

Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 3/13/2024

Return Request: 3/23/2024

Project: Stone Bank HQ - Chenal

Supplier: Sanders Supply

Manufacturer: Taco

Submittal: Plumbing Pumps

Submittal Number: 22 00 00-03

Drawing # and Installation: Plumbing Drawings

ARCHITECT

WDD Architects
5050 Northshore Lane
N. Little Rock, AR 72118
501-376-6681

ENGINEER

Batson Inc.
1300 Brookwood Dr.
Little Rock, AR 72202
501-664-3311

GENERAL CONTRACTOR

East Harding
2230 Cottondale Lane #3
Little Rock, AR 72202
501-661-1646

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

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dpierce@comfortar.com



9924 Landers Rd.
No. Little Rock, AR 72117

P-9

“00” Cartridge Circulators

SUPERSEDES: May 1, 2010

EFFECTIVE: July 1, 2015

Plant I.D. 001-934

APPLICATION:

1. Maximum operating pressure is 125 psi (862 kPa).
2. Maximum water temperature not to exceed nameplate rating.
3. Cast iron circulators are to be used for closed loop systems. Bronze or stainless steel circulators are to be used for open loop, fresh water, or potable water systems.
4. Taco Cartridge circulator pumps are for indoor use only – employer uniquement à l'intérieur.

INSTALLATION:

1. Mounting position – Circulator must be mounted with the motor in a horizontal position. It may be mounted vertically with the motor up, provided that the system pressure is at least 20 psi (138 kPa).

CAUTION: DO NOT USE FLAT RUBBER GASKETS. ONLY USE O-RING GASKETS PROVIDED OR LEAKS MAY RESULT. WARRANTY WILL BE VOID.

2. Rotating body – Body has an arrow on the front that indicates direction of flow. To rotate body, remove the four body bolts, rotate body and replace bolts. Make sure that the junction box is NOT located underneath the circulator. (The junction box must NOT be located in the 6 o'clock position, as viewed from the motor end.)
3. Electrical connections – Observe all applicable codes when connecting to power supply. The motor is impedance protected, and does not require overload protection. Either colored wire from the capacitor box can be attached to either colored wire from the power supply. There is no “hot” or “common” wire leading from the capacitor box. Typical installation would be to attach the white wire to the white (common) power supply wire and either the yellow or blue wire to the black (hot) power supply wire. The pump cannot run backwards.

WARNING: Do not use in swimming pool or spa areas; pump has not been investigated for this application.

WARNING: In the event the retaining screws have been pulled out of the housing, DO NOT replace them. Use of any other screw may short out the stator windings, creating a risk of electrical shock.

CAUTION: When installing electrical connections, do not apply mechanical loads to the capacitor box; otherwise, retaining screws may be pulled out of the housing, making circulator unusable.

CAUTION: Installations at higher elevations over 5000 feet must have higher fill pressure of 20 psi minimum to prevent pump cavitation and flashing. Premature failure may result. Adjust expansion tank pressure to equal fill pressure. A larger size expansion tank may be required.

4. Fill system with tap water – The system must be filled before operating the circulator. The bearings are water lubricated and should not be allowed to operate dry. Filling the system will result in immediate lubrication of the bearings. It is always good practice to flush a new system of foreign matter before starting the circulator.

CAUTION: Never run the circulator dry or permanent damage will result.

5. Circulator operation – Operate the circulator for 5 minutes immediately after filling system to purge remaining air from the bearing chamber. This is especially important when installing the circulator during the off-season.

CAUTION: 1. The addition of petroleum based fluids or certain chemical additives to systems utilizing TACO equipment voids the warranty.
2. Use supply wires suitable for 90°C – ATTENTION: Employer des fils d'alimentation adéquats pour 90°C.

WARNING: To avoid electrical shock, disconnect the power supply to the circulator and the main electrical unit.

REPLACING MOTOR ASSEMBLY:

1. Disconnect the electrical supply.
2. Reduce system pressure to 0 psi and allow system to return to room temperature. Isolate the circulator by closing the service valves or draining the system.
3. Remove the body bolts and swing motor assembly away from the body.
4. Install new motor, and reassemble circulator using the new gasket and bolts supplied.
5. Follow the "installation" procedure to start up the circulator.

