



Scott Walker, Governor
Dave Ross, Secretary

March 16, 2016

CUST ID No. 1345469

ATTN: Plumbing Inspector

ANDREW JACQUE
WATER QUALITY INVESTIGATIONS LLC
261 1/2 W MAIN ST
MOUNT HOREB WI 53572

MUNICIPAL CLERK
CITY OF DODGEVILLE
100 E FOUNTAIN ST
DODGEVILLE WI 53533-1750

CONDITIONAL APPROVAL
PLAN APPROVAL EXPIRES: 03/16/2018

Identification Numbers
Transaction ID No. 2682584 Site ID No. 1874
Please refer to both identification numbers, above, in all correspondence with the agency.

SITE:

House On The Rock Inn
3591 State Rd 23
City of Dodgeville, 53533
Iowa County

FOR:

Facility: 1971 HOUSE ON THE ROCK INN
3591 STATE RD 23
DODGEVILLE 53533
Plan Type: Addition-Alteration; 1 Interior Fixture(s)

Object Type: Commercial Water Treatment Device Regulated Object ID No.: 1592186

The submittal described above has been reviewed for conformance with applicable Wisconsin Administrative Codes and Wisconsin Statutes. The submittal has been **CONDITIONALLY APPROVED**. The owner, as defined in chapter 101.01(10), Wisconsin Statutes, is responsible for compliance with all code requirements.

No person may engage in or work at plumbing in the state unless licensed to do so by the Department per s.145.06, stats.

The following conditions shall be met during construction or installation and prior to occupancy or use:

- The Blue-White Flexflo A-100NF peristaltic 0.21 gallon per hour (gph) fixed rate chemical injection pump (AIN10F-4T-X) has undergone sufficient testing to document the device's ability to properly inject a chemical into a potable water supply system as specified in this approval letter:

<http://dsps.wi.gov/sb/docs/sb-ppalopp/20120300.pdf>

- The Clearitas 101 solution injected into this water supply system shall conform to ANSI/NSF Standard 60 and shall not exceed its listed maximum use concentration:

<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=&TradeName=clearitas+101&ChemicalName=&ProductFunction=&PlantState=&PlantCountry=&PlantRegion=>

Cross connection control is optional.

- Bypass piping may be installed serving the chemical injection system.
- All water supply piping shall be labeled as required by Table SPS 382.40-1a.

- Then finished installation shall undergo, and pass, a final inspection prior to the treated water being used for consumptive purposes. The plumbing consultant having jurisdiction in this area is Ryan Boebel. Mr. Boebel may be reached via the following:

Phone: 608-412-3998

E-mail: ryan.boebel@wisconsin.gov

If the treated water is used for consumptive purposes prior to passing the final inspection, then this approval may be rendered null and void and the devices ordered removed. The Plumbing Consultant shall provide a written indication of the final inspection to the system owner.

- When the final inspection has been passed, the plumbing consultant will notify the Wisconsin Department of Natural Resources (WDNR) Field Staff having authority over the well. The WDNR will then monitor the quality of the treated water to its satisfaction. Monitoring advice, which the WDNR is free to accept or reject, is provided elsewhere in this letter. The WDNR Field Staff having authority over this well is Donna Sefton. Ms. Sefton can be reached via the following:

Phone: 715-284-1456

E-mail: donna.sefton@wisconsin.gov

- The suggested monitoring interval for this installation is monthly. The following test should be performed:

1. Total coliform;

2. E. Coli.

Samples should be collected data a time when the chemical injection system is at, or near, peak demand. Untreated and treated water samples should be collected together in sets with untreated water samples being collected upstream of all water treatment devices; treated water samples should be collected from the most remote outlet relative to the point of chemical injection.

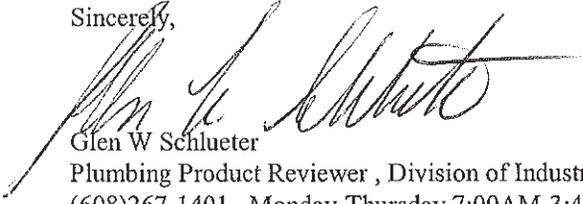
- The ongoing maintenance of this system shall be performed by Water Quality Investigations LLC (888-499-2507) and/or CTW Corp. – Milwaukee (262-253-6613).
- A complete set of owner's manuals, installation, operating instructions and Safety Data Sheets for all water treatment devices/chemicals installed/used shall be provided to the system owner and remain onsite.

