster has been designed to be maintenance free for many years.
- Do not rest items against switches, gauges, tank drain valves, or pressure relief valve.
- Do not rest items against pump. The pump requires free air space surrounding it to dissipate heat and take in fresh air for cooling purposes. Leave 12" of free air space all around the system.

In Bypass Position



In Service Position



Submittal Data

AquaMark
 245 W. Roosevelt Rd
 Building 12, Suite 83
 West Chicago, IL 60185
 Ph.# 800-323-4498

Variable Frequency Drive

**Simplex Water Pressure
 Ultra Low Profile
 Booster System**

AquaMark Model# AM-LG



Dimensions					Pipe Size				
Model	Motor	Height	Length	Width	Inlet	Outlet	Voltage	Hz.	Phase
AM-LG	1 HP	20"	19"	16"	1 1/4"	1 1/4"	120	60	1
							240	60	1
Materials of Construction					Operating Conditions				
Description									
Pump Casing		Stainless Steel			Max. Flow		50 GPM		
Impeller		Stainless Steel			Max. Press Boost		See Chart Below		
Shaft		Stainless Steel			Max. System Press.		95 PSI		
Seal		Type 21			Min. Suction Press.		10 PSI		
Platform		Fab. Steel			Low Pressure Cut-off		7 PSI		
Valves		Brass			VFD Control		Nema1		
Connection Piping		Brass			Supply Line Minimum		1 1/4"		
Diaphragm Tank		Steel			Up to a 2 Story Building				
Motor		ODP							

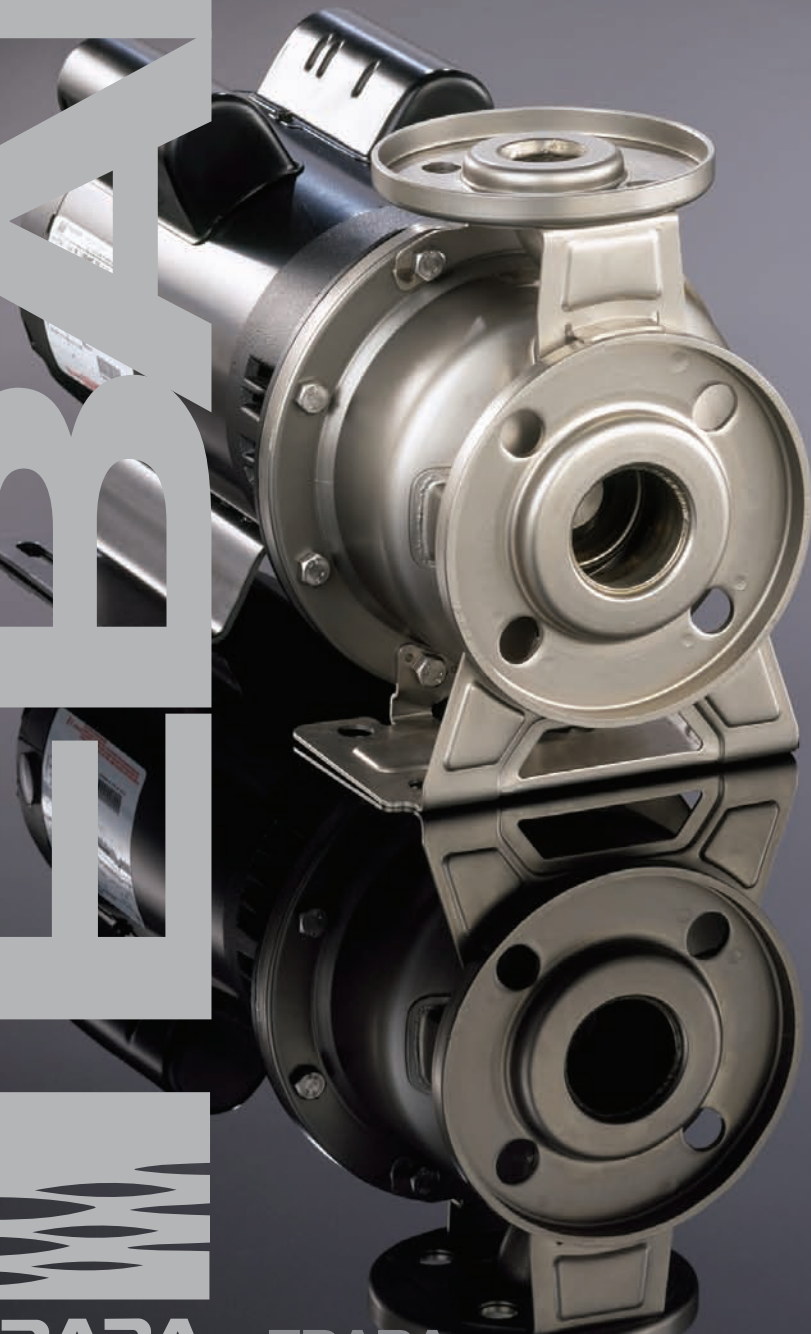
	An additional tank may be installed after the booster for longer shut down periods during low flows.
31 PSI Boost @ 15 GPM 72' Head	
30 PSI Boost @ 20 GPM 75' Head	
28 PSI Boost @ 30 GPM 65' Head 1 1/2" Supply Line Required	
20 PSI Boost @ 50 GPM 45' Head 2" Supply Line Required	TWO YEAR WARRANTY

