Water District # 1

Information on BOND expenditures.

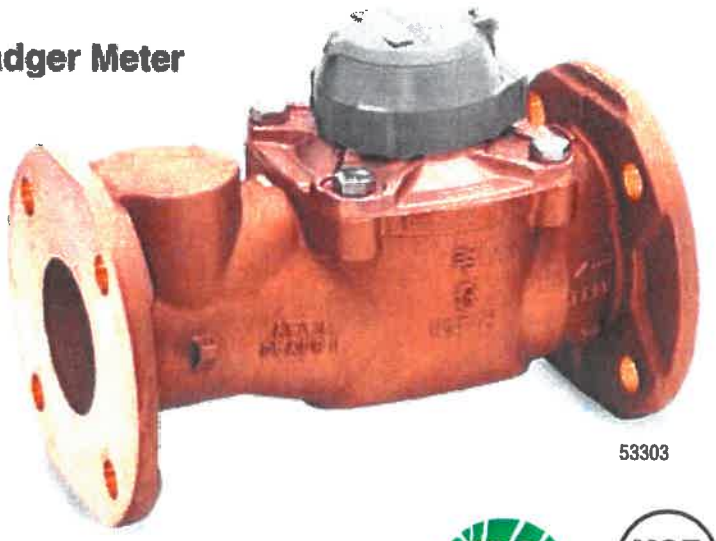
Section 1

Repairs to be done

Badger Meter Recordall® Turbo Series Turbine Meters

Badger Meter

- **Lead-free construction for bulk cold water metering in industrial applications**
- **Meets AWWA C701 Class II standards**
- **Choose from models with direct read, pulse or 4-20 mA output registers**



53303

The Recordall industrial turbine meter is a rugged, reliable meter ideally suited for industrial fluid applications. It's designed to be serviced without removing from line, making it a cost-effective solution. Meter provides a high level of accuracy over a wide flow range with minimal pressure loss. Choose from direct read, pulse or 4-20 mA output registers.

Direct-read registers provide a simple 6-digit totalizer for water use. They measure in U.S. gallons.

HR-LCD pulse registers provide a single scaled pulse output, which can be wired to external equipment such as batch controllers or totalizers. Their 9-digit LCD shows totalization, flow rate and alarm information. They operate on internal 10-year-life batteries and feature no moving parts. Pulse rate and LCD units are field-programmable via a PC using the integral IR sensor and USB programming tool (stock # 54266; sold separately).

HR-LCD 4-20 scaled/unscaled registers feature a 4-20 mA analog output which is proportional to the flow of fluid through the meter. They also offer all the functionality of the pulse registers, plus an additional unscaled solid-state pulse output.

Includes: standard round flanges.

Note: We highly recommend installing strainers upstream to protect the meter's rotational parts and improve accuracy (sold separately; see page 402).

HR-LCD registers feature enhanced electronic readout.

NO LEAD

NSF Certified to NSF/ANSI 61

Accuracy:	98.5 to 101.5%
Max operating pressure:	150 psi
Max operating temperature:	120°F
Material:	lead-free alloy or epoxy-coated steel (12" model) main case with alloy register can
Register display	
Direct read:	mechanical 6-digit totalizer for U.S. gallon; forward flow, low-flow indicator
HR-LCD:	digital 9-digit totalizer for U.S. gallon; forward/reverse flow (programmable for imperial gallons/cubic feet/cubic meters/liters), flow rate gallons per minute (programmable for seconds/hours), alarms
Wire length:	6' (HR-LCD models)
Meter output	
Direct read:	none
HR-LCD pulse:	scaled solid-state pulse (square wave)
HR-LCD 4-20:	scaled and unscaled solid-state pulses (square wave) and 4-20 mA (2-wire passive, 9-50 VDC)
Battery (HR-LCD):	lithium AA cell, 10-year life*
Approvals:	NSF/ANSI standards 61 and 372 (meter sizes 3 to 10" only)

Flow Ranges for Badger Recordall Turbo Meters

Size	Flow Range (gpm) Min-Max	Flow Range (gpm) Max Continuous	Flange Connection	Lay Length
3"	4 to 550	450	4 Bolt, Round	12"
4"	6 to 1250	1000	8 Bolt, Round	14"
6"	12 to 2500	2000	8 Bolt, Round	18"
8"	20 to 4500	3500	8 Bolt, Round	20"
10"	30 to 7000	5500	12 Bolt, Round	26"
12"	65 to 8800	6200	12 Bolt, Round	19 11/16"

*Based on default settings and typical operating range.

Turbine Meters

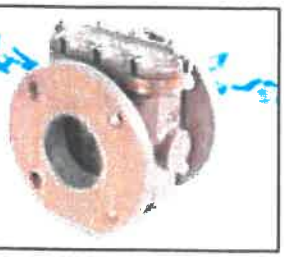
DESCRIPTION	SIZE	DIRECT READ METERS STOCK #	DIRECT READ METERS EACH	HR-LCD PULSE METERS STOCK #	HR-LCD PULSE METERS EACH	HR-LCD 4-20 METERS STOCK #	HR-LCD 4-20 METERS EACH
Model 450 Turbine Water Meter	3"	53291	$	53297	$	53303	$
Model 1000 Turbine Water Meter	4"	53292		53298		53304	
Model 2000 Turbine Water Meter	6"	53293		53299		53305	
Model 3500 Turbine Water Meter	8"	53294		53300		53306	
Model 5500 Turbine Water Meter	10"	53295		53301		53307	
Model 6200 Turbine Water Meter	12"	53296		53302		53308	

Easily serviced without removing from the line

Installation Accessories

DESCRIPTION	STOCK #	EACH
IR Register Programming Kit with USB for HR-LCD Registers	54266	$
3" Flange Pack (Gasket, Hardware)	16660	
4" Flange Pack (Gasket, Hardware)	16661	
6" Flange Pack (Gasket, Hardware)	16662	
8" Flange Pack (Gasket, Hardware)	16663	
10" Flange Pack (Gasket, Hardware)	16687	
12" Flange Pack (Gasket, Hardware)	16689	
Shielded Instrument Wire, 22/3 Gauge	42740	/ft
24-VDC Power Supply, 15W (for 4-20 mA Outputs)	74178	

Strainers are highly recommended for turbine meters. See page 402.



Summary Related Products Accessories More Like This Just For You

Part#: 53308

Weight: 308.0 lbs

Brand: Badger Meter Inc (https://www.usabluebook.com/m-1991-badger-meter-inc.aspx)

Badger Turbine Turbo Meter, 4-20mA Output, HR-LCD Register, 12"

- Lead-free construction for bulk cold water metering in industrial applications
- Meets AWWA C701 Class II standards

Price:

$9,435.00 USD/Each

Need Help? Call 800-548-1234

The Recordall® industrial turbine meter is a rugged, reliable meter ideally suited for industrial fluid applications. It is designed to be serviced without removing from line, making it a cost-effective solution. Meter provides a high level of accuracy over a wide flow range with minimal pressure loss.

HR-LCD 4-20 scaled/unscaled registers feature a 4-20 mA analog output which is proportional to the flow of fluid through the meter. They also provide provide a single scaled/unscaled pulse output, which can be wired to external equipment such as batch controllers or totalizers. Their nine-digit LCD shows totalization, flow rate and alarm information. They operate on internal 10-year-life batteries and feature no moving parts. Pulse rate and LCD units are field-programmable via a PC using the integral IR sensor and USB programming tool (stock # 54266; sold separately).

Note: Strainers are highly recommended for installation upstream to protect the meter's rotational parts and improve accuracy (sold separately).

Tech Specs

- Flow range (gpm): 65 to 8800 (6200 max continuous)
- Max operating pressure/temperature: 150 psi/120°F
- Case material: epoxy-coated steel main case with alloy register can

- Register display: digital 9-digit totalizer for U.S. gallon; forward/reverse flow (programmable for imperial gallons/cubic feet/cubic meters/liters), flow rate gallons per minute (programmable for seconds/hours), alarms
- Overall lay length: 19-11/16"
- Accuracy: 98.5 to 101.5%
- Meter output: scaled and unscaled solid state pulses (square wave) and 4-20 mA DC)

RELATED SEARCHES

5/8 Inch X 1/2 Inch Register (/P-389152-Badger-Recordall-M25-Water-Metersbquo-Pulse-Outputsbquo-Hr-Lcd-Registersbquo-58quot-X-12quot.Aspx)

5/8 Inch X 3/4 Inch Register (/P-389155-Badger-Recordall-M25-Water-Metersbquo-Pulse-Outputsbquo-Hr-Lcd-Registersbquo-58quot-X-34quot.Aspx)

3/4 Inch X 3/4 Inch Register (/P-389158-Badger-Recordall-M35-Water-Metersbquo-Pulse-Outputsbquo-Hr-Lcd-Registersbquo-34quot-X-34quot.Aspx)

0 Ma Register (/P-389166-Badger-Recordall-M25-Water-Metersbquo-4-2-0ma-Outputsbquo-Hr-Lcd-Registersbquo-58quot-X-12quot.Aspx)

RELATED PRODUCTS

(/p-389159-badger-recordall-m70-water-metersbquo-pulse-outputsbquo-hr-lcd-registersbquo-1quot.aspx)

(/p-389159-badger-recordall-m70-water-metersbquo-pulse-outputsbquo-hr-lcd-registersbquo-1quot.aspx)

Badger Recordall M70 Water Meter, Pulse Output, HR-LCD (/p-389159-badger-recordall-m70-water-metersbquo-pulse-outputsbquo-hr-lcd-registersbquo-1quot.aspx)

More Details (/p-389159-badger-recordall-m70-water-metersbquo-pulse-outputsbquo-hr-lcd-registersbquo-1quot.aspx)

(/p-389166-badger-recordall-m25-water-metersbquo-4-2-0ma-outputsbquo-hr-lcd-registersbquo-58quot-x-12quot.aspx)

(/p-389166-badger-recordall-m25-water-metersbquo-4-2-0ma-outputsbquo-hr-lcd-registersbquo-58quot-x-12quot.aspx)

Badger Recordall M25 Water Meter, 4-2 0mA Output, (/p-389166-badger-recordall-m25-water-metersbquo-4-2-0ma-outputsbquo-hr-lcd-registersbquo-58quot-x-12quot.aspx)

More Details (/p-389166-badger-recordall-m25-water-metersbquo-4-2-0ma-outputsbquo-hr-lcd-registersbquo-58quot-x-12quot.aspx)

(/p-389175-badger-recordall-m35-water-metersbquo-4-20-ma-outputsbquo-hr-lcd-registersbquo-34quot-x-34quot.aspx)

(/p-389175-badger-recordall-m35-water-metersbquo-4-20-ma-outputsbquo-hr-lcd-registersbquo-34quot-x-34quot.aspx)

Badger Recordall M35 Water Meter, 4-20 mA Output, (/p-389175-badger-recordall-m35-water-metersbquo-4-20-ma-outputsbquo-hr-lcd-registersbquo-34quot-x-34quot.aspx)

More Details (/p-389175-badger-recordall-m35-water-metersbquo-4-20-ma-outputsbquo-hr-lcd-registersbquo-34quot-x-34quot.aspx)

Control panel

DNU Rafa Systems
P.O. Box 275
Cattaraugus, NY 14719
(716) 258-9396
info@rafasystems.com

Estimate EST19-RS617

ADDRESS
Morris Coolidge

SHIP TO
Morris Coolidge

DATE
06/23/2022

TOTAL
$21,682.20

SALES REP
Steve

DATE	ITEM NAME	DESCRIPTION	QTY	RATE	AMOUNT
	RAFAlte900	RAFA 900 Controller: 12 digital inputs, 6 analog inputs, 4 relay and 4 pulse outputs, built-in datalogging and touch-screen (additional analog, sensor, and 4-20mA output cards available) Surge Protection, Nema 4x Box, mounted on 1/2" poly pro backboard, surge protection, power supply unit, power relays, and push-in terminal blocks on dinrail. Online Web Based Remote Control Manager Two-Year Limited Warranty on Controller Limited Lifetime Warranty on Communication Components	1	10,389.00	10,389.00
	RAFACOMMRADIO - SEND	RAFACOMMRADIO-SEND 900 MHz wireless transceiver with RS-232/485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 250 stations, range of up to 20 miles (line of sight)	1	2,500.00	2,500.00
	RAFACOMMRADIO - RECEIVE	RAFACOMMRADIO-RECEIVE 900 MHz wireless transceiver with RS-232/485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 250 stations, range of up to 20 miles (line of sight)	1	2,400.00	2,400.00
	RAFA-SU-TR	Setup - Training Includes initial programming and setup of Controllers. Training of Operators and setup programming during installation. Includes Follow-up Training and Programming after the Sale.	1	400.00	400.00

DATE	ITEM NAME	DESCRIPTION	QTY	RATE	AMOUNT
	RAFA-IN	Installation RAFAstm600 Installation - $2400 Materials - $200 Travel and Expenses - $1516 ***Installation requires conduits, existing wiring to be connected, and 120v receptacle within 8' of RAFA System install placement***	1	4,116.00	4,116.00
	MiscParts	Dell Desktop Computer w/ 27" Monitor upgraded keyboard and mouse. Computer will be updated and programmed to communicate with the Filter Dashboard and provide remote control and monitoring capabilities to the filter trailer.	1	1,727.20	1,727.20
	Shipping & Handling		2	75.00	150.00

Visit Our Website: www.rafasystems.com

TOTAL $21,682.20

THANK YOU.

Accepted By

Accepted Date

New replacement chemical feed pumps

GRUNDFOS

Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:
	TYPE OF SERVICE:	
REPRESENTATIVE:	SUBMITTED BY:	DATE:
ENGINEER:	APPROVED BY:	DATE:
CONTRACTOR:	ORDER NO.:	DATE:

DDA 7.5-16 AR-PVC/V/C-F-311003BG

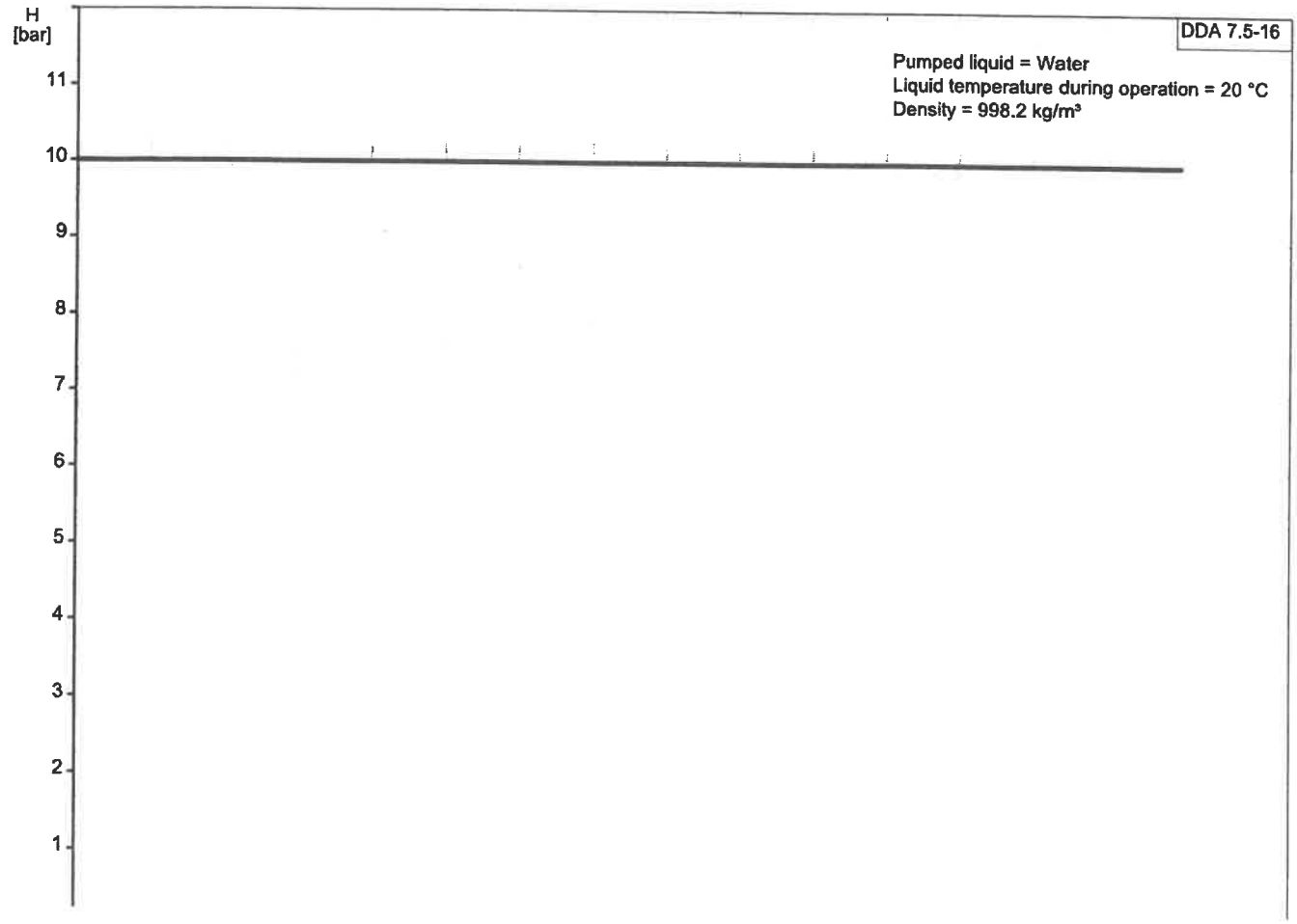
Note! Product picture may differ from actual product

SMART Digital diaphragm dosing pump with internal brushless motor drive. High-end solution for complex and demanding applications (Digital Dosing Advanced).

Conditions of Service	
Liquid:	Water
Temperature:	20 °C
Specific Gravity:	1.000

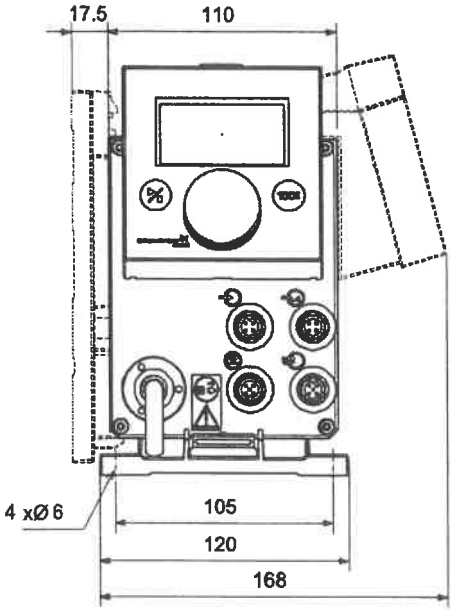
Pump Data	
Maximum operating pressure:	10 bar
Liquid temperature range:	-10 .. 45 °C
Maximum ambient temperature:	45 °C
Approvals:	CE,CSA-US,NSF61,RCM
Product number:	On request

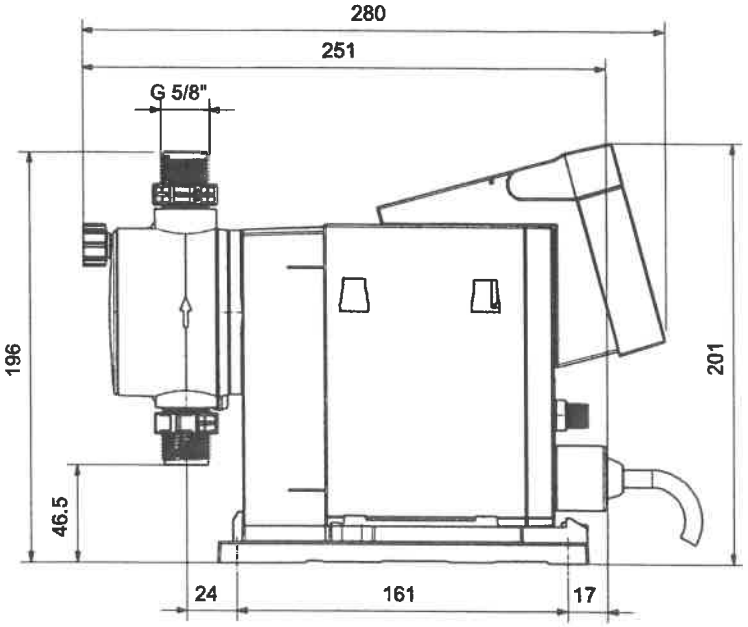
Motor Data	
P1 max:	24 W
Rated voltage:	100-240 V
Mains frequency:	50 / 60 Hz
Enclosure class:	IP65 / NEMA 4X



GRUNDFOS

Submittal Data





Materials:

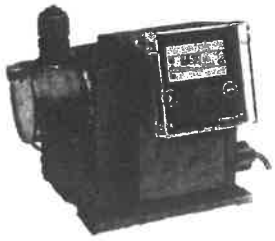
Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description
1	**DDA 7.5-16 AR-PVC/V/C-F-31I003BG**



Note! Product picture may differ from actual product

Product No.: On request
DDA 7.5-16 AR-PVC/V/C-F-31I003

The SMART Digital DDA is a compact positive displacement, diaphragm dosing pump with variable-speed drive (stepper motor) and intelligent control electronics with minimum energy consumption.

The SMART Digital Dosing series operates at full stroke length to ensure optimum accuracy, priming and suction, even for high-viscosity or degassing liquids.

The duration of each discharge stroke varies according to the capacity set, resulting in optimum smooth and continuous discharge flow.

The click-stop mounting plate allows installation in three different positions without using any additional accessories.

The control cube can be turned easily into front, left or right position.

The click wheel and the multi-coloured backlit graphical, plain-text LC display make commissioning and operation intuitive.

The control elements are protected by a transparent cover.

The dosing head is composed of:

- Long lifetime and universal, chemically resistant full-PTFE diaphragm.
- Double ball valves for highest dosing accuracy.
- Deaeration valve for easy start-up.

Operation modes:

- Manual dosing in ml/h, l/h or gph.
- Pulse control in ml/pulse (incl. memory function).
- Analog control 0/4-20 mA (scalable).
- Pulse-based batch function in ml, l or gal.
- Timer-based batch function (Dosing timer, cycle or week).
- Fieldbus control (Genibus prepared for ProfibusDP E-box).

Other features:

- Auto deaeration during pump standby to avoid breakdowns due to air-locking.
- Two SlowMode steps (anti-cavitation), 50 % (maximum flow: 3.75 l/h) and 25 % (maximum flow
- Service information display to show when service and which wear-part order number is required.
- Two-step key lock function to protect the pump against unauthorised access.
- Additional display function to provide further information, e.g. the actual mA input signal.
- Counter for total dosed volume (resettable), operating hours, etc.
- Save and load customised settings as well as reload of factory settings.

Signal inputs/outputs:

- Input for pulse, analog 0/4-20mA, external stop.
- Input for low-level and empty-tank signal.
- Two potential-free output relays for max. 30 V AC/DC (configurable, e.g. alarm, stroke signal, pump dosing, timer etc.)

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description

- Fieldbus communication interface (GeniBus, also for additional Profibus DP E-box to retrofit).

Installation set includes:

- 2 pump connections (Hose 0,17x1/4" 3).
- Foot valve (without level switch).
- Injection unit.
- 6 m PE discharge hose.
- 2 m PVC suction hose.
- 2 m PVC deaeration hose (4/6 mm).

Technical:

Type key:	DDA 7.5-16 AR-PVC/V/C-F-31I003
Max. Flow:	7.5 l/h
Max. flow in slow mode 50%:	3.75 l/h
Max. flow in slow mode 25%:	1.88 l/h
Min flow:	2.5 ml/h
Turn-down ratio:	1:3000
Approvals on nameplate:	CE,CSA-US,NSF61,RCM
Valve type:	Standard
Maximum viscosity at 100 %:	50 mPas
Maximum viscosity in slow mode 50 %:	1800 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %

Materials:

Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM

Installation:

Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	10 bar
Installation set:	YES
Installation type:	0,17x1/4" up to 7,5 l/h,16bar
Pump inlet:	Hose 0,17x1/4" 3
Pump outlet:	Hose 0,17x1/4" 3
Max. Suction lift during operation:	6 m
Max. Suction lift during priming:	2 m

Liquid:

Pumped liquid:	Water
Liquid temperature range:	-10 .. 45 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³

Electrical data:

P1 max:	24 W
Mains frequency:	50 / 60 Hz
Rated voltage:	1 x 100-240 V
Enclosure class (IEC 34-5):	IP65 / NEMA 4X
Length of cable:	1.5 m
Type of cable plug:	USA, Canada
Inrush current:	25A at 230V for 2ms

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description	
	Controls:	
	Control variant:	AR
	Level control:	YES
	Analog input:	0/4-20 MA
	Pulse control:	YES
	Ext. Stop input:	YES
	Analog output:	0/4-20 MA
	Output relays:	2
	Bus communication:	YES
	Others:	
	Net weight:	2 kg
	Gross weight:	3 kg
	Color:	RED

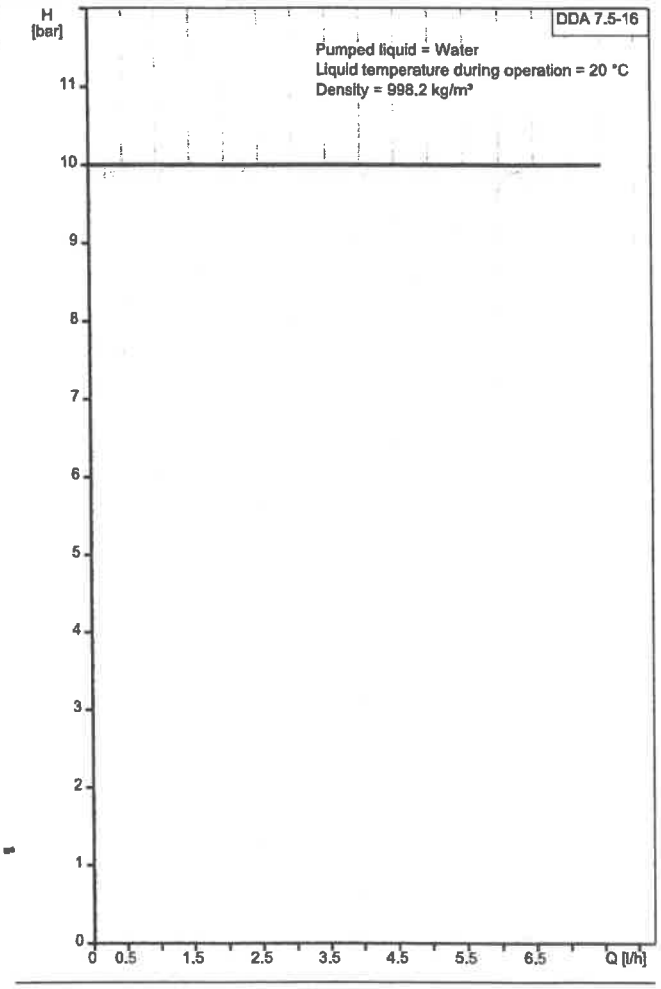
GRUNDFOS

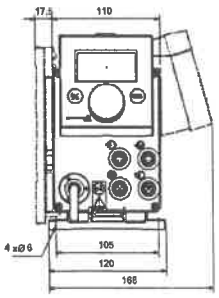
Company name: ESC Environmental Inc
Created by: Jim Dwyer
Phone: 518-384-1103
Email: waterchi@nycap.rr.com
Date: 18/05/2022

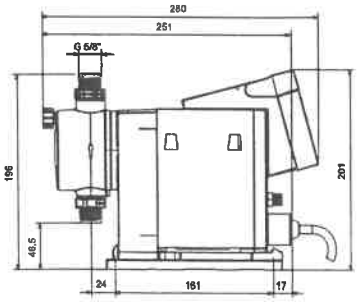
Project: Town of Keene Water
Reference Number:

Client: Water Department
Client Number:
Contact: Savana Li

Description	Value
General information:	
Product name:	DDA 7.5-16 AR-PVC/V/C-F-31I003BG
Product No:	On request
EAN number:	On request
Technical:	
Type key:	DDA 7.5-16 AR-PVC/V/C-F-31I003
Max. Flow:	7.5 l/h
Max. flow in slow mode 50%:	3.75 l/h
Max. flow in slow mode 25%:	1.88 l/h
Min flow:	2.5 ml/h
Turn-down ratio:	1:3000
Approvals on nameplate:	CE,CSA-US,NSF61,RCM
Valve type:	Standard
Maximum viscosity at 100 %:	50 mPas
Maximum viscosity in slow mode 50 %:	1800 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %
Materials:	
Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM
Installation:	
Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	10 bar
Installation set:	YES
Installation type:	0,17x1/4" up to 7,5 l/h,16bar
Pump inlet:	Hose 0,17x1/4" 3
Pump outlet:	Hose 0,17x1/4" 3
Max. Suction lift during operation:	6 m
Max. Suction lift during priming:	2 m
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 45 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
P1 max:	24 W
Mains frequency:	50 / 60 Hz
Rated voltage:	1 x 100-240 V
Enclosure class (IEC 34-5):	IP65 / NEMA 4X
Length of cable:	1.5 m
Type of cable plug:	USA, Canada
Inrush current:	25A at 230V for 2ms
Controls:	
Control variant:	AR
Control panel:	FRONT-MOUNTED
Level control:	YES
Analog input:	0/4-20 MA
Pulse control:	YES
Ext. Stop input:	YES







GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

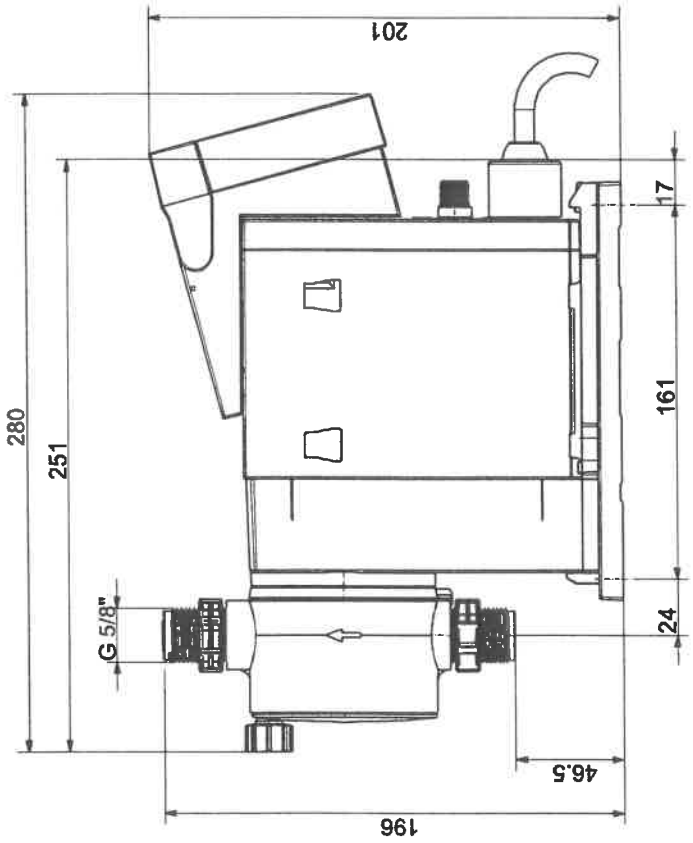
Description	Value
Analog output:	0/4-20 MA
Output relays:	2
Bus communication:	YES
Others:	
Net weight:	2 kg
Gross weight:	3 kg
Color:	RED

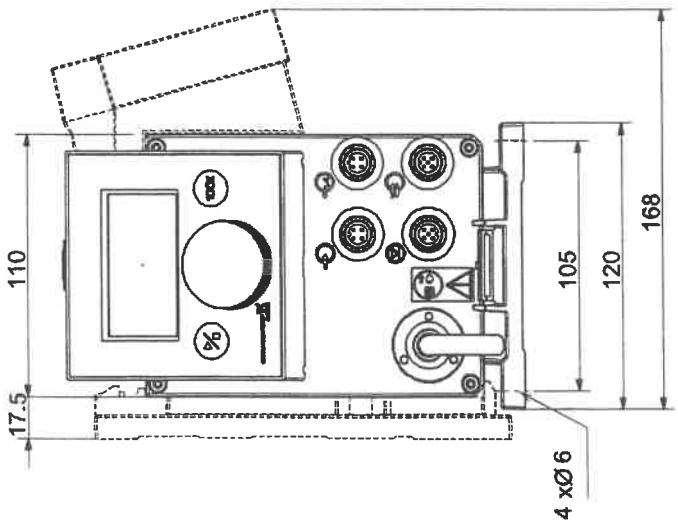
GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

On request DDA 7.5-16 AR-PVC/V/C-F-31I003BG





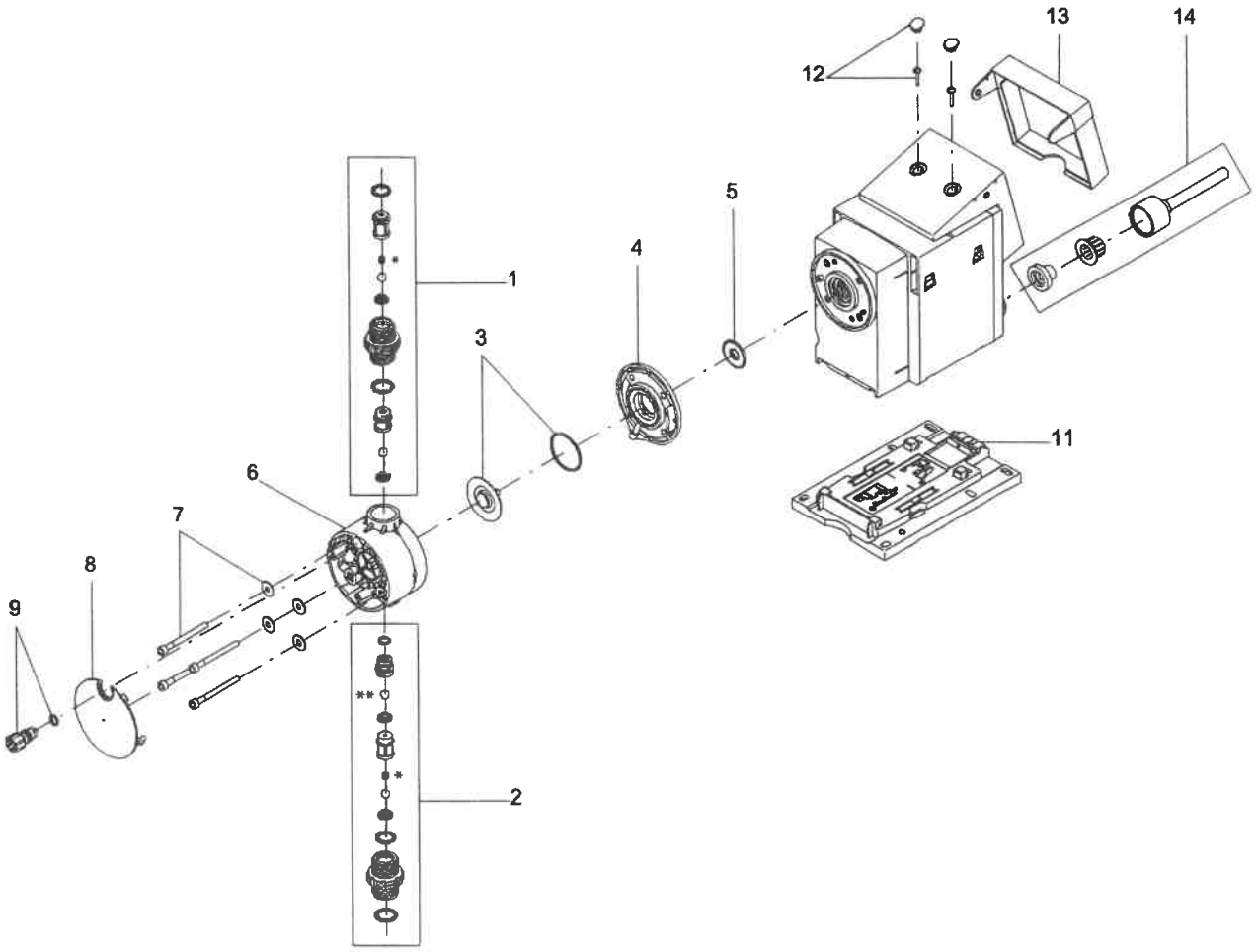
Note! All units are in [mm] unless others are stated.

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Exploded view



166x112

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Spare parts DDA 7.5-16, Product No. On request
Produced After 1131 (production year and week number)

	Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
-		Kit, Diaphragm			97751707	1	pcs
	3	Diaphragm				1	
	3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
-		Kit, Pump head			97751181	1	pcs
-	1	Discharge valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Valve seat					
		O-ring					
		O-ring					
-	2	Suction valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Ball					
		Valve seat					
		Valve seat					
		O-ring					
		O-ring					
		O-ring					
	3	Diaphragm				1	
	3	Diaphragm				1	
	3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
	4	Pump head flange				1	
	6	Dosing head				1	
	7	Hex socket head cap screw				4	
	7	Washer				4	
	8	Pump head cover				1	
-	9	Venting valve				1	
		Spindle					
		O-ring					
-		Kit, Valve			97751629	1	pcs
-	1	Discharge valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Valve seat					
		O-ring					
		O-ring					
-	2	Suction valve cpl.				1	
		Ball cage					

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
	Valve housing					
	Ball					
	Ball					
	Valve seat					
	Valve seat					
	O-ring					
	O-ring					
	O-ring					
-	Kit, Valve and diaphragm			97751479	1	pcs
- 1	Discharge valve cpl.				1	
	Ball cage					
	Ball cage					
	Valve housing					
	Ball					
	Valve seat					
	O-ring					
	O-ring					
- 2	Suction valve cpl.				1	
	Ball cage					
	Ball cage					
	Valve housing					
	Ball					
	Ball					
	Valve seat					
	Valve seat					
	O-ring					
	O-ring					
	O-ring					
3	Diaphragm				1	
3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
7	Hex socket head cap screw				4	
7	Washer				4	
- 1	Discharge valve cpl.			92662993	1	pcs
	O-ring			99135669	1	
	O-ring			98596690	1	
- 2	Suction valve cpl.			92662995	1	pcs
	O-ring			99231553	1	
3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2	98776848	1	pcs
7	Hex socket head cap screw			99951392	4	pcs
7	Washer			99951403	4	pcs
12	Pan washer head screw			99517706	2	pcs
13	Cover for cube			97790958	1	pcs

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description
1	**Multifunction valve** Product No.: On request Compact valve unit for direct mounting on the pump discharge connection. Multifunction valves combine four functions: 1. Constant counter-pressure and anti-siphoning 2. Pump protection through pressure relief 3. Deaeration of pump head during start up 4. Emptying of discharge line Technical: Pump connection: G5/8 Materials: Housing: PVDF Gasket: FKM Connection mat.: PVC Installation: Pipework connection: 0,17"x1/4",1/4"x3/8",3/8"x1/2" Relief pressure: 10 bar

GRUNDFOS

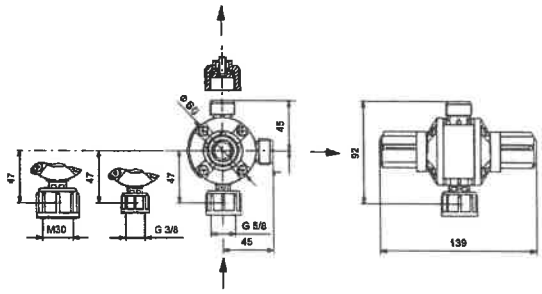
Company name: ESC Environmental Inc
Created by: Jim Dwyer
Phone: 518-384-1103
Email: waterchi@nycap.rr.com

Date: 18/05/2022

Project: Town of Keene Water
Reference Number:

Client: Water Department
Client Number:
Contact: Savana Li

Description	Value
General information:	
Product name:	Multifunction valve
Product No:	On request
EAN number:	On request
Technical:	
Pump connection:	G5/8
Materials:	
Housing:	PVDF
Gasket:	FKM
Connection mat.:	PVC
Installation:	
Opening pressur:	3 bar
Pipework connection:	0,17"x1/4",1/4"x3/8",3/8"x1/2"
Relief pressure:	10 bar
Others:	
Designed for:	DDA,DDC,DDE,DDI up to 60 l/h

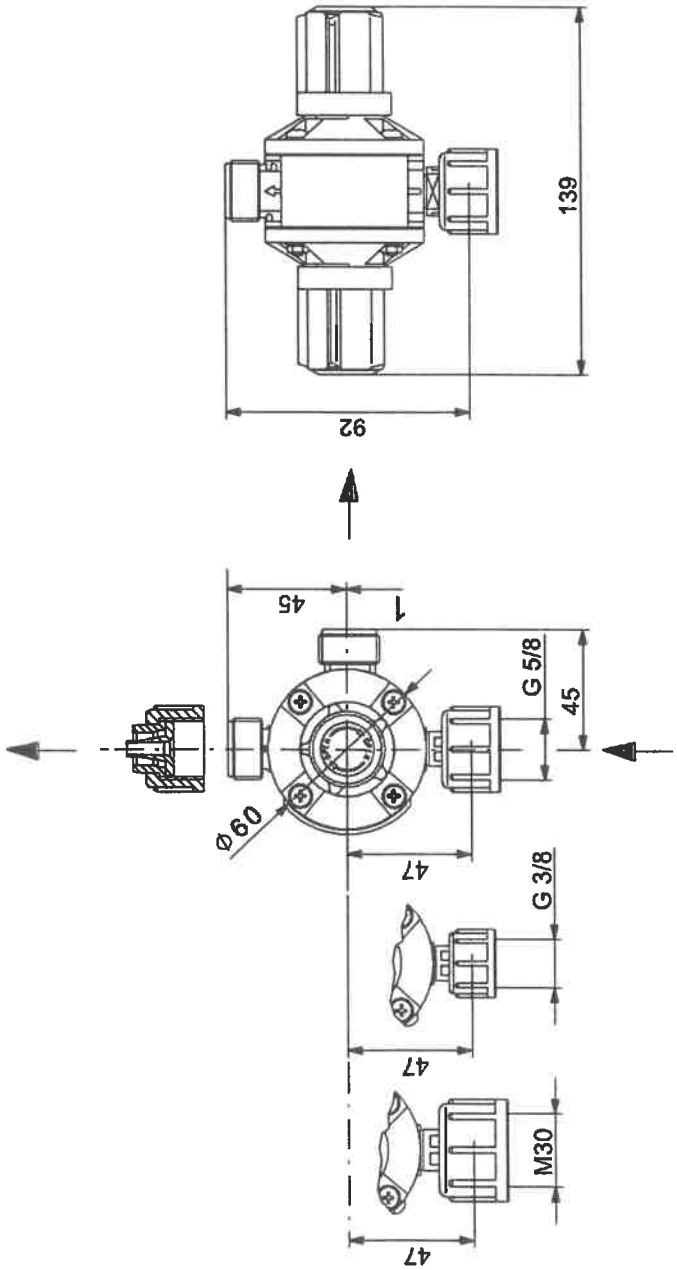


GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

On request Multifunction valve



Note! All units are in [mm] unless others are stated.

quote for new chemical feed pumps

ESC Environmental

6 Redwood Drive
Glenville, NY 12302
Phone 518-384-1103
Fax 518-384-1549

Quote

Date	Estimate #
2/7/2022	4130339

Name / Address
Town of Keene Water Department Savana Li 11133 NY State Route 9 Keene, NY 12942

Terms	Rep	FOB
	JD	Factory

Description	Qty	Cost	Total
Grundfos DDA 7.5-16 AR-PVC- Viton 2.0 GPH Digital pump Part# 97722370 QTN 2 for Hypochlorite	2	1,886.00	3,772.00
Grundfos 1/4" OD Multifunction Valve Viton Adjustable Pressure =Backpressure #95730815	2	305.00	610.00
Grundfos 16 Ft. DD 4-20mA, Start Stop cable	2	61.00	122.00
Grundfos 16Ft. relay Output Cable	2	61.00	122.00
Grundfos DDA 7.5-16 AR-PVC- Viton 2.0 GPH Digital pump Part# 97722370 QTN 1 Zinc orthophosphate	1	1,886.00	1,886.00
Grundfos 1/4" OD Multifunction Valve Viton Adjustable Pressure =Backpressure #95730815	1	305.00	305.00
Grundfos 16 Ft. DD 4-20mA, Start Stop cable	1	61.00	61.00
Grundfos 16Ft. relay Output Cable	1	61.00	61.00
Grundfos DD6,7,9 /(series Spare Parts Kit PTFE Diaphragm QTN 2 check valves/Viton 4 SS Head Screws O-ring. #97751479	1	385.00	385.00
shipping and handling	1	75.00	75.00
New York State Sale Tax		8.25%	0.00

Thank you for your business.

Total $7,399.00

Phone #	Fax #	E-mail	Web Site
518-384-1103	518-384-1549	waterchi@nycap.rr.com	www.escenvir.com

Water District # 1

Information on BOND expenditures.

Section 2

Repairs already completed

A/P Invoice Voucher

TOWN OF KEENE
PO Box 89
KEENE, NY 12942 USA

Department _____

Voucher 2022-139

Ordered From

Hometown Electrical Systems LLC
93 Fox Run Road
ELIZABETHTOWN, New York 12932

Abstract No._____

Invoice Date: 2/14/2022

Invoice #: 001870

PO #:

Fund - Appropriation	Amount
Total	

Terms _____

Ref #	Description	Debit G/L #	Credit G/L #	Amount
abstract2022-#3	Labor for Generator WD#1	083204.07.004.00	000600.07.000.00	$160.00

I _____ certify that the above account in the amount of $160.00 **Invoice Total: $160.00**

is true and correct; that the items, services and disbursements charged were rendered to or for the municipality on the dates stated; that no part has been paid or satisfied; that taxes from which the municipality is exempt, are not included; and that the amount claimed is actually due.

Date _____ Authorized Signature _____ Title _____

Departmental Approval

Approval for Payment

The above services or materials were rendered or furnished to the municipality on the dates stated and the charges are correct.

Date _____ Authorized Offical _____

Date: _____ Signature: _____
Date: _____ Signature: _____
Date: _____ Signature: _____

Date: _____ Signature: _____

A/P Invoice Voucher

TOWN OF KEENE
PO Box 89
KEENE, NY 12942 USA

Department _____

Voucher 2022-440

Ordered From

Hometown Electrical Systems LLC
93 Fox Run Road
ELIZABETHTOWN, New York 12932

Abstract No._____

Invoice Date: 5/16/2022

Invoice #: 002016

PO #:

Fund - Appropriation	Amount
Total	

Terms _____

Ref #	Description	Debit G/L #	Credit G/L #	Amount
ABSTRACT#9-22	BLOWER FAM REPLACEMENT WD1	083204.07.004.00	000600.07.000.00	$586.00

I _____ certify that the above account in the amount of $586.00 **Invoice Total: $586.00**

is true and correct; that the items, services and disbursements charged were rendered to or for the municipality on the dates stated; that no part has been paid or satisfied; that taxes from which the municipality is exempt, are not included; and that the amount claimed is actually due.

Date _____ Authorized Signature _____ Title _____

Departmental Approval

Approval for Payment

The above services or materials were rendered or furnished to the municipality on the dates stated and the charges are correct.

Date _____ Authorized Offical _____

Date: _____ Signature: _____
Date: _____ Signature: _____
Date: _____ Signature: _____

Date: _____ Signature: _____

New replacement chemical feed pumps

GRUNDFOS

Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:
	TYPE OF SERVICE:	
REPRESENTATIVE:	SUBMITTED BY:	DATE:
ENGINEER:	APPROVED BY:	DATE:
CONTRACTOR:	ORDER NO.:	DATE:

DDA 7.5-16 AR-PVC/V/C-F-31I003BG

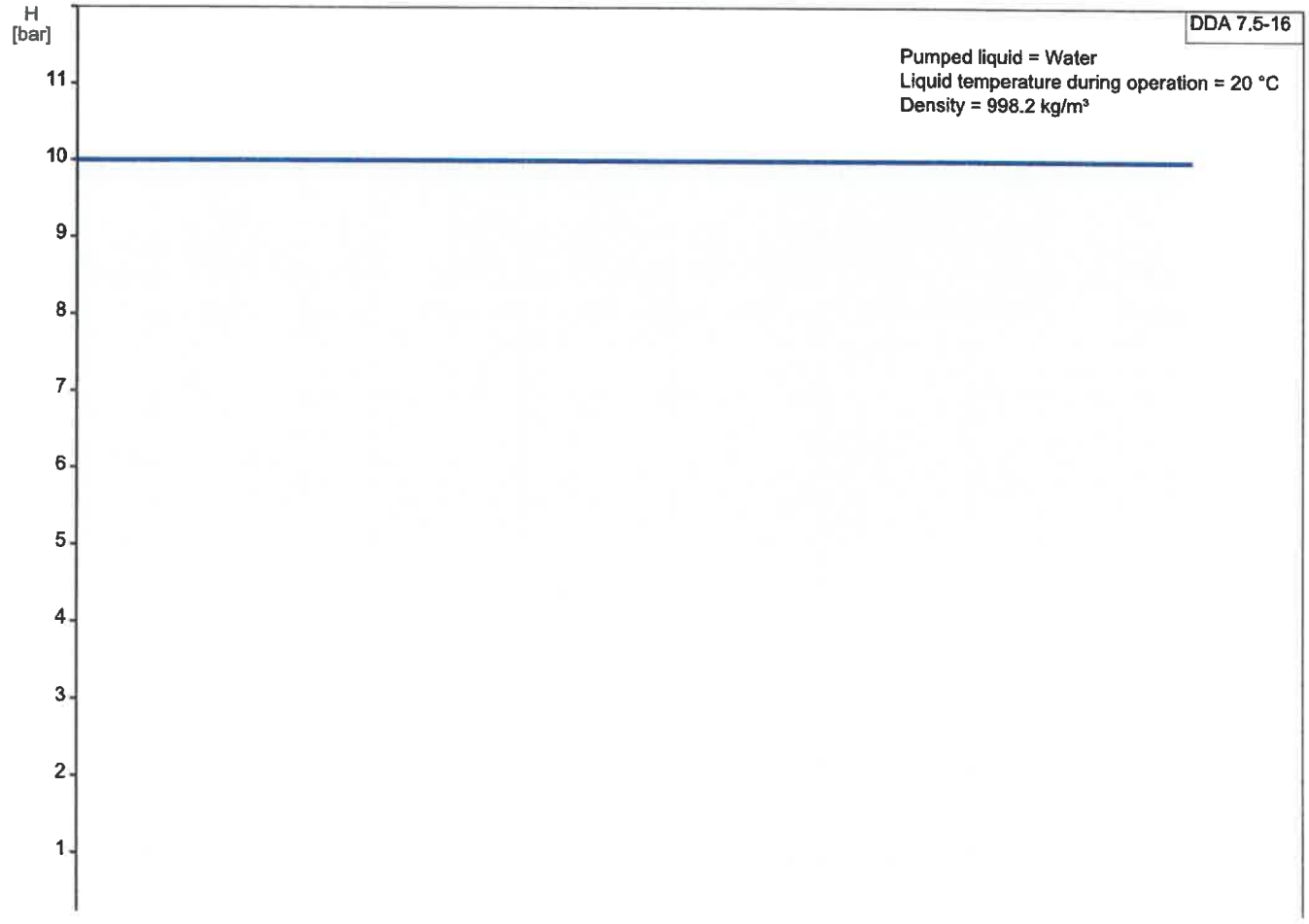
Note! Product picture may differ from actual product

SMART Digital diaphragm dosing pump with internal brushless motor drive. High-end solution for complex and demanding applications (Digital Dosing Advanced).

Conditions of Service	
Liquid:	Water
Temperature:	20 °C
Specific Gravity:	1.000

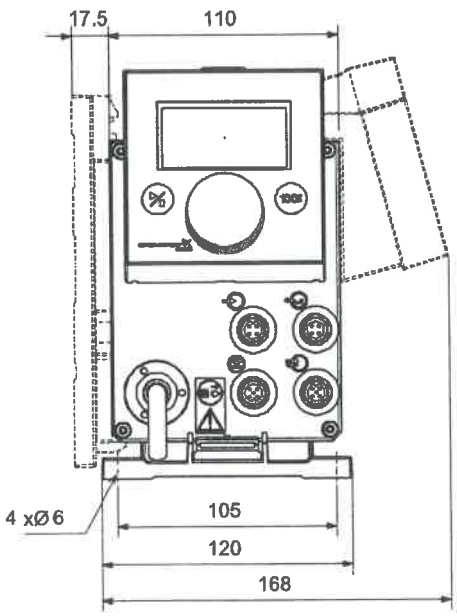
Pump Data	
Maximum operating pressure:	10 bar
Liquid temperature range:	-10 .. 45 °C
Maximum ambient temperature:	45 °C
Approvals:	CE,CSA-US,NSF61,RCM
Product number:	On request

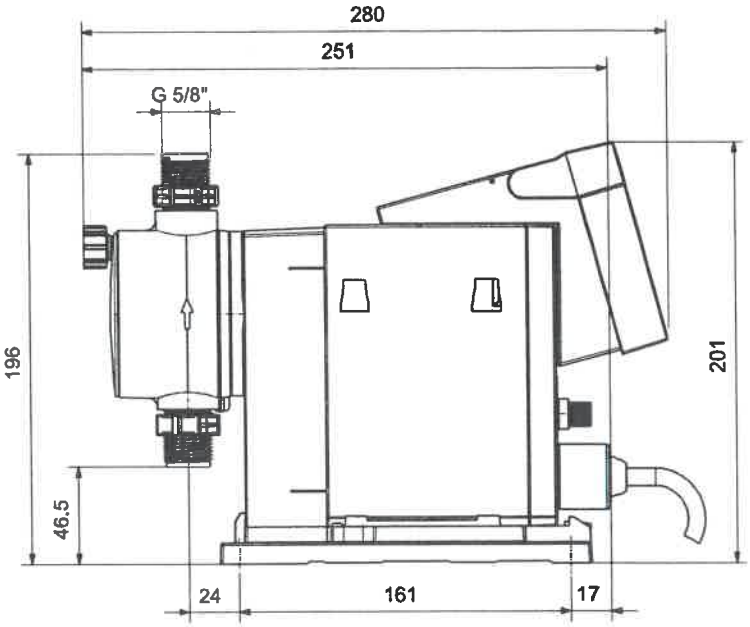
Motor Data	
P1 max:	24 W
Rated voltage:	100-240 V
Mains frequency:	50 / 60 Hz
Enclosure class:	IP65 / NEMA 4X



GRUNDFOS

Submittal Data





Materials:

Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description
1	**DDA 7.5-16 AR-PVC/V/C-F-31I003BG**

Note! Product picture may differ from actual product

Product No.: On request
DDA 7.5-16 AR-PVC/V/C-F-31I003

The SMART Digital DDA is a compact positive displacement, diaphragm dosing pump with variable-speed drive (stepper motor) and intelligent control electronics with minimum energy consumption.

The SMART Digital Dosing series operates at full stroke length to ensure optimum accuracy, priming and suction, even for high-viscosity or degassing liquids.

The duration of each discharge stroke varies according to the capacity set, resulting in optimum smooth and continuous discharge flow.

The click-stop mounting plate allows installation in three different positions without using any additional accessories.

The control cube can be turned easily into front, left or right position.
The click wheel and the multi-coloured backlit graphical, plain-text LC display make commissioning and operation intuitive.

The control elements are protected by a transparent cover.

The dosing head is composed of:
- Long lifetime and universal, chemically resistant full-PTFE diaphragm.
- Double ball valves for highest dosing accuracy.
- Deaeration valve for easy start-up.

Operation modes:
- Manual dosing in ml/h, l/h or gph.
- Pulse control in ml/pulse (incl. memory function).
- Analog control 0/4-20 mA (scalable).
- Pulse-based batch function in ml, l or gal.
- Timer-based batch function (Dosing timer, cycle or week).
- Fieldbus control (Genibus prepared for ProfibusDP E-box).

Other features:
- Auto deaeration during pump standby to avoid breakdowns due to air-locking.
- Two SlowMode steps (anti-cavitation), 50 % (maximum flow: 3.75 l/h) and 25 % (maximum flow
- Service information display to show when service and which wear-part order number is required.
- Two-step key lock function to protect the pump against unauthorised access.
- Additional display function to provide further information, e.g. the actual mA input signal.
- Counter for total dosed volume (resettable), operating hours, etc.
- Save and load customised settings as well as reload of factory settings.

Signal inputs/outputs:
- Input for pulse, analog 0/4-20mA, external stop.
- Input for low-level and empty-tank signal.
- Two potential-free output relays for max. 30 V AC/DC (configurable, e.g. alarm, stroke signal, pump dosing, timer etc.)

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Qty.	Description

- Fieldbus communication interface (GeniBus, also for additional Profibus DP E-box to retrofit).

Installation set includes:

- 2 pump connections (Hose 0,17x1/4" 3).
- Foot valve (without level switch).
- Injection unit.
- 6 m PE discharge hose.
- 2 m PVC suction hose.
- 2 m PVC deaeration hose (4/6 mm).

