Unknown 368C-95

AMT 368C-95 Centrifugal Pump User Manual

Model: 368C-95 | Brand: Unknown

1. Product Overview

The AMT 368C-95 is a .75" x .5" Cast Iron Straight Centrifugal Pump, featuring a Buna-N Seal and a 1/2hp 3 Phase Motor. It is designed for continuous-duty low pressure OEM, industrial/commercial, and general service applications.

Key features include:

- Designed for continuous-duty low pressure OEM, Industrial/Commercial & General Service Applications
- Applications including circulation, chemical processing, liquid transfer, dirty water and cooling
- Pull-from-rear design for easy service without disturbing any piping; Self-Cleaning Impeller
- Pumps are close coupled to TEFC motors; Pumps are NOT self-priming & require flooded suction
- Cast Iron with SS, Self-Cleaning Impeller; Discharge Rotates in 90 Degree Increments

Figure 1: The AMT 368C-95 Cast Iron Straight Centrifugal Pump. This image shows the pump assembly with its motor, cast iron housing, and the inlet/outlet ports.

2. Safety Information

Legal Disclaimer:

This item, component, package or system is intended for professional use only, by persons knowledgeable of how to determine if it is chemically compatible with the liquid(s) to be pumped, the safe installation, use and maintenance of pressure-generating and pressure-containing devices and the safe installation, use and maintenance of electrically, pneumatically and hydraulically powered equipment.

Always ensure proper electrical grounding and adhere to local electrical codes. Disconnect power before performing any maintenance or service.

3. Setup and Installation

3.1. Site Preparation

Ensure the installation site is stable, level, and capable of supporting the pump's weight (approximately 31 pounds). Provide adequate ventilation for the motor.

3.2. Piping Connections

The pump features a .75" x .5" connection. Ensure all piping is properly sized and supported to prevent strain on the pump. The discharge can rotate in 90-degree increments for flexible installation.

3.3. Electrical Connection

This pump is equipped with a 1/2hp 3 Phase Motor, 230/460 VAC/60 Hz. Electric supply for ALL motors must be within +/-10% of nameplate voltage rating (e.g., 230V +/-10% = 207 to 253). Consult a qualified electrician for wiring. Ensure proper grounding.

3.4. Priming

Important: This pump is NOT self-priming and requires flooded suction. Ensure the pump casing and suction line are completely filled with liquid before starting the pump to prevent damage.

4. Operating Instructions

4.1. Pre-Operation Check

- Verify all connections are secure and leak-free.
- Confirm the pump is properly primed (flooded suction).
- Ensure the power supply matches the motor's requirements.

4.2. Starting the Pump

Once all pre-operation checks are complete, apply power to the motor. The pump is designed for continuous-duty operation.

4.3. Applications

This pump is suitable for various applications including circulation, chemical processing, liquid transfer, dirty water, and cooling. The self-cleaning, semi-open, stainless steel impeller can handle solids up to 1/8" diameter.