REPLACING CARTRIDGE ASSEMBLY:

1. Disconnect the electrical supply.
2. Reduce system pressure to 0 psi and allow system to return to room temperature. Isolate the circulator by closing the service valves or draining the system.
3. Remove the body bolts and swing motor assembly away from the body.
4. Pull cartridge out of the motor housing.
5. Install replacement cartridge, making sure that the cover plate is between the cartridge flange and motor.
6. Make sure the replacement cartridge corresponds to the full circulator product number. A complete parts list is available from your local plumbing supply wholesaler.
7. Reassemble the circulator using the new gasket and bolts supplied.
8. Follow the "Installation" procedure to start up the circulator.

REPLACING CAPACITOR:

1. Replacement capacitor must have same rating as originally furnished.

LIMITED WARRANTY STATEMENT

Taco, Inc. will repair or replace without charge (at the company's option) any Taco 00 Series circulator or circulator part which is proven defective under normal use within three (3) years from the date of manufacture.

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will

not be covered by this warranty.

If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at (401-942-8000).

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part. Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

TACO OFFERS THIS WARRANTY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY IMPLIED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS IS IN EFFECT ONLY FOR THE DURATION OF THE EXPRESS WARRANTY SET FORTH IN THE FIRST PARAGRAPH ABOVE.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR STATUTORY, OR ANY OTHER WARRANTY OBLIGATION ON THE PART OF TACO.

TACO WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY INCIDENTAL COSTS OF REMOVING OR REPLACING DEFECTIVE PRODUCTS.

This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, so these limitations or exclusions may not apply to you.



Taco, Inc., 1160 Cranston Street, Cranston, RI 02920 | Tel: (401) 942-8000 | FAX: (401) 942-2360

Taco (Canada), Ltd., 8450 Lawson Road, Suite #3, Milton, Ontario L9T 0J8 | Tel: (905) 564-9422 | FAX: (905) 564-9436

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LETTER OF TRANSMITTAL

TO: East Harding Construction

DATE: April 3, 2024

RE: Stone Bank

JOB NO.: 23-057

ATTN: Jake Honeycutt, Jack Whitley,
Kim Brass

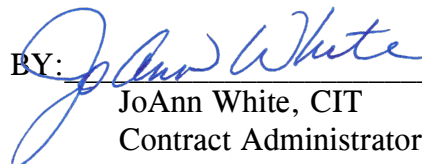
COPIES	DATE	NO.	DESCRIPTION
1 Emailed	03/18/24	22 00 00-100	Plumbing Pumps

THESE ARE TRANSMITTED:

☐ For Approval ☐ As Requested ☒ Reviewed for General Compliance ☐ Resubmit ___ copies for approval
☐ For Your Use ☐ For Review and Comment ☐ Reviewed and Noted ☐ Submit ___ copies for distribution
☐ For Your Information ☐ Revise and Resubmit Notes ☐ Return ___ corrected prints

REMARKS:

COPY TO: Job File

BY: 
JoAnn White, CIT
Contract Administrator



Attention:	JoAnn White	Date:	4-1-24
To:	WDD Architects 5050 Northshore Ln North Little Rock, AR 72118	Project:	Stone Bank
From:	Eddi Carlisle	Batson Project #	5978

Sent Via:	<input type="checkbox"/> Mail/Courier <input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Other
For Your:	<input type="checkbox"/> Approval <input checked="" type="checkbox"/> Records <input type="checkbox"/> Review & Comments <input checked="" type="checkbox"/> Use
The Following:	<input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Submittals <input type="checkbox"/> Specifications <input type="checkbox"/> Other

Copies	Dated	Rev No.	Description
1	3-18-24		22 00 00 100 Plumbing Pumps Submittals

Remarks:

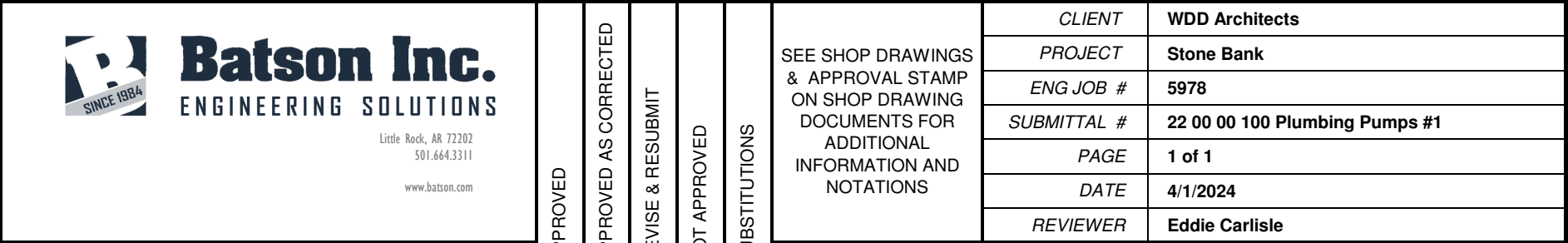
APPROVED ☒
APPROVED AS CORRECTED ☐
REVISE & RESUBMIT ☐
NOT APPROVED ☐

Approval is only for conformance with the design concept of this project and compliance with the information given in the contract documents. Contractor is responsible for dimension to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of this work of all trades.

SEE DOCUMENTS FOR COMMENTS ☐
SEE ATTACHED COMMENT SHEET ☒

BATSON INC.
1300 BROOKWOOD DRIVE
LITTLE ROCK, AR 72202
501.664.3311

DATE 4-1-24
BY CEC

[illegible][illegible]

The Contractor is reminded that per the specifications:

- 1) The Contractor is responsible for submitting all items required.
- 2) When substitutions to the specifications and drawings are approved, the Contractor is responsible for all costs related to other systems affected by the incorporation of substitutions into the work.



Distribution Summary

Distributed on by

To:

Message:

Additional Attachments:

NAME	RESPONSE	ATTACHMENTS	COMMENT
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23.038 220000 100 Plumbing Pumps

SPEC SECTION:		CREATED BY:	
STATUS:	Open	DATE CREATED:	03/18/2024
ISSUE DATE:	03/18/2024	REVISION:	0
RESPONSIBLE CONTRACTOR:	Comfort Systems USA (Arkansas), Inc.	RECEIVED FROM:	Matthew Aldridge
RECEIVED DATE:	//	SUBMIT BY:	//
FINAL DUE DATE:	04/06/2024	LOCATION:	
TYPE:	Product Information	COST CODE:	
APPROVERS:	Matthew Aldridge (Comfort Systems USA (Arkansas), Inc.), Jake Honeycutt (East-Harding, Inc.), Jack Whitley (East-Harding, Inc.), JoAnn White (Wittenberg, Delony & Davidson, Inc.)		

Project: 23.038:

Architect's Project: 23-057:

BALL IN COURT:

Matthew Aldridge (Comfort Systems USA (Arkansas), Inc.)

DISTRIBUTION:

Kim Brass (East-Harding, Inc.) , Jon Isham (East-Harding, Inc.) , Jake Honeycutt (East-Harding, Inc.) , Jack Whitley (East-Harding, Inc.)

DESCRIPTION:

ATTACHMENTS:

SUBMITTAL WORKFLOW

#	NAME	SUBMITTER/ APPROVER	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS	COMMENTS
1	Matthew Aldridge	Approver		3/19/2024		Pending		
2	Jake Honeycutt	Approver		3/21/2024		Pending		
3	Jack Whitley	Approver		3/23/2024		Pending		
4	JoAnn White	Approver		4/6/2024		Pending		

BY

DATE

COPIES TO

RP

Model 006 Cartridge Circulator

The compact Taco 006 Cartridge Circulator is designed for circulating hot and chilled fresh water in a wide range of open and closed loop applications. Its unique, field-serviceable cartridge contains all moving parts. Replacing the cartridge rebuilds the circulator. With no mechanical seal, the self-lubricating, maintenance free design provides quiet, efficient operation and unmatched reliability. Available in Bronze construction with sweat, threaded or union connections.