A full size copy of the approved plans, specifications and this letter shall be on-site during construction and open to inspection by authorized representatives of the Department, which may include local inspectors. If plan index sheets were submitted in lieu of additional full plan sets, a copy of this approval letter and index sheet shall be attached to plans that correspond with the copy on file with the Department. If these plans were submitted in an electronic form, the designer is responsible to download, print, and bind the full size set of plans along with our approval letter. A department electronic stamp and signature shall be on the plans which are used at the job site for construction. All permits required by the state or the local municipality shall be obtained prior to commencement of construction/installation/operation.

In granting this approval the Division of Industry Services reserves the right to require changes or additions should conditions arise making them necessary for code compliance. As per state stats 101.12(2), nothing in this review shall relieve the designer of the responsibility for designing a safe building, structure, or component.

Inquiries concerning this correspondence may be made to me at the telephone number listed below, or at the address on this letterhead.

Sincerely,



Glen W Schlueter
Plumbing Product Reviewer , Division of Industry Services
(608)267-1401 , Monday-Thursday 7:00AM-3:45PM
Friday 7:00AM – 12:00
glen.schlueter@wisconsin.gov

Fee Required \$ 160.00

This Amount Will Be Invoiced.
When You Receive That Invoice,
Please Include a Copy With Your
Payment Submittal.
WiSMART code: 7657

cc: Ryan M Boebel, Plumbing Consultant, (608) 412-3998 , 8:00 am - 4:00 pm
Sue Donaldson, Vivid Inc

Note: Effective January 1, 2012, all codes under the jurisdiction of the Division of Industry Services (formerly Safety & Buildings) will be modified. Code references with prefixes starting with "Comm" have been replaced with "SPS" to recognize the relocation of the Division of Industry Services from the former Department of Commerce to the Department of Safety & Professional Services. Additionally, all IS (formerly S&B) codes have been renumbered and addressed in a "300" series. For future reference, the Wisconsin Commercial Building Code will be addressed by SPS Chapters 360-366.



February 15, 2016

Department of Safety and Professional Services
PO BOX 7302
Madison, WI 53707-7302

SUBJECT: Clearitas feed system – House on the Rock Inn

Dear Mr Schlueter,

We are requesting approval to install a chemical feed system for Clearitas 101 on the potable water supply at the House on the Rock Inn. The chemical will be used to prevent/minimize the potential for biofilm formation in the plumbing system. The Inn is located at 3591 WI-23, Dodgeville, WI 53533. Attached is an isometric view of the plumbing system in the vicinity of the proposed chemical feed injection point.

Chemical Feed System

Clearitas 101, manufactured by Blue Earth Labs, will be fed at a rate of 5 mg/L (5 gallons chemical per 1 million gallons water) into the potable water system at the House on the Rock Inn. This chemical will reduce/control the potential for biofilm growth in the water system piping, which will help maintain water quality. A data sheet for Clearitas 101 is attached, which is NSF 60 approved for a dosage of up to 4,000 mg/L. The proposed chemical addition is not necessary to meet regulatory standards for water quality.

The existing well produces an average rate of 150 gpm when pumping to a series of six pressure tanks (Goulds WX350, 119 gallons each). A new 0.21 gph chemical feed pump will be mounted to the wall in the Mechanical Room, Blue-White A-100NF peristaltic chemical feed pump Model A1N10F-4T-X, which will allow a feed rate of 3.5 mg/l (15% speed) to 20 mg/L (85% speed). The pump is on the DSPS approved Plumbing Products Register. A data sheet for the pump is attached. The pump will be controlled by a new electrical outlet, which will be energized only when the well pump is running. A new chemical injector will be installed in the piping after the well/entry point sample tap (see Figure 1 below and attached isometric). The chemical delivery container (5 gallon carboy) will be used as the chemical feed tank.

Installation

All chemical feeder installation work will be performed by a registered well driller – operation of the chemical feed equipment needs to be interlocked with the well control. All work will be performed in accordance with NR 811 requirements for a non-community water system. The only modification to the plumbing system will be the installation of a $\frac{3}{4}$ " injection port, which the Owner will have performed by a licensed plumber.