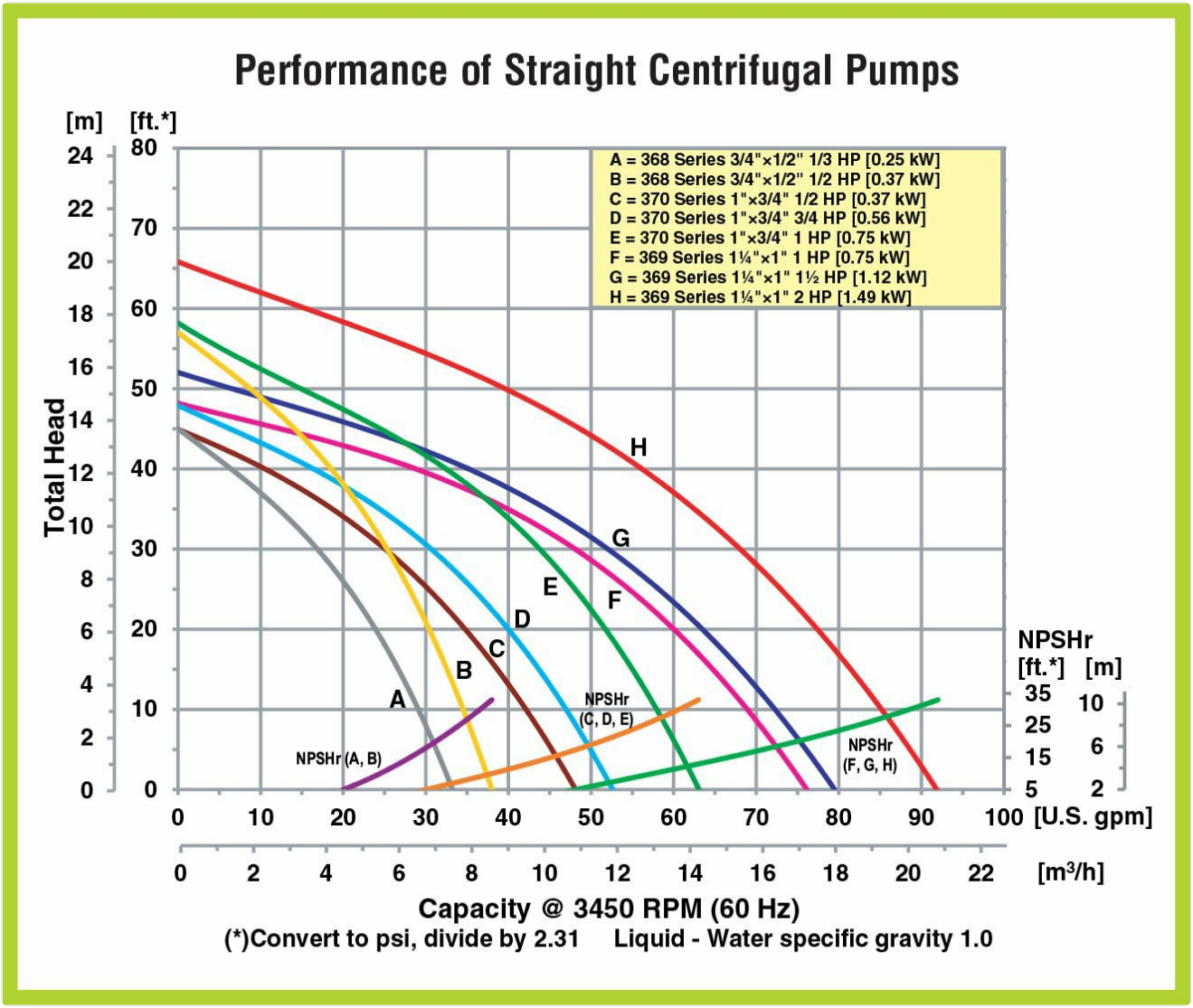


Figure 2: Performance curves for various straight centrifugal pumps, including the 368 series. This chart illustrates the relationship between total head (pressure) and capacity (flow rate) at 3450 RPM (60 Hz), along with Net Positive Suction Head Required (NPSHr) values.

5. Maintenance

5.1. Routine Checks

- Regularly inspect for leaks around seals and connections.
- Monitor motor temperature and unusual noises.
- Check for any obstructions in the suction or discharge lines.

5.2. Impeller and Seal Service

The pump features a "pull-from-rear" design, allowing for easy service of the impeller and mechanical seal without disturbing the piping. The self-cleaning impeller helps prevent clogging, but periodic inspection for debris is recommended, especially when pumping dirty water.

The pump uses a Buna-N Mechanical Seal and O-ring. Optional Silicon Carbide Mechanical Seals are available for different applications.

5.3. Winterization (if applicable)

If the pump is exposed to freezing temperatures, drain all liquid from the pump casing using the front drain plug to prevent damage from ice expansion.

6. Troubleshooting

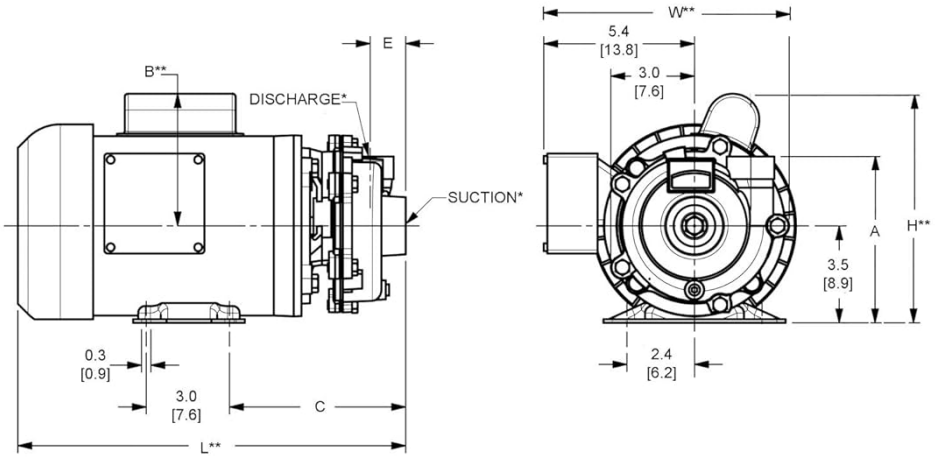
This section provides general guidance for common issues. For complex problems, consult a qualified technician.

Problem	Possible Cause	Solution
Pump not starting	No power, incorrect wiring, motor issue	Check power supply, verify wiring, consult electrician
Low flow or no flow	Pump not primed, clogged impeller/lines, air leak in suction	Ensure flooded suction, clear clogs, check suction line for leaks
Excessive noise or vibration	Cavitation, bearing wear, misalignment, foreign object in pump	Ensure proper priming, inspect bearings, check alignment, clear pump
Leaking from seal	Worn mechanical seal, improper installation	Replace mechanical seal, ensure correct installation