EBARA

EBARA

Model 3U/CDU

end suction centrifugal



EBARA Fluid Handling

an EBARA International Corporation company

Model 3U/CDU

Features

- **Close coupled design**
 - saves space; simplifies maintenance and installation
- **Stainless steel liquid end components**
 - high quality; corrosion resistance
- **Versatile mounting**
 - can be installed horizontally or vertically
- **Back pullout construction**
 - assembly and overhaul of the impeller and seal without disturbing suction and discharge connections
- **Top centerline discharge and foot support under casing**
 - ensures self-venting and reduces misalignment from pipe loads
- **High operating efficiency**
 - lowers operating costs
- **High quality mechanical shaft seals and o-rings**
 - available for standard pumping requirements or optional high temperature and chemical duty operation

Applications

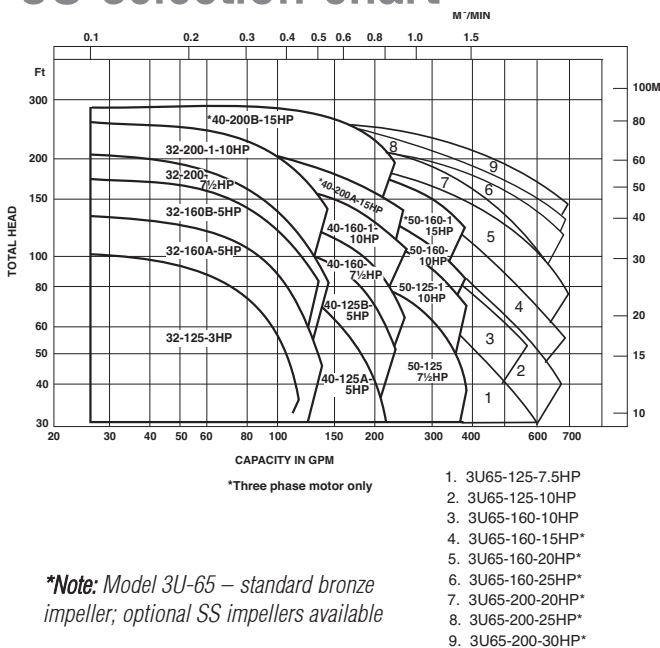
- Plant services
- Water supply systems
- Washing plants
- Cooling water
- Car wash
- Scrubbers
- Ultrapure water systems
- Jockey pump services
- Air conditioning
- Sprinkler/flow irrigation
- OEM equipment application
- Pressure boosting
- Liquid transfer
- Heat exchanger
- Spray systems
- Heating
- Beverage processing
- Pharmaceutical services
- Water reclamation and treatment
- General pump applications