Technical:

Type key:	DDA 7.5-16 AR-PVC/V/C-F-31I003
Max. Flow:	7.5 l/h
Max. flow in slow mode 50%:	3.75 l/h
Max. flow in slow mode 25%:	1.88 l/h
Min flow:	2.5 ml/h
Turn-down ratio:	1:3000
Approvals on nameplate:	CE,CSA-US,NSF61,RCM
Valve type:	Standard
Maximum viscosity at 100 %:	50 mPas
Maximum viscosity in slow mode 50 %:	1800 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %

Materials:

Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM

Installation:

Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	10 bar
Installation set:	YES
Installation type:	0,17x1/4" up to 7,5 l/h,16bar
Pump inlet:	Hose 0,17x1/4" 3
Pump outlet:	Hose 0,17x1/4" 3
Max. Suction lift during operation:	6 m
Max. Suction lift during priming:	2 m

Liquid:

Pumped liquid:	Water
Liquid temperature range:	-10 .. 45 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³

Electrical data:

P1 max:	24 W
Mains frequency:	50 / 60 Hz
Rated voltage:	1 x 100-240 V
Enclosure class (IEC 34-5):	IP65 / NEMA 4X
Length of cable:	1.5 m
Type of cable plug:	USA, Canada
Inrush current:	25A at 230V for 2ms

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

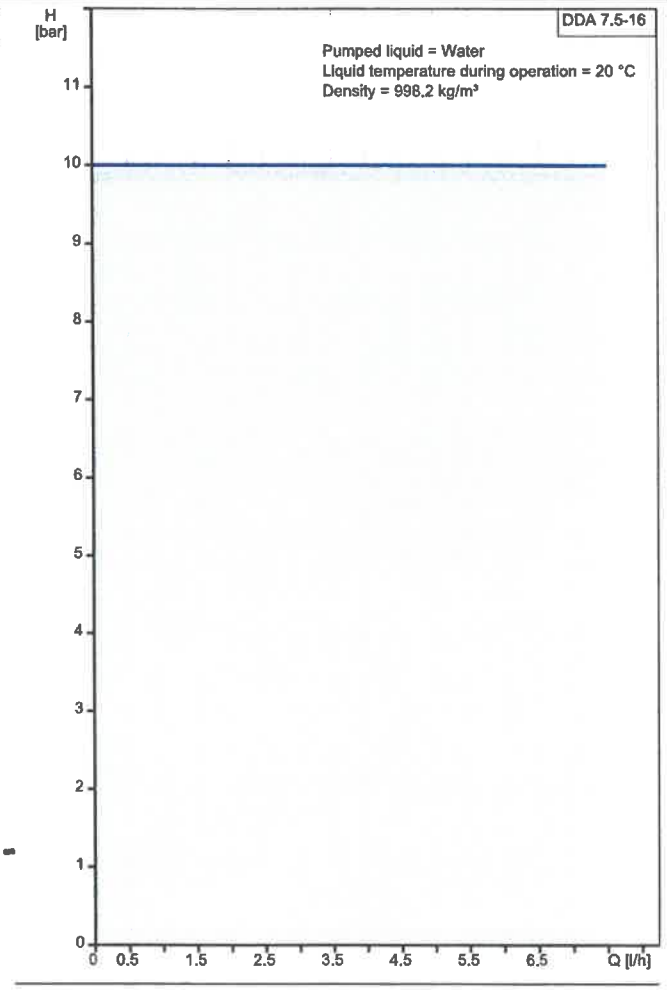
Qty.	Description	
	Controls:	
	Control variant:	AR
	Level control:	YES
	Analog input:	0/4-20 MA
	Pulse control:	YES
	Ext. Stop input:	YES
	Analog output:	0/4-20 MA
	Output relays:	2
	Bus communication:	YES
	Others:	
	Net weight:	2 kg
	Gross weight:	3 kg
	Color:	RED

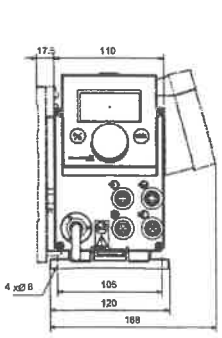
GRUNDFOS

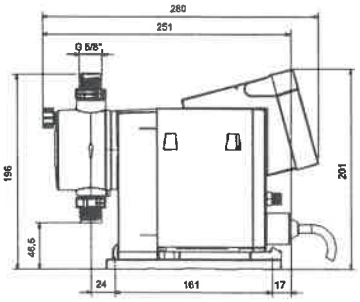
Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Description	Value
General information:	
Product name:	DDA 7.5-16 AR-PVC/V/C-F-31I003BG
Product No:	On request
EAN number:	On request
Technical:	
Type key:	DDA 7.5-16 AR-PVC/V/C-F-31I003
Max. Flow:	7.5 l/h
Max. flow in slow mode 50%:	3.75 l/h
Max. flow in slow mode 25%:	1.88 l/h
Min flow:	2.5 ml/h
Turn-down ratio:	1:3000
Approvals on nameplate:	CE,CSA-US,NSF61,RCM
Valve type:	Standard
Maximum viscosity at 100 %:	50 mPas
Maximum viscosity in slow mode 50 %:	1800 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %
Materials:	
Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	FKM
Installation:	
Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	10 bar
Installation set:	YES
Installation type:	0,17x1/4" up to 7,5 l/h,16bar
Pump inlet:	Hose 0,17x1/4" 3
Pump outlet:	Hose 0,17x1/4" 3
Max. Suction lift during operation:	6 m
Max. Suction lift during priming:	2 m
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 45 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
P1 max:	24 W
Mains frequency:	50 / 60 Hz
Rated voltage:	1 x 100-240 V
Enclosure class (IEC 34-5):	IP65 / NEMA 4X
Length of cable:	1.5 m
Type of cable plug:	USA, Canada
Inrush current:	25A at 230V for 2ms
Controls:	
Control variant:	AR
Control panel:	FRONT-MOUNTED
Level control:	YES
Analog input:	0/4-20 MA
Pulse control:	YES
Ext. Stop input:	YES







GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

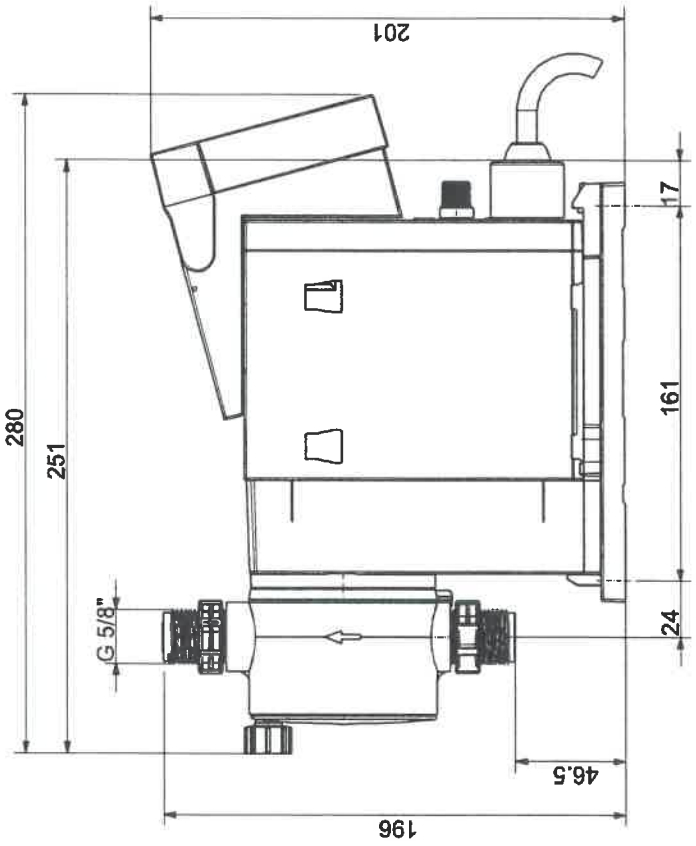
Description	Value
Analog output:	0/4-20 MA
Output relays:	2
Bus communication:	YES
Others:	
Net weight:	2 kg
Gross weight:	3 kg
Color:	RED

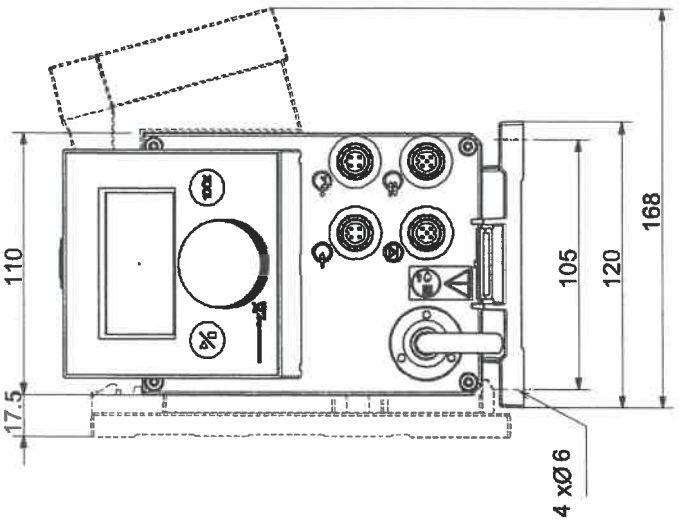
GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

On request DDA 7.5-16 AR-PVC/V/C-F-31I003BG





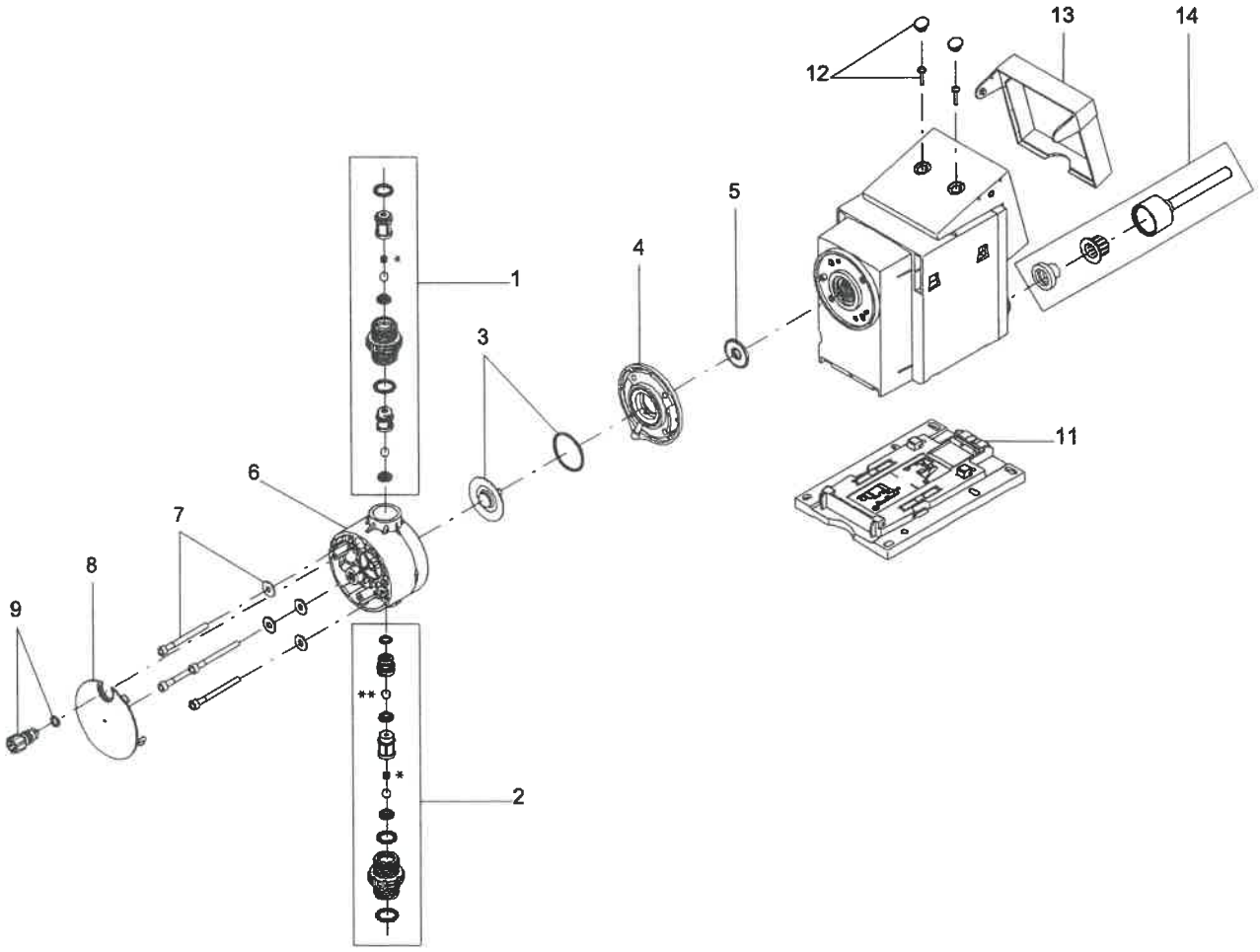
Note! All units are in [mm] unless others are stated.

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Exploded view



166x112

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Spare parts DDA 7.5-16, Product No. On request
Produced After 1131 (production year and week number)

	Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
-		Kit, Diaphragm			97751707	1	pcs
	3	Diaphragm				1	
	3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
-		Kit, Pump head			97751181	1	pcs
-	1	Discharge valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Valve seat					
		O-ring					
		O-ring					
-	2	Suction valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Ball					
		Valve seat					
		Valve seat					
		O-ring					
		O-ring					
		O-ring					
	3	Diaphragm				1	
	3	Diaphragm				1	
	3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
	4	Pump head flange				1	
	6	Dosing head				1	
	7	Hex socket head cap screw				4	
	7	Washer				4	
	8	Pump head cover				1	
-	9	Venting valve				1	
		Spindle					
		O-ring					
-		Kit, Valve			97751629	1	pcs
-	1	Discharge valve cpl.				1	
		Ball cage					
		Ball cage					
		Valve housing					
		Ball					
		Valve seat					
		O-ring					
		O-ring					
-	2	Suction valve cpl.				1	
		Ball cage					

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
	Valve housing					
	Ball					
	Ball					
	Valve seat					
	Valve seat					
	O-ring					
	O-ring					
	O-ring					
-	Kit, Valve and diaphragm			97751479	1	pcs
- 1	Discharge valve cpl.				1	
	Ball cage					
	Ball cage					
	Valve housing					
	Ball					
	Valve seat					
	O-ring					
	O-ring					
- 2	Suction valve cpl.				1	
	Ball cage					
	Ball cage					
	Valve housing					
	Ball					
	Ball					
	Valve seat					
	Valve seat					
	O-ring					
	O-ring					
	O-ring					
3	Diaphragm				1	
3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2		1	
7	Hex socket head cap screw				4	
7	Washer				4	
- 1	Discharge valve cpl.			92662993	1	pcs
	O-ring			99135669	1	
	O-ring			98596690	1	
- 2	Suction valve cpl.			92662995	1	pcs
	O-ring			99231553	1	
3	O-ring		Diameter: 35 Material type: EPDM Thickness: 2	98776848	1	pcs
7	Hex socket head cap screw			99951392	4	pcs
7	Washer			99951403	4	pcs
12	Pan washer head screw			99517706	2	pcs
13	Cover for cube			97790958	1	pcs

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

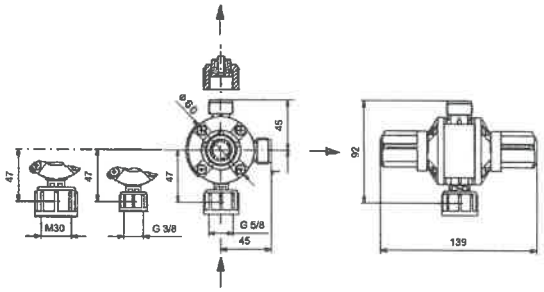
Qty.	Description
1	**Multifunction valve** Product No.: On request Compact valve unit for direct mounting on the pump discharge connection. Multifunction valves combine four functions: 1. Constant counter-pressure and anti-siphoning 2. Pump protection through pressure relief 3. Deaeration of pump head during start up 4. Emptying of discharge line Technical: Pump connection: G5/8 Materials: Housing: PVDF Gasket: FKM Connection mat.: PVC Installation: Pipework connection: 0,17"x1/4",1/4"x3/8",3/8"x1/2" Relief pressure: 10 bar

GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

Description	Value
General information:	
Product name:	Multifunction valve
Product No:	On request
EAN number:	On request
Technical:	
Pump connection:	G5/8
Materials:	
Housing:	PVDF
Gasket:	FKM
Connection mat.:	PVC
Installation:	
Opening pressur:	3 bar
Pipework connection:	0,17"x1/4",1/4"x3/8",3/8"x1/2"
Relief pressure:	10 bar
Others:	
Designed for:	DDA,DDC,DDE,DDI up to 60 l/h

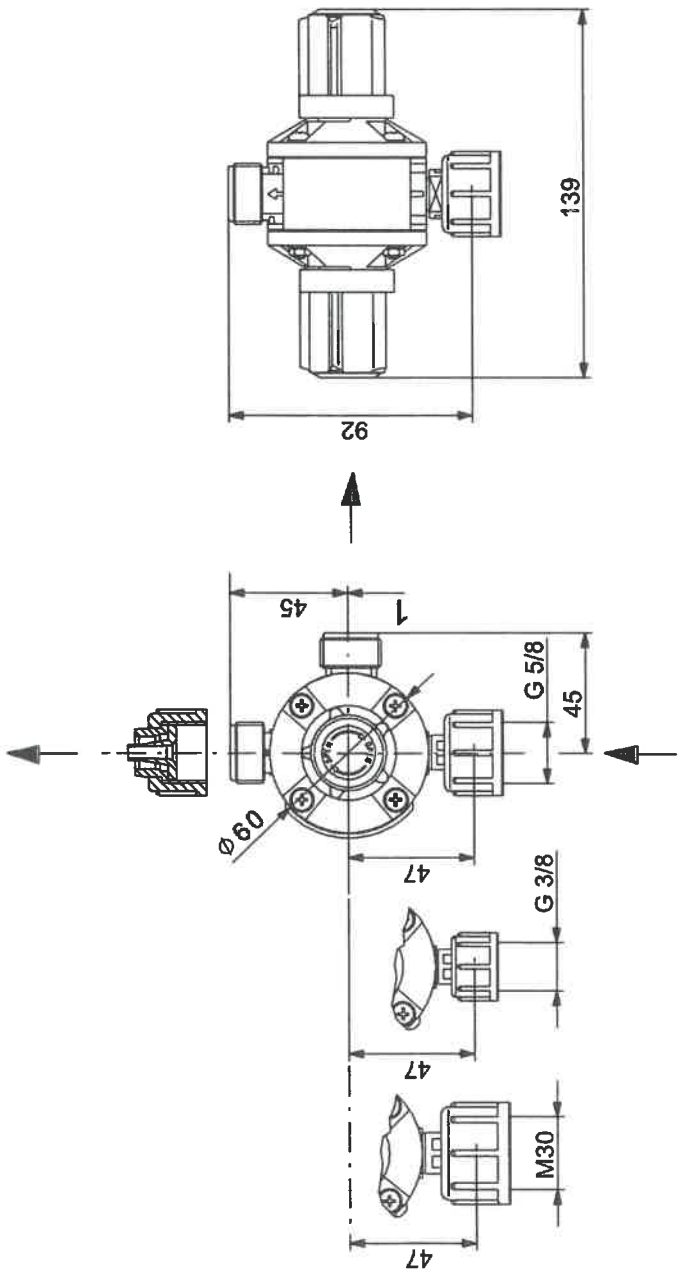


GRUNDFOS

Company name:	ESC Environmental Inc
Created by:	Jim Dwyer
Phone:	518-384-1103
Email:	waterchi@nycap.rr.com
Date:	18/05/2022

Project:	Town of Keene Water	**Client:**	Water Department
Reference Number:		**Client Number:**	
		Contact:	Savana Li

On request Multifunction valve



Note! All units are in [mm] unless others are stated.

quote for new chemical feed pumps

ESC Environmental

6 Redwood Drive
Glenville, NY 12302
Phone 518-384-1103
Fax 518-384-1549

Quote

Date	Estimate #
2/7/2022	4130339

Name / Address
Town of Keene Water Department Savana Li 11133 NY State Route 9 Keene, NY 12942

Terms	Rep	FOB
	JD	Factory

Description	Qty	Cost	Total
Grundfos DDA 7.5-16 AR-PVC- Viton 2.0 GPH Digital pump Part# 97722370 QTN 2 for Hypochlorite	2	1,886.00	3,772.00
Grundfos 1/4" OD Multifunction Valve Viton Adjustable Pressure =Backpressure #95730815	2	305.00	610.00
Grundfos 16 Ft. DD 4-20mA, Start Stop cable	2	61.00	122.00
Grundfos 16Ft. relay Output Cable	2	61.00	122.00
Grundfos DDA 7.5-16 AR-PVC- Viton 2.0 GPH Digital pump Part# 97722370 QTN 1 Zinc orthophosphate	1	1,886.00	1,886.00
Grundfos 1/4" OD Multifunction Valve Viton Adjustable Pressure =Backpressure #95730815	1	305.00	305.00
Grundfos 16 Ft. DD 4-20mA, Start Stop cable	1	61.00	61.00
Grundfos 16Ft. relay Output Cable	1	61.00	61.00
Grundfos DD6,7,9 /(series Spare Parts Kit PTFE Diaphragm QTN 2 check valves/Viton 4 SS Head Screws O-ring. #97751479	1	385.00	385.00
shipping and handling	1	75.00	75.00
New York State Sale Tax		8.25%	0.00

Thank you for your business.

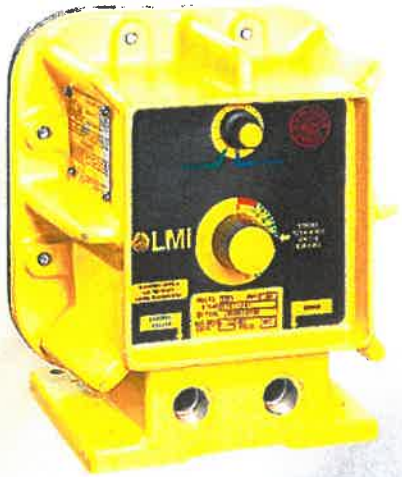
Total $7,399.00

Phone #	Fax #	E-mail	Web Site
518-384-1103	518-384-1549	waterchi@nycap.rr.com	www.escenvir.com

Chemical Metering Pumps

orginal chemical feed pumps we will replace

Solenoid Electronic



Specialized Electronic

Intelligent Control

Motor Driven

You can rely on LMI

LMI®

TRUSTED BY WATER TREATMENT PROFESSIONALS

LMI: A History of Excellence... A Future of Innovation

We earn our reputation every day.

LMI has been leading the way in the metering pump industry for over 40 years. The fact is, we have a world-renowned reputation for manufacturing the highest quality, most reliable pumps on the market. But that's just not enough. We feel a reputation this good should be earned every day.

And here's how we do it;

We build relationships.

Our goal is to exceed your expectations. In order to do this, we need to fully understand the challenges, limitations and demands you experience on a daily basis. That's why we put an exceptional amount of importance on partnering with our customers – not to build business – but to build relationships.

Of course, our long history in the industry gives us a distinct advantage when it comes to mastering the technical details and varied applications required for proper water treatment – but every customer is different. And we pride ourselves on being able to anticipate your needs before they arise, and provide the right solution, every time.

We focus on quality.

Now let's talk about pumps. As a pioneer in the industry, LMI actually introduced the first-ever full line of electronic metering pumps and accessories. And today, our trademark black and yellow has come to stand for quality, reliability, superior design and excellence in service.

Our wide breadth of products extends from basic metering pumps to highly sophisticated custom designs for specific customer applications. Whatever your needs, our highly-trained, knowledgeable service representatives are ready to answer any questions you may have, and find the solution that's best for you.

We constantly improve.

LMI is committed to continually improving our products and processes through a quality management program based on best practices.

The fact is – the industry is constantly changing, and your needs are changing along with it. LMI is shaping the future by exploring emerging technologies and offering you the most state-of-the-art products available.

Our job is to make yours easier.

With strategically located manufacturing sites and channel partner experts available around the globe, LMI is ready to help you wherever you are. Contact us today to find out how our pumps and accessories can make your job easier: www.lmipumps.com

We provide application expertise with extensive experience.
Our global distribution will partner with you long after the sale.

APPLICATIONS

- Water Treatment
- Waste Water Treatment
- Chemical Processing
- Food & Beverage
- Oil & Gas
- General Industry
- Power Generation
- Pulp & Paper
- Textiles

We offer a full line of metering pumps:

PD Series

.002 to 2 GPH (.8 to 7.6 l/h)
Max: 450 PSI (30.6 Bar)

Excel AD

.002 to 2 GPH (.8 to 7.6 l/h)
Max: 250 PSI (17.2 Bar)

B Series

.001 to 7 GPH (6.1 to 26.5 l/h)
Max: 150 PSI (10.3 Bar)

C Series

.001 to 25 GPH (4.9 to 95 l/h)
Max: 300 PSI (20.7 Bar)

SOLENOID

Solenoid Actuated Diaphragm Pumps

SD Series

.12 to 127 GPH (2.6 to 435 l/h)
Max: 175 PSI (12.1 Bar)

SG Series

26 to 300 GPH (400 to 1,136 l/h)
Max: 150 PSI (10.3 Bar)

E Series

.001 to 20 GPH (4.9 to 78. l/h)
Max: 300 PSI (20.7 Bar)

EXCEL XR

.006 to 53 GPH (.023 to 203 l/hr)
Max: 175 PSI (12.0 Bar)

MOTOR DRIVEN

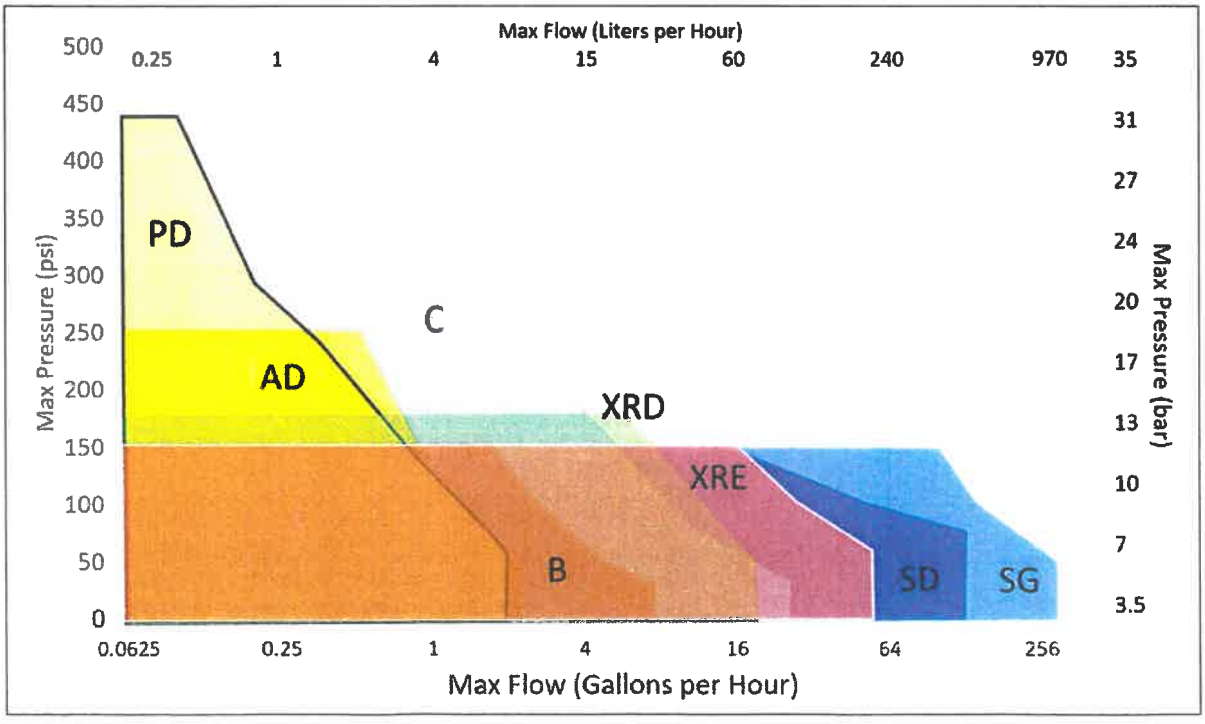
Non Lost Motion Mechanically Actuated
Diaphragm Pumps

SPECIALIZED ELECTRONIC

Solenoid Actuated
Explosion Proof Pump

INTELLIGENT CONTROL

Stepper Motor Non Lost Motion
Diaphragm Pump



METERING PUMPS - FEATURES AND BENEFITS

SOLENOID - Value Added Integral Control

PD Series Pumps

- 2.4" Color LCD - Intuitive navigation allows you to configure and operate with ease. View status and alerts from a distance to confirm safe operation
- External Control Inputs - Automate your process with pulse pacing, remote start/stop, and tank level indication
- Enhanced Model Features STAYPRIME™ Degassing Technology and automates the priming cycle

---

EXCEL™ Series AD Pumps

- LCD interface
  Easy to view content
- Fast prime liquid ends
  Priming without depressurizing the discharge line
- Digital and Analog Inputs and Outputs
  User control interface with remote systems

B Series and C Series Pumps

- Highly accurate / consistent dosing performance
  Ideal for OEM & Municipal applications
- Advanced control options
  Simplified system integration
  (pulse multiply/divide, 4-20 mA, remote on/off)
- External pacing
  For flow proportional applications

MOTOR DRIVEN - Higher Output and Higher Pressure Applications

SD & SG Pumps

- Mechanically actuated diaphragm (MAD)
  Proven robust design
- Variable eccentric design
  Delivering smooth output to your application
- Variable speed drives
  External control (4-20 mA)
- Durable metallic housing
  Designed to withstand corrosive environments

INTELLIGENT CONTROL - Enhanced Performance and Process Control Capabilities

EXCEL XR Metering Pumps

- **Advanced easy-to-use operation interface**
  Enables maximum application customization
- **Remote Connectivity**
  Feedback in real-time for maximum control
- **Universal power supply**
  Providing maximum power flexibility
- **Multi-language navigation (English, French, Spanish, Portuguese, and Chinese)**
  Convenient operation anywhere in the field
- **Innovative drive system with +/- 1% steady state accuracy over 1000:1 turndown ratio,** Greater flexibility handling difficult chemicals

---

SPECIALIZED ELECTRONIC - Explosion-proof and Remote Requirements

E7 Series Pumps (Explosion Proof)

- **Rugged, urethane coated cast housing**
  Designed for hazardous environments and outdoor use
- **Manual control or external control**
  Without the need for costly motor and control options
- **UL, cUL Listed**
- **Meets or exceeds all standards for Class I, Division I, Groups C and D; Class II, Division I Groups E, F and G.**

Making LMI pumps and Accessories work for you

For integrators

Specifying LMI metering pumps and accessories for critical systems gives process systems integrators the best guarantee of reliability, accuracy, and performance in challenging environments.