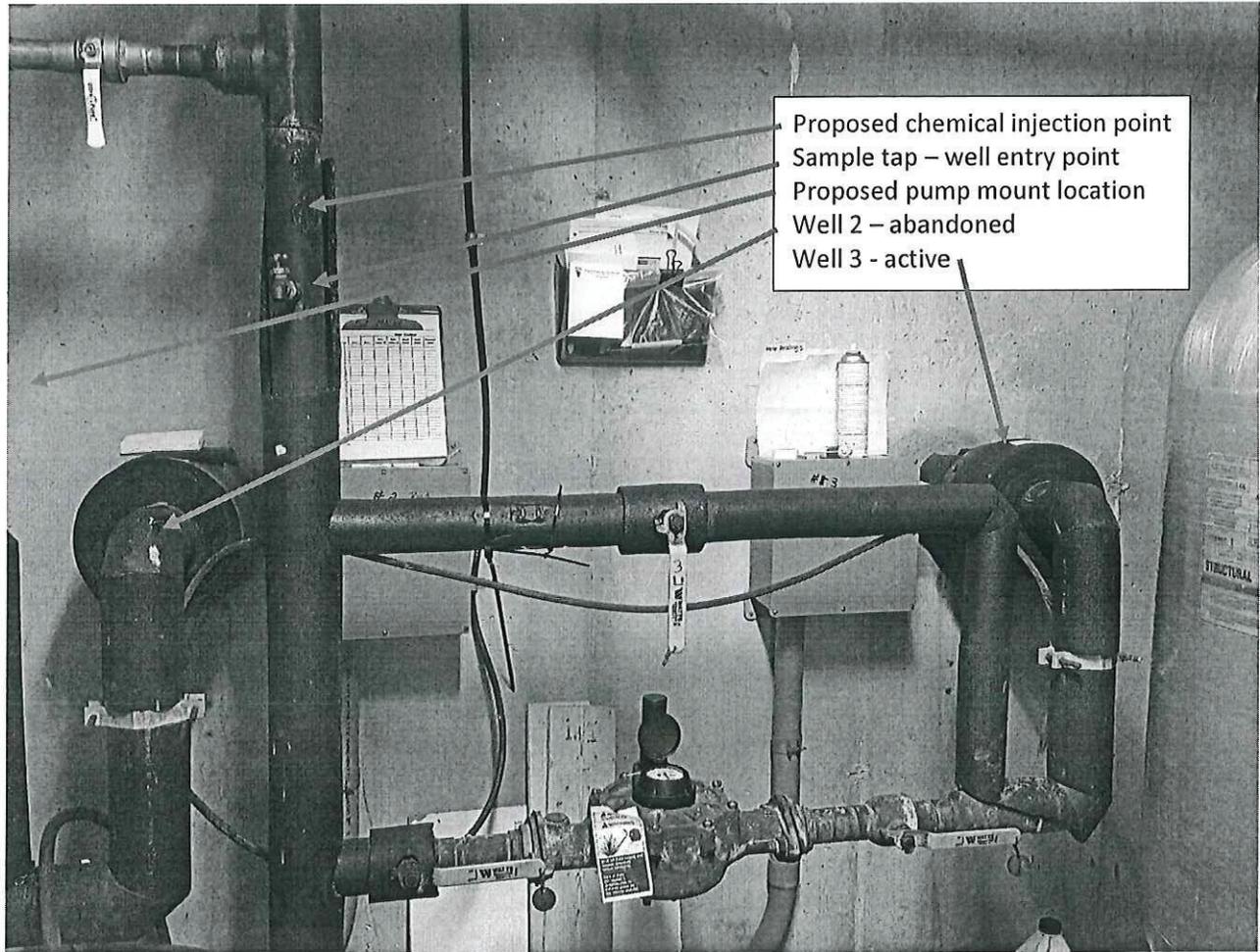


Figure 1. Proposed Clearitas 101 chemical feed location in Mechanical Room.