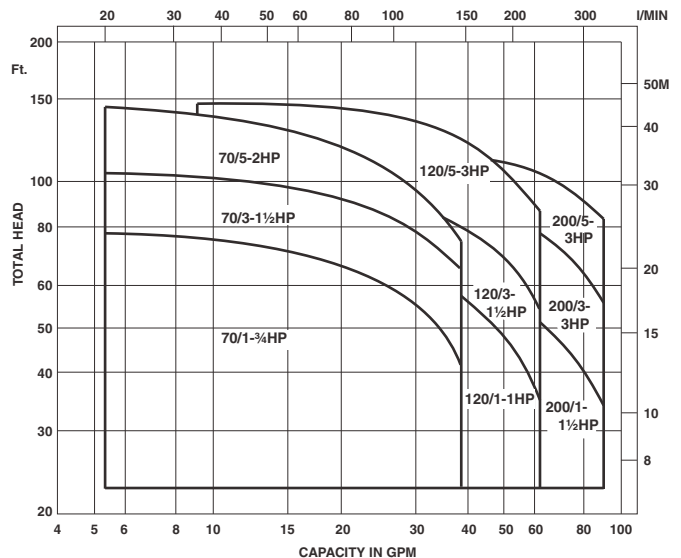
*Note: NSF/ANSI 61 Annex G listed

Certified to NSF/ANSI 61, ANNEX G

3U selection chart



CDU selection chart



EBARA Fluid Handling

1651 Cedar Line Drive • Rock Hill, SC 29730 • (t) 803 327 5005 • (f) 803 327 5097

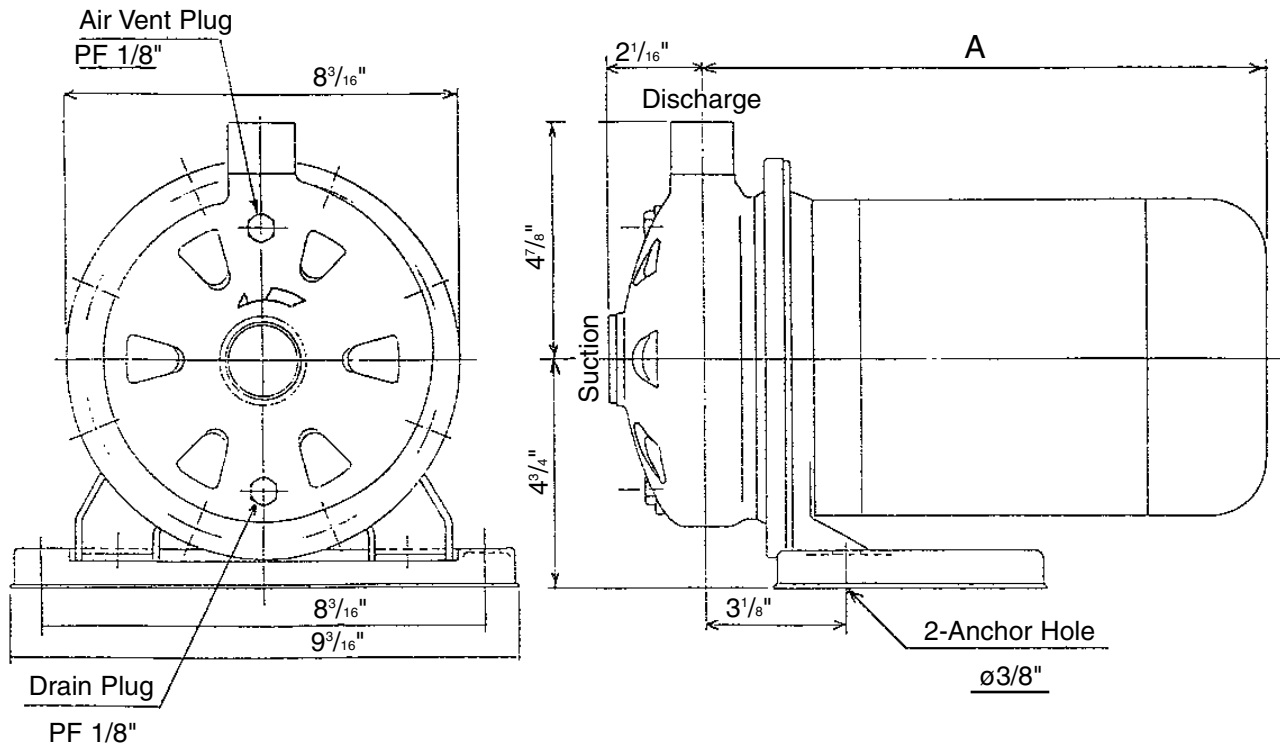
www.pumpsebara.com

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EFHCD03U0312

**Model CDU
Pump Dimensions**

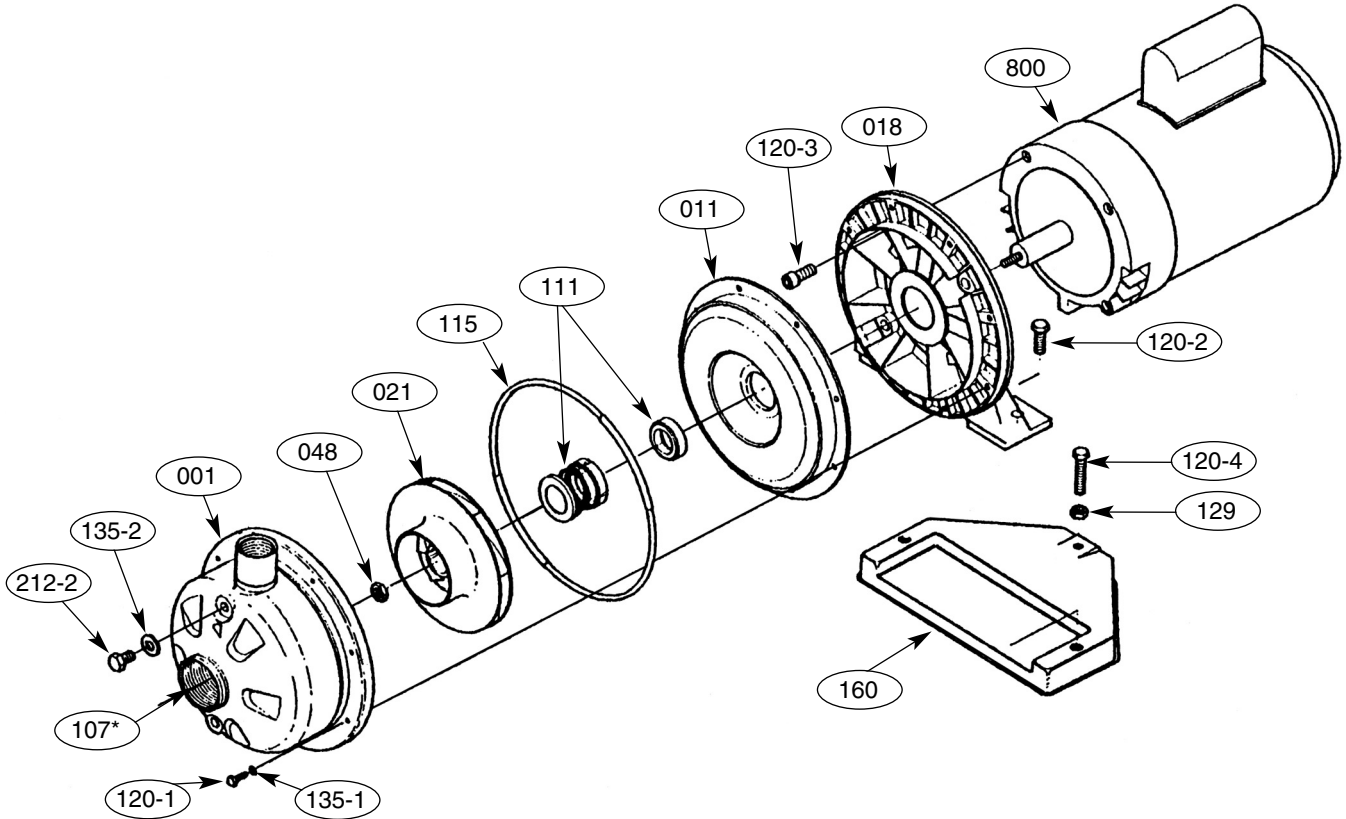
EBARA Stainless Steel Centrifugal Pumps



Model	Model	Pump Size – NPT (Inch)		Dimension (Inch)	Unit Weight (lbs.)			
		Suction	Discharge	A	Single Phase		Three Phase	
					ODP	TEFC	ODP	TEFC