For operators

Consider the value of LMI reliability when making updates to your equipment. LMI offers field-proven dosing technology, a state-of-the-art technology platform, and an easy-to-use navigation system all backed by authorized industry experts to support you long after the installation.

Liquid end assemblies

LMI offers a wide selection of liquid handling assemblies with flexible tubing and pipe thread connections as well as configurations for high viscosity chemicals to provide total flexibility in all applications.

- PVC
- PVDF
- Acrylic
- Polypropylene
- 316 SS

Accessories

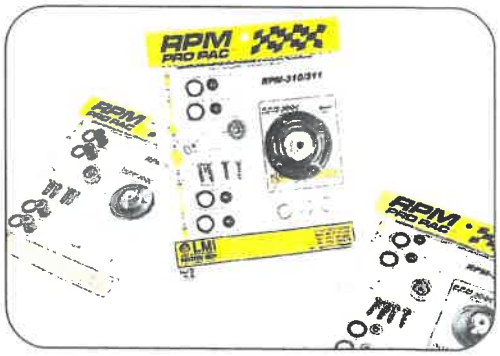
LMI's global stocking distributors are strategically located for fast delivery of pumps and accessories to maximize your system and application. Customize the installation to meet your application needs using pump accessories from LMI.

- Calibration cylinders
- Control modules
- Flow indicators
- Flowmeters
- Fluoride saturator
- Monitors
- Pulse transmitters
- Pump mounting accessories
- Tanks
- Valves
- Tubing
- and much more

Repair and Preventative Maintenance Kits

The RPM Pro Pac™ kits are an economical solution to annual pump maintenance.

These kits are conveniently packed with easy to follow instructions to maximize pump uptime.



About Ingersoll Rand Inc.

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit www.IRCO.com

LMI has provided superior equipment and industry expertise to the water treatment industry for more than 40 years.

All products are in stock for immediate delivery. Contact your local LMI distributor today or visit us online at lmipumps.com to locate the LMI master distributor in your area.

lmipumps.com • info@lmipumps.com

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Literature #IR-1883.G Rev 2021

Data Sheet

ROYTRONIC EXCEL™ Series AD
Electronic Metering Pumps

Model AD

Model Code Configuration

Drive

Control Code

2 - Dual Manual Control
Stroke frequency and length manually adjustable, LCD display, low level indication (remote input). Display configurable to indicate theoretical pump flow.

8 - Pulse/Analog Input w/ Dual Manual Control
Pulse or 4-20 mA signal input controls frequency, LCD display, manual stroke length control, frequency manually adjustable when in local control, pulse multiply/divide functions, 24 V output for remote device. Includes dual low level float switch input. Display configurable to indicate theoretical pump flow.

9 - Pulse/Analog Input w/Dual Manual Control & Enhanced Controls
Advanced Features - Pulse or 4/20 mA signal input controls frequency, graphical display, manual stroke length control, Frequency manually adjustable when in local control, Pulse multiply/divide functions, 24 V output for remote device, dual low level float switch input, Remote on/off signal input. Outputs include: 4-20 mA, pulse, & Alarm, Remote internal/external mode input. Display configurable to indicate theoretical pump flow.

Output Code with FastPrime™ Liquid End

Max Capacity	Max Pressure
1 - 0.21 GPH (0.8 l/h)	250 psi (17.2 Bar)
4 - 0.5 GPH (1.9 l/h)	250 psi (17.2 Bar)
5 - 1.0 GPH (3.8 l/h)	110 psi (7.6 Bar)
6 - 2.0 GPH (7.6 l/h)	50 psi (3.4 Bar)

Voltage Code

1 – 110-120V US Plug
2 – 220-240V US Plug
3 – 220-240V DIN Plug
5 – 220-240V UK Plug
6 – 220-240V Aust/NZ Plug
7 – 220-240V Swiss Plug
8 – 110-120V No Plug

Liquid End

Liquid End Code

See Accompanying Pages for Options

Liquifram™ Size Code

1 – 0.2 in²
2 – 0.4 in²
3 – 0.8 in²
4 – 1.6 in²

Material Code

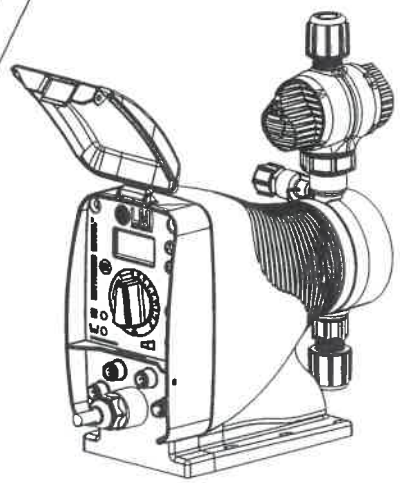
See Accompanying Pages for Options

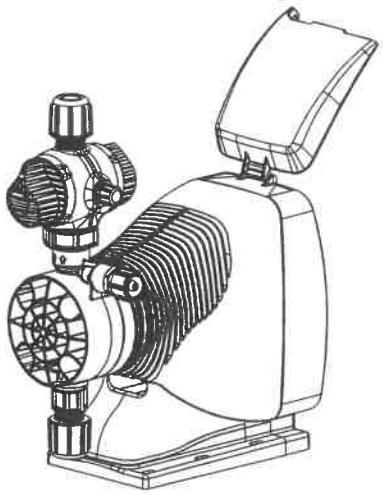
Head/Valve Code

S – FastPrime™ Head + 4FV
N – FastPrime™ Head
H – AutoPrime™ Head + 4FV
A – AutoPrime™ Head
V – High Viscosity Head
P – High Viscosity with Ported Head

Connection Code

I – Inch Tube connections with tubing
M – Metric Tube connection without tubing
U – Inch Tube connection with Black UV resistant suction/discharge tubing
P – 1/2" NPT - 1/2" BSP Pipe (SS 1/4" NPT)





Specifications

Series	Strokes Per Minute (Adjustable) Min	Max	Stroke Length (Adjustable) Recommended Minimum	Average Input Power @ Max Speed and Pressure	Max. Shipping Weight
AD 2X* AD 8X* AD 9X*	1	120	20%	25 watts	10 lbs (4.75 kg)

* where X = output code

LMI

201 Ivyland Road
Ivyland, PA 18974 USA
TEL: (215) 293-0401
FAX: (215) 293-0445
http://www.lmipumps.com

Replaces same of Rev.D 6/2012
2039.E 11/2014

Standard FastPrime™ Liquid End Configuration Data & Materials of Construction

Drive Assembly	Liquid End	Size Code	Materials of Construction				Accs. Valve	Tubing & Connections Discharge & Suction
			Head/Fittings	Balls	Liquifram™	Seat/O-Ring		
AD91 ■ AD81 ■ AD21 ■	910SI†	1	Acrylic/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	915SI†	1	PP/PP	Ceramic	Fluorofilm™	PTFE	4FV	PE 1/4" O.D.
	918SI†	1	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	919SI†	1	Acrylic/PVDF	PTFE	Fluorofilm™	Polyprel®	4FV	PE 1/4" O.D.
	917NP	1	316ss/316ss	316ss	Fluorofilm™	316ss/PTFE	—	1/4" NPT
	812SI†	1	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	813SI†	1	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE	4FV	PE 1/4" O.D.
	818SI†	1	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	718SI†	1	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.

Drive Assembly	Liquid End	Size Code	Materials of Construction				Accs. Valve	Tubing & Connections Discharge & Suction
			Head/Fittings	Balls	Liquifram™	Seat/O-Ring		
AD94 ■ AD84 ■ AD24 ■	920SI†	2	Acrylic/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	925SI†	2	PP/PP	Ceramic	Fluorofilm™	PTFE	4FV	PE 1/4" O.D.
	928SI†	2	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	929SI†	2	Acrylic/PVDF	PTFE	Fluorofilm™	Polyprel®	4FV	PE 1/4" O.D.
	927NP	2	316ss/316ss	316ss	Fluorofilm™	316ss/PTFE	—	1/4" NPT
	822SI†	2	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	823SI†	2	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE	4FV	PE 1/4" O.D.
	828SI†	2	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	728SI†	2	PVC/PVC	Ceramic	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	624VI*	2	PP/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.
	626VI	2	Acrylic/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.

Drive Assembly	Liquid End	Size Code	Materials of Construction				Accs. Valve	Tubing & Connections Discharge & Suction
			Head/Fittings	Balls	Liquifram™	Seat/O-Ring		
AD95 ■ AD85 ■ AD25 ■	930SI†	3	Acrylic/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	935SI†	3	PP/PP	Ceramic	Fluorofilm™	PTFE	4FV	PE 3/8" O.D.
	938SI†	3	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	939SI†	3	Acrylic/PVDF	PTFE	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	937NP	3	316ss/316ss	316ss	Fluorofilm™	316ss/PTFE	—	1/4" NPT
	832SI†	3	PVDF/PVDF	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	833SI†	3	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE	4FV	PE 3/8" O.D.
	838SI†	3	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	738SI†	3	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	634VI*	3	PP/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.
	636VI	3	Acrylic/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.

Drive Assembly	Liquid End	Size Code	Materials of Construction				Accs. Valve	Tubing & Connections Discharge & Suction
			Head/Fittings	Balls	Liquifram™	Seat/O-Ring		
AD96 ■ AD86 ■ AD26 ■	940SI†	4	Acrylic/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	945SI†	4	PP/PP	Ceramic	Fluorofilm™	PTFE	4FV	PE 3/8" O.D.
	948SI†	4	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	949SI†	4	Acrylic/PVDF	PTFE	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	947NP	4	316ss/316ss	316ss	Fluorofilm™	316ss/PTFE	—	1/4" NPT
	842SI†	4	PVDF/PVDF	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	843SI†	4	PVDF/PVDF	Ceramic	Fluorofilm™	PTFE	4FV	PE 3/8" O.D.
	848SI†	4	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	748SI†	4	PVC/PVC	Ceramic	Fluorofilm™	Polyprel®	4FV	PE 3/8" O.D.
	644VI*	4	PP/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.
	646VI	4	Acrylic/PP	316ss	Fluorofilm™	PTFE	—	PE.5"O.D. Vinyl.938"O.D.

Output Information with FastPrime™ Liquid End

Series	Gallons per Hour Min	Gallons per Hour Max	Liters per Hour Min	Liters per Hour Max	mL/cc per Minute Min	mL/cc per Minute Max	mL/cc per Stroke Min	mL/cc per Stroke Max	Maximum Injection Pressure
ADX1	0.002	0.21	0.01	0.8	0.132	13.2	0.011	0.11	250 psi (17.2 Bar)
ADX4	0.005	0.5	0.02	1.9	0.315	31.5	0.026	0.26	250 psi (17.2 Bar)
ADX5	0.01	1.0	0.04	3.8	0.630	63.0	0.053	0.53	110 psi (7.6 Bar)
ADX6	0.02	2.0	0.08	7.6	1.260	126.0	0.105	1.05	50 psi (3.4 Bar)

(Where X = Control Code 2,8,9).

AutoPrime™ Liquid End Configuration Data & Materials of Construction

Drive Assembly	Liquid End	Size Code	Materials of Construction: Head/Fittings	Balls	Liquifram™	Seat/O-Ring	Accs. Valve	Tubing & Connections
AD91 ■ AD81 ■ AD21 ■	A10HI†	1	Acrylic/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	A18HI†	1	PVC/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
AD94 ■ AD84 ■ AD24 ■	A20HI†	2	Acrylic/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
	A28HI†	2	PVC/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 1/4" O.D.
AD95 ■ AD85 ■ AD25 ■	A30HI†	3	Acrylic/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 3/8" O.D.
	A38HI†	3	PVC/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 3/8" O.D.
AD96 ■ AD86 ■ AD26 ■	A40HI†	4	Acrylic/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 3/8" O.D.
	A48HI†	4	PVC/PVC	Ceramic**	Fluorofilm™	PTFE/Polyprel®	4FV	PE 3/8" O.D.

Output Information with AutoPrime™ Liquid End — Estimated

Series	Gallons per Hour Min	Gallons per Hour Max	Liters per Hour Min	Liters per Hour Max	mL/cc per Minute Min	mL/cc per Minute Max	mL/cc per Stroke Min	mL/cc per Stroke Max	Maximum Injection Pressure
ADX1	0.0015	0.15	0.006	0.6	0.095	9.5	0.008	0.079	250 psi (17.2 Bar)
ADX4	0.0033	0.33	0.012	1.2	0.21	20.8	0.017	0.17	250 psi (17.2 Bar)
ADX5	0.008	0.8	0.030	3.0	0.50	50.5	0.042	0.42	110 psi (7.6 Bar)
ADX6	0.018	1.8	0.068	6.8	1.14	113.6	0.095	0.95	50 psi (3.4 Bar)

(Where X = Control Code 2,8,9).

AUTOPRIME™ liquid ends have 3 check valves: suction on the bottom; discharge on the front; autoprime bleed on the top. By design, a repeatable portion of the process fluid continuously bleeds through the top check valve to be returned to the chemical supply. The result is the assurance that any gas in the head is automatically relieved thus eliminating air-binding. Depending on application, output may be reduced up to 50%. Variables include supplier piping, stroke length and speed setting.

■ See front page for voltage code specifications.

† To specify black, UV resistant tubing, change 'I' to 'U'. To specify head only and no 4FV, change S to N for FastPrime or change H to A for AutoPrime. To specify 1/2" NPT Male, change "I" to "P".

* To specify Ported Head, change "V" to "P".

** Autoprime™ cartridge ball is Hastelloy.

4FV indicates that the pump is equipped with an LMI Four Function Valve. This diaphragm type, anti-syphon/pressure relief valve is installed on the pump head. It provides anti-syphon protection and aids priming, even under pressure.

Fluorofilm™ is a copolymer of PTFE and PFA. Polyprel® is an elastomeric PTFE copolymer.

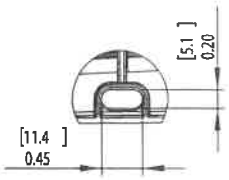
Polyprel is a registered trademark of Milton Roy, LLC.

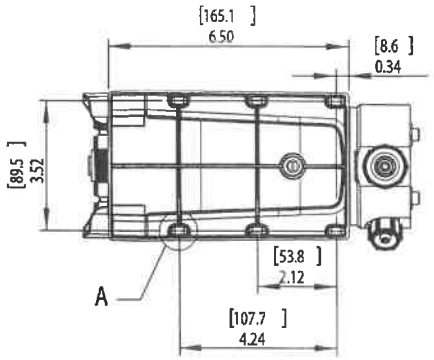
Fluorofilm and Liquifram are trademarks of Milton Roy, LLC.

Viton® is a registered trademark of E.I. du Pont Company.

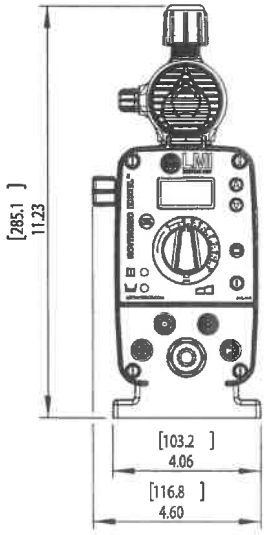
MOUNTING INFORMATION

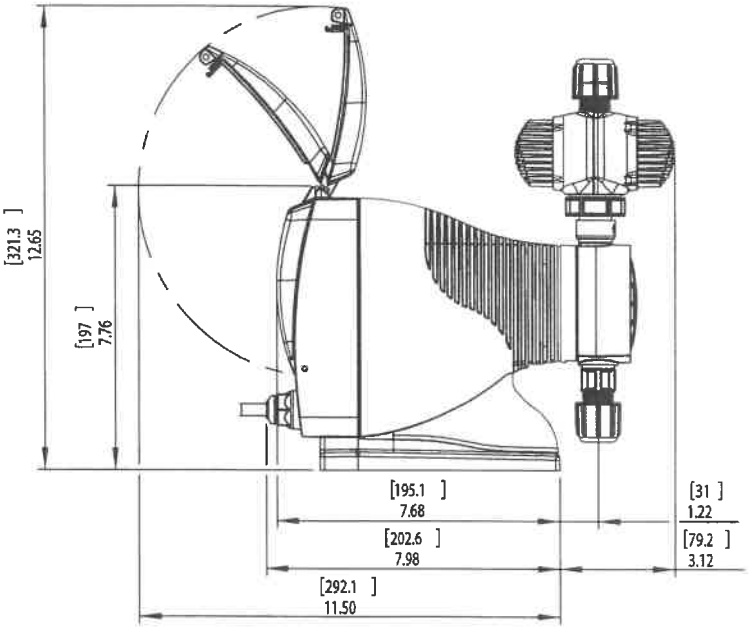
VIEW A



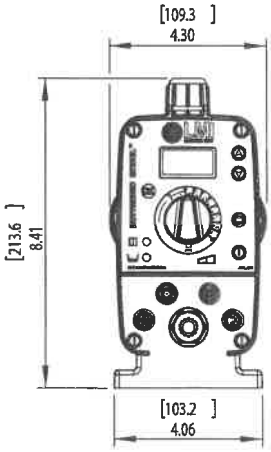


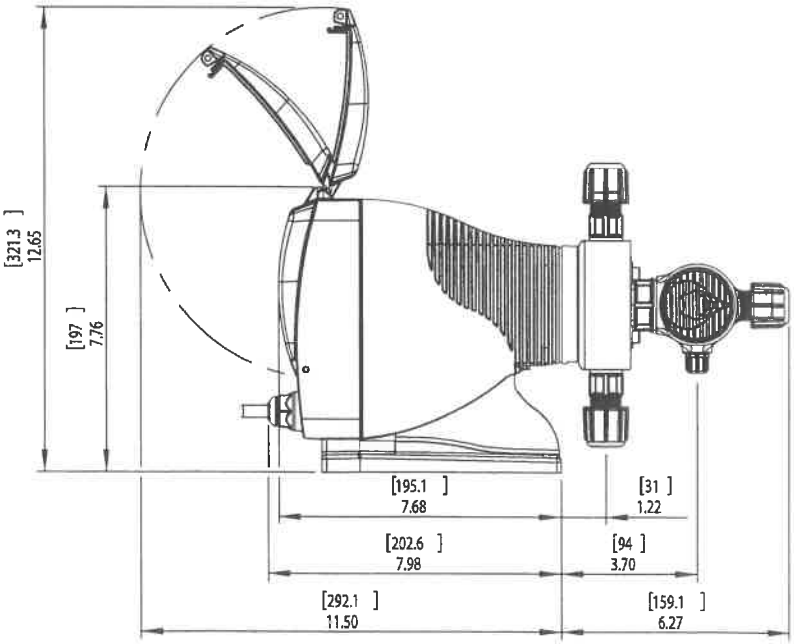
FASTPRIME LIQUID ENDS





AUTOPRIME LIQUID ENDS





NOTE: ALL DIMENSIONS ARE IN INCHES [MM]. DIMENSIONS SHOWN ARE FOR LARGEST LIQUID END.
DIMENSIONS WILL VARY DEPENDING ON LIQUID END SELECTED.

original analyzer we will replace!

CL17 Free Chlorine Analyzer

OBSOLETE ITEM

Product #: 5440001

BASIC UNIT

Suggested replacements

CL17sc Colorimetric Chlorine Analyzer with Stainless Installation Kit and Reagents for Free Chlorine

USD Price: $3,166.24

Hach has transitioned the CL17 to the newly upgraded CL17sc, which delivers improved usability and performance. Hach will continue to support the legacy CL17 with service and parts.

Dependable online analyzer for colorimetric DPD analysis of free chlorine, total chlorine, or permanganate in disinfection applications.

- EPA-approved Free or Total Chlorine Analysis
- Accurate, Reliable Results
- Simple, predictable maintenance

Items with this mark may be considered hazardous under some shipping conditions.

If necessary, we will change your selected shipping method to accomodate these items.

Recommended Products

Service

WarrantyPlus® Partnership, CL17 (5440000), 2 Services/Year

» Get Quote

CL17 Chlorine Analyzer Calibration Verification Kit

USD Price: $276.64

» Add to Order

Free Chlorine Reagent Set for chlorine analyzer CL17/CL17sc

USD Price: $77.11

» Add to Order

A 12% surcharge may be added to the product price. Learn More

Shipping Policy and Rates

Return Policy

Hach Warranty

Terms and Conditions

Expert Answers, Outstanding Support

HACH Support Online

PART 1 GENERAL

1.1 Section includes:
- A. Chlorine analyzer for monitoring of free or total residual chlorine

1.2 Measurement Procedures
- A. The method of measuring free or total chlorine will be colorimetric. Instrument chemistry will employ N, N-diethyl-p-phenylenediamine (DPD) method.

1.3 Alternates
- A. Other methods of chlorine measurement such as amperometric, potentiometric, and iodometric that employ electrodes or other electrochemical techniques are not acceptable.

1.4 System Description
- A. Performance Requirements
  1. Measurement range:
     a. 0 to 5 mg/L (ppm) free or total residual chlorine
  2. Accuracy
     a. ± 5% of reading or ±0.03 mg/L (ppm), whichever is greater
  3. Precision
     a. 5% of reading or 0.01 mg/L (ppm), whichever is greater
  4. Minimum detection limit
     a. 0.03 mg/L (ppm)
  5. Resolution
     a. 0.01 mg/L (ppm)
  6. Repeatability
     a. 0.05 mg/L (ppm)
  7. Cycle Time
     a. 2.5 minutes

1.5 Certifications
- A. CE compliant for conducted and radiated emissions CISPR 11 (Class A limits), EMC Immunity EN 61326-1 (Industrial limits), and EN 61010-1
- B. General Purpose UL/CSA 61010-1 with cETLus safety mark
- C. IP62 dust and water ingress protection rating
- D. Australian CTICK and Korean KC Marking

1.6 Environmental Requirements
- A. Operational Criteria
  1. Sample flow rate
     a. 200 to 500 mL/minute
  2. Sample pressure (without conditioning kit)
     a. 1 to 5 psi (0.07 to 0.34 bar)
  3. Sample pressure (with conditioning kit)
     a. 120 psi (8.27 bar)
  4. Sample temperature
     a. 41 to 104 °F (5 to 40 °C)
  5. Operating temperature
     a. 41 to 104 °F (5 to 40 °C)
  6. Operating humidity

a. 90% at 40 °C maximum

1.7 Warranty
A. The product includes a one-year warranty from the date of shipment

1.8 Maintenance Service
A. Scheduled Maintenance
1. Monthly
a. Reagent replacement
2. Annually
a. Analyzer tubing replacement
B. Unscheduled Maintenance
1. Pump tubing replacement is operating temperature dependent
a. Operating temperature below 80 °F: six-month intervals
b. Operating temperature above 80 °F: three-month intervals

PART 2 PRODUCTS

2.1 Manufacturer
A. Hach Company, Loveland, CO
1. Model Cl17 Chlorine Analyzer, Free Chlorine Residual
2. Model Cl17 Chlorine Analyzer, Total Chlorine Residual

2.2 Manufactured Unit
A. The Cl17 Chlorine analyzer consists of a sample and reagent valve and pump, measurement cell, controller, and is shipped with buffer and indicator solutions.

2.3 Equipment
A. The analyzer must be housed in a NEMA 12 enclosure that is IP62 rated with the gasketed door latched.
B. The analyzer shall be capable of measuring free or total residual chlorine by changing the tubing and indicator and buffer solutions.
C. A measurement shall be taken every 2.5 minutes and results displayed by a three digit LCD readout in the range of 0 to 5 mg/L.
D. The analyzer must operate using 115V or 230V selectable AC power.
E. The analyzer must perform a self-test and auto-blanking between analysis points to compensate for sample color, turbidity, and changes in light intensity due to voltage fluctuations or light source aging.
F. The analyzer shall operate with an LED light source at a peak wavelength of 510nm.
G. The analyzer must be able to operate unattended for 30 days between chemical reagent changes and measurement cell cleaning.
H. The analyzer has two feed control (relay) operation modes to operate chemical feed pumps. Available control options are:
1. On/off control where the concentration alarm outputs activate or deactivate a pump when chlorine levels fall below or exceed acceptable levels.
2. Proportional control where the 4-20mA output current is scaled to pace a feed pump proportional to output.
I. The analyzer has standard optically isolated analog outputs, selectable as 0/4 to 20mA, field programmable over any portion of the analyzer range

J. The analyzer has two standard SPDT relay alarms, with contacts rated for 5 amp resistive loads at 230V AC power. Alarm options include concentration set point, analyzer system warning, and analyzer system shut down.

2.4 Components

A. Standard Equipment
   1. Cl17 Free or Total Chlorine analyzer
   2. One-Month Supply of reagents
   3. Installation kit
   4. Maintenance kit
   5. Sample conditioning kit
      a. Pressure regulator, strainer, and shut off valve
   6. Wall mount kit
   7. User manual

B. Dimensions: 13.5 x 17.9 x 7 inches (343 x 455 x 178 mm)

C. Shipping weight: 16 lbs (7.3 kg)

2.5 Optional Accessories

A. Power Cord

B. Maintenance kit with preassembled tubing

C. Pocket Colorimeter II for free and total chlorine (high and low range combination)

PART 3 EXECUTION

3.1 Preparation

1. Mounting
   a. The Cl17 Free or Total Chlorine analyzer can be wall mounted only.
2. Required Clearances
   a. Horizontal: 15.2 in (386 mm), 26 inches (686 mm) ideal
   b. Vertical: 19 inches (483 mm)
   c. Depth: 20 inches (508 mm)
3. Sample inlet
   a. 0.25 inch OD polyethylene tubing
4. Sample outlet
   a. 0.50 inch ID flexible tubing
5. Overflow drain
   a. 0.50 inch ID flexible tubing
6. Air purge quick connect
   a. 0.25 inch OD polyethylene tubing (optional)

3.2 Installation

A. Contractor will install the analyzer in strict accordance with the manufacturer's instructions and recommendation.

B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician, if requested.
   1. Contractor will schedule a date and time for start-up.

2. Contractor will require the following people to be present during the start-up procedure.
   a. General contractor
   b. Electrical contractor
   c. Hach Company factory trained representative
   d. Owner's personnel
   e. Engineer

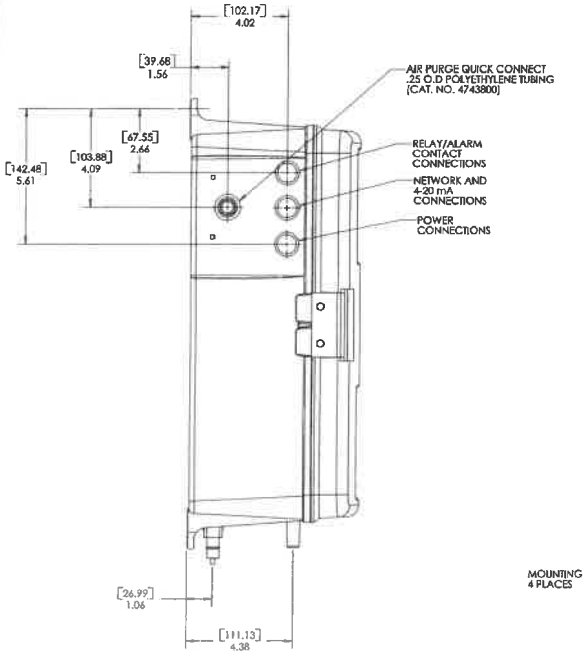
3.3 Manufacturer's Service and Start-Up

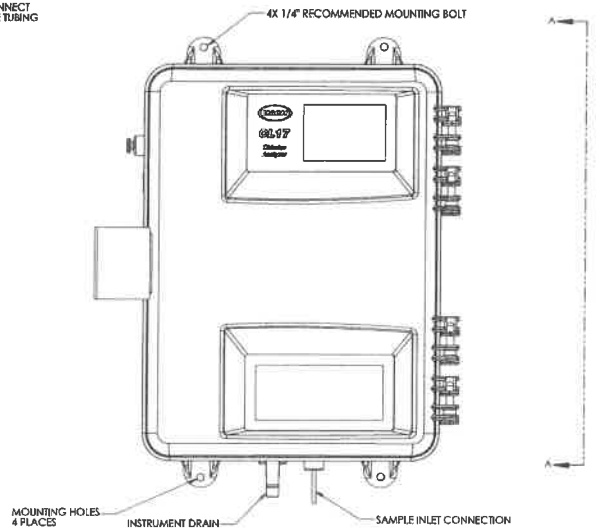
A. Contractor will include the manufacturer's services to perform start-up on instrument to include basic operational training and certification of performance of the instrument.
B. Contractor will include a manufacturer's Service Agreement that covers all the manufacturer's recommended preventative maintenance, regularly scheduled calibration and any necessary repairs beginning from the time of equipment startup through to end user acceptance / plant turnover and the first 12 months of end-user operation post turnover.
C. Items A and B are to be performed by manufacturer's factory-trained service personnel. Field service and factory repair by personnel not employed by the manufacturer is not allowed.
D. Use of manufacturer's service parts and reagents is required. Third-party parts and reagents are not approved for use.