HYDRONIC COMPONENTS & SYSTEMS

**Do it once.
Do it right.®** 

Submission Data Information Model 006 Cartridge Circulator

Features

- Standard High Capacity Output-Compact Design
- Quiet, Efficient Operation
- Direct Drive-Low Power Consumption
- Unique Replaceable Cartridge Design-Field Serviceable
- Self Lubricating
- No Mechanical Seal
- Unmatched Reliability-Maintenance Free
- Bronze Construction with Sweat, Threaded or Union Connections

Materials of Construction

Casing (Volute): Bronze
Stator Housing: Steel
Cartridge: Stainless Steel
Impeller: Non-Metallic
Shaft: Ceramic
Bearings: Carbon
O-Ring & Gaskets: EPDM

Model Nomenclature

B - Bronze, Sweat
BC - Bronze, Sweat, Panel Mount Tappings
BT - Bronze, Threaded
BC-I - Bronze, Union, Panel Mount Tappings
Variations:
Z - Zoning Circulator
VS - Variable Speed, Set Point
VR - Variable Speed, Outdoor Reset
VV - Variable Speed, Variable Voltage

Performance Data

Flow Range: 0 - 10 GPM
Head Range: 0 - 9 Feet
Minimum Fluid Temperature: 40°F (4°C)
Maximum Fluid Temperature: 220°F (104°C)
Maximum Working Pressure: 125 psi
Connection Sizes:
1/2" Swt, 3/4" Swt, 3/4" NPT, or Union



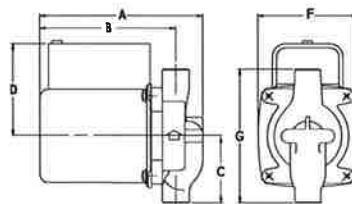
FOR INDOOR USE ONLY

Application

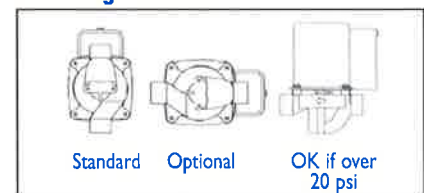
The Taco 006 is designed for circulating hot or chilled fresh water in open or closed loop applications. Typical uses include hydronic heating, domestic hot water recirculation, hydro-air heating/cooling, heat recovery units, water source heat pumps, drain down open loop Solar systems and potable water applications. The unique, replaceable cartridge contains all of the moving parts and allows for easy service instead of replacing the entire circulator. The compact, low power consumption design is ideal for high efficiency jobs.

Pump Dimensions & Weights

		A		B		C		D		F		G		Ship Wt.	
Model	Conn.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
006-B4	3/4" Swt	5-1/8	130	4-1/8	105	2-3/16	56	3-1/16	78	3-5/16	84	4-13/32	112	6.0	2.7
006-BC4	1/2" Swt	5-1/8	130	4-1/8	105	2-1/8	54	3-1/16	78	3-5/16	84	4-1/4	108	6.0	2.7
006-BT4	3/4" NPT	5-5/8	143	4-7/8	124	2	51	3-1/16	78	3-5/16	84	4	102	6.0	2.7
006-BC4-I	Union	5-5/32	131	4-11/32	110	2-31/32	76	3-5/16	78	3-5/16	84	5-15/16	151	6.0	2.7



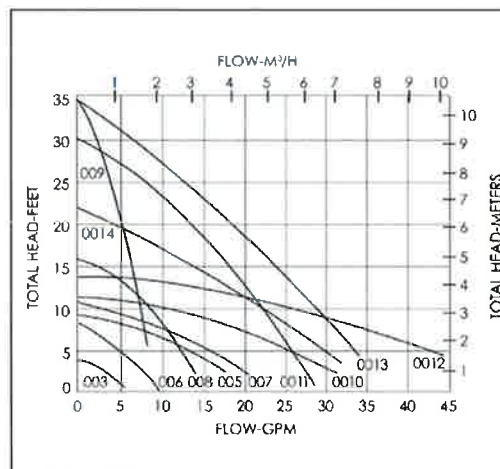
Mounting Positions



Electrical Data

Model	Volts	Hz	Ph	Amps	RPM	HP
006 All Models	115	60	1	.52	3250	1/40
Motor Type	Permanent Split Capacitor Impedance Protected					
Motor Options	220/50/1, 220/60/1, 230/60/1, 100/110/50/60/1					

Performance Field - 60Hz



HYDRONIC COMPONENTS & SYSTEMS

Do it once.
Do it right. **Taco**