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[Handwritten Signature]
SEE CORRESPONDENCE

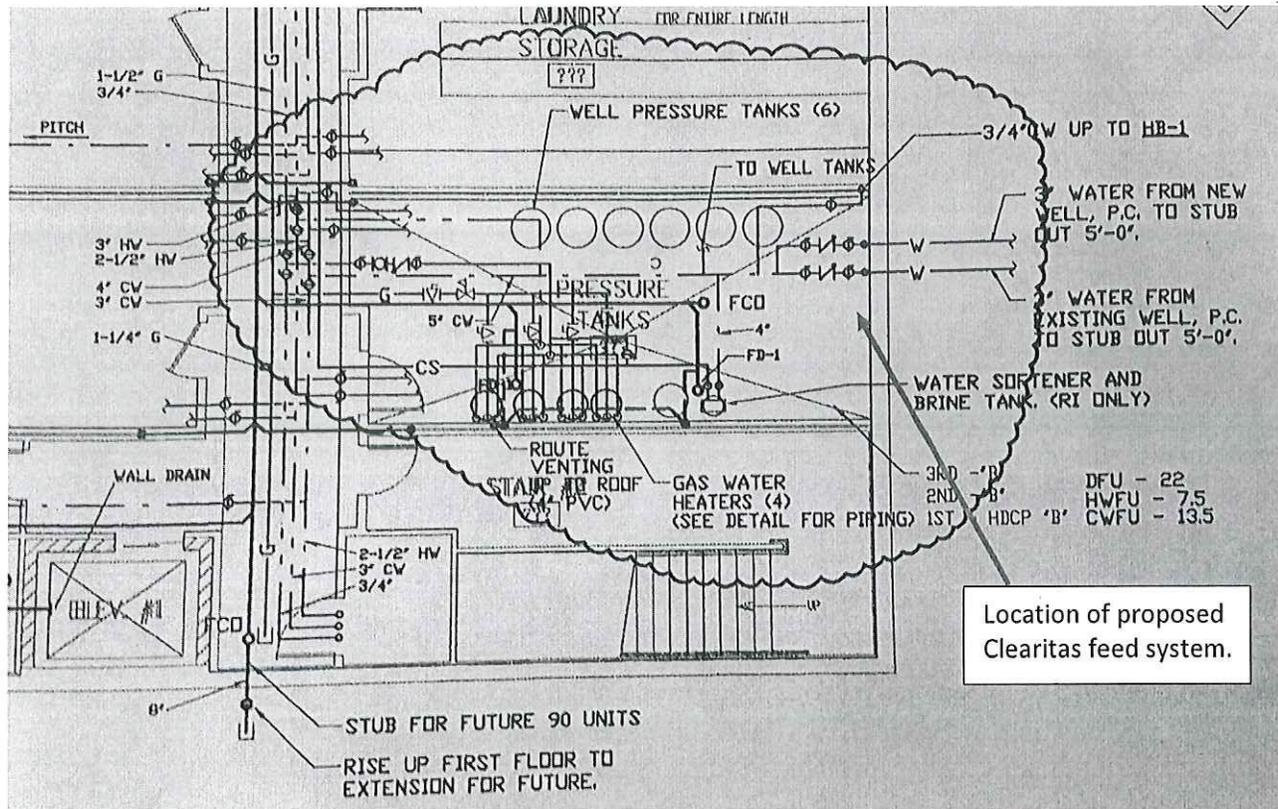


Figure 2. Plan view of Mechanical Room and general location of Clearitas feed system.

We hope the above information is sufficient to grant approval of our request. If you need additional information or have any questions, please feel free to contact me at ajacque@wqinvestigation.com or 888-499-2507.

Respectfully submitted,

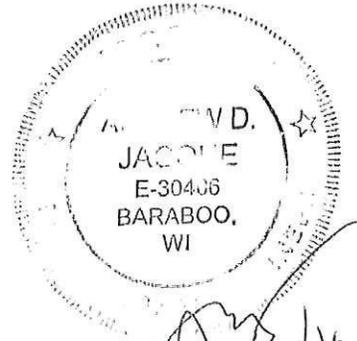
Andrew D. Jacque, Ph.D., P.E.
Chief Scientist, Owner

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[Signature]
SEE CORRESPONDENCE