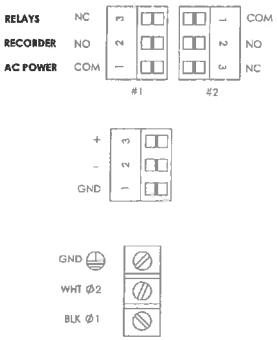
END OF SECTION

NOTES:
1. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].

REVISION		
REV	DESCRIPTION	APPROVED
B	REVISED PER R-2823-06	

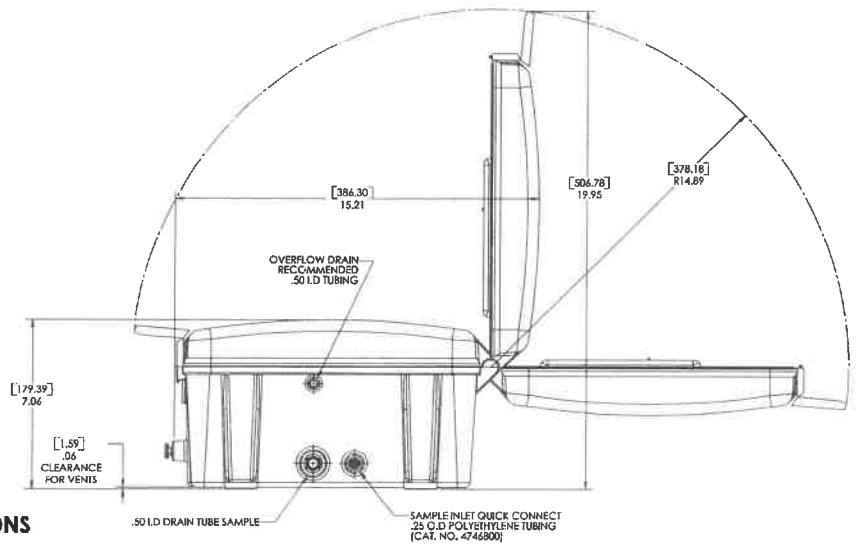






CUSTOMER POWER CONNECTIONS TO ANALYZER

POWER: 100-115 / 230 Vac. 50/60 Hz. 95 VA (FUSED AT 2.50A)



INSTRUMENT DIMENSIONS

GENERAL INFORMATION:

1. ENCLOSURE: IP62 - RATED WITH THE GASKETED DOOR LATCHED.
2. INSTRUMENT SHIPPING WEIGHT: 11.3 Kg (25 lb).
3. INLET PRESSURE TO INSTRUMENT: 1 TO 5 psig.
4. SAMPLE FLOW RATE TO SAMPLE CONDITIONING: 200 TO 500 ml/min.

	NAME	DATE
DRAWN		
CHK'D	FGR	02/14/07
ENG APPR.	GDP	02/14/07

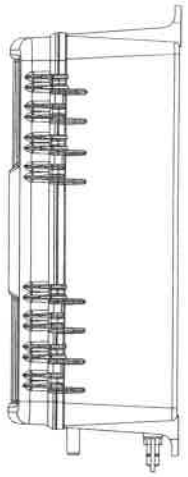
THIRD ANGLE PROJECTION

HACH COMPANY
5600 LINDBERGH DR.
LOVELAND, CO. 80539

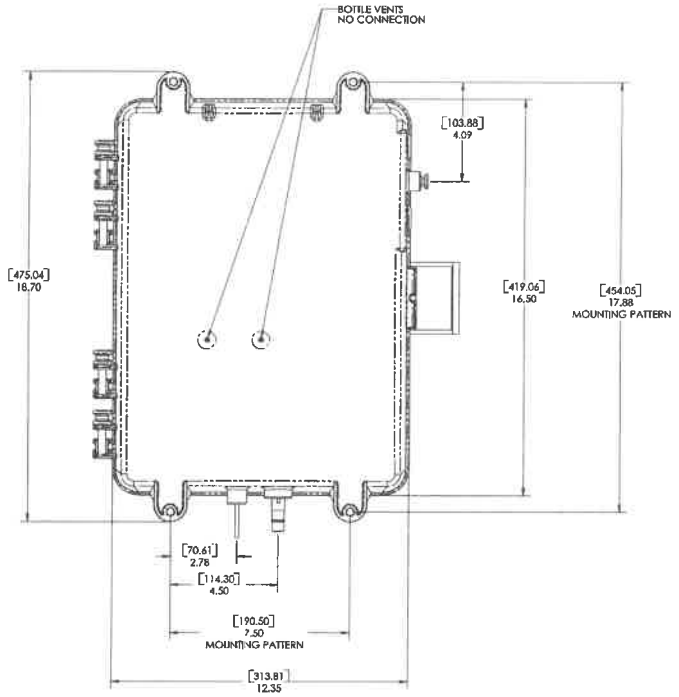
TITLE: TRANSMITTAL, CL 17

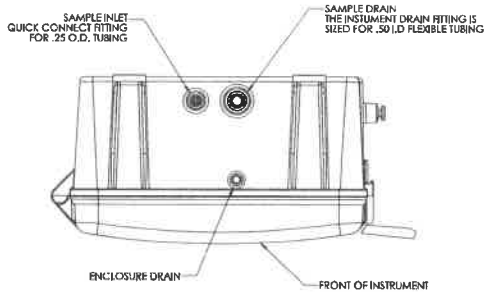
SIZE: D | DWG. NO.: 5440087 | REV: B

SCALE: 2:5 | WEIGHT: | SHEET 1 OF 2



VIEW A-A
HINGE SIDE





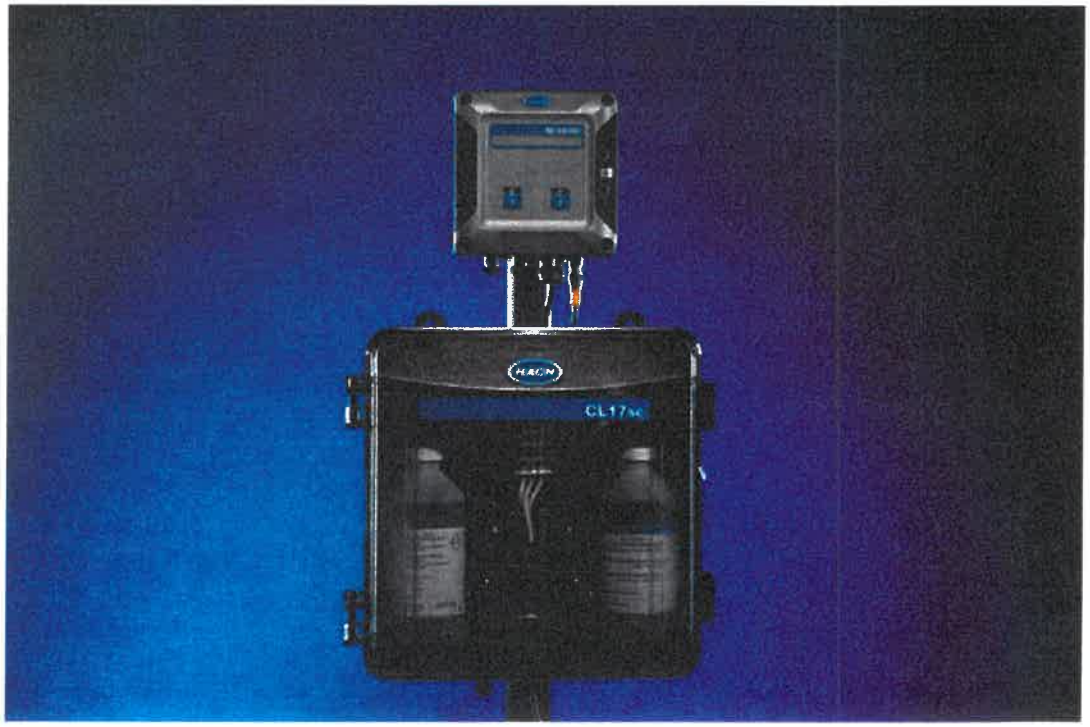
PLUMMING CONNECTIONS

SIZE	DWG. NO.	REV
D	5440087	B
SCALE: 2:5	WEIGHT:	SHEET 2 OF 2

HACH
Be Right

CL17sc Colorimetric Chlorine Analyzer - Image 1 of 5

CL17sc Colc







New analyzer

CL17sc Colorimetric Chlorine Analyzer ... Enabled . Our legacy SC200 or SC1000 controllers are also compatible with the

Service

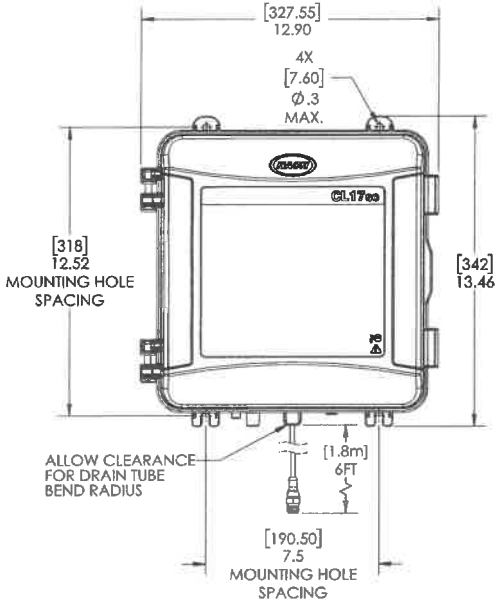
REVISION			
REV	DESCRIPTION	ECO #	DATE
A	PRODUCTION RELEASE		08/26/2019

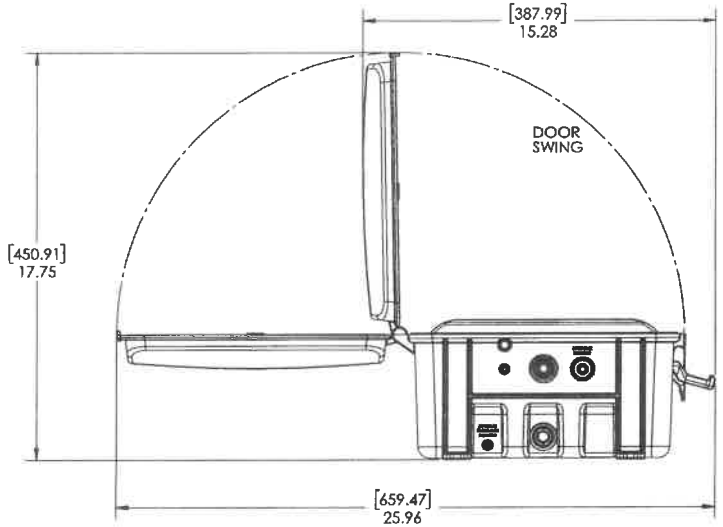
POWER REQUIREMENTS:
PROVIDED BY THE CONTROLLER

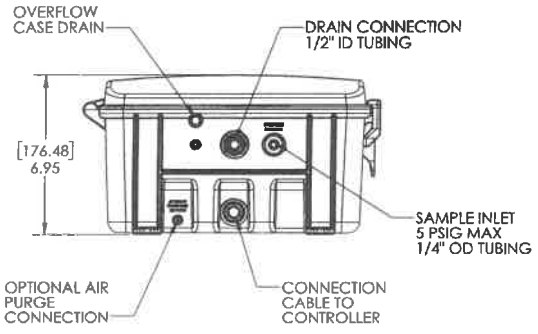
TEMPERATURE:
GENERAL USE: 5 TO 40°C (41 TO 104°F)
STORAGE: -40 TO 60°C (-40 TO 140°F)

ENVIRONMENTAL RATING:
- PROTECT FROM DIRECT SUNLIGHT TO PREVENT UV AND THERMAL EXPOSURE.
- IP66, WITH THE DOOR CLOSED AND LATCHED.
- POLLUTION DEGREE: 3
- INSTALLATION CATEGORY: I (INDOOR INSTALLATION)

WEIGHT:
4.1 kg (9 lbs) WITHOUT BOTTLES.







PART CLASSIFICATION: MINOR B	THE SOLID CAD FILE IS THE CONTROLLING AUTHORITY FOR PART GEOMETRY		NAME / DATE
MATERIAL: HACH MATERIAL PART NUMBER	UNLESS OTHERWISE SPECIFIED:	ENGINEER	R. LUTHER 07/17/2019
NOTICE: HACH COMPANY CLAIMS PROPRIETARY RIGHTS IN THE INFORMATION DISCLOSED ON THIS DRAWING. IT IS ISSUED IN CONFIDENCE FOR ENGINEERING INFORMATION ONLY AND MAY NOT, IN WHOLE OR IN PART, BE USED TO MANUFACTURE ANYTHING WHEREBY OR NOT SHOWN HEREON, REPRODUCED OR DISCLOSED TO ANYONE WITHOUT DIRECT PERMISSION FROM HACH COMPANY.	DIMENSIONS ARE IN INCHES [MM]	DRAWN	R. LUTHER 7/17/2019
	TOLERANCES: X = ±.03, XX = ±.01, XXX = ±.005, ANGLES = ±.5°	CHECKED	G. RONKAINEN 8/13/2019
	ALL MOLDED PART FEATURES SHALL BE HELD TO SURFACE PROFILES AS FOLLOWS: .010 FOR FEATURES < 4.0", .020 FOR FEATURES > 4.0" - 10.0", .040 FOR FEATURES > 10.0"	PRODUCTION	RRITTA, EDWARD 8/26/2019
		INTERPRET GEOMETRIC TOLERANCING PER: ANSI Y14.5M 1994	
		THIRD ANGLE PROJECTION	
		DO NOT SCALE DRAWING	

HACH COMPANY
5600 LINDBERGH DR.
LOVELAND, CO. 80538

TITLE: SUBMITTAL DRAWING, CL17sc CHLORINE ANALYZER

SIZE	DWG. NO.	REV
C	856000087	A

SCALE: 1:4 SHEET 1 OF 1

Protect Your Investment and Peace of Mind

With Hach® Service Plans you have a global partner who understands your unique service needs and cares about delivering timely, high-quality service you can trust. Our Technical Support, Field Service, and Central Service Teams work together with unique expertise to help you Establish, Extend, and Elevate performance.

Whether you are looking for only basic support, all-inclusive service coverage, or even advanced digital services for process optimization, we have you covered.

Service Plan Benefits

- Maximize Instrument Uptime
- Ensure Data Integrity
- Maintain Operational Stability
- Reduce Compliance Risk
- Eliminate Unplanned Expenses

Establish - Extend - Elevate - Performance

Partnership for Success

With a Service Plan, you can trust that Hach is invested in a long-term partnership to help you achieve your goals.

Our Commitment to You

- Listen and deeply understand your needs
- Deliver services on time and of the utmost quality
- Continuously improve
- Innovate service as technology and capabilities advance
- Be here for the long term, in all circumstances, committed to your success and to our mission of ensuring water quality for people around the world

Hach Service Plans Go Far Beyond the Factory Warranty

Service Feature	Factory Warranty	Hach Service Plans*
Repair of Manufacturing Defects	✓	✓
Unlimited Tech Support	✓	✓
Service Performed at Service Center	✓	✓
Service Performed On-Site	✗	✓
Priority Response / Turnaround Time	✗	✓
Commissioning/Startup**	✗	✓
Operation & Maintenance Instruction	✗	✓
Regular Calibration	✗	✓
Regular Performance Certification	✗	✓
Scheduled Maintenance & Parts	✗	✓
Repairs & Parts Through the Lifecycle	✗	✓
In-depth System Diagnostics	✗	✓
Remote Monitoring	✗	✓
Travel / Expedited Shipping Costs	✗	✓

**Specific coverage and inclusions vary based on the instrument and service plan selected. Consult your local Hach Sales or Service representative to learn more.*
***installation not included*

Service

Unique to Hach Service

Although there are many service providers out there and capable in-house staff, partnering with Hach provides key advantages:

Hach Advantage	What It Means
Specialized Hach product knowledge & expertise	Confidence service is done right
Faster access to parts & materials	More uptime & process stability
Largest global direct field service technician base	Consistent service experience
Unrivalled online support resources	Direct access to expert answers 24/7
Large team of highly-skilled, live technical specialists	Easier troubleshooting & rapid resolution
System for managing maintenance schedules	Less effort to keep Hach assets maintained
Manufacturer's certification	Assurance in compliance audits

Hach Service Plans Pay Off

Consult your local Hach Sales or Service representative to learn more about our service offerings or to get started. You can also find additional information, including local service contact, online at: **www.hach.com/service**

DOC060.53.10226.Jun21

HACH World Headquarters: Loveland, Colorado USA

United States:	800-227-4224 tel	970-669-2932 fax	orders@hach.com
Outside United States:	970-669-3050 tel	970-461-3939 fax	int@hach.com

hach.com

HACH®
Be Right™

PART 1 GENERAL

1.1 Section includes:
A. Online chlorine analyzer for continuous monitoring of free or total residual chlorine in water. CL17sc must be used with any current Hach SC controller.

1.2 Measurement Procedures
A. The method of measuring free or total chlorine will be colorimetric. Instrument chemistry will employ N, N-diethyl-p-phenylenediamine (DPD) method.

1.3 Alternates
A. Other methods of chlorine measurement such as amperometric, potentiometric, and iodometric that employ electrodes or other electrochemical techniques are not acceptable.

1.4 System Description
A. Performance Requirements
1. Measurement range:
a. 0 to 10 mg/L (ppm) free or total residual chlorine
2. Accuracy
a. ± 5% of reading or ±0.04 mg/L (ppm), whichever is greater from 0 to 5 mg/L as Cl_2; +/- 10% from 5 to 10 mg/L as Cl_2
3. Precision
a. 5% of reading or 0.01 mg/L (ppm), whichever is greater
4. Lower Limit of Detection (LOD)
a. 0.03 mg/L (ppm)
5. Resolution
a. 0.01 mg/L (ppm)
6. Repeatability
a. 5% of reading or 0.01 mg/L (ppm), whichever is greater
7. Cycle Time
a. 2.5 minutes

1.5 Certifications
A. Complies with US EPA 40 CFR 141.74
B. CE compliant for conducted and radiated emissions CISPR 11 (Class A limits), EMC Immunity EN 61326-1 (Industrial limits), and EN 50581
C. North America: FCC Supplier's Declaration of Conformance, IEC/EN 60529, ICES-003
D. ACMA RCM
E. South Korea KC Certificate

1.6 Environmental Requirements
A. Operational Criteria
1. Sample flow rate
a. 60 to 200 mL/minute through the analyzer
2. Sample Filtration
a. Y-strainer with 40-mesh screen or higher
3. Inlet Pressure
a. 4.5 to 75 psig (0.3 to 5.2 bar) supplied to Y-strainer; 1.5 to 5 psig (0.1 to 0.3 bar) supplied to analyzer
4. Sample temperature
a. 41 to 104 °F (5 to 40 °C)

5. Operating temperature
   a. 41 to 104 °F (5 to 40 °C)
6. Operating humidity
   a. 0 to 90% non-condensing relative humidity

1.7 Warranty

A. The product includes a one-year warranty from the date of shipment (EU: 2 years)

1.8 Maintenance Service

A. Scheduled Maintenance
   1. Monthly
      a. Reagent replacement
      b. Cell cleaning
   2. Semi-annually
      a. Analyzer tubing replacement

PART 2 PRODUCTS

2.1 Manufacturer

A. Hach Company, Loveland, CO
   1. Model CL17sc Online Chlorine Analyzer

2.2 Manufactured Unit

A. The CL17sc Online Chlorine Analyzer consists of a sample and reagent pump, measurement cell, and if chosen can be shipped with buffer and indicator solutions.

2.3 Equipment

A. Online Chlorine Analyzer
   1. Housed in an IP66-rated enclosure.
   2. Capable of measuring free or total residual chlorine by changing the tubing and indicator and buffer solutions.
   3. Measurements are taken every 2.5 minutes and results are displayed on a controller display or web-enabled display in the range of 0 to 10 mg/L.
   4. Utilizes a built-in flow meter.
   5. Real-time flow rate is measured when sample is flowing through the analyzer and results are displayed on a controller display or web-enabled display in mL / min.
   6. Connects to a standard controller, which controls and provides power to the analyzer.
   7. Performs a blank reference measurement check between analysis points to compensate for sample color, turbidity, and changes in light intensity due to voltage fluctuations or light source aging.
   8. Operates with an LED light source at a peak wavelength of 510nm.
   9. Capable of operating unattended for 30 days between chemical reagent changes and measurement cell cleaning.
   10. Utilizes a three-color status light to indicate operating status.
   11. Utilizes three measurement cycle indicator lights to display the phase of the measurement cycle being performed.
   12. Has a colorimeter measurement cell window for viewing sample inside cell.
   13. Provides step-by-step, on-screen instructions for all routine maintenance activities, including reagent changes, tubing changes, and cell cleanings.
   14. When connected to a cloud-based standard controller is capable of providing remote monitoring of measurement and instrument data on a web-enabled device.

B. Standard Controller
   1. Provide any current Hach SC controller for online chlorine analyzer operation.
      a. Hach SC controller provides:
         1) Full functionality of CL17sc menu structure
         2) Communication outputs
         3) Relays
         4) Guided routine maintenance
         5) Calibration verification
         6) Access to analyzer data logs
   2. Options for communication outputs determined by controller selection. Hach SC controllers can be configured for:
      a. 4-20 mA
      b. Hart
      c. Modbus
      d. Profibus
      e. Cloud-based communication

2.4 Components
A. Standard Equipment
   1. CL17sc Online Chlorine Analyzer
   2. Installation kit
   3. Tubing kit
   4. User manual
B. Dimensions: 12.9 x 13.5 x 7.0 inches (329 x 342 x 177 mm)
C. Shipping weight: 9 lbs (4.1 kg)

2.5 Instrument Options
****
Must be selected at the time of order. Choose one or the other.
****
[ ] Standpipe installation kit
[ ] Pressure regulator installation kit

2.6 Optional Accessories
****
Select as many as required
****
[ ] Cell cleaning kit
[ ] Calibration verification kit

PART 3 EXECUTION

3.1 Preparation

1. Mounting
   a. The CL17sc Online Chlorine Analyzer can be wall mounted only.
2. Required Clearances
   a. Horizontal: 15.28 in (388 mm), 25.96 inches (660 mm) ideal

   b. Vertical: 13.5 inches (342 mm), if using standpipe installation kit leave additional 24 inches (610 cm) above top of analyzer
   c. Depth: 17.75 inches (451 mm)
3. Sample inlet
   a. 0.25 inch OD polyethylene tubing, quick-disconnect fitting
4. Sample outlet
   a. 0.50 inch ID flexible tubing
5. Overflow drain
   a. 0.50 inch ID flexible tubing
6. Air purge quick connect
   a. Optional with 3/8-inch quick-connect fitting and tubing; 0.003 m^3/minute at 20 psig maximum

3.2 Installation

A. Contractor will install the analyzer in strict accordance with the manufacturer's instructions and recommendation.
B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician, if requested.
   1. Contractor will schedule a date and time for start-up.
   2. Contractor will require the following people to be present during the start-up procedure.
      a. General contractor
      b. Electrical contractor
      c. Hach Company factory trained representative
      d. Owner's personnel
      e. Engineer

3.3 Manufacturer's Service and Start-Up

A. Contractor will include the manufacturer's services to perform start-up on instrument to include basic operational training and certification of performance of the instrument.
B. Contractor will include a manufacturer's Service Agreement that covers all the manufacturer's recommended preventative maintenance, regularly scheduled calibration and any necessary repairs beginning from the time of equipment startup through to end user acceptance / plant turnover and the first 12 months of end-user operation post turnover.
C. Items A and B are to be performed by manufacturer's factory-trained service personnel. Field service and factory repair by personnel not employed by the manufacturer is not allowed.
D. Use of manufacturer's service parts and reagents is required. Third-party parts and reagents are not approved for use.

END OF SECTION

AquaLogics Systems, Inc.

5 Dwight Park Drive
Syracuse, NY 13209
Phone: (315) 413-0400
Fax: (315) 413-0404

Quote for new analyzer

Proposal # Q3-22-006
February 7, 2022

Town of Keene
10892 NYS Route 9N
Keene, NY 12942
(518) 521-5113

Attention: Savana Li

Reference: Keene WTP Chlorine Analyzer

AquaLogics Systems, Inc. is pleased to offer the following proposal for your consideration.

Equipment:

Qty.1- Hach – CL17sc Colorimetric Chlorine Analyzer with Standpipe Installation Kit and Reagents for Free Chlorine.

Qty.1- Hach SC200 Universal Controller: 100-240 V AC with one digital sensor input and two 4-20 mA outputs.

Qty.5- Hach – aa Free Chlorine Reagent set for chlorine analyzer CL17/CL17sc.

Services

Qty.1- Lot field service to install the Chlorine Analyzer.

Qty.1- Lot field service to provide training to operational personnel as required

Pricing:

Total Net Price..... $8,678.00

Taxes

Sales or Use Taxes are not included

Warranty:

All proposed equipment is warranted against system failure due to defects in workmanship and/or materials for a period of twelve (12) months from equipment start-up, not to exceed eighteen (18) months from date of shipment from our factory. This warranty does not cover failures due to human negligence and/or acts of nature.

Freight:

FOB, Factory prepaid and included.

Delivery:

6-8 weeks after receipt of order

Terms:

95% Net 30 days, 5% retainage allowed, not to exceed 90 days from shipment.

Thank you for the opportunity to provide you with our quotation, should you have any questions or desire additional information please don't hesitate to contact our office.

Best regards,
AquaLogics Systems, Inc.

Karl E. Hughes, III

Kinsley Power Systems General Terms and Conditions

1.0 Summary. These General Terms & Conditions are between Kinsley Group, Inc. d/b/a Kinsley Power Systems ("Kinsley") having a mailing address of 14 Connecticut South Drive, East Granby, CT 06026 (fax number 860-844-6136) and the person, company, firm or business entity purchasing equipment, renting equipment and/or obtaining products or services from Kinsley ("Customer", "You" or "Your"). The purpose of these General Terms & Conditions is to set forth the general terms and conditions that will apply to all services performed by Kinsley for the Customer and all product sold by Kinsley to the Customer. Specific terms and conditions on which such services and products will be provided may be set forth in separate agreements (written proposals, quotations, etc.) signed and agreed to by Kinsley (each hereinafter referred to as a "Related Agreement"). The provisions of these General Terms & Conditions shall be incorporated into each of these Related Agreements and govern all the understandings and agreements between the parties unless otherwise expressly set forth in a Related Agreement. In the event of a specific conflict between the provisions of these General Terms & Conditions and the express provisions of any Related Agreement, the Related Agreement shall control, except for Section 3.0 below, "Limited Warranty Statement", which shall control over any Related Agreement, unless such Section 3.0 is specifically referenced and amended in writing and signed by authorized personnel of Kinsley. These General Terms and Conditions shall apply to each individual project, sale or transaction, provided that a default by Customer under the General Terms and Conditions or a Related Agreement with respect to one project, sale or transaction shall constitute a Customer default under all projects, sales and transactions with such Customer and its affiliates.

2.0 Freight and Payment Terms. Kinsley's freight terms are F.O.B. Factory/Origin. All charges are due and payable in accordance to our credit terms set forth on Kinsley's invoice. Down payments and/or progress payments may be required prior to order, release or shipment. Unless otherwise agreed to in writing, payments related to equipment purchases are due on Net, thirty (30) day terms from invoice date or prior to start-up, whichever comes first. No retainage is allowed. Payments related to rentals or service invoices are due on a Net, thirty (30) day term from invoice date. If the Purchaser delays delivery from the agreed upon date, payment terms shall take effect on the date Kinsley is prepared to make shipment. The failure of customer to make any payments required by General Terms and Conditions or under any Related Agreement shall be considered a material breach and event of default and, without limiting its remedies at law or under these General Terms and Conditions, shall entitle Kinsley to suspend or terminate the services or products provided to you under all Related Agreements, even if the Related Agreements are for different projects or locations.