7. Specifications

Attribute	Value
Model	368C-95
Product Dimensions	12.4 x 8.3 x 7.2 inches
Item Weight	31 Pounds
Manufacturer	American Machine and Tool Company
Brand	Unknown
Material	Cast Iron
Seal Type	Buna-N Mechanical Seal and O-ring
Motor	1/2hp 3 Phase TEFC
Voltage	230/460 VAC/60 Hz
Maximum Flow Rate	90 GPM (143.83 Liters Per Minute)
Maximum Head	65 Ft
Maximum Working Pressure	75 PSI

Attribute	Value
Maximum Temperature	180 F
Solids Handling	Up to 1/8" diameter



Model ‡	Curve	HP	PH	ENC	Voltage @ 60 Hz +	Full Load Amps	SUC*	DIS*	A	B**	C	E	L**	W**	H**	‡ Ship Wt. (Lbs.)
368A	A	1/3	1	TEFC	115/230	7/4	3/4	1/2	5.4 [13.7]	5.1 [13.0]	6.2 [15.9]	1.4 [3.6]	13.0 [33.0]	8.3 [21.3]	8.6 [21.8]	34
368B	B	1/2	1	TEFC	115/230	9/5	3/4	1/2	5.4 [13.7]	5.1 [13.0]	6.2 [15.9]	1.4 [3.6]	13.0 [33.0]	8.3 [21.3]	8.6 [21.8]	35
368C			3	TEFC	230/460	3/2			5.4 [13.7]	N/A	6.4 [16.4]	1.4 [3.6]	12.4 [31.5]	8.3 [21.3]	7.2 [18.3]	31
370B	C	1/2	1	TEFC	115/230	9/5	1	3/4	5.9 [14.9]	5.1 [13.0]	6.3 [16.1]	1.4 [3.6]	13.0 [33.1]	8.8 [22.5]	8.6 [21.8]	36
370F			3	TEFC	230/460	3/2			5.9 [14.9]	N/A	6.5 [16.5]	1.4 [3.6]	12.4 [31.5]	8.8 [22.5]	7.2 [18.3]	32
370A	D	3/4	1	TEFC	115/230	9/5	1	3/4	5.9 [14.9]	5.1 [13.0]	6.3 [16.1]	1.4 [3.6]	13.5 [34.4]	8.8 [22.5]	8.6 [21.8]	41
370C			3	TEFC	230/460	3/2			5.9 [14.9]	N/A	6.5 [16.5]	1.4 [3.6]	13.1 [33.2]	8.8 [22.5]	7.2 [18.3]	33
370E	E	1	1	TEFC	115/230	12/6	1	3/4	5.9 [14.9]	5.1 [13.0]	6.3 [16.1]	1.4 [3.6]	13.9 [35.5]	8.8 [22.5]	8.6 [21.8]	42
370D			3	TEFC	230/460	4/2			5.9 [14.9]	N/A	6.5 [16.5]	1.4 [3.6]	12.4 [31.5]	8.8 [22.5]	7.2 [18.3]	37
369C	F	1	1	TEFC	115/230	12/6	1¼	1	6.0 [15.2]	5.1 [13.0]	6.3 [16.1]	1.2 [3.3]	13.9 [35.5]	8.8 [22.5]	8.6 [21.8]	38
369F			3	TEFC	230/460	4/2			6.0 [15.2]	N/A	6.5 [16.5]	1.2 [3.3]	12.4 [31.5]	8.8 [22.5]	7.2 [18.3]	43
369A	G	1½	1	TEFC	115/230	18/9	1¼	1	6.0 [15.2]	5.1 [13.0]	6.3 [16.1]	1.2 [3.3]	14.2 [36.3]	8.8 [22.5]	8.6 [21.8]	52
369B			3	TEFC	230/460	5/3			6.0 [15.2]	N/A	6.5 [16.5]	1.2 [3.3]	14.1 [35.8]	8.8 [22.5]	7.2 [18.3]	41
369D	H	2	1	TEFC	115/230	22/11	1¼	1	6.0 [15.2]	5.0 [12.7]	6.3 [16.1]	1.2 [3.3]	15.1 [38.5]	8.8 [22.5]	8.5 [21.6]	54
369E			3	TEFC	230/460	6/3			6.0 [15.2]	N/A	6.5 [16.5]	1.2 [3.3]	14.6 [37.1]	8.8 [22.5]	8.5 [21.6]	46

Maximum Solids Handling Capacity: 1/8" Diameter

(*) Standard NPT (Female) pipe thread.
(**) This dimension may vary due to motor manufacturer's specifications.
(+) 3-Phase motors can also operate on 50 Hz. (This will change full load amps, service factor and RPM)
NOTE: Dimensions are in inches (centimeters) and have a tolerance of ± 1/4".
NOTE: Electric supply for **ALL** motors must be within ±10% of nameplate voltage rating (e.g. 230V ±10%= 207 to 253).

Figure 3: Detailed dimensional drawing of the pump and motor assembly, along with a table providing specific measurements (A, B, C, E, L, W, H) and weight for various AMT pump models, including the 368 series.

8. Warranty and Support

For warranty information and technical support, please contact the manufacturer, American Machine and Tool Company, or your authorized distributor. Keep your purchase receipt and product model number (368C-95) handy when contacting support.

Refer to the official product page or manufacturer's website for the most current warranty terms and contact details.