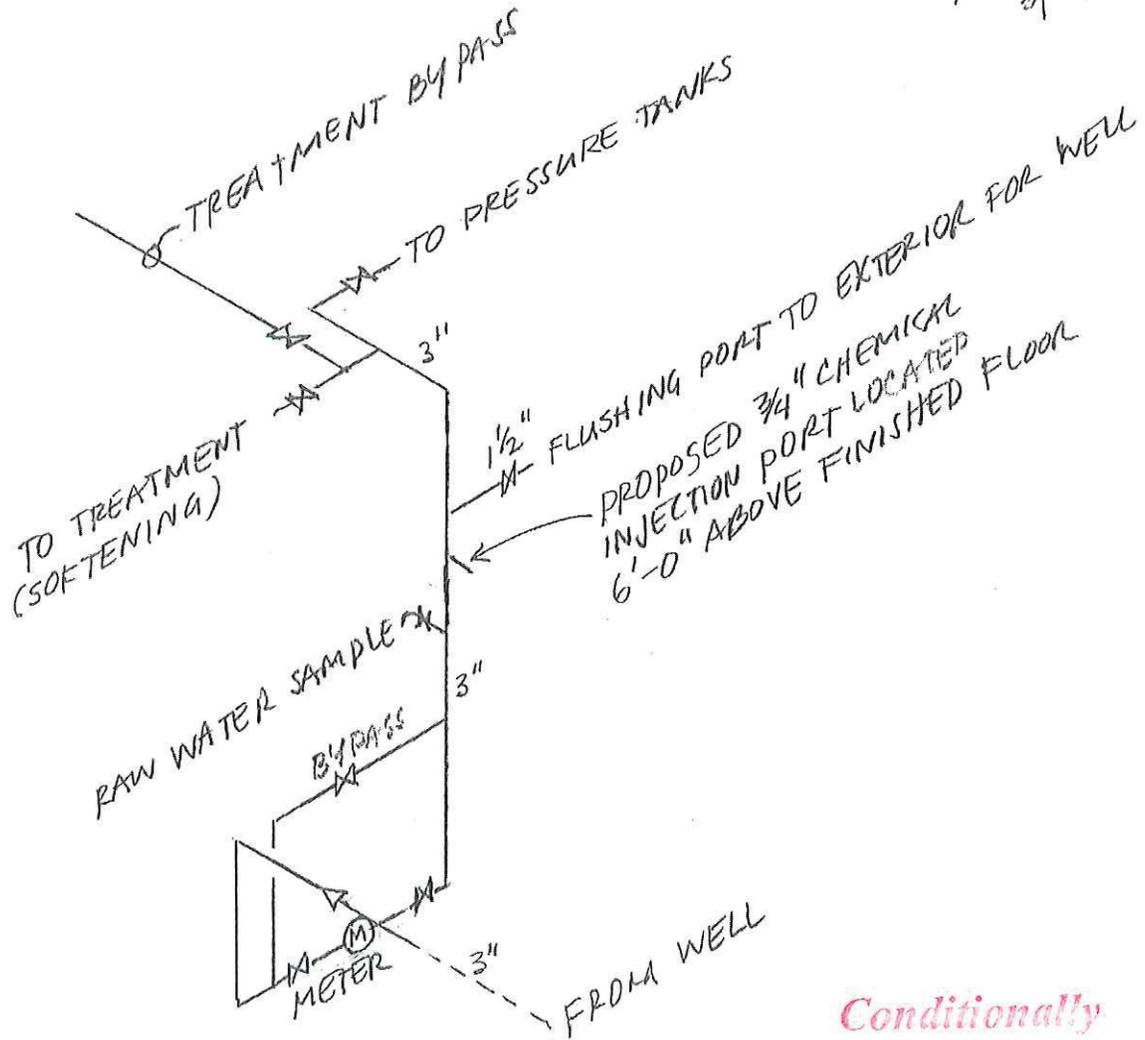
HOUSE ON THE ROCK INN
CHEMICAL FEED ADDITION
3/15/2016

ANDREW JACQUE, PE E-30406

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3/15/16



CHEMICAL FEED PLAN/ISOMETRIC
1/2" = 1'-0"

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SEE CORRESPONDENCE

Blue-White[®]

Industries, Ltd.

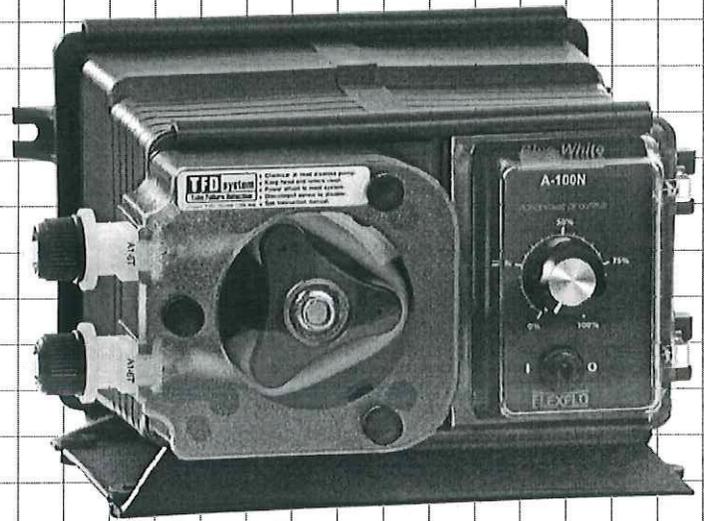
FLEXFLO[®] Peristaltic Metering Pumps

Engineering and Technical Data

A-100NF

Variable Speed

Dial Knob Control



Features:

- Peristaltic pump design does not have valves that can clog requiring maintenance.
- Self priming - even against maximum line pressure. By-pass valves are not required. Cannot vapor lock or lose prime.
- Outputs to 5.17 GPH (19.56 LPH).
- Output pressures to 100 PSI (6.9 bar).
- Output volume is not effected by changes in back pressure.
- Patented pump tube design installs easily and stays centered on the rollers without manual adjustment.
- Two pump tubes supplied with each pump. No extra tubing required.
- Easy to use dial knob speed adjustment.
- Built-in Tube Failure Detection system (TFD). Senses chemical in the pump head, shuts off the pump and activates an NPN open collector output.
- Compatible with Blue-White's output flow verification sensor system.
- Durable housing of chemical resistant Valox (PBT) thermoplastic.

Specifications:

Max. working pressure:100 psig (6.9 bar)
Max. fluid temperature:130° F (54° C)
Max. ambient temperature: ..14° to 110° F/ -10° to 43° C
Output adjustment range:15-100% in 1% increments
Duty cycle:.....Continuous
Maximum viscosity:5,000 Centipoise
Maximum suction lift:30 ft. Water 0 psig
Maximum Solids:50% by volume
Enclosure:NEMA 3R, (IP23)

Voltage (amp draw):.....115VAC/60Hz, 1ph (.513 amp max)
230VAC/60Hz, 1ph (.563 amp max)
220VAC/50Hz, 1ph (.660 amp max)
240VAC/50Hz, 1ph (.585 amp max)

Power Cord Plug Type:.....115V60Hz = NEMA 5/15 (USA)
230V60Hz = NEMA 6/15 (USA)
220V50Hz = CEE 7/VI (EUROPE)
240V50Hz = CEE 7/VI (EUROPE)

Approximate shipping wt: ...12 lb. (5.4 kg)

Materials of Construction:

Wetted components:

Pump Tube Assembly:.....Norpren[®], Tygothane[®] or FKM tubing
PVDF tube assembly connection fittings
Suction Tubing:.....Clear PVC
Suction Strainer:.....Natural Polypropylene
Discharge Tubing:.....Natural Polyethylene (LLDPE)
Injection/Check valve:
Body & insert:.....Polypropylene (optional PVDF)
Check Ball:Ceramic
Spring:Hastelloy C-276
Ball Seat O-ring:.....TFE/P (optional EP)
Static Seal O-ring:.....FKM (optional EP)

Non-Wetted components:

Pump Head & Enclosure:Valox[®] (PBT) thermoplastic
Pump Head Cover:Clear Acrylic
Cover Screws:300 Stainless, Polypropylene cap
Roller Assembly:
Rotor:Valox[®] (PBT)
Rollers:Nylon
Roller Bearings:Bronze
Motor Shaft:.....Nickel plated steel
TFD System Sensor pins:Hastelloy C-276
Power Cord:.....3 conductor, SJTW-A Water-resistant

Condition
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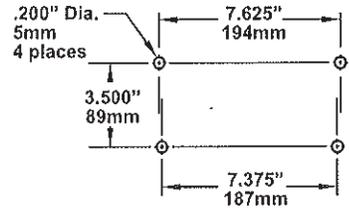
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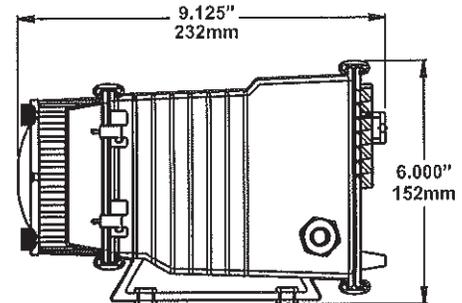
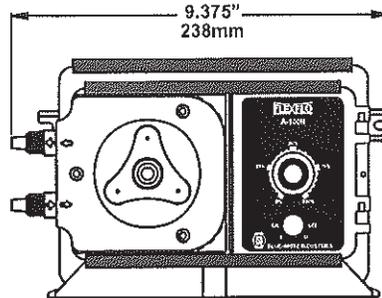
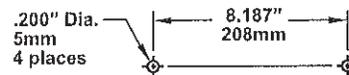
Blue-White[®] FLEXFLO[®] Peristaltic Metering Pumps Industries, Ltd.