2.1 Recoverable Costs & Expenses. All costs advanced and expenses incurred that are related to the services performed will be reimbursed to Kinsley. These may include, but not be limited to, airfare, hotel accommodations, tolls, business meals, parking, miscellaneous travel expenses, faxes, courier charges, express mailing, mileage round-trip from Kinsley's service location or shipping point, and all other out-of-pocket expenses.

2.2 Finance Charges, Collection Costs, Expenses, and Other Remedies. All bills not paid within agreed-upon terms shall be assessed a late charge of one and one-half percent (1.5%) per month (eighteen percent (18%) per annum) on the unpaid balance until paid in full. In the event that Kinsley incurs collection expenses or brings any lawsuit, arbitration or other proceeding to collect amounts owed, Kinsley shall be entitled to recover the costs and expenses (including but not limited to its filing fees, witness fees and reasonable legal fees) incurred in collecting such amounts. Kinsley reserves the right, where permitted by law, to charge a two percent (2%) surcharge, processing fee, or convenience fee for all payments made by credit card. Furthermore, if Kinsley is not paid in full within ninety (90) days of invoice date, Kinsley reserves the right to remove any rental equipment or partially paid equipment from customer site, storage, or any physical location where equipment resides and place the equipment back into Kinsley inventory for resale or further rent. Any proceeds from resale will be used first to reimburse Kinsley for any removal costs and other remedies or costs incurred due to the delinquency, removal, and resale.

2.3 Storage. If equipment ordered by Customer is not shipped after notification has been made to the Customer or its agent that it is ready for shipping, for any reason beyond Kinsley's control, including Customer's failure to give shipping instructions, Kinsley may store the equipment at the Customer's risk and expense. The Customer shall pay all handling, transportation, storage and insurance cost at the prevailing commercial rates.

2.4 Credit Approval, Sales. Shipments, deliveries and performance of work shall at all times be subject to the approval of Kinsley. Kinsley may at any time reject any purchase order, or decline to make any shipment or delivery or perform any work except upon receipt of payment or security or upon terms and conditions satisfactory to Kinsley in its sole discretion.

2.5 Cancellation or Changes. Order cancellations without Kinsley's written consent, shall be subject to, in Kinsley's sole discretion, the following:

Generator sets: Standard Product Orders cancelled within five (5) weeks of the acknowledged ship date from the vendor or three (3) weeks of the production start date will be subject to a charge of twenty percent (20%) of the selling price plus a charge for unique parts. Orders completed and ready for shipment are non-cancellable. Estimated order cancellation fees will be offered upon request and are subject to change based on actual product and engineering fees.

Electrical Controls: Standard Product Orders cancelled within five (5) weeks of the acknowledged ship date from the vendor or cancelled within three (3) weeks of the production start date will be subject to a charge of up to twenty percent (20%) of selling price plus a charge for unique parts. Orders completed and ready for shipment are non-cancelable.

Paralleling Switchgear or DPS: In the event of order cancellation, prior to release of order for manufacture and following receipt of order by Kohler, there will be a charge of fifteen percent (15%) of selling price, with additional charges related to unique part procurement and engineering fees. Once a Kohler accepted order is released for manufacture, paralleling switchgear and DPS orders are non-cancellable.

ATS: Standard, Programmed or Closed Transition (30-1200A): Orders cancelled at least two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled within two (2) weeks of acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

ATS: Standard, Programmed or Closed Transition (1600 to 4000A): Orders cancelled at least four (4) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled less than four (4) weeks prior to acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

ATS: Bypass Isolation (up to 1200A): Orders cancelled at least three (3) weeks prior to acknowledged ship date from the vendor will be subject to a charge of thirty percent (30%) of selling price. Orders cancelled less than three (3) weeks prior to acknowledged ship date from the vendor will be subject to a charge of sixty percent (60%) of selling price.

ATS: Bypass Isolation (1600A to 4000A): Orders cancelled at least five (5) weeks prior to acknowledged ship date from the vendor will be subject to a charge of thirty percent (30%) of selling price. Orders cancelled less than five (5) weeks prior to acknowledged ship date from the vendor will be subject to a charge of sixty percent (60%) of selling price.

ATS: Service Entrance: Orders cancelled at least two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled less than two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

Engineered Specials & Standard Accessories: In the event of order cancellation, once the order has been submitted to Kohler and the order is outside of standard product parameters by Kohler, there will be a charge of fifteen percent (15%) of the selling price plus additional unique parts and engineering charges. Standard accessories cancelled or changed after order acknowledgement are subject to a charge of eight percent (8%) of the value of the accessory or Fifty Dollars ($50.00) (whichever is greater) plus a charge for unique parts.

Order changes without Kinsley Power Systems' written consent, shall be subject to, in Kinsley's sole discretion, the following:

Rescheduling Product Shipment Dates: Requests to extend the acknowledged ship date from the vendor will be considered on an individual basis. The extended date cannot be greater than three months following the original acknowledged ship date, and storage fees will be assessed. Requests for improved shipping dates will be considered on an individual basis subject to availability of material and manufacturing capacity.

Product Changes: Requests for factory modifications, on an individual basis, will be reviewed and may be possible if received thirty (30) calendar days prior to production start date. Product change requests to orders within the factory frozen schedule (factory will need to be contacted - frozen schedule varies based on generator, tank and enclosure) will be subject to a Five Hundred Dollar ($500.00) fee in addition to any product or components deemed as unusable by the factory after the change has taken place. All other requests for modifications, including Switchgear and Engineering Specials that are in production at time of order acknowledgement, will be reviewed on an individual basis and will be subject to availability of material. Any product changes may affect the acknowledged shipping date and the acknowledged price. Product deletions will be subject to the conditions of the cancellationpolicy.

Storage Policy: Products not accepted at acknowledged ship date are subject to a two percent (2%) storage fee per month assessed at time of confirmed ship date. The base date for determination will be the distributor requested shipping date or the Kohler confirmed product availability date, whichever is latest.

Shipping Policy: A claim for a shortage or shipment error must be submitted to Kinsley within thirty (30) days of the product invoice date.

2.6 Return Merchandise: Electrical parts/components and special orders are not returnable. There will be a minimum of a twenty-five percent (25%) restocking charge on all other parts and equipment returns. All sales are final after ninety (90) days. Prior written authorization is required before returning any merchandise. All merchandise must be returned prepaid to Kinsley's designated outlet, unless otherwise instructed when the authorization is granted. Kinsley reserves the right to deny authorization for return of any items in its sole discretion.

Kinsley reserves the right to refuse unauthorized returns in its sole discretion.

All claims on returned goods must be made within thirty (30) days from shipment and accompanied by receipt on which original delivery was made.

In cases where Kinsley sells a product on an "exchange" basis, a "core charge" is payable by the Customer if an acceptable "core" is not returned to Kinsley, freight prepaid, within thirty (30) days after shipment of the exchange product. Kinsley reserves the right to determine if the "core" is "acceptable" (i.e.; reasonably and economically suitable for repair and resale).

2.7 Force Majeure. Kinsley shall not be liable in any way for any default or delay due to conditions or contingencies beyond its control, which prevents or interferes with Kinsley or its suppliers or subcontractors making delivery or performing services on the date specified, including but not limited to war, or restraints affecting shipping, delivery of materials or credit as a result of war or war restrictions, non-arrival delay or failure to produce materials as a result of war or war restrictions, rationing of fuel, strikes, lockouts, fires, bombings, acts of terrorism, accidents, weather conditions, floods, droughts and any other condition or contingency affecting Kinsley, its suppliers, or subcontractors; and Kinsley shall have the right to cancel a contract for services or cancel a contract of sale or to extend the shipping date in the event of one or more of such conditions or contingencies. In the event of delayed or extended shipping dates due to the above causes, and the Customer changes shipping instructions, any additional shipping charges shall be paid by the Customer as a part of the purchase price.

2.8 Third Party Vendors. Kinsley may from time to time refer the Customer to third party vendors for specific products or services. These vendors are not Kinsley's subcontractors, so it is the Customer's responsibility to select and negotiate the terms and conditions of the Customer's business with them. Kinsley will not be responsible for their products or services.

2.9 Taxes. In addition to all other amounts payable under this Agreement or under a Related Agreement, the Customer shall pay all United States and foreign sales, use, value added, and other taxes and duties, of whatever nature, federal, state, provincial or otherwise (herein "taxes"), which are levied or imposed by reason of these General Terms and Conditions or any of the services or products purchased from Kinsley. The Customer shall promptly pay Kinsley for any

such Taxes paid by Kinsley on behalf of the Customer or which are required to be collected and paid by Kinsley. Kinsley may bill the Customer separately for such Taxes.

2.10 General: Any claims for shortages or deductions for erroneous charges must be made in writing within thirty (30) days after receipt of goods or services or shall be deemed waived.

All manufacturer's names, numbers, symbols and descriptions are used for reference purposes only, and it is not implied that any part listed is the product of these manufacturers.

All clerical errors on the part of Kinsley are subject to corrections.

Prices are subject to change without notice.

Unless otherwise stated, prices are FOB point of manufacture.

Delivery dates may be quoted by Kinsley. Such dates are estimates only and in no event shall such dates be construed as falling within the meaning of "time is of the essence".

When providing pricing for site services, Kinsley will adhere to prevailing wage requirements. Kinsley will make reasonable efforts to determine if prevailing wage rates are required, but Customer has the burden and responsibility to communicate any prevailing wage requirements to Kinsley (or intermediate contractor). If Kinsley's failure to pay prevailing wages is reasonably attributable to Customer's failure to provide prevailing wage information to Kinsley, including but not limited to wage schedules or rate sheets associated with the work described in this Agreement, Kinsley may seek appropriate damages and restitution from Customer, and may amend the contract price to reflect increases in wages and fringe benefits paid to Kinsley employees to the extent that these increases are necessary to comply with federal, state or local prevailing wage laws.

2.11 No Hire Clause. During the term of any Related Agreement under which Kinsley is providing products or services, and for a period of one (1) year thereafter, neither the Customer nor its affiliates shall: (a) employ or hire, or engage as a consultant or subcontractor, any employee or subcontractor of Kinsley or any of its affiliates, (b) solicit any employee or subcontractor of Kinsley or any of its affiliates to become an employee of, or consultant or subcontractor to Customer or any of its affiliates, or (c) recommend or suggest to any other person or entity that it so solicit, employ, hire, or engage any such employee or subcontractor. In the event of any breach of the foregoing provisions, Kinsley shall be entitled to be paid, on demand, as liquidated damages and not as penalty, an amount equal to the annualized base salary and other regular compensation being paid to such employee or subcontractor as of the date of the termination of his or her employment or contract with Kinsley or its affiliate. It is agreed that the amount of damages, which would be suffered because of a breach of the foregoing provisions of this Section, would be difficult to measure and that such payment amount constitutes reasonable liquidated damages for such a breach.

2.12 Governing Law and Jurisdiction. These General Terms & Conditions and each Related Agreement shall be construed and enforced in accordance with the laws of the State of Connecticut, without regard to its conflict of law provisions. The United Nations Convention on the International Sale of Goods shall not apply to these General Terms and Conditions and conditions of any Related Agreement. All suits under this agreement shall be brought and filed in the State of Connecticut.

2.13 Assignment and Transfer. Except as otherwise provided in any Related Agreement, these General Terms and Conditions and any Related Agreement may not be assigned or transferred by Customer, and shall be binding upon and for the benefit of Kinsley and the Customer, as well as the Customer's and Kinsley's respective legal representatives, successors and assigns.

2.14 Invalid Provisions. These General Terms and Conditions and any Related Agreement shall be valid and enforceable to the fullest extent permitted by law. If any term, condition, or provision of these General Terms and Conditions or any Related Agreement, or the application thereof to any person or circumstance, shall be held invalid or unenforceable to any extent, then such term, condition, or provision shall be curtailed and limited to the extent necessary to bring it within the legal requirements, and the remainder of these General Terms and Conditions, or Related Agreement, and the application of such term, condition, or provision to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby.

2.15 Entire Agreement, Modification. These General Terms and Conditions and any Related Agreements constitute the entire agreement between Kinsley and the Customer with respect to the subject matter thereof, superseding all previous communications and negotiations, whether written or oral. No modification of these General Terms and Conditions or any Related Agreement shall be binding unless it is in writing and executed by authorized representatives of Kinsley and the Customer.

2.16 Notices. Any written notice or other written communication to a party under these General Terms & Conditions or any Related Agreement shall be delivered personally, sent by fax, or sent by express carrier for next business day delivery evidenced by a receipt, or by United States registered or certified mail, freight or postage prepaid. Notices shall be sent to a party's address or fax number set forth at the beginning of the agreement or purchase order in which these General Terms and Conditions are incorporated or such other address or fax number as such party may specify in writing in accordance with these notice provisions.

2.17 Waiver of Failure to Act. No failure or delay by Kinsley in exercising any right or remedy under these General Terms and Conditions or a Related Agreement shall be deemed to be a waiver. The waiver by Kinsley in any respect of any right provided for in these General Terms and Conditions or any Related Agreement shall not be deemed a waiver of any further right hereunder.

2.18 Third Party Beneficiaries. These General Terms and Conditions and any Related Agreement shall not be deemed to create any rights in any third parties (excepting only Kinsley's affiliates), including suppliers and customers of a party, or to create any obligations of a party to any such third parties.

2.19 Affiliate. As used in these General Terms and Conditions or in any Related Agreement, an "affiliate" of a party means a third party that directly or indirectly (by the ownership of voting securities, contract or otherwise) controls, is controlled by, or is under the common control with, such party.

2.20 Security Interest. Customer hereby grants Kinsley, and Kinsley will retain, a purchase money security interest and lien on any and all equipment, goods or merchandise sold hereunder wherever located, and all replacements or proceeds of the same, until the invoice for the applicable equipment, goods or merchandise is paid in full, including any late charges and costs of collection. Customer consents to Kinsley's use of these General Terms and Conditions, as well as product invoices, as financing statements under the Uniform Commercial Code ("UCC") and to create additional financing statements for protecting this security interest, and appoints Kinsley as Customer's agent for any necessary signatures on such filings and hereby authorizes Kinsley, at Customer's expense, to take such action as may be necessary to perfect and protect Kinsley Power Systems' security interest, including the filing and/or recording of UCC financing statements, and grants Kinsley the right and power of attorney to execute Customer's name thereto. Customer agrees to pay or reimburse Kinsley for any searches, filings, recording or stamp fees or taxes arising from the filing or recording of any such instrument or statement. In the event of a default by Customer of any of its payment obligations hereunder, Kinsley shall be entitled to any of the rights and remedies provided by law. Customer will not change its name, principal place of business, or state of incorporation without Kinsley's prior written consent, and Customer will notify Kinsley in writing of any change in the location of any other place of business prior to making such change, and of the acquisition of any new place of business prior to such acquisition. Customer shall at its expense protect and defend Kinsley's rights against all persons claiming against or through Customer at all times, keeping the equipment, goods or merchandise sold hereunder free from any other legal process or encumbrance whatsoever, including, but not limited to liens, attachments, levies and executions, and shall give Kinsley immediate written notice thereof and shall indemnify and hold Kinsley harmless from any loss caused thereby.

3.0 LIMITED WARRANTY STATEMENT Kinsley makes no express or implied warranties, including without limitation, implied warranties of merchantability and fitness for particular purpose, on equipment, parts or devices or any other goods or products sold or rented by Kinsley. The Customer's sole remedy is under the warranty of the manufacturer. At the Customer's request, Kinsley may furnish specific manufacturers' express limited warranty policies. The Customer accepts the goods or products sold "as is" and "with all faults" except only as provided by the warranty of the manufacturer of the goods or products sold.

Kinsley may provide technical information or advice to assist the Customer in the proper application and utilization of equipment or systems, in which case Kinsley disclaims all warranties, express or implied, including without limitation implied warranties of merchantability and fitness for a particular purpose, or compliance with governmental regulations.

SOLE LIMITED WARRANTY BY KINSLEY. Kinsley warrants that for ninety (90) days beginning on the date of invoice, service labor by Kinsley technicians shall be free from material defects in workmanship. This warranty does not cover damage due to external causes including accident, abuse, misuse, problems with electrical power, servicing not authorized or performed by Kinsley, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied by Kinsley. This warranty does not cover replacement or repair of materials due to normal wear. Kinsley's responsibility is limited to repair or replacement at its designated facility, and the decision as to location of the repair work shall be made in the sole judgment of Kinsley.

IN NO EVENT SHALL KINSLEY BE LIABLE FOR ANY SPECIAL, INDIRECT, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE LOSSES OR DAMAGES (INCLUDING, WITHOUT LIMITATION, BUSINESS INTERRUPTION, LOSS OF REVENUE OR PROFITS, FEES OR FINES), EVEN IF KINSLEY HAS BEEN ADVISED OR MADE AWARE OF THE POSSIBILITY OF ANY SUCH LOSSES OR DAMAGES AND REGARDLESS OF WHETHER THE CLAIM IS BASED ON CONTRACT, TORT, STRICT LIABILITY, OR OTHER THEORY OF LIABILITY.

Kinsley's cumulative liability for all losses and damages under these General Terms and Conditions or under any of the Related Agreements (including, without limitation, those arising out of contract, tort (including negligence), strict liability, warranty, or other theory of liability) shall not exceed (a) in the case of any services provided or to be provided by Kinsley, the amount of the fees paid by Customer for such services under the applicable Related Agreement, and (b) in the case of any products or devices provided or to be provided by Kinsley, the amount of Kinsley's labor services paid by Customer and associated with the product sale.

Kinsley makes no warranties beyond those stated in this warranty statement. Furthermore, no personnel of Kinsley are authorized to make warranties of any nature, orally or otherwise.

4.0 Indemnification. Customer shall save harmless, indemnify, and at Kinsley's option, defend Kinsley, and Kinsley's owners, directors, officers, agents, representatives, affiliates and successors and assigns, from and against any and all liability, liens, claims, demands, damages, expenses, fees, costs, fines, penalties, suits, proceedings, actions and causes of action of every kind and nature arising or growing out of or in any way connected with Kinsley's selling, repairing, evaluating, starting up, testing or maintaining equipment or other items or providing other services or products to or for the benefit of Customer or its affiliates, unless it is determined by a court of competent jurisdiction, after expiration of applicable appeal rights, that such matters were directly caused by Kinsley's gross negligence or willful misconduct.

5.0 Waiver of Subrogation. Customer and all parties claiming to be related to customer hereby agree to release and discharge Kinsley from all claims and/or liabilities arising from or caused by any casualty or hazard which may arise out of or in connection with activities associated with Kinsley's work on equipment or premises at the request or direction of Customer except as specifically stated herein, and Customer agrees to waive any right of subrogation which might otherwise exist in or accrue to any person on account thereof and further agree to evidence such waiver as may be required by Customers' insurance policies.

6.0 Acknowledgment. Customer acknowledges that it engages in the conduct of trade or commerce. Customer acknowledges that this transaction is in a business context and is not for personal services or for personal goods sold or delivered as a consumer.

Kinsley Power Systems General Terms and Conditions

1.0 Summary. These General Terms & Conditions are between Kinsley Group, Inc. d/b/a Kinsley Power Systems ("Kinsley") having a mailing address of 14 Connecticut South Drive, East Granby, CT 06026 (fax number 860-844-6136) and the person, company, firm or business entity purchasing equipment, renting equipment and/or obtaining products or services from Kinsley ("Customer", "You" or "Your"). The purpose of these General Terms & Conditions is to set forth the general terms and conditions that will apply to all services performed by Kinsley for the Customer and all product sold by Kinsley to the Customer. Specific terms and conditions on which such services and products will be provided may be set forth in separate agreements (written proposals, quotations, etc.) signed and agreed to by Kinsley (each hereinafter referred to as a "Related Agreement"). The provisions of these General Terms & Conditions shall be incorporated into each of these Related Agreements and govern all the understandings and agreements between the parties unless otherwise expressly set forth in a Related Agreement. In the event of a specific conflict between the provisions of these General Terms & Conditions and the express provisions of any Related Agreement, the Related Agreement shall control, except for Section 3.0 below, "Limited Warranty Statement", which shall control over any Related Agreement, unless such Section 3.0 is specifically referenced and amended in writing and signed by authorized personnel of Kinsley. These General Terms and Conditions shall apply to each individual project, sale or transaction, provided that a default by Customer under the General Terms and Conditions or a Related Agreement with respect to one project, sale or transaction shall constitute a Customer default under all projects, sales and transactions with such Customer and its affiliates.

2.0 Freight and Payment Terms. Kinsley's freight terms are F.O.B. Factory/Origin. All charges are due and payable in accordance to our credit terms set forth on Kinsley's invoice. Down payments and/or progress payments may be required prior to order, release or shipment. Unless otherwise agreed to in writing, payments related to equipment purchases are due on Net, thirty (30) day terms from invoice date or prior to start-up, whichever comes first. No retainage is allowed. Payments related to rentals or service invoices are due on a Net, thirty (30) day term from invoice date. If the Purchaser delays delivery from the agreed upon date, payment terms shall take effect on the date Kinsley is prepared to make shipment. The failure of customer to make any payments required by General Terms and Conditions or under any Related Agreement shall be considered a material breach and event of default and, without limiting its remedies at law or under these General Terms and Conditions, shall entitle Kinsley to suspend or terminate the services or products provided to you under all Related Agreements, even if the Related Agreements are for different projects or locations.

2.1 Recoverable Costs & Expenses. All costs advanced and expenses incurred that are related to the services performed will be reimbursed to Kinsley. These may include, but not be limited to, airfare, hotel accommodations, tolls, business meals, parking, miscellaneous travel expenses, faxes, courier charges, express mailing, mileage round-trip from Kinsley's service location or shipping point, and all other out-of-pocket expenses.

2.2 Finance Charges, Collection Costs, Expenses, and Other Remedies. All bills not paid within agreed-upon terms shall be assessed a late charge of one and one-half percent (1.5%) per month (eighteen percent (18%) per annum) on the unpaid balance until paid in full. In the event that Kinsley incurs collection expenses or brings any lawsuit, arbitration or other proceeding to collect amounts owed, Kinsley shall be entitled to recover the costs and expenses (including but not limited to its filing fees, witness fees and reasonable legal fees) incurred in collecting such amounts. Kinsley reserves the right, where permitted by law, to charge a two percent (2%) surcharge, processing fee, or convenience fee for all payments made by credit card. Furthermore, if Kinsley is not paid in full within ninety (90) days of invoice date, Kinsley reserves the right to remove any rental equipment or partially paid equipment from customer site, storage, or any physical location where equipment resides and place the equipment back into Kinsley inventory for resale or further rent. Any proceeds from resale will be used first to reimburse Kinsley for any removal costs and other remedies or costs incurred due to the delinquency, removal, and resale.

2.3 Storage. If equipment ordered by Customer is not shipped after notification has been made to the Customer or its agent that it is ready for shipping, for any reason beyond Kinsley's control, including Customer's failure to give shipping instructions, Kinsley may store the equipment at the Customer's risk and expense. The Customer shall pay all handling, transportation, storage and insurance cost at the prevailing commercial rates.

2.4 Credit Approval, Sales. Shipments, deliveries and performance of work shall at all times be subject to the approval of Kinsley. Kinsley may at any time reject any purchase order, or decline to make any shipment or delivery or perform any work except upon receipt of payment or security or upon terms and conditions satisfactory to Kinsley in its sole discretion.

2.5 Cancellation or Changes. Order cancellations without Kinsley's written consent, shall be subject to, in Kinsley's sole discretion, the following:

Generator sets: Standard Product Orders cancelled within five (5) weeks of the acknowledged ship date from the vendor or three (3) weeks of the production start date will be subject to a charge of twenty percent (20%) of the selling price plus a charge for unique parts. Orders completed and ready for shipment are non-cancellable. Estimated order cancellation fees will be offered upon request and are subject to change based on actual product and engineering fees.

Electrical Controls: Standard Product Orders cancelled within five (5) weeks of the acknowledged ship date from the vendor or cancelled within three (3) weeks of the production start date will be subject to a charge of up to twenty percent (20%) of selling price plus a charge for unique parts. Orders completed and ready for shipment are non-cancelable.

Paralleling Switchgear or DPS: In the event of order cancellation, prior to release of order for manufacture and following receipt of order by Kohler, there will be a charge of fifteen percent (15%) of selling price, with additional charges related to unique part procurement and engineering fees. Once a Kohler accepted order is released for manufacture, paralleling switchgear and DPS orders are non-cancellable.

ATS: Standard, Programmed or Closed Transition (30-1200A): Orders cancelled at least two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled within two (2) weeks of acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

ATS: Standard, Programmed or Closed Transition (1600 to 4000A): Orders cancelled at least four (4) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled less than four (4) weeks prior to acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

ATS: Bypass Isolation (up to 1200A): Orders cancelled at least three (3) weeks prior to acknowledged ship date from the vendor will be subject to a charge of thirty percent (30%) of selling price. Orders cancelled less than three (3) weeks prior to acknowledged ship date from the vendor will be subject to a charge of sixty percent (60%) of selling price.

ATS: Bypass Isolation (1600A to 4000A): Orders cancelled at least five (5) weeks prior to acknowledged ship date from the vendor will be subject to a charge of thirty percent (30%) of selling price. Orders cancelled less than five (5) weeks prior to acknowledged ship date from the vendor will be subject to a charge of sixty percent (60%) of selling price.

ATS: Service Entrance: Orders cancelled at least two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of twenty percent (20%) of selling price. Orders cancelled less than two (2) weeks prior to acknowledged ship date from the vendor will be subject to a charge of fifty percent (50%) of selling price.

Engineered Specials & Standard Accessories: In the event of order cancellation, once the order has been submitted to Kohler and the order is outside of standard product parameters by Kohler, there will be a charge of fifteen percent (15%) of the selling price plus additional unique parts and engineering charges. Standard accessories cancelled or changed after order acknowledgement are subject to a charge of eight percent (8%) of the value of the accessory or Fifty Dollars ($50.00) (whichever is greater) plus a charge for unique parts.

Order changes without Kinsley Power Systems' written consent, shall be subject to, in Kinsley's sole discretion, the following:

Rescheduling Product Shipment Dates: Requests to extend the acknowledged ship date from the vendor will be considered on an individual basis. The extended date cannot begreater than three months following the original acknowledged ship date, and storage fees will be assessed. Requests for improved shipping dates will be considered on an individual basis subject to availability of material and manufacturing capacity.

Product Changes: Requests for factory modifications, on an individual basis, will be reviewed and may be possible if received thirty (30) calendar days prior to production start date. Product change requests to orders within the factory frozen schedule (factory will need to be contacted - frozen schedule varies based on generator, tank and enclosure) will be subject to a Five Hundred Dollar ($500.00) fee in addition to any product or components deemed as unusable by the factory after the change has taken place. All other requests for modifications, including Switchgear and Engineering Specials that are in production at time of order acknowledgement, will be reviewed on an individual basis and will be subject to availability of material. Any product changes may affect the acknowledged shipping date and the acknowledged price. Product deletions will be subject to the conditions of the cancellationpolicy.

Storage Policy: Products not accepted at acknowledged ship date are subject to a two percent (2%) storage fee per month assessed at time of confirmed ship date. The base date for determination will be the distributor requested shipping date or the Kohler confirmed product availability date, whichever is latest.

Shipping Policy: A claim for a shortage or shipment error must be submitted to Kinsley within thirty (30) days of the product invoice date.

2.6 Return Merchandise: Electrical parts/components and special orders are not returnable. There will be a minimum of a twenty-five percent (25%) restocking charge on all other parts and equipment returns. All sales are final after ninety (90) days. Prior written authorization is required before returning any merchandise. All merchandise must be returned prepaid to Kinsley's designated outlet, unless otherwise instructed when the authorization is granted. Kinsley reserves the right to deny authorization for return of any items in its sole discretion.

Kinsley reserves the right to refuse unauthorized returns in its sole discretion.

All claims on returned goods must be made within thirty (30) days from shipment and accompanied by receipt on which original delivery was made.

In cases where Kinsley sells a product on an "exchange" basis, a "core charge" is payable by the Customer if an acceptable "core" is not returned to Kinsley, freight prepaid, within thirty (30) days after shipment of the exchange product. Kinsley reserves the right to determine if the "core" is "acceptable" (i.e.; reasonably and economically suitable for repair and resale).

2.7 Force Majeure. Kinsley shall not be liable in any way for any default or delay due to conditions or contingencies beyond its control, which prevents or interferes with Kinsley or its suppliers or subcontractors making delivery or performing services on the date specified, including but not limited to war, or restraints affecting shipping, delivery of materials or credit as a result of war or war restrictions, non-arrival delay or failure to produce materials as a result of war or war restrictions, rationing of fuel, strikes, lockouts, fires, bombings, acts of terrorism, accidents, weather conditions, floods, droughts and any other condition or contingency affecting Kinsley, its suppliers, or subcontractors; and Kinsley shall have the right to cancel a contract for services or cancel a contract of sale or to extend the shipping date in the event of one or more of such conditions or contingencies. In the event of delayed or extended shipping dates due to the above causes, and the Customer changes shipping instructions, any additional shipping charges shall be paid by the Customer as a part of the purchase price.