CDU70/1-3/4HP	1 x 1 ¹ / ₄ x 4 ¹ / ₂	1 ¹ / ₄	1	13 ³ / ₈ Max.	36	41	31	31
CDU70/3-1 ¹ / ₂ HP	1 x 1 ¹ / ₄ x 5 ³ / ₁₆	1 ¹ / ₄	1	13 ⁹ / ₁₆ Max.	47	50	39	39
CDU70/5-2HP	1 x 1 ¹ / ₄ x 6 ³ / ₁₆	1 ¹ / ₄	1	14 ⁷ / ₁₆ Max.	51	58	44	48
CDU120/1-1HP	1 x 1 ¹ / ₄ x 4 ¹ / ₂	1 ¹ / ₄	1	13 ⁹ / ₁₆ Max.	41	46	33	32
CDU120/3-1 ¹ / ₂ HP	1 x 1 ¹ / ₄ x 5 ³ / ₁₆	1 ¹ / ₄	1	13 ⁹ / ₁₆ Max.	47	50	39	39
CDU120/5-3HP	1 x 1 ¹ / ₄ x 6 ³ / ₁₆	1 ¹ / ₄	1	14 ⁷ / ₁₆ Max.	59	66	51	60
CDU200/1-1 ¹ / ₂ HP	1 x 1 ¹ / ₂ x 4 ¹ / ₂	1 ¹ / ₂	1	13 ⁹ / ₁₆ Max.	47	50	39	39
CDU200/3-3HP	1 x 1 ¹ / ₂ x 5 ³ / ₁₆	1 ¹ / ₂	1	14 ⁷ / ₁₆ Max.	58	65	50	59
CDU200/5-3HP	1 x 1 ¹ / ₂ x 5 ¹¹ / ₁₆	1 ¹ / ₂	1	14 ⁷ / ₁₆ Max.	58	65	50	59