Dimensions:

Base Mounting



Rear Panel Mounting



Model Number Matrix:

MODEL A1N F - -

Maximum Motor RPM

- 0 = 14 RPM
- 1 = 30 RPM
- 2 = 45 RPM
- 3 = 60 RPM

Power Supply

- 0 = 115V60Hz
- 1 = 220V50Hz
- 2 = 230V60Hz
- 8 = 240V50Hz

Output Control

- V = Digital speed control with external input
- F = Analog speed control
- E = Digital batch timer with external input
- A = Analog timer, 60 sec. Cycle - 100% duty
- C = Analog timer, 5 sec. Cycle - 100% duty
- S = Analog timer, 60 sec. Cycle - 10% duty
- X = No output control - fixed feed rate

Miscellaneous Options (not required)

- 1 = T140-6V injector replaces A-014N-6A
- 2 = C-340V footvalve replaces C-342-6 strainer
- 5 = A-014NK-6A injector PVDF
- 6 = Jumper set for digital square wave input
- T7 = 7 gallon chemical tank system
- T15 = 15 gallon chemical tank system
- T30 = 30 gallon chemical tank system
- X = NSF61 certified (ships without accessories)

Tubing Connection Type

- T = Compression tube nuts

Pump Tube Size and Material

- 1 = 1/4" OD Tygothane
- 2 = 3/8" OD Tygothane
- 3 = 7/16" OD Tygothane
- 4 = 1/4" OD Norprene
- 5 = 5/16" OD FKM
- 6 = 3/8" OD Norprene
- 7 = 7/16" OD Norprene
- 8 = 7/16" OD Norprene Chemical

Maximum Flow rate and pressure capacities:

Tube no.	Tubing Material	14 RPM MODELS				30 RPM MODELS				45 RPM MODELS				60 RPM MODELS							
		ml/m	oz/m	lph	gph	PSI(bar)	ml/m	oz/m	lph	gph	PSI(bar)	ml/m	oz/m	lph	gph	PSI(bar)	ml/m	oz/m	lph	gph	PSI(bar)
1	Tygothane	15	0.51	0.90	0.24	65(4.5)	35	1.18	2.10	0.55	65(4.5)	54	1.83	3.24	0.86	65(4.5)	67	2.26	4.02	1.06	65(4.5)
2	Tygothane	32	1.08	1.92	0.51	65(4.5)	75	2.54	4.60	1.19	65(4.5)	115	3.89	6.90	1.82	65(4.5)	140	4.73	8.40	2.22	65(4.5)
3	Tygothane	73	2.47	4.37	1.16	50(3.5)	173	5.85	10.38	2.74	50(3.5)	261	8.82	15.66	4.14	50(3.5)	326	11.01	19.56	5.17	50(3.5)
4	Norprene	6	0.20	0.36	0.10	100(6.9)	13	0.44	0.78	0.21	100(6.9)	21	0.71	1.26	0.33	100(6.9)	25	0.85	1.50	0.40	75(5.2)
5	FKM	11	0.37	0.66	0.17	25(1.7)	26	0.88	1.56	0.41	25(1.7)	39	1.31	2.34	0.62	25(1.7)	48	1.62	2.88	0.76	25(1.7)
6	Norprene	18	0.61	1.08	0.29	100(6.9)	42	1.42	2.52	0.67	100(6.9)	63	2.13	3.78	1.00	100(6.9)	79	2.67	4.74	1.25	75(5.2)
7	Norprene	57	1.92	3.42	0.90	50(3.5)	138	4.66	8.28	2.19	50(3.5)	200	6.76	12.00	3.17	50(3.5)	250	8.45	15.00	3.96	50(3.5)
8	Nor Chem	40	1.35	2.40	0.63	50(3.5)	84	2.80	5.04	1.31	50(3.5)	140	4.73	8.40	2.22	50(3.5)	180	6.10	10.80	2.85	50(3.5)

Gallons shown are U.S. Gallons

Replacement Pump Tubes:

Pump Model Number Suffix	Pump Tube Part Number	Pump Tube Material	Nominal Pump Tube OD
-1T	A1-1T	Tygothane	1/4" (6,4mm)
-2T	A1-2T	Tygothane	3/8" (9,5mm)
-3T	A1-3T	Tygothane	7/16" (11,1mm)
-4T	A1-4T	Norprene	1/4" (6,4mm)
-5T	A1-5T	FKM	5/16" (7,9mm)
-6T	A1-6T	Norprene	3/8" (9,5mm)
-7T	A1-7T	Norprene	7/16" (11,1mm)
-8T	A1-8T	Norprene Chemical	7/16" (11,1mm)

PRODUCT SPECIFICATION SHEET



PRODUCT: Clearitas® 101

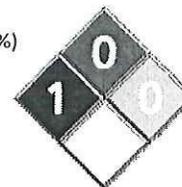
MANUFACTURER: Blue Earth Labs 14580 West 99th Street, Lenexa, KS 66215 Phone: 1.800.259.4472

BENEFITS: Clearitas 101 improves distribution infrastructure and the overall water quality in chlorinated and chloraminated water distribution systems by removing scale deposits, maintaining chlorine residuals and reducing disinfection by-products (DBPs). Clearitas 101 has been shown to effectively lower chlorine demand and reduce DBP formation in municipal water distribution systems. Clearitas 101 does not change water corrosivity or affect lead and copper levels.

DESCRIPTION: Clearitas 101 is an NSF certified water supply additive that contains super-ionized forms of chlorine that more effectively oxidize certain organics present in distribution systems than other forms of chlorine. Clearitas 101 is used in municipal water distribution treatment.

PROPERTIES:

Composition	Proprietary Formulation of Oxidized Chlorine (~ 0.06%)
Weight	8.4 lbs. per gallon
Color	Colorless
Odor	Slight chlorine odor/odorless in treated water
pH	6.5-11.5



Refer to MSDS Section 15 for detailed information

APPLICATION: Clearitas 101 is used, in conjunction with traditional disinfectants, in drinking water distribution systems at dilution rates ranging from 1:4,000 to 1:150,000.

STORAGE: Store Clearitas 101 in opaque containers and avoid exposure to direct sunlight.

DISPOSAL: Dispose of unused product on site.

SAFETY: This product is considered nonhazardous to health by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

NSF/ANSI: Standard 60 Certified – Corrosion and Scale Control

WARNING: Handle all Blue Earth Labs™ products according to Safety Data Sheets.

Conditionally
APPROVED
[Signature]
SEE CORRESPONDENCE

Visit us on the Web: www.BlueEarthLabs.com

The information set forth herein is furnished free of charge and is based on technical data that Blue Earth Labs LLC believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Because conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents. CLEARITAS IS A REGISTERED TRADEMARK OF BLUE EARTH LABS LLC. (REV 041812)



Blue Earth Labs is a chemical research and development company with a full line of proprietary products specifically engineered to extend the operational life and efficiency of any water infrastructure by removing organic and inorganic contaminants.





The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, March 16, 2016** at 12:15 a.m. Eastern Time. Please contact NSF International to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: <http://info.nsf.org/Certified/PwsChemicals/Listings.asp?TradeName=clearitas+101&>

NSF/ANSI 60 Drinking Water Treatment Chemicals - Health Effects

Blue Earth Labs LLC

14580 West 99th Street

Lenexa, KS 66215

United States

800-259-4456

702-851-4760

Visit this company's website (<http://www.blueearthlabs.com>)

Facility : Lenexa, KS

Miscellaneous Water Supply Products[1] [CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Clearitas 101	Corrosion & Scale Control	4000mg/L

[1] The Certification of this product has been restricted to a maximum use level (MUL) that is less than the 10 ppm typical use level of chlorine specified for hypochlorite products under NSF/ANSI Standard 60.

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Hawkins, Inc.

2381 Rosegate

Roseville, MN 55113

United States

800-328-5460

612-331-6910

[Visit this company's website \(http://www.hawkinsinc.com\)](http://www.hawkinsinc.com)

Facility : Muncie, IN

Miscellaneous Water Supply Products[1] [CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Clearitas 101	Corrosion & Scale Control	4000mg/L

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Number of matching Manufacturers is 2

Number of matching Products is 2

Processing time was 0 seconds