2.8 Third Party Vendors. Kinsley may from time to time refer the Customer to third party vendors for specific products or services. These vendors are not Kinsley's subcontractors, so it is the Customer's responsibility to select and negotiate the terms and conditions of the Customer's business with them. Kinsley will not be responsible for their products or services.

2.9 Taxes. In addition to all other amounts payable under this Agreement or under a Related Agreement, the Customer shall pay all United States and foreign sales, use, value added, and other taxes and duties, of whatever nature, federal, state, provincial or otherwise (herein "taxes"), which are levied or imposed by reason of these General Terms and Conditions or any of the services or products purchased from Kinsley. The Customer shall promptly pay Kinsley for any

such Taxes paid by Kinsley on behalf of the Customer or which are required to be collected and paid by Kinsley. Kinsley may bill the Customer separately for such Taxes.

2.10 General: Any claims for shortages or deductions for erroneous charges must be made in writing within thirty (30) days after receipt of goods or services or shall be deemed waived.

All manufacturer's names, numbers, symbols and descriptions are used for reference purposes only, and it is not implied that any part listed is the product of these manufacturers.

All clerical errors on the part of Kinsley are subject to corrections.

Prices are subject to change without notice.

Unless otherwise stated, prices are FOB point of manufacture.

Delivery dates may be quoted by Kinsley. Such dates are estimates only and in no event shall such dates be construed as falling within the meaning of "time is of the essence".

When providing pricing for site services, Kinsley will adhere to prevailing wage requirements. Kinsley will make reasonable efforts to determine if prevailing wage rates are required, but Customer has the burden and responsibility to communicate any prevailing wage requirements to Kinsley (or intermediate contractor). If Kinsley's failure to pay prevailing wages is reasonably attributable to Customer's failure to provide prevailing wage information to Kinsley, including but not limited to wage schedules or rate sheets associated with the work described in this Agreement, Kinsley may seek appropriate damages and restitution from Customer, and may amend the contract price to reflect increases in wages and fringe benefits paid to Kinsley employees to the extent that these increases are necessary to comply with federal, state or local prevailing wage laws.

2.11 No Hire Clause. During the term of any Related Agreement under which Kinsley is providing products or services, and for a period of one (1) year thereafter, neither the Customer nor its affiliates shall: (a) employ or hire, or engage as a consultant or subcontractor, any employee or subcontractor of Kinsley or any of its affiliates, (b) solicit any employee or subcontractor of Kinsley or any of its affiliates to become an employee of, or consultant or subcontractor to Customer or any of its affiliates, or (c) recommend or suggest to any other person or entity that it so solicit, employ, hire, or engage any such employee or subcontractor. In the event of any breach of the foregoing provisions, Kinsley shall be entitled to be paid, on demand, as liquidated damages and not as penalty, an amount equal to the annualized base salary and other regular compensation being paid to such employee or subcontractor as of the date of the termination of his or her employment or contract with Kinsley or its affiliate. It is agreed that the amount of damages, which would be suffered because of a breach of the foregoing provisions of this Section, would be difficult to measure and that such payment amount constitutes reasonable liquidated damages for such a breach.

2.12 Governing Law and Jurisdiction. These General Terms & Conditions and each Related Agreement shall be construed and enforced in accordance with the laws of the State of Connecticut, without regard to its conflict of law provisions. The United Nations Convention on the International Sale of Goods shall not apply to these General Terms and Conditions and conditions of any Related Agreement. All suits under this agreement shall be brought and filed in the State of Connecticut.

2.13 Assignment and Transfer. Except as otherwise provided in any Related Agreement, these General Terms and Conditions and any Related Agreement may not be assigned or transferred by Customer, and shall be binding upon and for the benefit of Kinsley and the Customer, as well as the Customer's and Kinsley's respective legal representatives, successors and assigns.

2.14 Invalid Provisions. These General Terms and Conditions and any Related Agreement shall be valid and enforceable to the fullest extent permitted by law. If any term, condition, or provision of these General Terms and Conditions or any Related Agreement, or the application thereof to any person or circumstance, shall be held invalid or unenforceable to any extent, then such term, condition, or provision shall be curtailed and limited to the extent necessary to bring it within the legal requirements, and the remainder of these General Terms and Conditions, or Related Agreement, and the application of such term, condition, or provision to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby.

2.15 Entire Agreement, Modification. These General Terms and Conditions and any Related Agreements constitute the entire agreement between Kinsley and the Customer with respect to the subject matter thereof, superseding all previous communications and negotiations, whether written or oral. No modification of these General Terms and Conditions or any Related Agreement shall be binding unless it is in writing and executed by authorized representatives of Kinsley and the Customer.

2.16 Notices. Any written notice or other written communication to a party under these General Terms & Conditions or any Related Agreement shall be delivered personally, sent by fax, or sent by express carrier for next business day delivery evidenced by a receipt, or by United States registered or certified mail, freight or postage prepaid. Notices shall be sent to a party's address or fax number set forth at the beginning of the agreement or purchase order in which these General Terms and Conditions are incorporated or such other address or fax number as such party may specify in writing in accordance with these notice provisions.

2.17 Waiver of Failure to Act. No failure or delay by Kinsley in exercising any right or remedy under these General Terms and Conditions or a Related Agreement shall be deemed to be a waiver. The waiver by Kinsley in any respect of any right provided for in these General Terms and Conditions or any Related Agreement shall not be deemed a waiver of any further right hereunder.

2.18 Third Party Beneficiaries. These General Terms and Conditions and any Related Agreement shall not be deemed to create any rights in any third parties (excepting only Kinsley's affiliates), including suppliers and customers of a party, or to create any obligations of a party to any such third parties.

2.19 Affiliate. As used in these General Terms and Conditions or in any Related Agreement, an "affiliate" of a party means a third party that directly or indirectly (by the ownership of voting securities, contract or otherwise) controls, is controlled by, or is under the common control with, such party.

2.20 Security Interest. Customer hereby grants Kinsley, and Kinsley will retain, a purchase money security interest and lien on any and all equipment, goods or merchandise sold hereunder wherever located, and all replacements or proceeds of the same, until the invoice for the applicable equipment, goods or merchandise is paid in full, including any late charges and costs of collection. Customer consents to Kinsley's use of these General Terms and Conditions, as well as product invoices, as financing statements under the Uniform Commercial Code ("UCC") and to create additional financing statements for protecting this security interest, and appoints Kinsley as Customer's agent for any necessary signatures on such filings and hereby authorizes Kinsley, at Customer's expense, to take such action as may be necessary to perfect and protect Kinsley Power Systems' security interest, including the filing and/or recording of UCC financing statements, and grants Kinsley the right and power of attorney to execute Customer's name thereto. Customer agrees to pay or reimburse Kinsley for any searches, filings, recording or stamp fees or taxes arising from the filing or recording of any such instrument or statement. In the event of a default by Customer of any of its payment obligations hereunder, Kinsley shall be entitled to any of the rights and remedies provided by law. Customer will not change its name, principal place of business, or state of incorporation without Kinsley's prior written consent, and Customer will notify Kinsley in writing of any change in the location of any other place of business prior to making such change, and of the acquisition of any new place of business prior to such acquisition. Customer shall at its expense protect and defend Kinsley's rights against all persons claiming against or through Customer at all times, keeping the equipment, goods or merchandise sold hereunder free from any other legal process or encumbrance whatsoever, including, but not limited to liens, attachments, levies and executions, and shall give Kinsley immediate written notice thereof and shall indemnify and hold Kinsley harmless from any loss caused thereby.

3.0 LIMITED WARRANTY STATEMENT Kinsley makes no express or implied warranties, including without limitation, implied warranties of merchantability and fitness for particular purpose, on equipment, parts or devices or any other goods or products sold or rented by Kinsley. The Customer's sole remedy is under the warranty of the manufacturer. At the Customer's request, Kinsley may furnish specific manufacturers' express limited warranty policies. The Customer accepts the goods or products sold "as is" and "with all faults" except only as provided by the warranty of the manufacturer of the goods or products sold.

Kinsley may provide technical information or advice to assist the Customer in the proper application and utilization of equipment or systems, in which case Kinsley disclaims all warranties, express or implied, including without limitation implied warranties of merchantability and fitness for a particular purpose, or compliance with governmental regulations.

SOLE LIMITED WARRANTY BY KINSLEY. Kinsley warrants that for ninety (90) days beginning on the date of invoice, service labor by Kinsley technicians shall be free from material defects in workmanship. This warranty does not cover damage due to external causes including accident, abuse, misuse, problems with electrical power, servicing not authorized or performed by Kinsley, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied by Kinsley. This warranty does not cover replacement or repair of materials due to normal wear. Kinsley's responsibility is limited to repair or replacement at its designated facility, and the decision as to location of the repair work shall be made in the sole judgment of Kinsley.

IN NO EVENT SHALL KINSLEY BE LIABLE FOR ANY SPECIAL, INDIRECT, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE LOSSES OR DAMAGES (INCLUDING, WITHOUT LIMITATION, BUSINESS INTERRUPTION, LOSS OF REVENUE OR PROFITS, FEES OR FINES), EVEN IF KINSLEY HAS BEEN ADVISED OR MADE AWARE OF THE POSSIBILITY OF ANY SUCH LOSSES OR DAMAGES AND REGARDLESS OF WHETHER THE CLAIM IS BASED ON CONTRACT, TORT, STRICT LIABILITY, OR OTHER THEORY OF LIABILITY.

Kinsley's cumulative liability for all losses and damages under these General Terms and Conditions or under any of the Related Agreements (including, without limitation, those arising out of contract, tort (including negligence), strict liability, warranty, or other theory of liability) shall not exceed (a) in the case of any services provided or to be provided by Kinsley, the amount of the fees paid by Customer for such services under the applicable Related Agreement, and (b) in the case of any products or devices provided or to be provided by Kinsley, the amount of Kinsley's labor services paid by Customer and associated with the product sale.

Kinsley makes no warranties beyond those stated in this warranty statement. Furthermore, no personnel of Kinsley are authorized to make warranties of any nature, orally or otherwise.

4.0 Indemnification. Customer shall save harmless, indemnify, and at Kinsley's option, defend Kinsley, and Kinsley's owners, directors, officers, agents, representatives, affiliates and successors and assigns, from and against any and all liability, liens, claims, demands, damages, expenses, fees, costs, fines, penalties, suits, proceedings, actions and causes of action of every kind and nature arising or growing out of or in any way connected with Kinsley's selling, repairing, evaluating, starting up, testing or maintaining equipment or other items or providing other services or products to or for the benefit of Customer or its affiliates, unless it is determined by a court of competent jurisdiction, after expiration of applicable appeal rights, that such matters were directly caused by Kinsley's gross negligence or willful misconduct.

5.0 Waiver of Subrogation. Customer and all parties claiming to be related to customer hereby agree to release and discharge Kinsley from all claims and/or liabilities arising from or caused by any casualty or hazard which may arise out of or in connection with activities associated with Kinsley's work on equipment or premises at the request or direction of Customer except as specifically stated herein, and Customer agrees to waive any right of subrogation which might otherwise exist in or accrue to any person on account thereof and further agree to evidence such waiver as may be required by Customers' insurance policies.

6.0 Acknowledgment. Customer acknowledges that it engages in the conduct of trade or commerce. Customer acknowledges that this transaction is in a business context and is not for personal services or for personal goods sold or delivered as a consumer.

KINSLEY
POWER SYSTEMS

14 Connecticut South Drive
East Granby, CT 06026
Tel. 860.844.6100
Fax. 0

Quotation #: 220426-0057
Quote date: April 27, 2022
Quotation valid until: May 27, 2022
Prepared by:

Bill To:	Equipment Location:	Payment Terms:
TOWN OF KEENE ATTN: ACCTS PAYABLE KEENE, NY 12942 5185764444 EXT. 0000	SAVANA LI TOWN OF KEENE WD#2 33 TRAIL'S END WAY KEENE VALLEY, NY 12943 5185215113 Ext. 0000	Net 10

Generator:

Manufacturer:	OLYMPIAN	*Serial Number:*	E4686C/001
Model Number:	D90P1		

Automatic Transfer Switch:

Manufacturer:	UNKNOWN	*Serial Number:*	1318045.1.3
Model Number:	ZTGK22EC-7		

Description of Proposed Work

QUOTE TO REMOVE AND REPLACE RADIATOR, COOLANT, THERMOSTAT W. GASKET AND HOSES
Lead time for parts procurement is approximately 15 days from the date your quote has been approved.

TOTAL QUOTED AMOUNT LESS TAX: $ 11,981.20

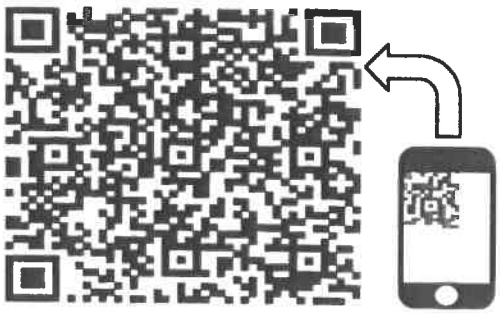
Signature:

Print Name:

Date: PO Number:

Customer Comments:

Scan below with your smartphone to approve!



Kinsley Power Systems

The Kinsley Group is a top energy solutions supplier with a 50-year legacy of sales, rental and service of quality energy systems. Our commercial businesses include Kinsley Power Systems, a top distributor of KOHLER® generators for over 45 years and Kinsley Energy Systems, representing prime movers for co-generation, biomass and landfill applications.

If you have questions about...

Scheduling:	Amanda H.	518.292.6660
This Quote:	Amanda H.	518.292.6660
Service Contract:	Tony L.	518.698.1004

Return signed quotes to:

Email: **Approvals@KinsleyPower.com** or Fax: **860.844.6136**

Please note: Pricing does not include any applicable taxes.

This is a good faith estimate of repairs. All dollar amounts quoted are accurate as of 4/27/2022 and expire on 5/27/2022. All parts lead times are approximate as of 4/27/2022 and are an estimate provided by the vendor/manufacturer and are subject to change without notice. No parts will be ordered and no work will be scheduled until a signed copy of this quote is received by Kinsley Power Systems. Any concealed damage or additional work found necessary will be estimated separately.

Kinsley Power Systems is committed to being the leader in our industry. We constantly strive to offer customers with service above and beyond their expectations. We welcome your feedback and if you have any questions or concerns about the quote please call or email. Thank you for your business!

KINSLEY
POWER SYSTEMS

14 Connecticut South Drive
East Granby, CT 06026
Tel. 860.844.6100
Fax. 0

Quotation #: 220426-0057
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Quotation valid until: May 27, 2022
Prepared by:

Bill To:	Equipment Location:	Payment Terms:
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Generator:			
Manufacturer:	OLYMPIAN	*Serial Number:*	E4686C/001
Model Number:	D90P1		
Automatic Transfer Switch:			
Manufacturer:	UNKNOWN	*Serial Number:*	1318045.1.3
Model Number:	ZTGK22EC-7		

Description of Proposed Work

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Lead time for parts procurement is approximately 15 days from the date your quote has been approved.

TOTAL QUOTED AMOUNT LESS TAX: $ 11,981.20

Signature:

Print Name:

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Customer Comments:

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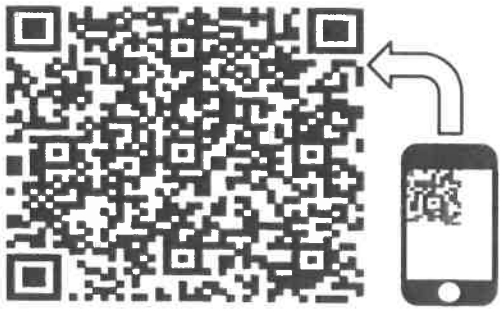

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Kinsley Power Systems is committed to being the leader in our industry. We constantly strive to offer customers with service above and beyond their expectations We welcome your feedback and if you have any questions or concerns about the quote please call or email Thank you for your business!

KINSLEY
POWER SYSTEMS

14 Connecticut South Drive
East Granby, CT 06026
Tel. 860.844.6100
Fax. 0

Quotation #: 220426-0059
Quote date: April 27, 2022
Quotation valid until: **May 27, 2022**
Prepared by:

Bill To:	Equipment Location:	Payment Terms:
TOWN OF KEENE ATTN: ACCTS PAYABLE KEENE, NY 12942 5185764444 EXT. 0000	SAVANA LI TOWN OF KEENE WD#2 33 TRAIL'S END WAY KEENE VALLEY, NY 12943 5185215113 Ext. 0000	Net 10

Generator:			
Manufacturer:	OLYMPIAN	*Serial Number:*	E4686C/001
Model Number:	D90P1		
Automatic Transfer Switch:			
Manufacturer:	UNKNOWN	*Serial Number:*	1318045.1.3
Model Number:	ZTGK22EC-7		

Description of Proposed Work

QUOTE TO REMOVE AND REPLACE GOVERNOR CONTROLLER AND POTENTIOMETER
Lead time for parts procurement is approximately 15 days from the date your quote has been approved.

TOTAL QUOTED AMOUNT LESS TAX: $ 5,013.53

Signature: _____

Print Name: _____

Date: _____ PO Number: _____

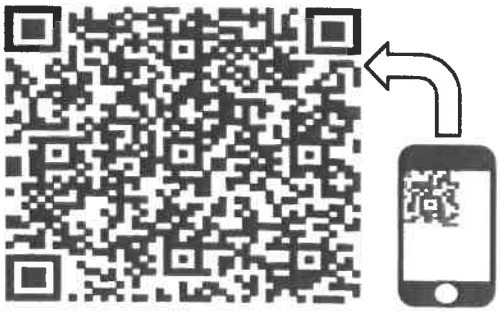
Customer Comments:

_____

_____

_____

Scan below with your smartphone to approve!



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Service Contract:	Tony L.	518.698.1004

Return signed quotes to:
Email: **Approvals@KinsleyPower.com** or Fax: **860.844.6136**

Please note: Pricing does not include any applicable taxes.

This is a good faith estimate of repairs. All dollar amounts quoted are accurate as of 4/27/2022 and expire on 5/27/2022. All parts lead times are approximate as of 4/27/2022 and are an estimate provided by the vendor/manufacturer and are subject to change without notice. No parts will be ordered and no work will be scheduled until a signed copy of this quote is received by Kinsley Power Systems. Any concealed damage or additional work found necessary will be estimated separately.

Kinsley Power Systems is committed to being the leader in our industry. We constantly strive to offer customers with service above and beyond their expectations. We welcome your feedback and if you have any questions or concerns about the quote please call or email. Thank you for your business!

KINSLEY
POWER SYSTEMS

14 Connecticut South Drive
East Granby, CT 06026
Tel. 860.844.6100
Fax. 0

Quotation #: 210819-0029
Quote date: August 23, 2021
Quotation valid until: **September 22, 2021**
Prepared by:

Bill To:	Equipment Location:	Payment Terms:
TOWN OF KEENE ATTN: ACCTS PAYABLE KEENE, NY 12942 (518) 524-1688	RYAN TOWN OF KEENE 33 TRAIL'S END WAY KEENE VALLEY, NY 12943 (518) 524-1688	Net 10

Generator:

Manufacturer:	UNKNOWN	*Serial Number:*	YB50498*U795623J
Model Number:	1832-1500		

Description of Proposed Work

QUOTE TO REPLACE AIR FILTER,CLEAN RADIAOTR AND INSTALL CUSTOMER SUPPLIED BELTS.
Lead time for parts procurement is approximately 14 days from the date your quote has been approved.

TOTAL QUOTED AMOUNT LESS TAX: $ 2,116.29

Signature: _____

Print Name: _____

Date: _____ PO Number: _____

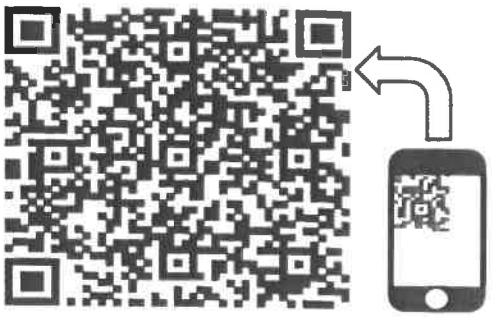
Customer Comments:

_____

_____

_____

Scan below with your smartphone to approve!



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If you have questions about...

Scheduling:	Amanda H.	518.292.6660
This Quote:	Amanda H.	518.292.6660
Service Contract:	Tony L.	518.698.1004

Return signed quotes to:
Email: **Approvals@KinsleyPower.com** or Fax: **860.844.6136**

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Generator:

Manufacturer:	UNKNOWN	*Serial Number:*	YB50498*U795623J
Model Number:	1832-1500		

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Print Name: _____

Date: _____ PO Number: _____

Customer Comments:

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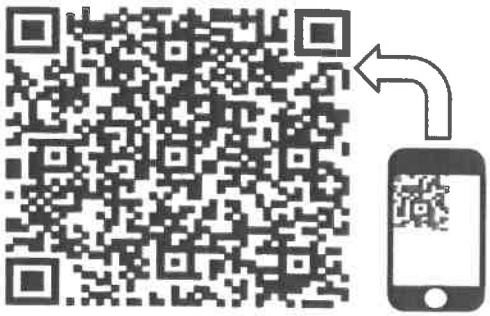

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This Quote:	Amanda H.	518.292.6660
Service Contract:	Tony L.	518.698.1004

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Email: **Approvals@KinsleyPower.com** or Fax: **860.844.6136**

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KINSLEY
POWER SYSTEMS

14 Connecticut South Drive
East Granby, CT 06026
Tel. 860.844.6100
Fax. 0

Quotation #: 210819-0035
Quote date: August 24, 2021
Quotation valid until: **September 23, 2021**
Prepared by:

Bill To:	Equipment Location:	Payment Terms:
TOWN OF KEENE ATTN: ACCTS PAYABLE KEENE, NY 12942 (518) 576-4444	TOWN OF KEENE TOWN OF KEENE 12 INTERBROOK WAY KEENE VALLEY, NY 12943 (518) 576-4444	Net 10

Generator:

Manufacturer:	JOHN DEERE	*Serial Number:*	PE4024R035621
Model Number:	PE4045T		

Description of Proposed Work

QUOTE TO FLUSH COOLANT

TOTAL QUOTED AMOUNT LESS TAX: **$ 1,539.59**

Signature: _____

Print Name: _____

Date: _____ PO Number: _____

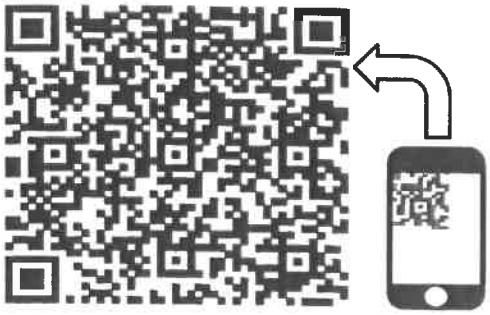
Customer Comments:

_____

_____

_____

Scan below with your smartphone to approve!



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Water District # 1

Information on BOND expenditures.

Section 3

Repairs completed from Emergency Repairs (Halloween storm 2019)

AUSABLE RIVER Association

Inspiring Responsible Stewardship

From: Kelley Tucker, Executive Director
To: APA JIF Team
Date: 10-6-2020
RE: Narrative for jurisdictional determination

Background:

This project is an emergency response to the bankside exposure of the Town of Keene water main pipe running under the East Branch Ausable River. The 12" diameter pipe is located approximately 3,000 channel feet downstream/north of the SR73 Bridge in the hamlet of Keene. The pipe carries approximately 90% of the Town's water supply.

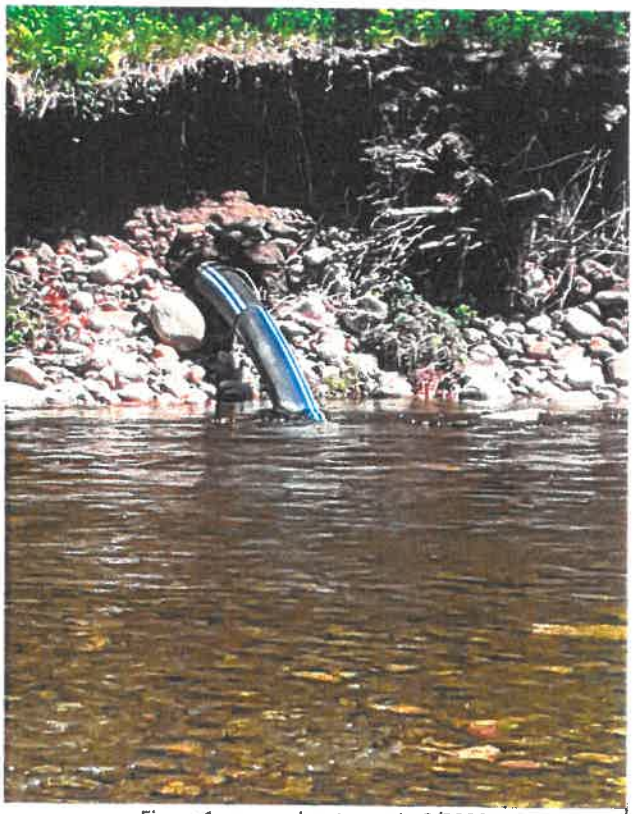


Figure 1: exposed water main 6/2020

The Town discovered the damage on June 12, 2020 after a report by a resident and began coordinating a response. They hired engineering firm AES on July 7, using an existing agreement. The Town and AES contacted FEMA to apply for a project number for 4472DR-NY (Halloween Storm) to finance the project. AES mobilized staff, performed an assessment with alternatives, and submitted a report to the town on August 27, 2020. As part of their assessment and alternative development, AES and the Town of Keene requested advice from the Ausable River Association (AsRA) in early August. I met Supervisor Joe Pete Wilson on August 11 to review the damage. As a result, AsRA submitted a natural channel conceptual design alternative that was included in the AES report. AsRA's alternative was selected by AES and the Town. The Town signed an agreement with AsRA on September 23, 2020.

Because of high water concerns resulting from a storm forecast for August 4-5, the Town received permissions to make emergency repairs to the exposed bank. Riprap was placed around the pipe.

Summary Assessment:

AsRA conducted a preliminary visual assessment and consulted data and photos of the reach that were collected as part of a detailed Bank Erosion Hazard Index and Near-Bank Stress Assessment in 2016-17. These informed our preliminary design included in the FEMA report. We consulted with the US Fish and Wildlife Service (FWS), Cortland Field office in design development and they will continue to supervise the project. Service personnel visited the site on September 15 to contribute to an assessment of survey requirements.

On September 28, AsRA and FWS staff conducted a level 2 geomorphic assessment of the affected reach, surveying approximately 2,000 feet of channel above and below the water main. Assessment of survey results confirmed earlier assumptions presented in the FEMA report.

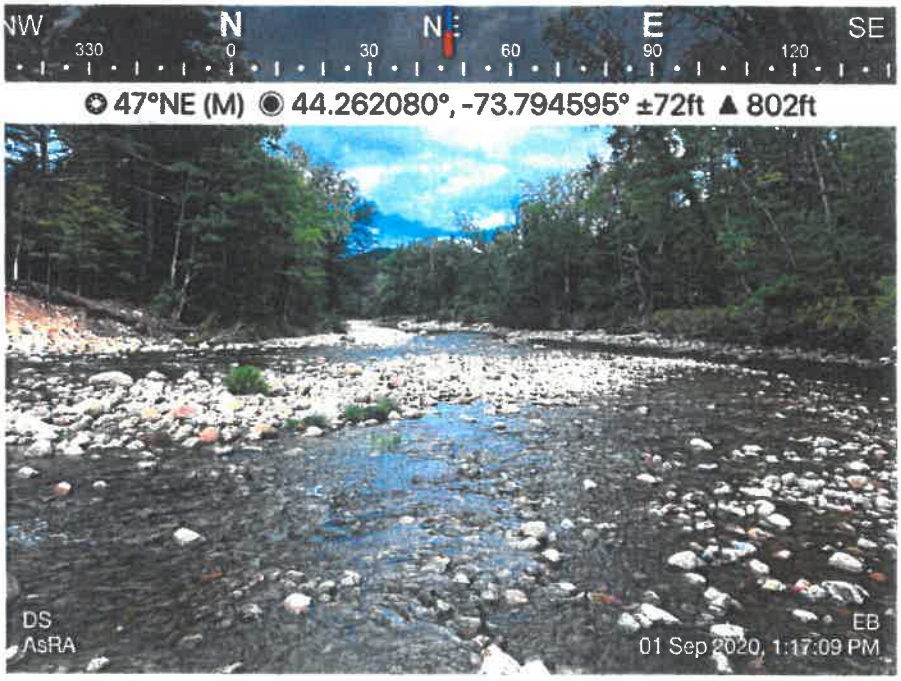


Figure 2: Aggrading central bar just above the project site. Further downstream, the bank left depositional bar is visable. The water main is barely visable downstream.