**Model CDU
Sectional View**

EBARA Stainless Steel Centrifugal Pumps



Part No.	Part Name	Material	No. for 1 Unit
001	Casing	304L Stainless	1
011	Casing cover	304L Stainless	1
018	Bracket	Aluminum	1
021	Impeller	304L Stainless	1
048	Impeller nut	304L Stainless	1
107*	Casing ring (*CDU 70 series only)	Viton	1
111	Mechanical seal	—	1
115	O-Ring	Viton	1
120-1	Bolt	304L Stainless	8
120-2	Bolt	304L Stainless	2
120-3	Bolt	304L Stainless	4
120-4	Bolt	304L Stainless	1
129	Nut	304L Stainless	1
135-1	Washer	304L Stainless	8
135-2	Washer	Aluminum	2
160	Base	Steel	1
212-2	Plug	304L Stainless	2
800	Motor	—	1



AM-LG

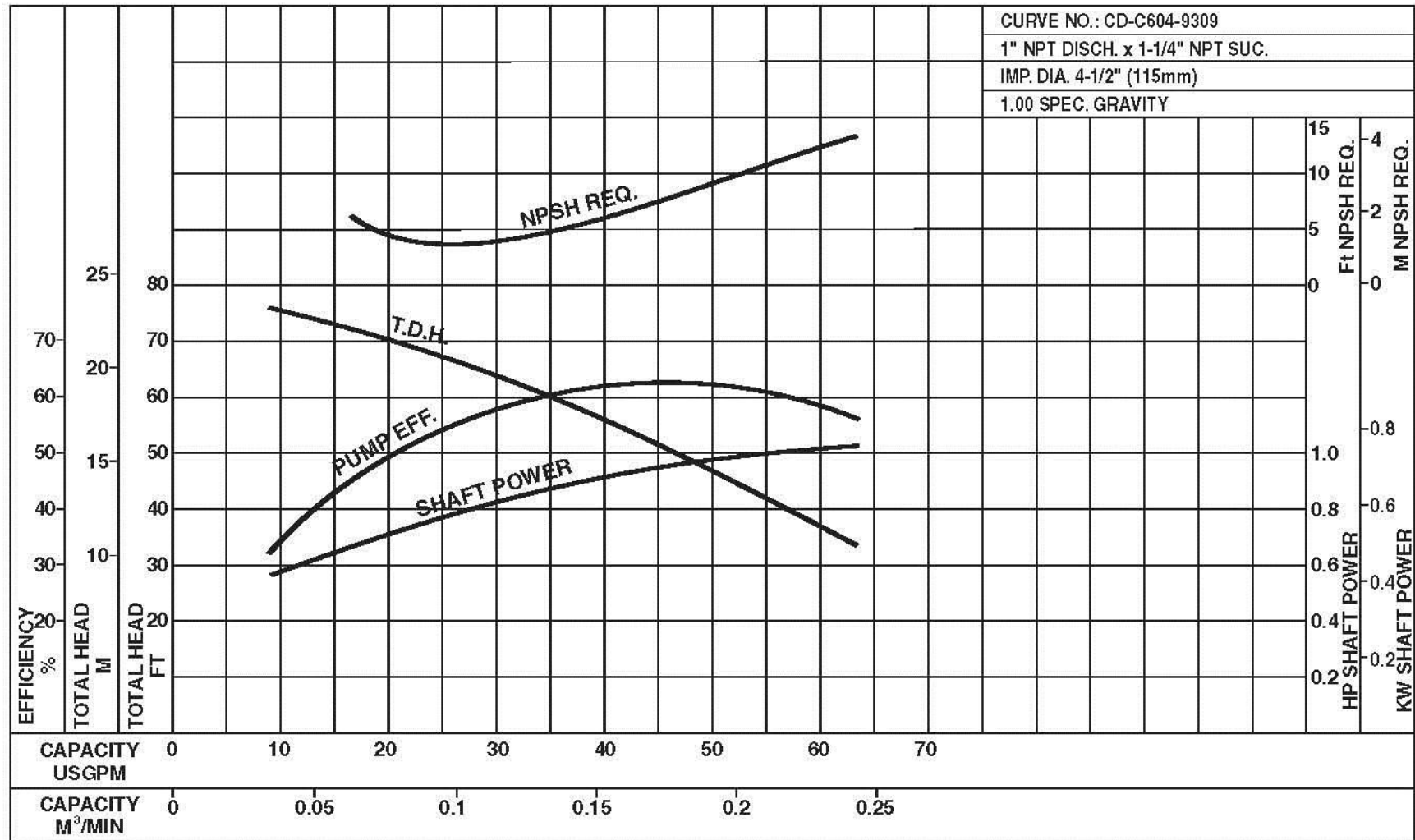
Model CDU
Performance Curves

EBARA Stainless Steel Centrifugal Pumps

CDU120/1-1HP

Synchronous Speed: 3450 RPM

Size: 1 x 1 1/4 x 4 1/2



TWO YEAR LIMITED WARRANTY

H.O.K. Sales, Incorporated/AquaMark (referred to as Manufacturer hereinafter) warrants all of its pressure boosting systems (Product) for two years from date of purchase, to be free of defects in materials and workmanship, provided they are installed in accordance with factory specifications (as specified in the "INSTALLATION, OPERATION & MAINTENANCE manual") for each individual system.

This warranty applies to the original purchaser (referred to as Purchaser hereinafter) and subsequent owners. By accepting and keeping this product Purchaser agrees to all the warranty terms and limitations of liability described herein. Manufacturer warrants only to original installation location and only when installed, operated and maintained in accordance with printed instructions accompanying the Product.

All claims must be made within the two (2) year warranty time period measured from the time the Product was purchased.

All warranty claims will be handled as follows: Any defect in material or workmanship will be repaired or, at Manufacturer's option, corrected with new or used replacement parts, or Products, at Manufacturer's expense. If after a reasonable number of attempts to remedy the problem, it cannot be repaired so the product will conform to this warranty, a new replacement component or entire Product will be supplied, at the Manufacturer's option. Under no circumstance will any claims for more than the original cost of the Product be accepted, including labor.

This warranty does not cover any failure or problem unless it is caused by a defect in material or workmanship and in addition shall not apply to the following:

- If the product is not correctly installed, operated, repaired, and or maintained as described in the INSTALLATION, OPERATION, & MAINTANANCE manual.
- If any failure or malfunction results from abuse, i.e., freezing, improper or negligent handling, shipping, storage, accident, lightning, flood or environmental conditions.
- If the product is used outside the U.S.A.
- Warranty does not cover any labor costs, shipping and delivery expenses, administrative fees or any costs related to removing or reinstalling the Product.
- If any repair and/or replacement costs are not authorized by Manufacturer or authorized representatives in advance.

Each system has specific electrical and unrestricted piping supply size requirements and they are critical to the application of the one year warranty. See INSTALLATION, OPERATION & MAINTENANCE manual for details.

The remedies in the Warranty are the Purchaser's exclusive remedies. In no circumstances will the Manufacturer or its authorized representatives be liable for more than, and the Purchasers remedies shall not exceed, the price paid for the Product. In no case, shall the Manufacturer or it's authorized representatives be liable for any special damage to property, loss of profits, loss of savings or revenue, loss of use of the Product or any associated equipment, facilities, building or services, downtime, and claims of third parties including customers.

Any covered Warranty service must be authorized by the Manufacturer. Contact the person from whom you purchased the Product, who must receive authorization from the Manufacturer. Before the Manufacturer or an authorized representative determines to provide any replacement parts or Product, it may as a pre-condition to making such a determination, required that the Warranty claimant ship the Product, postage prepaid, to the Manufacturer or an authorized Manufacturer's representative and provide proof of purchase evidenced by the original sales receipt.

In case of replacement of a Product or any component part, the Manufacturer reserves the right to make changes in the design, construction, or material of the substitute components or Products, which shall be subject to all the terms and limitations of the Warranty, except that the applicable warranty period shall be reduced by the amount of time the warranty claimant owned the Product prior to submitting notification of the warranty claim.

AquaMark

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