In brief, the surveyed reach – from the SR 73 bridge to just beyond the water pipe – lacks sediment transport capacity due in part to damage from Hurricane Irene that eroded banks increasing the width/depth ratio. The increased frequency of high flow events, such as the 2019 Halloween Storm, exacerbates the instability of the channel. Since the 2016 bank and erosion survey by AsRA, the deposition of cobble and gravel mid-channel in the upper extent of this reach has increased. The section ~700' upstream of the water main at the apex of the large bend– photo above is one example. This growing central bar splits flows moving water toward vulnerable banks.

On the lower end of the reach, the roughly 200 feet immediately above and just below the water main – our project site, deposition has also increased on the bank left point bar. As a result, higher flows are forced to the right bank, elongating a small existing pool and intensifying bank erosion downstream to the pipe location.

Proposed Work:

Our goal is to protect the water main and reestablish a self-reinforcing, dynamically stable channel in this relatively straight 200' section – a sub-reach of the longer reach. Normally, we would address the wider reach as a whole. Given the time of year and the urgency of the situation, however, we want to secure the water main with a permanent repair that restores stream function, but we also want to minimize disturbance and time needed in the water due to trout spawning and potentially less stable weather and water levels.

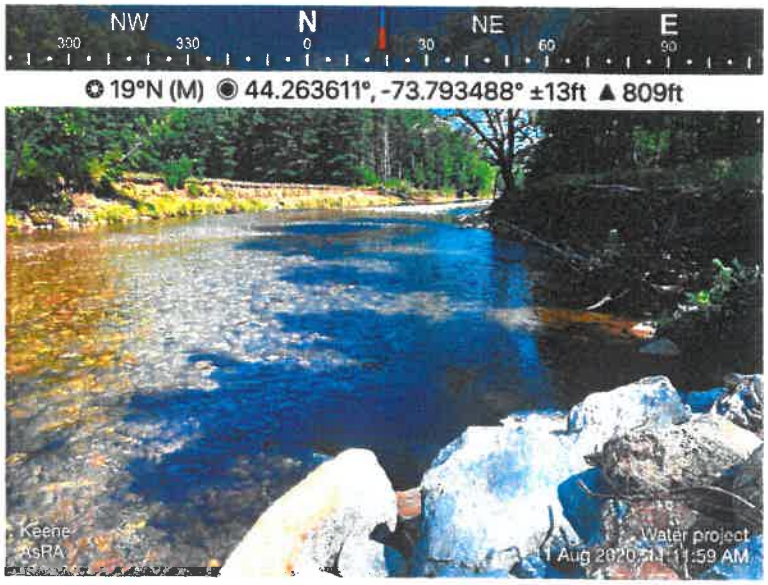
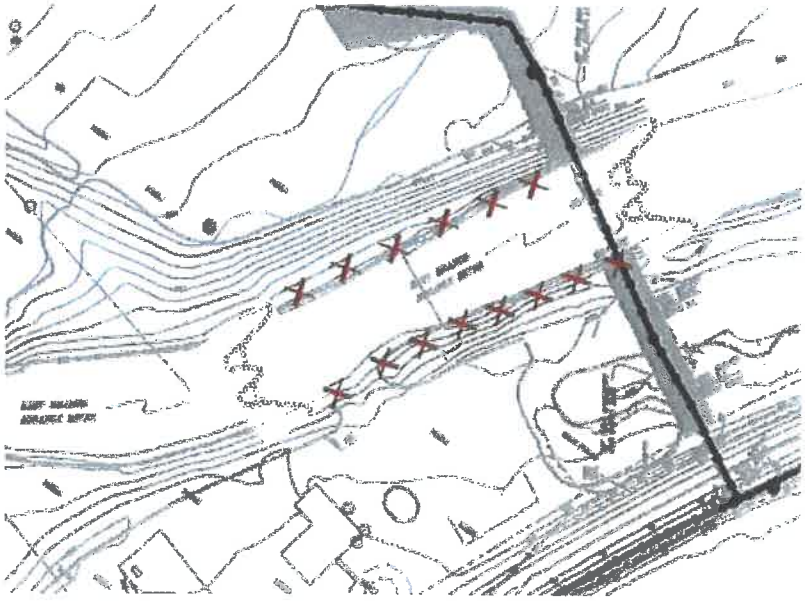
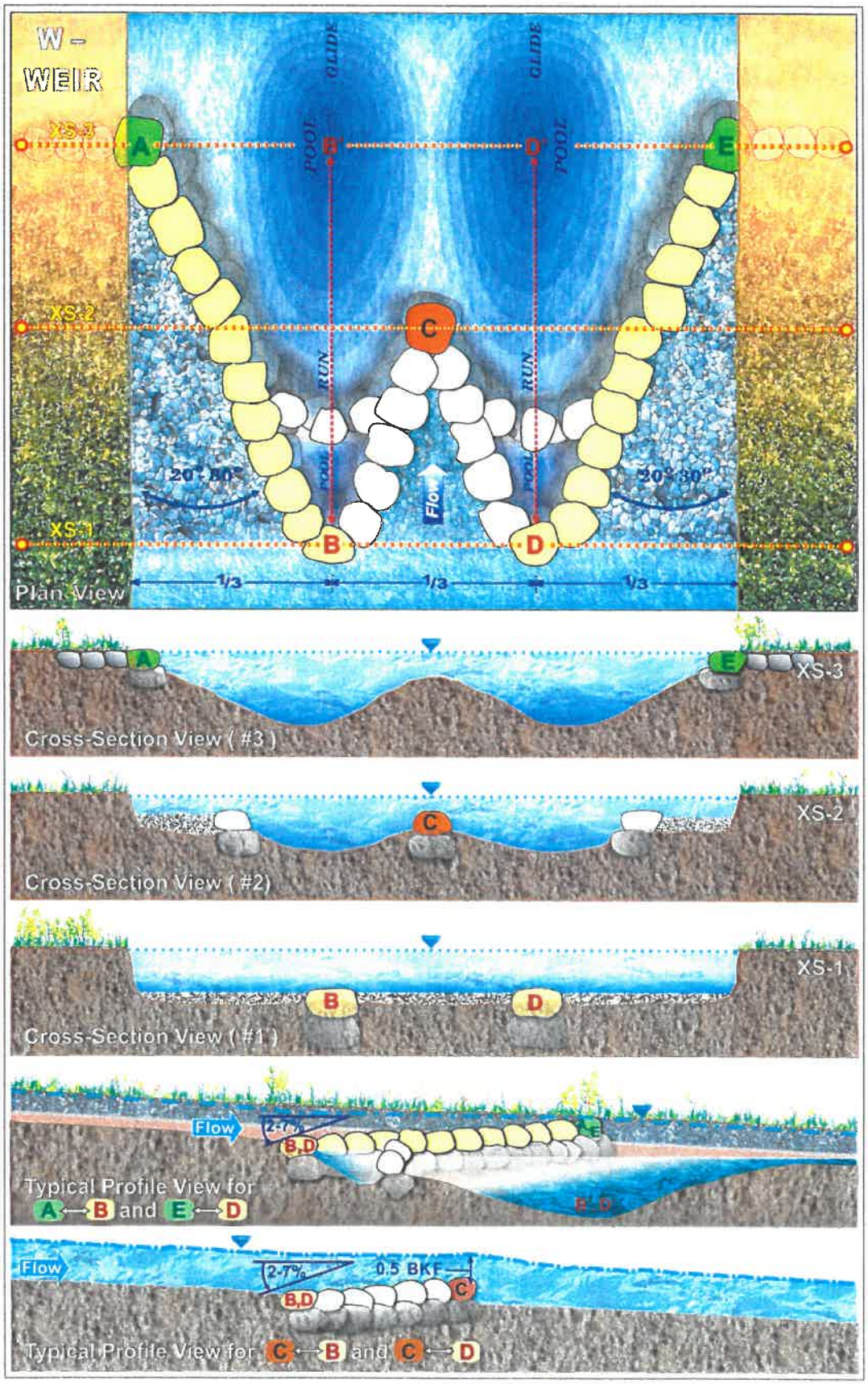


Figure 3: Looking downstream standing on riprap over water main. The downstream W-weir will key into bank right near the leaning tree at the end of the eroding bank right.

We've proposed two channel spanning W-weirs (typicals next page), one just below the water main and one approximately 200' upstream. Between these we will utilize a variant of toe-wood called root-rap to rebuild the right bank and protect the water main. Root-rap will also be installed on the left bank to reinforce the pattern of higher-level flows between the two structures. Beyond protection of the affected banks and water main, this strategy will restore riffle-pool structure, improve transport capacity, and create habitat in this now stressed section.



A W-weir built in 2016 at the Keene Town Beach was determined to be non-jurisdictional by APA. Similar channel spanning converging rock clusters used in 2017-19 on the West Branch Ausable River at the Dream Mile were also non-jurisdictional. W-weirs will be constructed entirely of native stone from local pits. They are keyed into each bank at bankfull height and from that point slope downward. At lowest summer flows, the arms along each bank will be minimally visible.


W –
WEIR
XS-3
XS-2
XS-1
A
B
C
D
E
POOL
GLIDE
RUN
20° - 30°
Flow
1/3
1/3
1/3
Plan View
XS-3
Cross-Section View (#3)
XS-2
Cross-Section View (#2)
XS-1
Cross-Section View (#1)
Flow
2-7%
B,D
Typical Profile View for
A ⟷ B and E ⟷ D
Flow
2-7%
0.5 BKF
B,D
C
Typical Profile View for C ⟷ B and C ⟷ D

Root-rap is installed like toe-wood, using footer logs and logs with large root wads to create a low bench that reduces width/depth ratio, slows and absorbs higher flood flows, moves water efficiently back toward the center of the channel, and creates habitat. Toe-wood installations overseen by the FWS have consistently been identified as non-jurisdictional.

Figure 4: W-weir installation in Colorado at low flow.

Follow up work – planned for 2021 – will restore sediment transport capacity and stability to the upstream reach, reinforcing the above emergency work. Preliminary assessments suggest a series of J-hooks will be combined with toe-wood and additional root-rap to increate sediment competence and capacity and reduce the risk of bank erosion in higher flows.

Permitting in Process:

- Affected landowners and the Town of Keene are entering a **Federal Partners' Agreement** with the USFWS.
- USFWS will undertake National Environmental Policy Act and State Historic Preservation Office review and will notify USACE.
- The USFWS will file the **NYSDEC General Permit**. AsRA and USFWS staff are in discussions with fisheries staff to acquire permissions in trout prohibition period.

We are hoping this work will fall under an NJ with APA and that we can begin work in the latter half of October.


SR73
N
aggraded central bar
Project Reach
Keene Hamlet
water main path
SR 9N
Full project reach runs from intersection of 9N and SR73

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045

October 21, 2020

Amy Gitchell, Chief
Upstate New York Section
U.S. Army Corps of Engineers
1 Buffington St., Building 10, 3rd Floor North
Watervliet, NY 12189-4000

Subject: Pre-project Reporting of East Branch Ausable River Restoration, Essex County, NY

Dear Ms. Gitchell:

The U.S. Fish and Wildlife Service (Service) is reporting the commencement of the East Branch of the AuSable River Restoration Project, as required for Nationwide Permit 27 pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344 et seq.) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403 et seq.). The Service is funding and providing technical assistance for a fish habitat improvement and bank stabilization project that also improves sediment transport and protects the Town of Keene waterline. Partners include the Ausable River Association, Town of Keene, and landowners. The work is designed to improve habitat and protect stream banks by using two W weirs that provide grade control to prevent scour to the waterline and riffle and pool habitat, as well as directing the sheer forces toward the middle of the river and taking them away from the banks. Approximately 200 cubic yards of native clean rock will be used to construct each weir.

No suitable roosting trees will be removed during the cutting restriction period to protect bat roosting habitat so there is a "no effect" on federally listed species.

Enclosed is the landowner agreement with project plan and a site map. Please contact me if you would like additional information necessary for the review of this project at 607-753-9334 or email Carl_Schwartz@fws.gov.

Sincerely,

GIAN DODICI Digitally signed by GIAN DODICI Date: 2020.10.21 14:25:30 -04'00' /FOR

Carl W. Schwartz
Partners for Fish and Wildlife
Program Coordinator

Enclosures

Landowner Agreement No:_____

Other:_____

Other:_____

PARTNERS FOR FISH AND WILDLIFE PROGRAM
LANDOWNER AGREEMENT

This Landowner Agreement (Agreement), dated 10 / 6 / 2020, between Dennis Gallagher, William Hamill, the Town of Keene, the Ausable River Association and the U.S. Fish and Wildlife Service (USFWS) is entered into pursuant to authority contained in the Partners for Fish and Wildlife Act (P.L. 109-294), the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-j), as amended. This project was selected because the Landowner(s) share(s) a common objective with the USFWS to restore habitat for the benefit of Federal trust species on private lands, and the project supports priority actions identified in the Regional Partners for Fish and Wildlife (Partners) Program Strategic Plan.

Dennis Gallagher, 11021 NYS Route 9N Keene NY 12942 and William Hamill, 87 Church Street, Keene NY 12942, hereby agrees to participate with the USFWS in conducting certain wildlife management practices on lands owned or managed in Town of Keene, Essex County, State of New York, described as follows: all of, or within, the reach, including bed, banks, and near bank areas, of the East Branch Ausable River running from 44.262606, -73.794201 downstream to 44.264989, -73.793258.

In signing this Agreement, the Landowner(s) join(s) as a participant in a wildlife habitat improvement program and grants to the USFWS and the Ausable River Association authority to complete the habitat improvement project or the Landowner(s) may personally carry out management activities with financial or material support as described in attached Exhibit A. Any donation of supplies or equipment to the Landowner for carrying out the habitat improvements is included in Exhibit A. The activities conducted pursuant to this Agreement are not to replace, supplement or otherwise contribute to any mitigation or compensation that may be required of the Landowner(s) or other parties as a result of any mandated requirements.

The term of this Agreement (also referred to as the habitat retention period) will be completed on 10 / 6 / 2030. This Agreement may be modified at any time by mutual written consent of the parties. It may be terminated by either party upon 30 days advance written notice to the other party(ies). However, if the Landowner(s) terminate(s) the Agreement before its expiration, or if the Landowner(s) should materially default on these commitments, then the Landowner(s) agree(s) to reimburse the USFWS prior to final termination for the prorated costs of all habitat improvements placed on the land through this Agreement For these purposes, the total cost of the habitat improvements to the United States is agreed to be $ 100.00.

Landowner:

The Landowner(s) or his/her land manager, with legal authority over land management decisions, guarantee(s) ownership of the above-described land and warrants that there are no outstanding rights that interfere with this Landowner Agreement.

The Landowner(s) will notify the USFWS and the Ausable River Association of planned or pending changes in ownership. A change of ownership shall not change the terms of this Agreement. The Agreement and terms shall be in effect on the described land for the term of the Agreement.

The Landowner(s) agree(s) to allow access (with advance notice) to the USFWS and the Ausable River Association to implement the project described in Exhibit A, and to monitor project success.

The Landowner(s) retain(s) all rights to control trespass and retains all responsibility for taxes, assessments, and damage claims.

During the habitat retention period, the landowner must allow the habitat restored under this award to remain in place without interference.

At the end of the habitat retention period, the habitat improvement project will become the sole property and complete responsibility of the Landowner(s). There shall be no obligation to the USFWS after the term of the Agreement has expired.

The Landowner(s) will be responsible for securing any necessary permits. Technical advice and support will be provided by participating agencies in the application for the permit(s). The Landowner(s) agree(s) to identify USFWS' contribution to the project during public presentations, reports, or other information published about the project, as appropriate.

The Landowner(s) will not be responsible for replacing wildlife habitat developments that are damaged or destroyed by severe acts of nature.

USFWS:

The USFWS will work with the Landowner(s) and the Ausable River Association throughout the entire Agreement term to support actions needed to ensure that the project is designed and constructed per the Agreement and functions as intended.

The USFWS, its agents, or assignees will provide advanced notice prior to accessing the Landowner(s) property to implement the project described in the work plan, and to monitor project success.

The USFWS assumes no liability for damage or injury other than that caused by its own negligence, on the above acreage. The USFWS does not assume jurisdiction over the premises by this Agreement.

Spatial Information Sharing: In accordance with the Privacy Act of 1974, permission must be obtained from the Landowner before any personal information can be released. The only

information that can be shared is payment information that is authorized by law. Therefore, Landowner consent is requested to allow for sharing of spatial information about this project solely with conservation cooperators providing technical or financial assistance with the restoration, enhancement or management of fish and wildlife habitat.

[X] I, the Landowner, consent to having spatial information about this project shared with other conservation cooperators

[ ] I, the Landowner, do NOT wish to have any spatial information about this project shared with other conservation cooperators

Signatures:

Dennis Gallagher, Landowner(s) — Date

William Hamill, Landowner(s) — 10/16/20 — Date

Kelley Tucker, Executive Director, Ausable River Association, Cooperator(s) — 10/6/2020 — Date

Joe Pete Wilson, Supervisor, Cooperator(s) — 10/6/2020 — Date

Gian Dodici, USFWS Partners for Fish and Wildlife Program Biologist — 10/7/2020
Date

Carl Schwartz, USFWS Partners Program State Coordinator or Field Supervisor or Branch Chief — 10/6/2020
Date

EXHIBIT A

The habitat improvements described below are agreed to by Dennis Gallagher, William Hamill, the USFWS, the Town of Keene, and the Ausable River Association in a Landowner Agreement dated 10/6/2020.

Description of Habitat Improvement Project and Objectives:

Overview

This project is an emergency response to the bankside exposure of the Town of Keene water main pipe running under the East Branch Ausable River. The 12" diameter pipe is located approximately 3,000 channel feet downstream/north of the SR73 Bridge in the hamlet of Keene. The pipe carries approximately 90% of the Town's water supply. The Ausable River Association (AsRA) was offered an opportunity to submit a design that protected the pipe and provided geomorphic stability and habitat enhancement for the river.

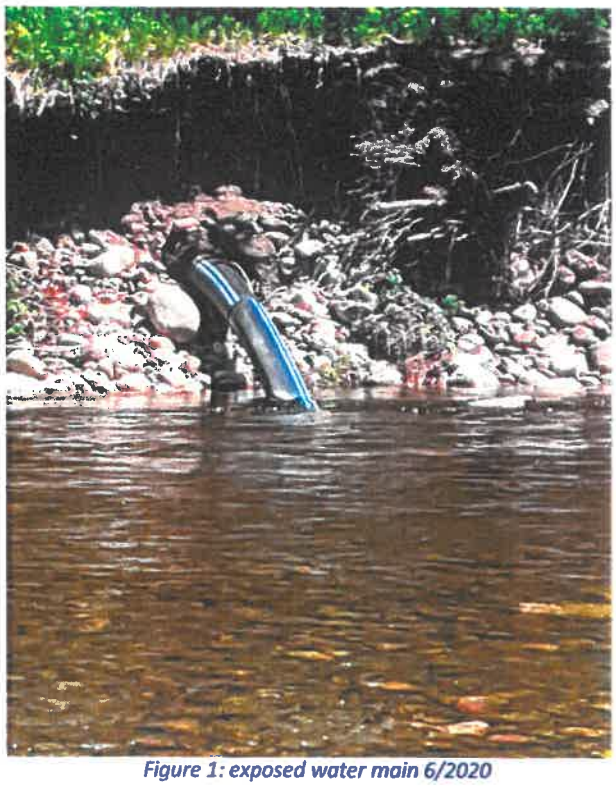


Figure 1: exposed water main 6/2020

Because of high water concerns resulting from a storm forecast in August, the Town received permission to place riprap around the pipe.

Assessment

AsRA conducted a preliminary visual assessment and consulted data and photos of the reach that were collected as part of a detailed Bank Erosion Hazard Index and Near-Bank Stress Assessment in 2016-17. These informed our preliminary. We consulted with the US Fish and Wildlife Service (FWS), Cortland Field office in design development and they continue to supervise the project. Service personnel visited the site on September 15 to contribute to an assessment of survey requirements.

On September 28, AsRA and FWS staff conducted a level 2 geomorphic assessment of the affected reach, surveying approximately 2,000 feet of channel above and below the water main. In brief, the surveyed reach – from the SR 73 bridge to just beyond the water pipe – lacks sediment transport capacity due in part to damage from Hurricane Irene that eroded banks increasing the width/depth ratio. The increased frequency of high flow events, such as the 2019 Halloween Storm, exacerbates the instability of the channel. Since the 2016 bank and erosion survey by AsRA, the deposition of cobble and gravel mid-channel in the upper extent of this reach has increased. The section ~700' upstream of the water main at the apex of the large bend, figure 2 below, is one example. This growing central bar splits flows moving water toward vulnerable banks.

On the lower end of the reach, the roughly 200 feet immediately above and just below the water main – our project site, deposition has also increased on the bank left point bar. As a result, higher flows are

forced to the right bank, elongating a small existing pool and intensifying bank erosion downstream to the pipe location.

Figure 2: Aggrading central bar just above the project site. Further downstream, the bank left depositional bar is visable. The water main is barely visable downstream.

Proposed Habitat Improvements

Our goal is to protect the water main, improve habitat, and reestablish a self-reinforcing, dynamically stable channel in this relatively straight 200' section – a sub-reach of the longer reach. Normally, we would address the wider reach as a whole. Given the time of year and the urgency of the situation, however, we want to secure the water main with a permanent repair that restores stream function, but we also want to minimize disturbance and time needed in the water due to trout spawning season and potentially less stable weather and water levels.

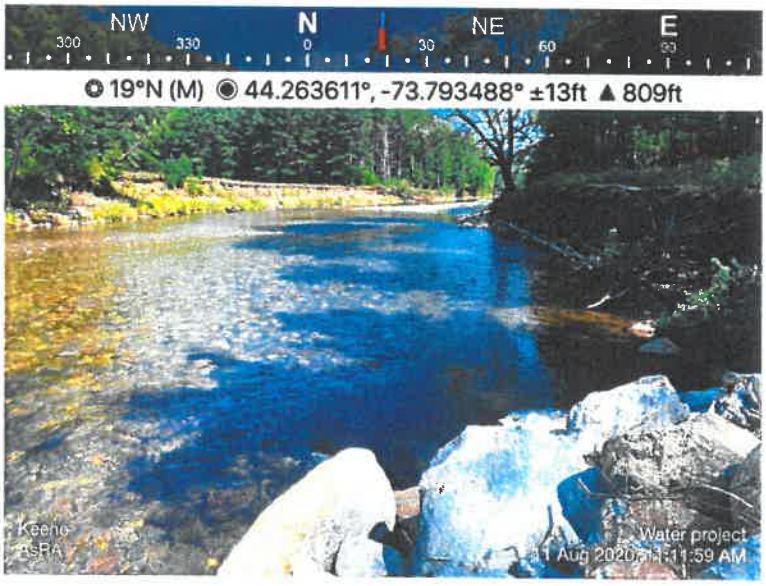


Figure 3: Looking downstream standing on riprap over water main. The downstream W-weir will key into bank right near the leaning tree at the end of the eroding bank right.

We've proposed two channel spanning W-weirs, one just below the water main and one approximately 200' upstream. Between these we will utilize a variant of toe-wood called root-rap to rebuild the right bank and protect the water main. Root-rap will also be installed on the left bank to reinforce the pattern of higher-level flows between the two structures. Beyond protection of the affected banks and water main, this strategy will restore riffle-pool structure, improve transport capacity, and create habitat in this now stressed section.

W-weirs will be constructed entirely of native stone from local pits. They are keyed into each bank at bankfull height and from that point slope downward. At lowest summer flows, the arms along each bank will be minimally visible. Root-rap is installed like toe-wood, using footer logs and logs with large

root wads to create a low bench that reduces width/depth ratio, slows and absorbs higher flood flows, moves water efficiently back toward the center of the channel, and creates habitat.

Follow up work – planned for 2021 – will restore sediment transport capacity and stability to the upstream reach, reinforcing the above emergency work. Preliminary assessments suggest a series of J-hooks will be combined with toe-wood and additional root-rap to increate sediment competence and capacity, restore habitat for aquatic species, and reduce the risk of bank erosion in higher flows.

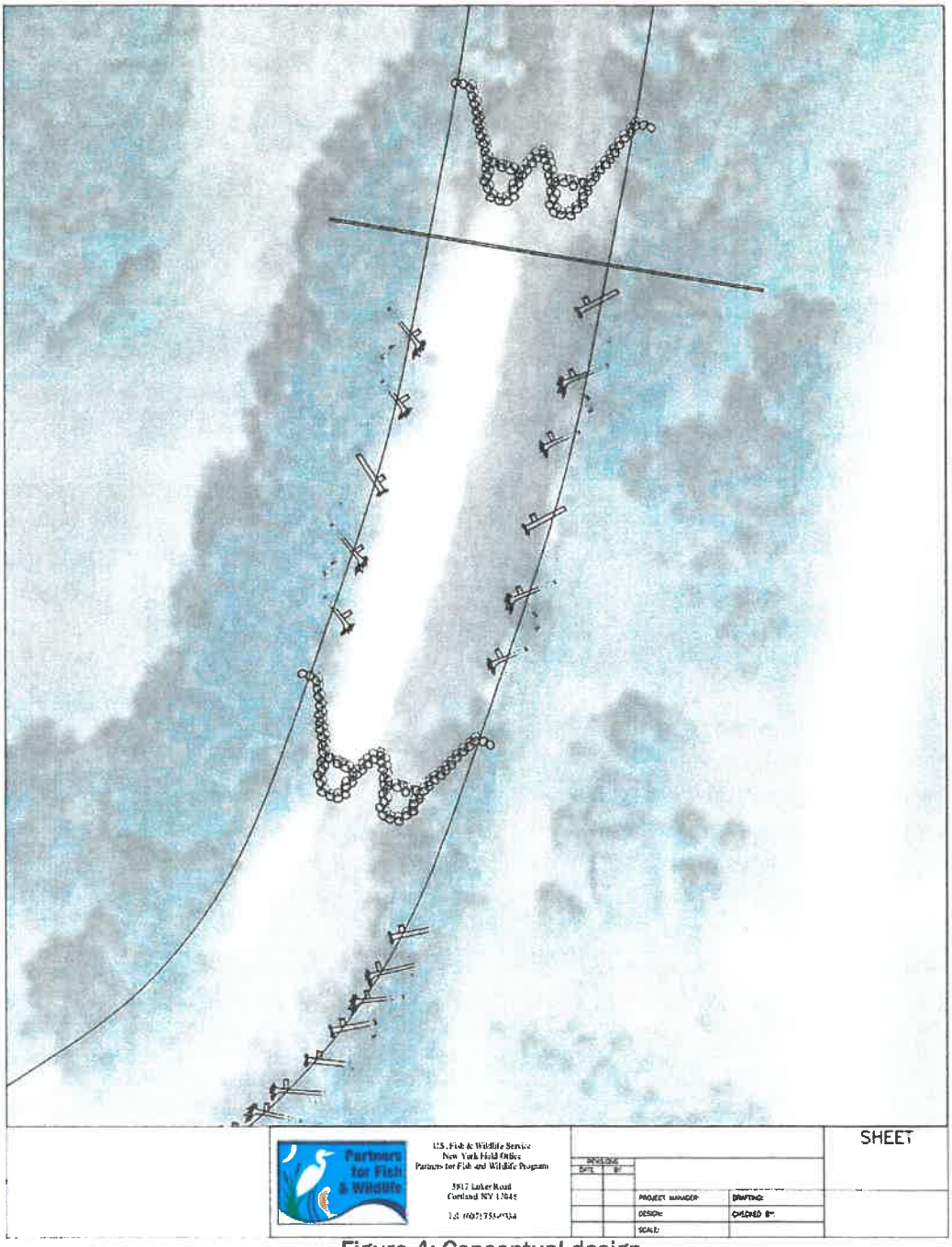


Figure 4: Conceptual design.

USFWS will:

Provide technical services.

The Landowner(s) will:

Provide access to the project sites.

The other Cooperator(s) will:

AsRA will provide survey and design services, landowner coordination, permitting, materials coordination, and construction oversight services.

Additional information as required for the project:

Budget Table:

Object Class Categories[a]	Partners				
	Landowner	USFWS Partners Program	USFWS Other Programs	Other Non-USFWS	Totals
Personnel	$	$	$	$ 28,000.00	$ 28,000
Fringe benefits	$	$	$	$	$
Travel	$	$	$	$	$
Equipment	$	$	$	$	$
Supplies	$	$	$	$ 63,750.00	$ 63,750
Contractual	$	$	$	$ 90,000.00	$ 90,000
Other	$	$	$	$	$
Other	$	$ 100.00	$	$	$ 100
Totals	$ 0.00	$ 100.00	$	$ 181,750	$ 181,850

[a] The total cost-share by the Cooperator, Service and Landowner must remain the same, however allocations by category may be redistributed upon prior approval by the Service

Any work to be completed may be modified with the mutual agreement of the aforementioned parties.

Budget Narrative:

Materials include native boulders, native trees, coir fabric, planting and seeding material.